S. HRG. 110–12

SENATORS' PERSPECTIVES ON GLOBAL WARMING

HEARING

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

JANUARY 30, 2007

Printed for the use of the Committee on Environment and Public Works

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COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED TENTH CONGRESS
FIRST SESSION

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SENATORS' PERSPECTIVES ON GLOBAL WARMING

TUESDAY, JANUARY 30, 2007

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The committee met, pursuant to notice, at 9:06 a.m. in room 406, Dirksen Senate Office Building, the Hon. Barbara Boxer (chairman of the committee) presiding.

Present: Senators Boxer, Alexander, Baucus, Bond, Cardin, Carper, Clinton, Craig, Inhofe, Isakson, Klobuchar, Lautenberg, Lieberman, Sanders, Thomas, Vitter, Voinovich, Warner, Whitehouse.

Also present: Senators Bingaman, Feinstein, Kerry, McCain, Obama, Levin, Murkowski, Akaka, Lincoln, Nelson of Florida, Durbin.

OPENING STATEMENT OF HON. BARBARA BOXER, U.S. SENATOR FROM THE STATE OF CALIFORNIA

Senator BOXER. The hearing will come to order. For the information of committee members, we will be following the early bird rule, which is our standard practice, for committee member statements. Because we are also adopting our budget, we may have to just take a break in the hearing when we have the quorum present, so we can do that and get on our way with the committee agenda.

A couple of little items I wanted to mention. One is not little, but a very important one, is that last night Chairman David Obey introduced the funding resolution for the remainder of fiscal year 2007, a continuing resolution. I know that Senator Bond has been working very, very hard with Senator Murray and others. I have been working with Senator Baucus and Senator Inhofe.

The good news is that the Federal Aid Highway Program is fully funded at the $39.1 billion level authorized in SAFETEA–LU. We are very happy about this because I know all Senators here wanted to make sure we did not see cutbacks. Achieving full funding was the result of considerable effort. A bipartisan letter was circulated. The Banking Committee also worked with us.

So 72 Senators worked to request the full funding, and I am very pleased because it is directly related to our economic prosperity, and continued construction and maintenance of our roads. So that is a victory, I think, for this committee. We weighed in pretty heavily on that point, so I am very proud of that.

The other business item I wanted to mention, just for Senators, is that I wanted to give you an idea of a few of the hearings that are coming up that have been signed off by the Republicans. We are having a hearing on February 6 on EPA oversight, where we are going to look at the closing down of the libraries, clean air for chlorate, and other top issues. Some of us felt those were rolled back, and we'll just look at those.

The next day, on the 7th, Senator Lieberman is going to look at global warming and its impact on wildlife. The following week we will have a budget hearing, on the 15th, and I wanted to mention for all Senators, we are working on a hearing on WRDA and Army Corps issues on March 15, with a markup on March 29.

So we are moving ahead with the committee, and other colleagues are going to be calling hearings of their subcommittees.

Today, we are going to have an extraordinary Senate hearing on global warming, and we will hear from many Senators on this crucial issue. We are going to hear from members in order of arrival, alternating by party, as I said. Later this morning, into early afternoon, we are going to hear from Senators who don't serve on this committee, but Senators who care very deeply about this subject matter, many of whom have introduced legislation. I would just, for the interests of all Senators, because I know it's very hard to stay here that number of hours, but if you could remain, we still expect to hear from Senators Bingaman, Feinstein, Kerry, Biden, McCain, Obama, Levin, Murkowski, Akaka, Lincoln, Durbin and Nelson of Florida, so we have a good number coming forward.

What I am hoping is that at the end of this day, we will have a reading on where most Senators are, how they feel about pursuing legislation to deal with the matter of global warming.

In a show of extreme bipartisanship and friendship, I have agreed, because Senator Inhofe has a very urgent meeting of the Armed Services Committee, I have allowed him to open up the hearing today. So Senator, I have given you 12 minutes, and the rest of us will have 10 minutes. I will have 12 minutes. So please go right ahead and take your 12 minutes.

I just want to thank you for working with me to get us moving. I know we have many disagreements, but we truly are friends, and I think it is reflected in the progress we're making. Thank you.

[The prepared statement of Senator Boxer follows:]

STATEMENT OF HON. BARBARA BOXER, U.S. SENATOR FROM THE STATE OF CALIFORNIA

My colleagues, I believe we must act now to address global warming. I believe it is our responsibility. I believe it is our duty. And I believe it is our challenge. I believe that just as consensus has been built among scientists, it is rapidly building among the American people. A recent Time Magazine/ABC News Poll found that 88 percent say that global warming threatens future generations. We are at a historic moment—the tide is turning. A real consensus is coming together around this issue in a way that has never happened before. Scientists, the public, and even the Bush Administration agree: global warming is real, and humans are making a serious contribution. Let us look at what a growing chorus of voices is saying across the country about global warming: Chart attached:

- National Academy of Sciences
- U.S. Climate Action Partnership
- Evangelicals and Scientists
- State and Local Governments
- Editorials

- Oil Companies
- Pentagon Funded Report
- Bush Administration:
- State of the Union
- Department of Interior/Polar Bear Proposed Listing
- Recent Statement by Tony Blair

We know what is happening—the science is clear: The planet is getting warmer because humans are releasing too much carbon pollution into the atmosphere.

If we fail to take action on global warming now, we can expect future catastrophic impacts like rising sea levels, more extreme weather events of all kinds, damage to coral reefs and fisheries, and negative impacts on food production and water supplies. We need to act soon, before we reach a tipping point when irreversible changes to the world we know may occur.

We know what sectors in our economy emit these greenhouse gases:

- Transportation = 30 percent of emissions;
- Power Plants = 40 percent of emissions
- Industry, Commercial and Other sources = 30 percent of emissions.

We know what we have to do. In order to avoid the worst effects of climate change, it is important to stabilize emissions and hold temperature rise to less than 2 degrees Fahrenheit from where we are now. In short, we need to cap and eventually, significantly reduce our greenhouse gas emissions.

I am very proud of my home State of California, which enacted AB 32, an economy wide global warming bill. This law sets a mandatory cap on carbon pollution, including a 25 percent reduction from projected levels by 2020. The Governor also signed an Executive Order establishing a goal of an 80 percent reduction in greenhouse gases by 2050 from 1990 levels. A consensus is developing that we must take action at the Federal level now.

On June 22, 2005, a majority of the Republican controlled Senate (53–44) supported action on climate change through the Bingaman Resolution. The resolution was a Sense of the Senate resolution that supported mandatory emissions limits.

There is much to gain in our efforts to reduce greenhouse gas emissions. For example, increasing our energy efficiency will save us money, make us more energy independent, help cleanup our air, and reduce carbon pollution.

In an effort to make the Federal Government a model, I will be introducing legislation to accelerate the effort to make the thousands of Federal Government buildings managed by the General Services Administration models of energy efficiency, starting with lighting systems. The GSA owns or leases over 340 million square feet of space in nearly 9,000 buildings located in every State. GSA calls itself the largest property manager in the United States. I am already working directly with the Administration on this effort to see if we can find common ground and achieve the goal of making these buildings a model together. Similarly, energy efficiency standards for appliances can save us lots of energy and will save money for consumers.

Using renewable fuels fights global warming and also will reduce our dependence on oil, and will help cleanup our air. I have introduced legislation that would support the development of cellulosic ethanol, which can be made from agricultural waste, grass, and many other plants.

Planting trees and other plants, which absorb carbon, can create carbon "sinks." This type of "carbon sequestration" also must be considered.

There are many benefits to fighting global warming. As we meet this challenge, new technologies will be invented and exported. Jobs will be created and these new technologies will be needed by the world. The great genius of American entrepreneurship will rise to the challenge.

When we succeed in the battle against global warming the oceans also will be healthier. Right now, the oceans are showing the strains from absorbing so much CO_2. Our oceans have acted like a "sink" for the carbon, and scientists are warning us about trouble with coral reef die offs and potential long-term impacts on fisheries.

There are many approaches to the issue of global warming. Several of our colleagues have tackled this issue in a very positive way. Some take an economy-wide approach—others, an industry specific approach. I am sure we will hear their ideas today. I know it is no secret that I call the Sanders/Boxer bill originally written by our dear friend Jim Jeffords, the "gold standard" bill because it is comprehensive and takes bold action that I believe is warranted by the facts. My goal is of course to get us as close as we can to that "gold standard" which is reflected in the California program.

I am a realist, and I know only by working together can we move forward with legislation. I pledge today that all ideas and all Senators will have a seat at the table as we move toward action.

Ladies and gentlemen: I am an optimist. I believe in our ability to act and I am counting on the Environment Committee, which has a distinguished history, to move us forward:

- After the Cuyahoga River caught fire in Ohio in 1969, and many of our lakes and rivers were open sewers, our Committee responded with a comprehensive remedy, enacting the Clean Water Act in 1972. Today we can look with pride on the improvements in water quality across this country. While our work is not done, and we must ensure we do not take steps backward, the positive results speak for themselves.
- When the air was so dirty you could see it and there were few tools to address it, our Committee responded with the Clean Air Act in 1970. Our work is not done, but the air is much cleaner and safer.
- When contaminated tap water was causing widespread waterborne disease and exposing people to cancer-causing chemicals, our Committee enacted the Safe Drinking Water Act in 1974.

Now we must face the challenge of global warming. It is one of the great challenges of this generation. It's once again our turn again to stand up and lead this greatest country on earth to a bright future that will energize our people here at home and the whole world. This is a challenge we can and will meet.

OPENING STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE STATE OF OKLAHOMA

Senator INHOFE. I think it is, too, and I do appreciate your accommodating my schedule. As Senator Lieberman knows, we have Admiral Fallon before the Armed Services Committee, and it will be necessary to be there. He is taking over a very responsible job as the Commander of the Central Command.

Let me first of all say, you know, my staff called me up, Madam Chairman, when you decided to have this type of a format, and said: "This is unprecedented; we have never done this type of thing before. We have a protocol we go by on these that has worked very well over the years, whereby we select witnesses. The Minority has witnesses. This breaks the protocol." So they said, "I assume that you want to object to it." I said: "For Barbara Boxer, no, I don't want to object to it. I want to go ahead and have this. This is her first hearing, and I would personally like to have any type of format that she wants."

It would seem to me, though, that a better way of doing this would be, because then you get a double shot at it, to let these members go to the floor, as if on morning business. I have actually given over a dozen speeches, each one over 1 hour, on the floor of the Senate. That is one thing about it. You and I having served on the House side realize that we have a lot more time over here to do such a thing. So we have done that, and I feel that's the best format to use.

I have not been satisfied with the way this has started. I have to say this, that back 4 years ago when I became chairman of this committee, I was a believer that manmade anthropogenic gases actually affected climate change. I had been told that. All the media said that. The science seemed to say that. This is 4 years ago. Then they came along with the Wharton School had the Wharton Econometric Survey and others evaluate it. What would it cost America if we were to sign onto the Kyoto Protocol, at that time, that is what they were trying to do, and comply with its emission requirements? I could talk for a long time as to what would happen, but it would be just very destructive to our country in terms of doubling the cost of energy and the cost of fuel. The average family of four, they said, it would cost them $2,750 a year.

So what I did was say, let's look and be sure that the science is right, and is decided. About that time, it seemed like some hysteria was setting in, because one by one, different scientists were coming out and saying, "no, it is not anthropogenic gases that are causing climate change," as we once thought might be the case. We had the Oregon Petition that came long. That was 17,800 scientists who made the statement,"There is no convincing scientific evidence that human release of greenhouse gas is causing or will in the foreseeable future cause catastrophic global warming."

You had the 60 Canadian scientists who had recommended to the Prime Minister back in the 1990's that they sign onto the Protocol, and they did. And then after they started studying over the next period of years, just recently came out and they said, "If back in the mid-1990's we knew what we know today about climate, Kyoto would almost certainly not exist because we would have concluded it was not necessary."

So you are having scientists come, and I have many others. I think one of the best ones, who was a real advocate of climate change being a result of manmade gases, was a very liberal Claude Allegre. He is a French geophysicist, a member of both the French and the American Academy of Sciences. Keep in mind, he was one of those who was marching down the aisles in favor of Kyoto, in favor of the notion that manmade gases are causing climate change. But after studying this, and spending time, and no one questions his qualifications, the cause of warming is unknown. The proponents of manmade catastrophic global warming are being motivated by money.

Well, let's stop and look at that for a minute. Just last week we had Heidi Cullen, who is with the Weather Channel. We all know that the Weather Channel would like to have people afraid all the time. That causes them to watch the Weather Channel. It caused the ratings to go up. She went overboard last week when she came out and she said, and I am paraphrasing now, but this doesn't miss it far. She said, you know, any of the scientists or meteorologists who don't agree with us should be discredited by the American Meteorological Society.

Now, that is something that is way over the top. Well, I have sent an op/ed piece out after that. It was picked up by Drudge and several others, and boy the blogs started coming in. It was so overwhelming that we had in 1 hour 70,000 responses. That let's you know what people are thinking out there. It caused them to shut down the Senate website.

So these things are happening. I figure that what we need to do responsively is to follow some of the ideas we had before. Put the chart up, the Hagel chart, the first one. It seemed to be agreed to by 100 percent of the U.S. Senate, the vote was 95 to nothing, that we would not sign onto a Kyoto agreement unless two things were present: No. 1, it would not hurt us economically; and No. 2, it would affect the developing nations the same as the developed nations.

Now, if you stop and think about it, China is having a heyday right now. We have not put on line a new gas-generating electric operation in the United States in 17 years. They are cranking one out every 3 days in China. They say they never have any intentions

of complying with any kind of restrictions. In the year 2009, they will pass us up and they will be the No. 1 emitter of CO_2, and they have no interest in stopping it.

Well, if you look at all the bills that are out there right now, or that have been out there, there are five of them, in terms of Byrd-Hagel and Bingaman, not one of these complies with those two mandates that we have, that it couldn't hurt the economy and the developing nations had to be a part of it.

I will put the new chart I had not seen until this morning. Of all of the countries, and this is another thing that has to be looked at, who have signed onto this thing, these countries, Canada and the rest of them, have not complied with the emission requirements. There are 15 countries in Western Europe that had signed onto it. There should be a line or point there for 1997, would be about there. Yes. At that point in 1997, if these countries who signed onto the Protocol had done it, and we are talking about 15 European countries, then the red line would be where emissions would be today and in the near future.

However, of the 15 European countries, only Great Britain and Sweden have complied with it, and Great Britain did because of the big dip they had prior to the time they started keeping score. So they actually, with their trade policy, could come out ahead.

The other thing that I think is worth saying in this period of time that I have, Madam Chairman, is the IPCC and the fact that it is flawed. Lord Nigel Lawson, who is the former Chancellor of the Exchequer over in Great Britain, a member of the House of Lords Committee that reviewed the IPCC. Keep in mind, the United Nations started all this stuff, the Intergovernmental Panel on Climate Change. He said, "I believe the IPCC process is so flawed and the institution, it has to be said, so closed to reason that it would be far better to thank it for the work it has done, close it down, and transfer all future international collaboration on the issue of climate change."

Now, if you will look at the third chart that I have. It tells you that even people who signed onto it and say it is a wonderful thing, are not complying with it. This is the critical one. Back when Al Gore was Vice President of the United States, and Al Gore still thinks that he can use climate change and global warming. That is his ticket to the White House. So he is convinced that is going to get him there.

But he had Tom Wiggly [phonetically], who at that time was at the National Center for Science Research, he had him as his scientist, say, all right now, Mr. Wiggly, what I want you to do is say if all developed countries complied with and became a part of the Protocol of Kyoto and complied with the emission requirements, what would that do over a 50-year-period in terms of reducing the temperature?

He made his study and it came out with this chart. If all these countries did, and I am talking about all developed nations, and not like Europe, because none of them are meeting the requirements, if they did meet the requirement it would change, it would lower the temperature by 0.06 of 1 °C, which isn't even measurable.

So I have often said, even if we are wrong, let's look and see what doing all of this financial punishment to our Country would

result in, in terms of reducing the temperature. So I would only say, Madam Chairman, you are going to have a wonderful day today. I regret that I will not be able to spend the day with you. I would enjoy that, and maybe there is something new I haven't heard yet, but I have studied this thing for a long, long period of time.

[The prepared statement of Senator Inhofe follows:]

STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE STATE OF OKLAHOMA

Madam Chairman, before I begin my remarks on climate change I do want to point out that I disagree with the format of today's hearing. Just to hold a hearing for members to provide testimony is duplicative of the Senate floor. We should be doing this in morning business on the floor. When you insisted on holding this in the Committee, we suggested a forum or a roundtable instead of a hearing. This event today breaks every hearing protocol of this Committee, from no agreed to witness list to testimony not being submitted under our rules. If it were not your first hearing Madam Chairman, I would have objected to this hearing. I do want to state for the record that by agreeing to today's format, we are not setting a new precedent for this Committee and I will object in the future to any similar hearings.

On the issue of climate change in the last four years, I have spoken on the Senate floor more than a dozen times, held four hearings, two stakeholder meetings and many briefings within the Committee. I have looked at the science, the economics, and expected benefits of differing initiatives and proposals. And I have examined how well the world's only large-scale carbon rationing program that has been implemented so far—the Kyoto Protocol—has fared in achieving its objectives. I have required my staff to research the underlying science and read hundreds of studies, as well as major assessments of the science. I think it is fair to say that no other federal legislator has devoted more time and energy to this issue.

There is no environmental issue that has become more politicized. Scientists have had their grant funding stripped, others have had their certifications threatened, and exaggerations have become commonplace. In fact, when a recent example of this was put on my web blog, there was so much concern that the 70,000 hits per hour crashed the Senate server.

Unfortunately, this politicizing of the science has become so commonplace so that even the UN body created to provide the scientific justification of climate action has fallen prey to it. Just over a year ago, I addressed the Senate on how the UN Intergovernmental Panel on Climate Change had embraced highly questionable practices in its periodic assessments.

In fact, the problems identified were so substantial, it led Lord Nigel Lawson—former Chancellor of the Exchequer and a Member of the House of Lords Committee that reviewed the IPCC—to state:

"I believe the IPCC process is so flawed, and the institution, it has to be said, so closed to reason, that it would be far better to thank it for the work it has done, close it down, and transfer all future international collaboration on the issue of climate change. . ."

This is an astonishing statement, but when you look at the way the IPCC has conducted business in its past assessments, it is also perfectly reasonable. In an attempt to help the IPCC avoid some of the mistakes of the past, I have outlined dozens of constructive recommendations of the minimum changes needed for the IPCC to restore its credibility, and I hope everyone will take the time to read them.

Perhaps this politicizing of the science is why Claude Allegre—the former French Socialist Party Leader and member both the French and U.S. academies of science who once warned of catastrophic global warming—has now reversed himself and urges caution, stating, "The cause of this climate change is unknown. Is it man? Is it nature?"

Of course, it is not only the science that has become politicized. A recent report by Sir Nicholas Stern that gained worldwide attention, known as the Stern Report, touted how it was much less costly to take draconian action now in order to avoid global warming impacts later. It was hailed as final proof that we must put the world on an energy diet, leading British Prime Minister Tony Blair to declare that this report represents "the final word" on why the world must act now.

The only problem: within days, a growing chorus of economists—regardless of their views on climate change—began pointing out its serious fundamental flaws. In fact, Richard Tol of Hamburg University last week said that:

"If a student of mine were to hand in this report as a Masters thesis . . . likely I would I would give him an "F" for fail. There is a whole range of very basic economics mistakes that somebody who claims to be a Professor of Economics simply should not make."

The fact is that the Kyoto Protocol and proposals on the drawing board will be extremely expensive. The Kyoto Protocol would cost the average household $2,700 per year. And it would accomplish virtually nothing. Even if the alarmists were right, the Kyoto Protocol would only reduce temperatures by 0.07 Celsius by the year 2050. Bills introduced in the Senate are no different. The Bingaman proposal would only reduce temperatures by 0.008 Celsius.

Of course, while the U.S. was on an energy diet, the rest of the world would be free to continually increase their emissions. Here are some simple facts:

China does not plan to accept carbon caps, and will become the world's largest CO_2 emitter by 2009—two years from now. It is building more than one new coal plant every three days. India and Brazil are not far behind. If they are not part of any effort, then efforts to curb emissions are doomed to failure.

• The Kyoto Protocol—which is the only program that has so far tested the cap and trade scheme—is broken. Japan will not meet its targets. Canada will not meet its targets. Of the EU–15, only Britain and Sweden will meet their targets. And even Britain is no success story—virtually all its emission reductions off of the 1990 baseline occurred before it signed the accord in 1997. Since 1998, its emissions have been rising.

• The United States, even though it does not have a federal carbon cap, has been more successful than most of the nations on the globe in reducing its emissions relative to GDP. But that isn't enough for some, because our economy is growing. This has led one recent study to advocate that the best way for Americans to combat global warming is to reduce their living wage. In short, poorer is better.

• Not one piece of legislation introduced this year meets the test laid out in the Byrd Hagel and Bingaman resolutions that U.S. efforts to reduce greenhouse gases should: (1) not harm of the economy; and (2) include developing countries. Even the Bingaman bill introduced this year fails the test.

In regards to the 10 companies which announced their Climate Action Partnership last week, I would like to introduce into the record a commentary from the Wall Street Journal. This outlines the fact that each of the companies from Duke to GE, will individually profit from their plan. It is not an example of companies thinking of the quote "common good" as some of my colleagues have suggested, but more a case of climate profiteers.

While I look forward to a vigorous debate this Congress I also look forward to vigorously pointing out the lack of scientific consensus, the real economic impact, and the effects of unilateral disarmament of our economy if we enact mandatory carbon reductions in the United States, while the rest of the world is failing to meet their goals.

At this time I would like to make Senator Voinovich's statement part of the record.

I would also like to insert all of my past climate speeches that I've given on the Senate floor in the record.

[The referenced document follows on page 997.]

Senator INHOFE. I also want to submit for the record the statement of Senator Olympia Snowe and also a statement by Senator Voinovich for the record.

Senator BOXER. Without objection, so ordered.

Senator INHOFE. Thank you, Madam Chair.

[The referenced documents follow:]

STATEMENT OF HON. OLYMPIA J. SNOWE, U.S. SENATOR FROM THE STATE OF MAINE

Good afternoon, Madam Chairman and Members of the Committee. Holding this hearing on "Senator's Perspectives on Global Warming" today is admirable on your part, Madam Chairman, as you and others of us in the U.S. Senate care deeply about the issue of global warming and want to take action. I am testifying today because the issue of global warming is no longer seriously open to skepticism. The evidence is irrefutable and the cost of inaction incalculable. It is no longer a question of science—it is now a question of political will.

Surely, in the numerous provisions of the various introduced climate bills we can find the keys to consensus and hopefully this hearing will help guide us in that di-

rection. We should be able to find the most realistic and attainable path that averts negative impacts on our economy and strengthens our national security by decreasing our thirst for imported fossil fuels from the most volatile areas of the globe. I believe we can find the right course at the right cost.

The U.S. comprises only four percent of the world's population yet emits 20 percent of the world's carbon dioxide, it's time our response to this crisis become proportional to our nation's contribution to the problem. Because of the lack of any movement on the part of the United States, two years ago, I accepted the co-chairmanship of the International Climate Change Taskforce, or ICCT, which consists of a group of respected scientists, business leaders, and elected officials from eight industrialized and developing nations.

Our Taskforce report, "Meeting the Climate Challenge", published in January of 2005, was the culmination of close to a year's work across oceans and partisan lines—each of you has been given a copy. As you can see, the Report recommends ways to involve the world's largest economies in the effort, including the U.S. and major developing nations, to ensure that dangerous climate change can be avoided. In truth, the U.S. has given the major developing nations like China and India a "get out of jail free" card. The U.S. position has been to say that these emerging nations need to decrease their greenhouse gas emissions or we won't either.

It is ludicrous to think we can expect large emerging nations to move toward reducing their emissions without any national action on our part. Only after the U.S. puts in place a mandatory carbon cap and trade system can we expect to sit at the international table and ask the poorer developing countries to take actions also. China is putting up one coal-fired power plant a week. China will surpass the U.S. as the largest emitter of CO_2 in the world around 2010. Yet, to its credit, China has more stringent CAFE standards in place than the U.S.

The message today is that we in the Senate can take the ICCT recommendations and incorporate those applicable into our domestic global warming legislation, in particular, the Taskforce's first recommendation that defines a goal. If you don't know where you want to end up, there is no reason to start the journey. So, to begin our journey, to set our goal, the first ICCT recommendation reads, "A long-term objective be established to prevent global average temperature from rising more than 2 degrees Centigrade (or 3.6 degrees Fahrenheit) above the pre-industrial level to limit the extent and magnitude of climate-change impacts." This is the foundation of the bill Senator Kerry and I introduced last year and will reintroduce this week. A goal such as this one is also an integral part of the Lieberman-McCain Climate Stewardship and Innovation Act of 2007, for which I am also a cosponsor.

The reasoning behind this goal is solid; the Taskforce came up with the 3.6 degree Fahrenheit goal as, beyond this increase, scientific evidence suggests that there is a threshold of temperature increase above which the extent and magnitude of the impacts of climate change increases significantly—a tipping point that threatens human societies and ecosystems. For example, there will be substantial agricultural loses, billions more people will be at risk of water shortages, and there will be widespread adverse health impacts, floods, and droughts. Also, beyond that threshold, scientists predict the likely loss of 95 percent of coral reefs and irreversible damage to forest areas, including the Amazon Rain Forest. Above the threshold, irreversible, abrupt climate change may increase, such as the loss of the Antarctic and Greenland ice sheets, the potential shutdown of the the North Atlantic conveyor belt, and transforming the natural world from a net carbon sink—one that takes up CO_2—to a net carbon source—one that releases CO_2.

We need to take medium-term action and set goals up to 2050 for reductions of CO_2 emissions in order to bring concentrations back down to levels that are consistent with a high probability of limiting warming to 3.6 degrees Fahrenheit by the end of the century. Such an approach would enable long-term options to be reassessed as new knowledge becomes available.

In order to meet the 3.6 degree goal, the Taskforce recommended a global framework that brings all countries into action on climate change at the international level over the coming decades for steps leading to limiting their greenhouse gases through post-2012 emissions reductions commitments. This international framework would build on the UN Framework Convention on Climate Change (UNFCCC)—which the U.S. Senate ratified in 1992—and the Kyoto Protocol, as honored by most of the developed world.

Madam Chair, we need to seize on a bold new program like President Kennedy did in sending a man to the moon, when, on September 12, 1962, he stated, "We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend

to win." On July 21, 1969—less than seven years later—Astronaut Neil Armstrong walked on the moon. This is how we should be addressing global warming.

This Friday, the Intergovernmental Panel on Climate Change, composed of 2,500 scientists from more than 130 countries, will release a stunning six year report on the current science of climate change. The IPCC will tell us that a rise in temperatures of 3.6 to 8.1 degrees Fahrenheit by the end of this century is likely. The IPCC will say it is at least 90 percent sure than human activities, led by the burning of fossil fuels, are to blame for global warming over the past 50 years. IPCC Chair, R.K. Pachauri—who was also a science advisor to our Taskforce—stated, "I hope this report will shock people, governments into taking more serious action as you really can't get a more authentic and a more credible piece of scientific work. " He went on to say, "There are a lot of signs and evidence in this report which clearly establish not only the fact that climate change is taking place, but also that it really is human activity that is influencing that change."

Arctic glaciers and polar ice caps millions of years old are melting. Sea levels are rising globally. Our own federal agency, NOAA, reporting that 2006 was the warmest year since regular temperature records began in 1895 and the past nine years have been among the 25 warmest years on record for the contiguous U.S. CO_2 releases today will remain in the atmosphere for at least 100 years—and concentrations will rise in the coming decades. Just think—CO_2 emissions from Henry Ford's very first car are still in the atmosphere. Clearly, we can't afford to wait any longer.

This past Sunday, the Boston Globe ran a very disturbing article on how the climate is altering the regional character and economy of New England. While admittedly only a snapshot, many scientists say that for a growing number of reasons, they are confident that New England's century-long heat rise is significantly related to global warming. They have noted that temperatures began accelerating around 1970, the same time overall global temperatures rose as well, and that the temperature rise is lasting longer than during previous warm stretches in the last century that we attributed to natural variability.

Madam Chair, weather is an integral part of the economy in my State of Maine and others as well. It is time to curb the warming. We cannot wait any longer—we need to act now. There are other important provisions I believe should be included in a climate bill, such as research on abrupt climate change and ocean acidification, but those are under the jurisdiction of other committees. Today I hope I have left you with a compelling reason to establish a goal based in science in the hopes you will include such a goal in any climate legislation you consider in your committee. Thank you.

STATEMENT OF HON. GEORGE V. VOINOVICH, U.S. SENATOR FROM THE STATE OF OHIO

Chairwoman Boxer, I want to thank you for holding this hearing. As the former Chairman of the Subcommittee on Clean Air, Climate Change, and Nuclear Safety, I have had a keen interest in this issue and look forward to the debate I know the Committee and Senate will have on this very important matter.

Simply mentioning this issue can spark a heated discussion about the future of our planet and actions that should or should not be taken. The wide disparity of views is showcased on the Environment and Public Works Committee where members call climate change both the "greatest hoax" and our "greatest problem."

While some may push for no action, several of my colleagues have put forth proposals to impose significant restrictions on the emissions of greenhouse gases. Unfortunately, these proposals would be devastating to our country because they ignore our economic and energy needs. These proposals would have a significantly negative impact on our nation's economy, cause extensive job loss, and raise electricity and natural gas prices.

Higher costs of natural gas would be overwhelming to our country. Over the past six years, natural gas prices have increased over 300 percent. We have the highest natural gas prices in the world, impacting families who depend on it to heat their homes and businesses that use it to make their products. Due in large part to these increased prices, the U.S. has lost more than 3.1 million manufacturing jobs since 2000 and my State of Ohio has lost nearly 200,000.

Jack Gerard with the American Chemistry Council testified before my Subcommittee on February 9, 2006:

> "In a few short years, the U.S. chemical industry has lost more than $50 billion in business to overseas operations and more than 100,000 good-paying jobs in our industry have disappeared. Put another way, the chemical industry went

from posting the highest trade surplus in the nation's history in the late 1990s to becoming a net importer by 2002."

Concerns about natural gas prices led the Senate to take two major actions last year to address this problem. First, we made available an additional $1 billion for the Low Income Housing Energy Assistance Program—or LIHEAP. Since 1999, funding for this program to provide assistance to low-income households to help with their heating or cooling costs has increased by about 70 percent.

Second, Congress passed the Gulf of Mexico Energy Security bill to open more than 8.3 million acres on the Outer Continental Shelf for oil and gas leasing. Passage of this bill has the potential to develop an estimated 5.8 trillion cubic feet of natural gas—enough to heat and cool all five million Ohio homes for over 15 years.

If these climate change proposals were passed, we would eliminate any progress associated with these two actions. EIA predicts that coal use would decline sharply and more natural gas would be used to generate electricity. This would further increase the demand for natural gas and use up any additional resources that we expect to extract from the Gulf of Mexico. As EIA predicts, the bill would drive up the price of natural gas even further. The impact would be astronomical costs to the poor, the elderly, and the middle class in this country—and of course, there would be an even greater need for increased LIHEAP funding.

This is the problem with our nation's tail wagging the dog environmental policy. For far too long, we have failed to consider the impact our environmental policies have on our energy and economic needs. Part of the reason is that we have many groups that have only one concern—the environment. As the father of the Ohio EPA with a strong record on clean air and a lifelong proponent of Great Lakes restoration, I am an environmentalist that must balance many different needs.

The United States is in the midst of an energy crisis. It is time for a 'Second Declaration of Independence'—independence from foreign sources of energy—and for our nation to take real action toward stemming our exorbitantly high oil and natural gas prices. Instead of considering them separately, we must harmonize our energy, environment, and economic needs. This is an absolute must as we consider any additional actions to address climate change.

Advocates of climate change proposals attack the U.S. for not doing anything—but this is simply not true. I am going to address two very important questions today: (1) what are we doing; and (2) how are we doing?

In 2002, President Bush established a national goal to reduce greenhouse gas intensity (emissions per unit of GDP) of the U.S. economy by 18 percent by 2012. To meet this goal, the United States is spending more than any other nation and has created many different programs. The federal government has devoted nearly $29 billion since 2001 to climate science, technology, international assistance, and incentive programs, and the President's Fiscal Year 2007 budget calls for $6.5 billion for climate-related activities. The Administration has also implemented more than 60 federal programs, and I will summarize several of them:

- Climate Leaders is an EPA partnership encouraging individual companies to develop long-term, comprehensive climate change strategies. Over 100 corporations are participating in the program.
- Climate VISION is a Department of Energy public-partnership program involving fourteen major industrial sectors and the membership of the Business Roundtable, who have committed to work with four cabinet agencies to reduce greenhouse gas emissions in the next decade.
- The Climate Change Technology Program is a multi-agency program that increases the development and use of key technologies aimed at reducing GHG emissions. The FY2007 budget included almost $3 billion for the program.
- The Climate Change Science Program is a multi-agency program led by the Department of Commerce, and the FY2007 budget included $1.715 billion.
- The SmartWay Transportation Partnership is a voluntary partnership between various freight industry sectors and EPA designed to increase energy efficiency and reduce greenhouse gases and air pollution.
- For the first time, the Department of Agriculture is providing targeted incentives through its conservation programs to increase carbon sequestration in soils and trees and to reduce methane and nitrous oxide emissions from crop and animal agricultural systems.

While these are examples of domestic programs, there are numerous international actions as well. In fact, the United States has established 15 climate partnerships since 2001 with countries and regional organizations that together account for almost 80 percent of global greenhouse gas emissions.

- The Asia-Pacific Partnership for Clean Development and Climate involves six nations—Australia, China, India, Japan, South Korea, and the United States. It is designed to promote the development and deployment of cleaner energy technologies

to meet pollution reduction, energy security, and climate change concerns. This Partnership is unprecedented given that these developed and developing nations collectively represent about half of the world's manmade carbon dioxide emissions.

• The Methane to Markets Partnership focuses on advancing cost-effective, near-term methane recovery and use as a clean energy source from coal beds, natural gas facilities, landfills, and agricultural waste management systems. This Partnership, which involves 18 countries, is very significant because methane is a greenhouse gas that is more than 20 times more potent than carbon dioxide.

• The United States worked with the United Kingdom and other G–8 partners to launch the 2005 Gleneagles Plan of Action, which contains over fifty actions to address climate change, development, energy security, energy access, and air pollution. Additionally, President Bush and European Union leaders will enter into a High Level Dialogue on Climate Change, Clean Energy and Sustainable Development this fall.

• The United States launched the International Partnership for the Hydrogen Economy as a vehicle to organize, co-ordinate, and leverage multinational hydrogen research programs that advance the transition to a global hydrogen economy.

In addition to all of these domestic and international actions, Congress also acted comprehensively to address climate change with enactment of the Energy Policy Act of 2005.

• The energy bill provides for about $5 billion in tax credits and incentives over 5 years that will help to unleash substantial new capital investment in cleaner, more efficient technologies.

• Research and development funding is provided for long-term zero or low emitting greenhouse gas technologies, including fuel cells, hydrogen fuels, and coal gasification.

• It includes extensive provisions to increase energy efficiency and conservation.

I also worked to include three bills that Environment and Public Works Committee Chairman Jim Inhofe and I authored to provide for the safe and secure growth of nuclear power. These initiatives combined with the loan guarantee and production tax credit provisions in the energy bill have provided a foundation for the industry to pursue new nuclear power plants. The Nuclear Regulatory Commission currently expects to receive license applications for more than 30 new nuclear reactors in the next two to three years. Due to the energy bill, our country is experiencing a nuclear renaissance—which means we will hopefully be utilizing more on this emissions-free power, and relying less on foreign source of energy.

Even though these provisions all address climate change, I joined Senators Chuck Hagel and Mark Pryor to successfully include an amendment by a vote of 66 to 29 to promote greenhouse gas reducing technologies domestically and abroad. This amendment authorized the very important Asia-Pacific Partnership that I mentioned earlier. Last year, we led a letter that a total of 21 senators signed in support of the President's request of $52 million for this important initiative.

Clearly, we are doing a lot—but how are we doing? Are all of these programs and funds having an impact? The answer is a resounding yes, which I will show through two main points.

First, the United States has engaged developing countries such as China and India. In 2005, I visited China where it became clear that they must be involved in any effort due to the large number of coal plants that they are building.

According to a June 11, 2006 New York Times article entitled "Pollution from Chinese Coal Casts a Global Shadow":

> "The increase in global-warming gases from China's coal use will probably exceed that for all industrialized countries combined over the next 25 years, surpassing by five times the reduction in such emissions that the Kyoto Protocol seeks . . . Already, China uses more coal than the United States, the European Union, and Japan combined . . . Every week to 10 days, another coal-fired power plant opens somewhere in China that is big enough to serve all the households in Dallas or San Diego . . . To make matters worse, India is right behind China in stepping up its construction of coal-fired power plants—and has a population expected to outstrip China's by 2030."

According to EIA's International Energy Outlook 2006, Organization of Economic Cooperation and Development (OECD) countries accounted for 53 percent of world carbon dioxide emissions in 2003 with non-OECD countries, which include China and India, making up the remaining 47 percent. By 2030, non-OECD countries will account for 60 percent of world carbon dioxide emissions. These countries will also account for 77 percent of the projected increase in global emissions from 2002 to 2030.

My staff attended the 11th Conference of the Parties to the United Nations Framework Convention on Climate Change in Montreal at the end of 2005. The primary focus of the two week meeting was post-2012, since the Kyoto Protocol's commitment period ends at that time. My staff met with the representatives from the Group of 77, which is made up of the developing nations. They strongly stated that all countries including the U.S. should commit to the Kyoto Protocol and then another round of reductions before they would even begin any discussions about mandatory reductions for themselves.

Through the Asia-Pacific Partnership, the United States has been able to finally bring China and India to the table on this important issue. Without their involvement, any efforts by countries to reduce greenhouse gases will be completely offset by emissions increases in developing countries.

Now to my second point, the United States is meeting its intensity goal and is doing as well or better than other nations.

To meet our greenhouse gas intensity reduction target of 18 percent by 2012, there needs to be an average annual rate of improvement of about 1.96 percent. EIA preliminarily estimates that carbon dioxide emissions intensity improved in the U.S. by 3.3 percent in 2005. This means that we are on target to meet our goal and may even exceed it.

The overall progress of the United States compares favorably with other countries—even those that have signed the Kyoto Protocol. Based on data reported to the UN Framework Convention on Climate Change, from 2000 to 2004, the major developed economies of the world are at about the same place as the U.S. in terms of actual greenhouse gas emissions. Emissions are increasing in some countries and decreasing in others—but no country is decreasing its emissions massively. In fact, the U.S. has seen its actual emissions increase at a rate of 1.3 percent compared to 2.1 percent for the European Union.

In summary, I think the United States is unfairly criticized on this issue of climate change. In reality, we are doing more than any other country in terms of our overall effort. Since 2001, our nation has taken action to address climate change by spending almost $30 billion, implementing more than 60 federal programs, establishing 15 international partnerships, and enacting an Energy bill.

The great news is that this effort is working. We have brought developing countries to the table and are doing as well or better than other nations that have committed to very costly mandatory programs.

Chairwoman Boxer, I want to thank you for holding this hearing, and I look forward to working with you and other members of this Committee to find the right balance.

Senator BOXER. Senator, thank you very much for your statement. Since today is the day we are taking the temperature of members of the Senate, I will put you down as skeptical on global warming.

[Laughter.]

Senator INHOFE. Undecided. How is that?

[Laughter.]

Senator BOXER. Leaning no.

Well, Senator, thank you. I know you will miss us throughout the day, but any time that you can come back, please do. If we don't get a quorum here this morning because of people coming and going, we will do something off the floor together to pass the budget, if that is all right with you.

Thank you, Senator.

Needless to say, we do have strong disagreements. I disagree with some of the charts up there, but the point is, today is not the day for give and take. Today is a day for us to affirmatively say how we feel about the topic. I think that Senator Inhofe did do that. Now, I am going to take a chance and lay out what I think is the case.

My colleagues, I believe we must act now to address global warming. I believe it is our responsibility. I believe it is our duty. I think an issue like this comes along very infrequently, an issue

as important. I believe it is our challenge. We did not choose to be here now, but we are. Fate has thrown us together on this committee now. I am very hopeful we will step up and meet this challenge.

I do believe that a consensus has been built among scientists, and I also think a consensus is being built among the American people. A recent Time Magazine/ABC News poll found that 88 percent of our people say that global warming threatens future generations. We are at an historic moment, and I believe the tide is turning. A real consensus is coming. It is coming together around this issue in a way that has never happened before.

Scientists, the public, even the Bush administration agree, global warming is real and humans are making a serious contribution. I want us to take a look at what a growing chorus of voices is saying across the Country about global warming. For that, I am going to use a series of charts, if we could do that.

[The referenced document follows on page 127.]

The National Academies of Sciences from the United States, Japan, Russia, United Kingdom, France, Germany, Italy, Canada, China, India and Brazil all agree, "There is now strong evidence that significant global warming is occurring. It is likely that most of the warming in recent decades can be attributed to human activities. We urge all nations to take prompt action to reduce the causes of climate change," sciences, 11 academies, 2005.

Next chart? U.S. Climate Action Partnership is the one I have, American business. American businesses call for action on global warming, and they endorse goals that match the toughest proposal. I would say to my committee, this was an historic moment early last week when ALCOA, British Petroleum, Caterpillar, Duke, and DuPont got together with Environmental Defense, Florida Power and Light, General Electric, National Resources Defense Council, Pew Center on Global Climate Change, Pacific Gas and Electric Corporation, PNM Resources, and World Resources Institute.

They say, we, the members of the U.S. Climate Action Partnership, have joined together to recommend the prompt enactment of national legislation in the United States to slow, stop and reverse the growth of greenhouse gas emissions over the shortest period of time reasonably achievable. I think that is a breakthrough in and of itself.

The next chart, an urgent call to action by scientists and evangelicals, who have united. The evangelicals, we agree that our home, the Earth, which comes to us at the inexpressibly beautiful and mysterious gift that sustains our very lives, is seriously imperiled by human behavior. The harm is seen throughout the natural world, including a cascading set of problems such as climate change. This is another breakthrough.

The next chart? The reason I am saying this is, I am trying to show the consensus here. I want us to be part of that State and local actions to address global warming. Thirteen States and 376 mayors from all 50 States recognize the threat of global warming and have taken steps to address the threat. I have copies of all these charts that I will give to colleagues.

I will go to the next chart; a sample of editorial boards from across the Nation. We have several of these. I am not going to read

them all. I am just going to tell colleagues that we have them. These are from, yes, California, New Orleans, Idaho, the Columbus Dispatch, the Tennessean, the Atlanta Journal-Constitution. They say while the political debate in the United States over global warming spins in mindless circles, scientific evidence that man-made gases are dangerously leaving the planet keep piling up.

Senator LAUTENBERG. Madam Chairman?

Senator BOXER. Yes?

Senator LAUTENBERG. Was one of those an Ohio newspaper?

Senator BOXER. Yes.

Senator LAUTENBERG. Thank you.

Senator BOXER. And then Newport News Daily Press, Anniston Star, Alabama. Idaho, did we see that already? OK, thank you.

There is never enough time to do everything I want to do, but that gives you a sense of what we have done.

Oil companies, on the need for action on global warming, yesterday the head of Shell called me and discussed this with me. Here he is quoted, "For Shell, the debate on climate change is over. It is time to work on solutions. A national approach to greenhouse gas management is important to the future. Such an approach requires a regulatory framework that enables markets to work for both supply and demand side needs. It would be very challenging to have different State by State regulatory requirements."

So this gives you the reason why we need to move forward, because States and localities are doing this.

U.S. Defense Department sponsored a report. In cutting to the chase, they say disruption and conflict will be endemic features of life if we don't reverse this.

President Bush in his State of the Union, technological breakthroughs will help us be better stewards of the environment. They will help us to confront the serious challenge of global climate change. That was the State of the Union we all heard.

Interior Secretary Kempthorne, when asked about a proposal to list polar bears as threatened under the Endangered Species Act, and he says, "We are concerned. The polar bears' habitat may literally be melting. The Administration treats climate change very seriously and recognizes the role of greenhouse gases in climate change."

There is more. Tony Blair, "We know it is happening. We know the consequences for the planet. We now know urgent action will prevent catastrophe, and investment in preventing it will pay us back many times over. We will not be able to explain ourselves to future generations if we fail." Tony Blair.

I think that covers it, but again, I have all these for Members if you wish.

We know what is happening. The science is clear. The planet is getting warmer because humans are releasing too much carbon pollution into the atmosphere. If we fail to take action on global warming, we can expect future catastrophic impacts like rising sea levels, more extreme weather events of all kinds, damage to coral reefs and fisheries, and negative impacts on food production and water supplies.

We need to act soon before we reach a tipping point, when irreversible changes to the world we know may occur.

Now, we know what sectors in our economy emit these greenhouse gases. That is not a secret. Thirty percent of the emissions come from the mobile sources, transportation. Forty percent of the emissions come from powerplants. Industry, commercial and other sources are the remaining 30 percent.

We know what we have to do in order to avoid the worst effects of climate change. It is important to stabilize emissions and hold temperature rise to less than 2 °F from where we are now. In short, we need to cap and eventually significantly reduce our greenhouse gas emissions.

Now, I am very proud of my home State of California, which enacted AB 32, an economy-wide global warming bill. This bipartisan law, signed into law by a Republican and worked on with a Democratic legislature, sets a mandatory cap on carbon pollution, including a 25 percent reduction from projected levels by 2020. The Governor also signed an executive order, a goal of an 80 percent reduction in greenhouse gases by 2050 from 1990 levels. A consensus again is developing that we must take action at the Federal level now.

On June 22, 2005, a majority of the Republican-controlled Senate, in a 53–44 vote, supported action on climate change through the Bingaman Resolution. The resolution was a sense of the Senate resolution that supported mandatory emission limits.

There is much to gain in our efforts to reduce greenhouse gas emissions. For example, increasing our energy efficiency will help us save money, make us more energy independent, help cleanup our air, and reduce carbon pollution. I know some of you do have concerns about that. In an effort to make the Federal Government a model, I will be introducing legislation to accelerate the effort to make thousands of Federal Government buildings managed by the GSA models of energy efficiency, starting with lighting systems.

The GSA owns or leases over 340 million square feet of space in nearly 9,000 buildings located in every State. GSA calls itself the largest property manager in the United States. I am working directly with the Bush administration on this effort to see if we can find common ground and achieve the goal of making these businesses a model of efficiency. Similarly, energy efficiency standards for appliances can save lots of energy and save money for consumers.

So the point I am making here, my colleagues, is when we do these things, it is good for the American pocketbook. Using renewable fuels fights global warming, and also will reduce our dependence on oil, help cleanup the air. I have introduced legislation that would support the development of cellulosic ethanol, which can be made from agricultural waste, grass, and many other plants.

Planting trees and other plants which absorb carbon can create carbon sinks. The ocean is known as a carbon sink. Trees and greenery are known as carbon sinks. This type of carbon sequestration should be considered.

There are many benefits to fighting global warming. As we meet this challenge, new technologies will be invented and exported. Jobs will be created, and these new technologies will be needed by the world.

I remember when I first got involved in air pollution control, it was when I was a county supervisor and I belonged to the Air Pollution Control District in the Bay Area of San Francisco. The biggest argument against doing anything is that it would cost jobs. At the end of the day, it created jobs. I think the great genius of American entrepreneurship will rise to this challenge. It is already starting.

When we succeed in the battle against global warming, the oceans also will be healthier. Right now, the oceans are showing strains from absorbing too much CO_2. Again, our oceans have acted like a sink for carbon, and scientists are warning us about trouble with coral reef die-offs and potential long-term impact on fisheries.

There are many approaches to the issue of global warming. Several of our colleagues have tackled the issues in very positive ways. Some of them are here today, Senator Carper, Senator Alexander, Senator Lieberman, who will be back, and others. Some take an economy-wide approach, and I mean to say Senator Sanders as well, others an industry-specific approach. So whether it is economy-wide or industry-specific, all of these bills are making a great contribution.

I know it is no secret that I called the Sanders-Boxer bill, originally written by our dear friend and colleague Jim Jeffords, the "gold standard" bill, because it is comprehensive and it takes bold action which I personally believe is warranted by the facts. My goal is, of course, to get us as close as we can to that gold standard, which is reflected in the California program. But I am a realist, and I know only by working together can we move forward with legislation.

I pledge to you today, my colleagues on all sides of the aisle, that all Senators will have a seat at the table as we move toward action.

Ladies and gentlemen, I am an optimist. I believe in our ability to act and I am counting on this committee, which has a distinguished history, to move us forward. After the Cuyahoga River caught fire in Ohio in 1969, and many of our lakes and rivers were open sewers, this committee responded with a comprehensive remedy, enacting the Clean Water Act in 1972. Today, we look with pride on the improvements in water quality.

When the air was so dirty you could see it, and there were few tools to address it, our committee responded with the Clean Air Act in 1970. Our work is not done, but the air is much cleaner and safer now.

When contaminated tap water was causing widespread waterborne disease and exposing people to cancer-causing chemicals, our committee stepped up and enacted the Safe Drinking Water Act in 1974.

Now, we must face the challenge of global warming. I believe it is one of the greatest challenges of our generation. It is once again our turn to stand up and lead this great Country to a bright future that will energize our people here at home and across the world. This is a challenge. I believe we can and I believe we will meet, because I believe so much in the quality of the people on this committee.

Now, it is my pleasure to call on Senator Isakson.

OPENING STATEMENT OF HON. JOHNNY ISAKSON, U.S. SENATOR FROM THE STATE OF GEORGIA

Senator ISAKSON. Thank you, Madam Chairman. I will not take all 10 minutes, but I appreciate the opportunity to address the subject. I appreciate your giving us a chance to express ourselves.

I come from the belief that there are two great motivators in life. One is fear and the other is reward. I don't think there is any question that there are things going on that we can respond to, and I don't think there is any question that in the end it is us and it is American industry, business and enterprise that can be the solution, not necessarily just the whipping boy.

First of all, the Chairman took away one of my examples, the Cuyahoga River, but there are many other examples we can point to where Congress pointed out areas where we could improve, and we improved. But in each and every one of those areas, it was the innovation, many times in the private sector, that brought about that improvement.

For example, recycling. The biggest problem we had in solid waste disposal 20 years ago was tires, newsprint, polyethylene, all these things that went in and never went away. They never naturally dissolved. So we created a use in the Country. Now we grind up tires and pave roads and sports fields with them. In fact, if you watch any professional football game played today on an artificial tuft, ground tires are the little black things that you see bouncing up in the air when they slide, to help cushion those particular athletes.

Cigarette smoking. When the facts became clear and we in the Congress started making people aware of the dangers of cigarette smoking, not only did it create the beginning of a reduction in terms of people changing their habits, but more importantly it created opportunity in industry. Look at what the pharmaceutical industry has done in terms of smoking cessation. They have created product after product and innovation after innovation that help people do it. Why, in the end? I think it is the fact that facts were brought forward and people made conscious decisions.

There are three things I want to focus on first of all, in terms of my interests. The first is conservation. Conservation is an important thing to do, but if you conserve every way you can on hydrocarbons, you can make about a 6 percent difference. But should we be doing that? Absolutely. It is a contribution.

The second is innovation. Innovation is particularly important, and it is something this Congress ought to be incentivizing. Southern Company in Georgia, by way of example, is doing a coal gasification demonstration in Orlando, FL right now. That is one of the things we ought to be motivating, bragging about, and elevating, as somebody in the industry that is actually looking for a way to innovate, use something, coal, that burned as we do, we don't do anymore, but turn it into a gas that is cleaner, more efficient and it is better for the atmosphere.

And motivation. Tax policy is good policy when it drives good decisions. It has been proven over and over again. I am a perfect example of that. Last year, I bought a hybrid car. I bought it for two reasons. One, I thought it was a good thing to do and I like 36 miles to the gallon. The other is, I am doing my taxes right now,

and I just realized a Ford Escape hybrid has a $2,100 tax credit for a purchase of that vehicle. I commend Ford for doing it. I commend this Congress for creating the motivation through the tax, and we are now changing habits.

If you look at 2008, what is happening in terms of the automobile industry both in the foreign industry and the domestic industry, things are changing in terms of what they are producing, not because we beat up on them, but because we made facts available, because we motivated people, and because people changed their attitudes and industry responded to it because of the motivation of why people are in business to start with.

I think by disseminating facts, motivating the private sector, and not running off on political tangents to beat up on one side to dissatisfy another, we can make a huge dent in what is going on. But if we each decide to retrench and to lob barbs back and forth, without conscientious effort to cause good changes in people's practices, good innovation in business, then we will really not do what I believe the Chairman and the rest of the members of this committee want to do.

Motivation, conservation, and innovation. I believe reward is the great motivator in human nature. Fear never accomplished anything. We should do everything we can to disseminate all of the facts around global warming, not just the ones that might tailor and be fitted to our argument. We must look at an overall landscape that motivates people to change where change is good for them and good for the environment. Remember always that in the end in our system and in our Country, what has made us great is the free enterprise system, innovation and competition. Don't stifle it through a punishing atmosphere that is all political, without the practical effect of making a change.

Madam Chairman, I thank you very much for the opportunity to give my statement.

Senator BOXER. Senator, I found your statement to be very important. Technology, innovation, incentives, and conservation are all part of what we will be doing. I really will be working with you on those areas. Thank you so much.

Senator Carper.

Senator CARPER. Thank you, Madam Chairman.

I have a statement I would like to submit for the record.

Senator BOXER. Without objection.

OPENING STATEMENT OF HON. THOMAS R. CARPER, U.S. SENATOR FROM THE STATE OF DELAWARE

Senator CARPER. I think I would choose instead of giving that prepared statement, just to talk with my colleagues from my heart. I want to commend you for inviting us all to be here today. We sort of jokingly call this session "open mic night," or actually "open mic day." All 100 Senators have the opportunity to come in and talk about what I think is one of the gravest threats, but really great opportunities that we face as a Nation.

There is an old Chinese saying that in crisis lies opportunity. I believe we do face a crisis, but I believe that crisis also includes with it significant opportunity.

The President is on the road today. He is in Illinois. He is visiting a big company there called Caterpillar, to tout the strength of our economy. Last Wednesday, he was in my State, in Delaware. He visited the DuPont Company. He came to Delaware to the DuPont Company to our experimental station in order to put a spotlight on the great work that is being done by several thousand of the world's smartest scientists, to help reduce our reliance on foreign oil, on petroleum products like cellulosic ethanol and corn stalks, biobutanol, which DuPont is preparing to make out of sugar beets, a better alternative than ethanol, as it turns out. He wanted to spotlight the great work we are doing there on fuel cells and other technologies.

The President doesn't know this, but as it turns out, the CEO of the company he is visiting today and the CEO of the DuPont Company that he visited last Wednesday, along with a number of their colleagues, banded together last Monday and they released a call for action. This is not a lot of harebrained, crazy treehuggers like some of us. These are some of our top business leaders in the Country, who promulgated this call for action. I am not going to read it all, but there is part of it I want to share with us.

The call for action starts off like this, "We know enough to act on climate change," that is their basic premise. "The challenge is significant, that the United States cannot grow and prosper in a greenhouse gas-constrained world." They go on to say, "In our view, the climate change challenge will create more economic opportunities than risks for the U.S. economy." Finally, they say, "We need a mandatory, but flexible climate program."

They don't just stop there either. They go on and they lay out a bunch of design principles. I won't go through all those. They share with us their recommendations. The back of the publication, the copy which I am sharing with all of my colleagues on this committee, maybe all my colleagues in the Senate, on the back of the publication, it lists the companies that are involved in this. I just want to mention them: ALCOA, BP, Caterpillar, Duke Energy, DuPont, GE, Florida Power and Light, PG&E, and an outfit called PNM, which is a Power New Mexico, New Mexico Power.

There are a couple of environmental groups, Environmental Defense, NRDC, World Resources Institute, an outfit called the Pew Center, and they banded together, not just to preach a sermon, but really to show us a sermon. You know the old saying, I would rather see a sermon than hear one. These folks are prepared to show us the sermon. By their own actions, reducing their own greenhouse emissions, and calling on the rest of us not to just watch this parade that is being formed, and there is a parade being formed, a parade of consensus around greenhouse gases and what to do about it. My friends, I will just tell you this. We can watch the parade, we can sort of join the parade, or we can lead the parade.

I said to the President last Wednesday when we were riding back on Air Force One to Andrews Air Force Base from my State. I said, "Mr. President, we have an opportunity to lead here. You need to lead." Frankly, we need to join him.

Senator Alexander and I and others on this committee and in the Senate have been working for a number of years on an approach to greenhouse gas that is not economy-wide, but something that fo-

cuses just on utilities. Our Chairman has just said that utilities are responsible for about 40 percent of the CO_2 emissions that we are seeing produced in this Country. Our view is, let's get started on that. Let's get started somewhere.

I respect those who have a view of sort of a climate-wide approach, and economy-wide approach on CO_2. That is fine. I have joined Senators Lieberman and McCain in their proposal in past years. I will do it again this year. I regard their proposal and other comprehensive economy-wide proposals as the Interstate, the freeway. Senator Alexander and I have talked about this time and again. There needs to be an on-ramp onto the freeway. We need to get started. I believe the legislation that we will be introducing next week is that on-ramp and helps us to get started.

The question that is before us is, is it possible to come up with a plan not just CO_2 emissions, but sulfur dioxide emissions, nitrous oxide emissions, mercury emissions from utility plants, in a way that doesn't cost consumers an arm and a leg, and in a way that doesn't put our economy at disadvantage with the rest of the world, that doesn't cause our economy to founder? Is it possible to do this in a way that doesn't encourage the movement of electricity production from coal to more natural gas, and further spikes in natural gas prices?

Is it possible to do this in a way that incentivizes clean coal technology, that incentivizes wind powers and other renewable forms of energy, that incentivizes for some of us a new look at nuclear generation, electricity generation by nuclear plants?

We think that it does. We believe we have a proposal that meets that test.

I like to use the analogy with respect to CO_2 emissions when I talk about Kyoto. The Jeffords proposal was very well intended, and I respect Jim Jeffords. I know we all do. In the proposal, some of us around this table, I know, were cosponsors of the legislation he offered and will cosponsor the successor. I will not, but I certainly respect him and the views he holds. But Kyoto, in the approach he laid out, he called for getting CO_2 emissions by 2010 in this Country, back to where they were in 1990.

Now, I am an optimist, but I am not that optimistic. I think the proposal we need to follow basically looks more like this. I use the car analogy. Some of you have heard me give this before. Let me give it again. Imagine you are in a car going down the highway at 55 miles an hour. You put the car in reverse. That is really the sum and substance of what was being proposed in the proposal I just mentioned.

I think there is a smarter approach. The smarter approach is this, slow down the car, slow down the growth of CO_2 emissions; stop the car; stop the growth of CO_2 emissions; put the car in reverse; reduce CO_2 emissions. That makes a whole lot more sense to me, and I suspect makes a whole lot more sense to you. It sure makes a lot more sense to the folks who banded together and presented us last week with what I think is a roadmap to walk away from what could be a tipping point. This is a tipping point in itself. This is a tipping point. This is a tipping point in the debate on how we can deal with this challenge, and do so in a way that helps our

economy, strengthens our economy, and by the same token does something good for our planet.

I will close with this. Just about everybody here on this committee has children. Some of us have grandchildren. We talk with our kids from time to time about the challenges that we face, the work that we do. I just talked with my son. My younger son, Ben, is a junior in high school, and I was telling him, Madam Chairman, about open mic night, open mic day, and he was kind of amused by that. But I told him what we were doing. I didn't say this to him, but I thought it. I just share this with all of you, with all of us.

For those of us who have children and grandchildren, they know what we do. Sometimes they think what we do is important. Sometimes they are not so sure. This is important. If all the science we have been hearing for not just a couple of weeks or a couple of months or a couple of years, but a couple of decades, if all the science is actually true, we face a grave threat on this planet of ours. We have the opportunity to do something about it that doesn't jeopardize our economy, doesn't cost consumers an arm and a leg, doesn't ignore our enormous coal resources we have in this Country, but actually builds on those.

I don't want to some day look at my kids in the eye, they are 16 and 18. I don't want to look them some day in the eye, 10, 20 or 30 years from now, when we actually do reach a tipping point, when this phenomenon actually might be irreversible, and have them say to me, well, what did you do about it? What did you do about it when you had an opportunity? Weren't you in the Senate? Did you do anything to stop this?

I want to be able to look them in the eye and say, I did everything I could. I tried to move heaven and earth to make sure we took a better course, a smarter course, a wiser course, for them and for our planet and for our Country. We can do that.

I would ask each and every one of you to do two things. One, take a look at what this partnership has proposed. It is a tipping point and it is a good roadmap. Second, I would ask you to take a look at the work that Senator Alexander and I have done, along with a bunch of our colleagues. Take a look and see if it meets muster in your view. I strongly urge you to join us in this battle.

Thank you.

Senator BOXER. Senator Carper, I want to thank you for your eloquence and your hard work with Senator Alexander in the Power Plant Sector bill. We are really looking forward to seeing the details of the bill.

I also want to thank you for, in such a strong way, calling attention to this new coalition that has developed between the business sector and the environmentalists. I think if you look at evangelicals, the business sector, we have these groups that we never had before saying to us, "please act." I want to thank you for that.

Just for members to know when they will be called on, I am going to go to Senator Bond next, then Senator Lieberman, then Senator Alexander, and then Senator Lautenberg. We will continue to go back and forth.

Senator Bond, before I call on you, I again want to thank you for your hard work on the highway number in the CR. I think it was terrific that we all worked together on that. So please, you have 10 minutes.

OPENING STATEMENT OF HON. CHRISTOPHER S. BOND, U.S. SENATOR FROM THE STATE OF MISSOURI

Senator BOND. Thank you, Madam Chair. Patty Murray, the Chair of the Transportation Appropriations Committee and I worked, along with you and Senator Baucus, and we were very pleased it came out. I thank you for holding the hearing today, and I particularly thank my colleague from Delaware for pointing out how we get there is important.

I think it is very important that we make sure that we do not fight climate change on the backs of the poor, on the backs of certain sectors of this Country, and do not take short-term steps that will jeopardize our ability to come to long-term solutions.

The weak, the infirm, the vulnerable are all in the crosshairs of some of the proposals that have been put forward to address climate change. If you are worried about the economic divide between rich and poor, immediately imposing carbon caps could have a drastic impact. Carbon caps will increase the cost of basic necessities that families cannot do without, heating in the winter, air-conditioning in the summer, and lost blue collar jobs that support middle-income families, particularly in the heartland of the Nation where I live.

Unfortunately, carbon caps will hit hardest those with the least ability to pay. Do we really want to do that, make life harder and more expensive for the weakest parts of our society? The problem is that energy for heat, air-conditioning and jobs produces carbon missions. If you limit carbon, you limit energy. When you make something scarce, you make it more expensive. But carbon cap proposals don't stop there. They also decide who gets less of the limited amounts of energy. Many proposals do this through auctions that drive prices up even higher because we will pay twice, first for the energy and the second at an auction just to buy it. The poor and elderly can't even afford to pay their heating bills now. How much will they suffer if they have to pay again for auctioned energy?

Will people be forced to forgo, when they must instead pay higher energy costs? Will a low-income family in the rural parts of my State forego food in their pantry? Will we force them to choose between heat or eat? Will a fixed-income senior in the cities choose between buying prescription drugs needed to survive, or running the air-conditioner in sweltering summers of St. Louis?

We as Senators need to know how these carbon cap proposals or limitations will impact our States, our less fortunate, our struggling. Unfortunately, we don't have those answers yet. Witnesses testifying before the Energy Committee this week on the Bingaman plan said it would have very little macroeconomic effect. I am not from the State of macroeconomics. I am from the State of Missouri. I need to know how these proposals will hurt Missourians.

Many efforts give us national averages, $1,000 per family. I know lots of people who have drowned in water over their heads in lakes

that average 3 feet deep. Some families may escape relatively unharmed and pay little. Others, depending on how they heat or how they support their family, may pay thousands more, or even lose tens of thousands of dollars if the workers lose their jobs.

But cap proponents have not done their homework. The Senator from Hawaii, a State with some of the highest costs for electricity and gasoline in the Nation, asked how the Bingaman cap plan would affect his State. He was told that nobody knew. Well, that is not going to be good enough for responsible members who want to know how these proposals will hurt their constituents.

Now, I think that States in the Northeast and the West Coast will be spared some of that hardship because the energy needs they have are supplied by natural gas, to which they have easy access. I would go back to a statement I heard Nobel Laureate Glenn Seaborg make over a quarter century ago. He said, "To use natural gas and electricity and a combustion boiler to generate electricity is like heating your home by throwing your most valuable antique furniture in the fireplace." I will describe why in just a moment.

States currently dependent on coal, however, to meet their energy needs, like my State and States throughout the Midwest, the Great Plains and the South, are going to face extra hardships. Unfortunately, carbon cap proponents have not done the homework that tell us how those plans will hurt these families. States with white-collar service workers may be fine, but caps will hit hard States with manufacturing, States with energy-intensive industries such as steel, aluminum and other metals.

Carbon cap proponents have not said how we will take care of these workers. Workers who make products dependent on natural gas will suffer, and they already are. Their feedstock will be in demand to generate more power, making raw materials more expensive. Many of these natural gas-dependent industries, plastics, chemicals, pharmaceuticals, have moved to other countries, to China for example. Farmers who depend upon natural gas for the nitrogen in their triple number fertilizer are being squeezed, and they can't leave. They are being hit by cost increases on their input.

Many Missouri families have all these traits, low-income, fixed-income seniors, manufacturing, or coal-dependent. We have far too many families suffering through winters who have already lost their jobs to China. Some have said we need not face these choices, that we can solve our carbon emissions problems through a combination of efficiency, savings, and renewables. Well, I am all for efficiency savings and renewables, couldn't be a stronger supporter.

Greenpeace recently put out a new report, however, called Energy Revolution: A Blueprint for Solving Global Warming. It says that their energy revolution would install wind generating capacity by 2050 or 464 gigawatts. That is 464,000 megawatts of electric power from wind power, a 100-fold increase from the current wind generating capacity.

Well, where we could do wind generating, I am very proud of it. Missouri's own Kansas City Power and Light recently completed construction of the Spearville Wind Facility with 67 wind turbines, at capital cost of $166 million, generating 100 megawatts of emissions. However, using this experience to see what Greenpeace ex-

pects, we would need 309,000 wind turbines at a cost of $767 billion. These turbines stretch side by side, 400 feet tall, visible 15 miles away, and would stretch over 12,000 miles, completely encircling the coast of the United States. Turbines would line up our shores from Maine to Florida, around to Texas, stretch all the way to California to Washington, and almost completely encircle Alaska.

Has anybody seen what happened when we tried to put some wind turbines off of Massachusetts? Well, the "not in my backyard," the NIMBY syndrome hit. Hey, listen, we want energy conservation; we want to use renewable energy, hey, but don't put it off of my shore.

Well, I happen to live one-half mile from a biodiesel plant, and about 20 miles from a nuclear power facility, and I am delighted. If we had natural gas in Missouri, I would be happy to drill for natural gas. Unfortunately, people off the coast do not want to drill for natural gas. I would offer them a trade. They could have our lead. If they want to mind the lead that we mine in Missouri, and let us drill for natural gas, we would be happy to have natural gas in my backyard. But these costs of over $1 trillion for wind generated electricity just don't make sense.

Now, I am not satisfied with the status quo. Biofuels, ethanol and biodiesel can cut carbon emissions. Missouri utilities are increasing their renewable power generation. Missouri farmers are supplying biofuels. But we also need to make coal clean. We have 250 years of energy in coal. Coal is dirty when you burn it. You have to have scrubbers or fluidized bed combustions. But we can do more. We can push the technology to get it ready so we don't bring pain to those least able to bear it.

Carbon caps, which would heavily impact fiscally coal companies and utilities, would penalize the very companies that we are expecting to put $1 billion or more into each coal or liquefaction or gasification plant. We cannot take short-term steps that will compromise our ability ultimately to use our most abundant energy source, and that is coal, by gasifying it, or liquefying it, separating out all of the pollutants, including carbon, and sequestering the carbon. It is a big challenge. It is going to cost a lot of money, but we ought to get serious about doing it.

We need to know in the meantime what regions of our Country, of the States, what cities will be affected by these proposals, just as the Senator from Delaware said. What sectors of the economy, what types of jobs, who holds them, who will lose them, what types of workers, blue collar, union, are most at risk? What types of people, families, young, old, struggling, will face burdens too high?

Only then will we be able to produce a responsible future that not only meets our environmental needs, but assures we meet our social justice needs and continue to have a growing economy that can afford the investment we must make in continued productivity and an environmentally friendly way.

Thank you, Madam Chair.

[The prepared statement of Senator Bond follows:]

STATEMENT OF HON. CHRISTOPHER S. BOND, U.S. SENATOR FROM THE STATE OF MISSOURI

Madame Chairman, thank you for seeking our views on climate change strategies. I hope you will take them to heart. Simply put, we must not fight climate change on the backs of the poor.

The weak, the infirm, the vulnerable, are all in the crosshairs of proposals that you Madame Chairman, Senators Lieberman and McCain, and others have put forward to address climate change. If you truly are worried about the economic divide between rich and poor, carbon caps will only widen that gap.

The reason is that carbon caps will increase the cost of basic necessities that no family can do without—I am talking about heating our homes in the winter, air-conditioning our homes in the summer, and lost blue collar jobs that support middle-income families. Unfortunately, carbon caps will hit hardest those with the least ability to pay. Is this what we really want to do? Make life harder and more expensive for the weakest parts of our society?

The problem is that energy for heat, air-conditioning and jobs produces carbon emissions. If you limit carbon, you limit energy. And when you make something scarce, you make it more expensive.

But carbon cap proposals don't stop there. They must also decide who gets less of the limited amounts of energy. Many proposals do this through auctions that will drive prices up even higher because we will pay twice—the first time to make the energy and the second time at an auction just to buy it. Many poor and elderly can't even afford to pay their heating bills now. How much will they suffer if they have to pay again for auctioned energy?

What will people be forced to forgo when they must instead pay higher energy costs? Will a low-income family in rural Missouri heating their mobile home with electric space heaters forgo food for their pantry? Will we force them to choose between "heat or eat"? Will a fixed-income senior have to choose between buying the prescription drugs they need to survive or running their air-conditioner in the sweltering summers of St. Louis?

We as Senators need to know how these carbon cap proposals will impact each of our States, our less fortunate, our struggling. Unfortunately, the answers have not yet arrived.

Witnesses testified before the Energy Committee last week that the Bingaman plan would have very little macroeconomic effect. Well I'm not from the State of Macroeconomy. I represent the State of Missouri. I need to know how these proposals will hurt Missourians.

Many efforts give us national averages, such as $1,000 per family, but these plans will not hit all States, families, or workers equally. Some families may escape relatively unharmed and pay little. Others, depending on how they heat their homes, or how they support their families, may pay thousands more, or even lose tens of thousands of dollars if they are the workers who lose their jobs.

But cap proponents have not done this homework. The Senator from Hawaii, a State with some of the highest costs for electricity and gasoline in the Nation, asked how the Bingaman cap plan would affect his State. He was told that such a state-by-state analysis had not been done. Well that's not going to be good enough for the responsible members who want to know how these proposals will hurt their constituents.

I have to think that States in the Northeast and West Coast will be spared hardship because their energy needs are supplied by natural gas, to which they have easy access.

States currently dependent on coal to meet their energy needs, such as Missouri, but including States all throughout the Midwest, Great Plains and South will face extra hardship. Unfortunately, carbon cap proponents have not done this homework to tell us how their plan will hurt families in these specific States.

States with many white-collar or service workers may be fine, but caps will hit hard States with manufacturing. States with energy intensive industry such as steel, aluminum or other metals will have suffering workers. But carbon cap proponents have not done this homework to tell us how their plan will hurt these specific workers.

Workers who make products dependent on natural gas will suffer. Their feedstock will be in demand to generate more power, making their raw material more expensive. Plastics, fertilizer, automotive, chemicals, pharmaceuticals workers will all suffer. Many energy and natural gas dependent blue-collar workers have already lost their jobs to low-cost China. Again, carbon cap proponents offer no details of how their plans will hurt these workers.

Missouri has families and workers with all of these traits: low-income, fixed-income senior, manufacturing or coal dependent. We have far too many families suffering through winters, or who have already lost their blue-collar family supporting jobs to China. I cannot blindly go into what may bring them even more pain and hardship.

Some have said we need not face these choices. That we can solve our carbon emissions problems through a combination of efficiency savings and renewables. Some quick and easy calculations reveals that this is pie in the sky.

For example, Greenpeace recently put out a new report called "Energy Revolution: A Blueprint for Solving Global Warming." It claims to show how wind and solar energy combined with efficiency advances could replace coal to reduce carbon emissions.

Unfortunately, their proposals are also drastically impossible and impractical. Their Energy Revolution requires installed wind generating capacity in 2050 of 464 gigawatts. That is 464,000 megawatts of electricity from wind power—a staggering number in itself and a 100-fold increase from current wind generating capacity.

Now I support increased power generation from renewables including wind power. I am very proud that Missouri's own Kansas City Power and Light recently completed construction of their Spearville wind facility. Its 67 wind turbines, at a capital cost of $166 million, will generate 100 megawatts of emissions free electricity.

However, using this experience to see what Greenpeace expects, we would need 309,000 wind turbines at a cost of $767 billion. These turbines side-by-side, 400 feet tall and visible 15 miles away, would stretch 12,229 miles. That would almost be enough to encircle completely the entire coast of the United States. Turbines would line our shores from Maine to Florida, around to Texas, stretch all the way up California to Washington, and almost completely encircle Alaska.

To pay the $767 billion bill we would need every man, woman and child in America to pay $2,550, or family of four to pay $10,200. But these numbers assume Greenpeace's massive energy efficiency savings. If energy demand hits full predictions, we would need nearly 400,000 turbines at a cost of nearly $1 trillion.

Do the sponsors of the Boxer-Sanders carbon cap bill really expect us to spend $1 trillion on wind turbines? No, of course not. And yet, we continue to see these schemes pedaled as real solutions.

Now I am not satisfied with the status quo. We can and must do better, including more with renewables. I am a big supporter of biofuels such as biodiesel that can cut carbon emissions by 30%. Missouri utilities are increasing their renewable power generation and Missouri farmers are helping supply biofuels. We also have nuclear power in Missouri. We can and must do more of all of these things.

Serious people must also support making coal clean. We are working on technologies to gasify coal, burn it cleanly and capture the carbon emissions. We must do much more to figure out how and where we can affordably sequester carbon emissions.

But what we cannot do is push past where technology is not yet ready and thereby intentionally bring pain and hardship to our weak and vulnerable families and workers.

General legislation that leaves the details and dirty work to others, like those recently passed at the State level, is unacceptable. We cannot abdicate these questions or our responsibility to our constituents.

To avoid this, we need to know what regions of the country, what States, what cities will be affected by proposals? What sectors of the economy, what types of jobs, their locations, who holds them and who will lose them? What types of workers, blue collar, union, are most at risk? What types of people, families, young, old, struggling, will face burdens too high?

Only then will we be able to produce a responsible future that meets our environmental and social justice needs.

Thank you.

Senator BOXER. Senator, thank you so much.

Before I call on Senator Lieberman, just two quick things. I want to respond just a little bit to what you said, because I think it is a very positive contribution. I also want to take a moment, now that we have a quorum, and I believe we have a quorum, to suspend the hearing for just a moment.

[Whereupon, the committee proceeded to other business.]

Senator BOXER. Senator Bond, I thank you for bringing up the issue that you did in a very eloquent way. We don't want to do any-

thing on the back of the poor. I think environmental justice, as you call it, social justice is key. I think it is why we all come together around the LIHEAP Program and others things that we do.

I do want to make one point about energy efficiency, because energy efficiency helps our families. I also want to say as far as coal is concerned, you are right. We cannot turn our back. We have 250 years of coal in America. We have to make sure that technology steps up and helps us resolve and solve this problem.

I am kind of taking everybody's temperature on where you are coming from, and I really do appreciate the contribution you have made. Thank you so much, Senator.

Senator Lieberman, we are very delighted you are here.

OPENING STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

Senator LIEBERMAN. Thanks, Madam Chairwoman. I hope that when I am done you will put my temperature down as "hot."

Senator BOXER. I will do it right now.

Senator LIEBERMAN. Hot to get something done.

I thank you very much for your leadership. Let me express to you how grateful I am that you are moving global warming to the top of this committee's agenda. You have been a longtime leader in this area of environmental concern. At times, as we both know, there weren't many people out there. I think now you and I hear the sound of the cavalry coming to meet this enormous challenge to our future and the future of those who will follow us here on Earth.

The great thing is that it is a very diverse cavalry. Like you, Madam Chairwoman, I have been listening to our colleagues in the Senate. I have been reading what they have to say. I have been listening to leaders in the public, private and academic sectors, and reading what they have to say. It is hard not to conclude that the politics of global warming has changed, and a new consensus for action is emerging. It is a bipartisan consensus.

I believe that in this Congress, we can adopt legislation that will begin to stop the advance of the warming of our planet. If we can achieve a consensus agreement here on this committee, and I believe a bipartisan consensus, we can take it to the Senate floor, join it up with legislation our colleagues in the House will pass, and I think ultimately enact strong, comprehensive global warming legislation.

Now, people will then say, well, what about the President? Well, part of the change here occurred in the State of the Union a week ago. The President uttered less than a dozen words, but they were heard around the world. It is quite remarkable. I am looking for a bad meteorological metaphor, but it is as if the President created a seismic change at the bottom of the ocean that set off a positive tsunami of hopefulness around the world that the United States was ready to assume its leadership place in the global battle to stop global warming.

So I think we have to build on that and start it right here. The time is right. Solutions are at hand, and coalitions of goodwill are forming across political and ideological lines. The often-varied orbits of Democrats, Republicans, and of course I have to add Inde-

pendents, along with the business community, academic, and the environmental and scientific communities, seem to be moving into an alignment, creating what I think is the real probability that we can adopt strong legislation.

Why is this happening? I think some of the questions that people have been asking about global warming are being answered. The first fundamental question that was being asked in the early stages of the battle to get something done here, was, is it real? Is it really happening? If it is happening, that the planet is warming, is it happening because of things we humans are doing?

At the outset, those who were concerned were deriving their worst concerns from computer models. You couldn't really see it. Today, unfortunately, you can see that it is real. You can see it in the melting of ice masses on the Earth. You can see it in tides rising in different places on the Earth. You can see it in the movement of species, wildlife species, the endangerment of certain species. You can even see it in the beginning of movements of diseases.

It is real, and the evidence, to me, and increasing consensus of people around the world, is that what we are doing is causing that real problem.

A second question, I suppose, is can we afford it? I will talk about that a little more in my statement, but I think people are beginning to come to the point where they are feeling that doing something about global warming now will cost us a lot less than waiting to pay the costs of dealing with the effects of global warming, some of which may be catastrophic.

The third question that has been raised is, what does it matter if we do it, and the Chinese and the Indians, the great rising economies of the world, don't do anything about global warming? That is a good question. It doesn't relieve us of our responsibility. It is actually a moral responsibility, but it is a responsibility to act to protect the people of the United States from a problem that we are the greatest cause of, because we emit more greenhouse gases than any other nation on Earth.

But I hope that the President goes from that one sentence that he uttered in the State of the Union, to assuming a leadership role in bringing China and India, particularly, into a leadership group of developed and developing nations of the world to work on what might be called the post-Kyoto system for dealing with the reality of global warming. Chancellor Merkel, a great ally, Prime Minister Blair, a great ally, have suggested as much, and I hope President Bush will join them in that.

Now, let me come back to where we are. I want to mention one final reason why I think this new consensus is emerging. In a classic example of the American Federal system at work, when the people see a problem and they want their government to protect them from it, but the Federal Government does not act, where do they go? They go the States and localities. The States and localities are acting, most notably the Northeastern States have come together in a tough anti-global warming compact. Of course California, our largest State, is now playing a leadership role.

What does that do? It says to people in the business community that this is coming. So do we want to deal with what we are going to be asked to do in responding to a maze of State and local regula-

tions and laws? Or are we going to have one national law that will give us predictability? That is part, in addition to their good citizenship and recognition of the reality of the problem, why business leaders are saying now, yes, it is worth the cost. In fact, it is going to save jobs and create wealth.

I think most important is for us to go ahead in this committee, to seize this moment by listening to each other and trying to find a bipartisan common ground. I congratulate our colleagues, Senator Carper and Senator Alexander, who have done that with their proposal, which will reduce greenhouse-gas emissions from the electricity-generating sector of our economy. I hope that in our subcommittee, and I look forward to working with Senator Warner as Ranking Member, that we will be able to build on that bipartisan consensus.

Madam Chairwoman, as you know, I have introduced legislation that I have sponsored in the last two Congresses, with Senator John McCain, the Climate Stewardship and Innovation Act. I am very grateful that this bill has the support of a broad bipartisan group, Senators Lincoln, Snowe, Obama, Collins, and Durbin, and our colleagues on this committee, Senators Clinton and Carper.

Let me just talk briefly about the bill in the 2 minutes I have left. This bill does have a cap, because if you don't have a cap, you are not going to have results. But it uses the power of the marketplace and a cap and trade system, the kind that has worked with regard to the reduction of acid rain that was mandated in the Clean Air Act Amendments of 1990. Our bill would cap the greenhouse gas emissions of the electric power, industrial, transportation and commercial sectors of our economy at year 2004 levels by 2012. It would then lower that cap gradually so that it reaches one-third of the year 2004 levels by 2050.

The bill controls compliance costs by allowing companies to trade, save and borrow emissions credits, and by allowing them to generate credits when they induce noncovered businesses, farms and others to reduce their greenhouse gas emissions or capture and store greenhouse gases. The bill then would invest set-aside emission credits and money raised by the auction of those allowances for advancing several positive ends, such as deploying advanced technologies, protecting low- and middle-income Americans from higher energy costs, keeping good jobs in the United States, and mitigating the negative impacts of any unavoidable global warming on low- and middle-income Americans, low-income populations abroad, and wildlife.

This bill is sound. It is tested. I want to say to my colleagues on the committee, as good as I think it is, it is not perfect. I welcome the collaboration, the input from members of this committee to make the bill even better. I want to do the same with members of the Senate outside the committee, particularly Senator Bingaman, who has wrestled with these facts and offered solutions that demand careful consideration.

Madam Chairwoman, in closing let me again thank you for your leadership and reiterate how eager I am to assist you as you lead this committee to the bipartisan solutions to the challenge of global warming that now lie within our grasp, both technologically and politically. It is time for us, in facing one of the truly great chal-

lenges of our time, to seize the moment and prove to the American people that here in Congress we can work across party lines to solve the problems they sent us here to solve.

Thank you very much.

[The prepared statement of Senator Lieberman follows:]

STATEMENT OF HON. JOSEPH LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

Thank you, Madame Chairwoman. Let me start by saying how delighted I am by your accession to the chair of this committee, and how much I look forward to working under your leadership.

Second, let me tell you how deeply grateful I am to you for moving global warming to the top of this committee's agenda. You have been a long-time leader on the need to confront the challenge of global warming. And you and I both know that was a lonely outpost for sometime.

But now I think I hear the sound of cavalry coming and a new willingness to charge into this challenge head on.

For months, I have been reading and listening both to my colleagues in the Senate and to leaders in the public, private and academic sectors. And I believe the politics of global warming have changed and that a new consensus is emerging. I believe that in this new Congress—and under your leadership of this Committee—we can create bipartisan support here and then on the Senator floor for a strong, comprehensive bill to curb global warming.

The time is ripe. Solutions are at hand. And coalitions of good will are already forming across political and ideological lines. The often varied orbits of Democrats, Republicans—and Independents—along with the business community, academia and the environmental and scientific community have moved into an alignment, creating a galvanizing, gravitational tug toward action.

I believe it is crucial to our ultimate success that we proceed in a bipartisan manner from the very beginning of this process. For instance, one of my Republican friends on this committee, Senator Alexander, has already cosponsored my Democratic friend Senator Carper's bill to reduce greenhouse gases from the electrical generating sector of the U.S. economy.

I want to help build and nurture this bipartisan momentum through the subcommittee I am privileged to lead with my good friend and colleague Sen. Warner. This week, in fact, I hope to notice a February 7 subcommittee hearing that will examine the impacts of global warming on the wildlife and ecosystems that are central to our American values, way of life, and . . . our very livelihoods across this nation.

Left unchecked, there is no region of the country that will not suffer from the effects of global warming and I invite all my colleagues on this committee to attend this hearing. The devastation wrought by rising sea levels, droughts, waves of insect borne diseases will sweep from coast to coast, leaving no one untouched.

Madam Chairwoman, you and my colleagues here know that I have reintroduced legislation I sponsored with Sen. McCain in the last two Congresses to reduce global warming—the Climate Stewardship and Innovation Act.

This bill has the bipartisan support of Senators Lincoln, Snowe, Obama, Collins, and Durbin, and my committee colleagues, Senators Clinton and Carper, having signed on as cosponsors as well.

Several of my colleagues on this committee and in the Senate have expressed a concern that, in reducing greenhouse gas emissions, we might inadvertently force more American jobs overseas and increase the energy costs borne by low- and middle-income Americans.

These are perfectly understandable, reasonable concerns. Indeed, Sen. McCain and I shared them when we sat down to write our bill. And we are both convinced that we can fight the quickening slide into catastrophic climate change in a way that actually creates new high-paying jobs in the United States, improves this country's position in relation to its trading partners, and lowers Americans' energy costs over the long term.

Our bill uses the power of the free market to promote the rapid and widespread deployment of advanced technologies and practices for reducing greenhouse gas emissions. Moreover, as I mentioned, it is designed to promote the economic well-being of low- and middle-income Americans, and to keep good jobs in the United States.

The Climate Stewardship and Innovation Act would cap the greenhouse-gas emissions of the electric power, industrial, transportation, and commercial sectors of the

economy at year 2004 levels by 2012. It then would lower that cap gradually, such that it reaches one-third of year 2004 levels by 2050.

The bill controls compliance costs by allowing companies to trade, save, and borrow emissions credits, and by allowing them to generate credits when they induce non-covered businesses, farms, and others to reduce their greenhouse gas emissions or capture and store greenhouse gases.

The bill then invests set-aside emissions credits and money raised by the auction of those allowances in advancing several positive ends, such as deploying advanced technologies and practices for reducing emissions; protecting low- and middle-income Americans from higher energy costs; keeping good jobs in the United States; and mitigating the negative impacts of any unavoidable global warming on low- and middle-income Americans, low-income populations abroad, and wildlife.

I believe our bill is sound. And with the help of Republicans and Democrats on this committee, we can make it even better. I for one will be very receptive to suggestions presented by my colleagues on this committee as to ways we can further protect American competitiveness and jobs.

I will also work with those Senators not on this committee, who have devoted a great deal of thought and effort to the issue of cost control and the mechanics of an economy-wide, market-based emission reduction system.

Here Senator Bingaman, the distinguished chair of the Energy and Natural Resources Committee, deserves special mention. He has wrestled with the facts and details of climate legislation as much as any other Senator, and his ideas merit careful consideration.

Madame Chairwoman, let me close by again thanking you for your leadership and by reiterating how eager I am to assist you as you lead this committee to the bipartisan solutions that we know lie within our grasp.

Senator BOXER. Senator, thank you for your long term leadership. I think that your partnership with Senator McCain, whom we will hear from this afternoon, has been a role model for us on this matter. I agree with you that we can do it in this committee.

I also want to underscore something you said about the economic costs of not doing anything, because most people say it is going to cost up front. Nicholas Stern, who is the chief economist for the World Bank, said that $1 spent now will save $5 later because of the economic disruption that could come if we don't mitigate the problem. So I think this is something we need to keep discussing.

So thank you very much. I understand members are coming and going. I have lots of other things to do, so please feel free when you need to leave.

It is my pleasure to recognize Senator Alexander, then Senator Lautenberg.

OPENING STATEMENT OF HON. LAMAR ALEXANDER, U.S. SENATOR FROM THE STATE OF TENNESSEE

Senator ALEXANDER. Thank you, Madam Chairman.

The National Academy of Sciences of the United States, as well as the National Academies of Japan, Germany, China, and other nations, have agreed that human activity is having a significant influence on global temperature increases. I believe that amounts to a scientific consensus and that it is now time for Congress to take reasonable steps to reduce U.S. emissions of greenhouse gases.

In my judgment, the right first step would be the one that Senator Carper described, a market based system of greenhouse gas permits that would limit carbon dioxide produced by electric utility generating plants in the United States. This would affect about 40 percent of the carbon dioxide produced in our Country.

Senator Carper and I introduced legislation in the last Congress to do this. We expect to do it again within the next several weeks. Our legislation is a little different in that it affects the utility gen-

erators, about 40 percent of the carbon, and it also is what we call an "integrated" approach. It puts stricter controls on the other major pollutants which come from fossil fuel plants, sulfur, nitrogen and mercury, which have created a serious clean air problem in many parts of the Country, especially in eastern Tennessee, where I live.

I don't believe that it is wise at this point to enact one of the various legislative proposals that would impose carbon controls on the entire economy.

We have looked pretty carefully, Madam Chairman, to try to make sure that our bill can be accomplished at a minimal cost. We believe that it can, through the modeling that was done working with the Environmental Protection Agency in the last session of Congress. We try to clean up air pollution from existing plants through a combination of emission caps, market based trading, offsets, and technology incentives. We believe that both reduces pollutants in the years ahead and does it at the most minimal cost.

And importantly, since coal is such an important part of our electricity production in the United States and will continue to be, we believe our bill will make it possible to use coal abundantly, while keeping the air clean and healthy in a cost-effective way.

I would like to spend just a few minutes talking about that bill and why I care about it. Most of us are affected by where we come from. I come from the mountains of east Tennessee. I grew up in a county that includes a big part of the Great Smoky Mountain National Park. I might add, this is a very Republican county, very Republican area. We haven't elected a Democrat to Congress since Lincoln was President, and there is no indication we ever will.

So the views that I am expressing are not partisan views, but they do express the views I believe of most of the people where I live. For example, the next county over is Sevier County, which is Dolly Parton's home. It also contains a lot of the Smokies, and is also a very Republican county. When I walked into the Chamber of Commerce in Sevier County and asked them what their No. 1 priority was a couple of years ago, they told me "clean air." Clean air is the No. 1 priority because 10 million people visit the Smoky Mountains Park each year. They bring a lot of tourism dollars with them. They come to see the purple haze that has been there since the days of the Cherokees, not the smog that is currently there. Current visibility on the haziest days in the Smokies is 15 miles. Natural visibility on the haziest days ought to be 77 miles. Visibility is an issue, and that affects our jobs.

We are also concerned about the health impacts of all that smog on those of us who live there. East Tennessee fails to meet minimum Federal healthy air standards for fine particles and ozone, both of which cause serious health damage. Knoxville was the 14th most polluted city for ozone, for example. Ozone irritates the lung tissues. It increases your risk of dying prematurely. It increases the swelling of lung tissue. It increases the risk of being hospitalized with worsened lung diseases, and triggering asthma attacks. At risk in Knox County alone are 176,000 children, 112,000 seniors, 15,000 children with asthma, and 50,000 adults with asthma.

So an integrated bill such as the Clean Air bill that Senator Carper and I propose would control all of those pollutants. Ozone is not

emitted directly from tailpipes and smokestacks. The raw ingredients come from coal-fired powerplants and cars. They cook in the air when it is sunny and warm. Sulfur is in many ways our biggest problem. It is the primary contributor to the haze. It causes difficulty in breathing. It causes damages to the lung tissue and respiratory disease, and even premature death.

Mercury is also a problem. Monitoring by the EPA, the National Park Service and others show that these areas have high levels of mercury deposits from air pollution. Our areas have more than most other parts of the Country. Recent studies have shown that much of that mercury comes from not very far away. It is polluting waterways, with mercury contaminating the fish we eat, posing a serious threat to public health.

So we are concerned about mercury. We are concerned about nitrogen. We are concerned about sulfur especially, and as time goes on, we have become concerned about climate change. The leaves changed earlier when I was a boy. We used to look at October 15 as the day for that. There was more snowfall then than there is today, but that is not exactly a scientific analysis. But now we have the National Academy of Sciences of our Country and many other countries saying that our human activity is playing a significant role in the rising average temperature.

So that is why I joined with Senator Carper 3 or 4 years ago to introduce our legislation, to move along, not just to clean up sulfur, nitrogen and mercury, but also to take what we believe is a reasonable first step to deal with carbon, the principal contributor to climate change. The bill will cut sulfur dioxide emissions by 82 percent; nitrogen oxides by 68 percent; mercury by 90 percent, without trading. It would cap carbon dioxide emissions at 2001 levels, all these reductions to be achieved by 2015.

It permits utilities to undertake projects that reduce or capture CO_2, such as planting trees. These are known as offsets. Why focus on powerplants? Well, first, as has been said two or three times here, they produce about 40 percent of the CO_2. Of greater concern is that emissions from powerplants are growing at nearly twice the rate of the economy as a whole. This trend will only accelerate if electricity companies build the more than 150 new coal-fired powerplants they are currently proposing.

Fossil fuel powerplants provide more than 50 percent of our electricity nationwide. They emit more harmful air pollution than nearly any other source in the Country, including two-thirds of the sulfur dioxide, one-quarter of the nitrogen oxide, and 40 percent of the mercury.

Madam Chairman, I think we are at a point in our Country's history when we are ready with technological advances to deal with these clean air challenges, and to do it in a way that permits us still to have a very strong economy. Obviously, conservation and efficiency is the first and easiest thing to do. We can be aggressive about that, reducing electricity demand, lowering consumer utility bills, speeding the deployment of energy-saving appliances, lighting, and encouraging efficient building practices.

Second is renewable energy. Senator Bond pointed out, I thought pretty graphically, that as important and as attractive as renewable energy might be today, it is only 2 to 3 percent of our electric

production outside of hydropower. To take that to a very high number in this generation is not very practical. We don't need a national wind turbine policy. We need a national energy policy. Renewable energy is a part of it, but it is a small part.

That takes us to nuclear power. Nuclear power produces 20 percent of all of our electricity today, but 70 percent of our carbon-free electricity. That number must go up.

And then to clean coal. We would be very unwise if we did not make sure that any legislation we passed did not make plenty of allowance for a future that is based on coal, an abundant source of electricity. There are now technological ways to use coal in clean ways that get rid of all four of the pollutants that our legislation seeks to control. Carbon sequestration technology has advanced to a great degree.

So that is why I am here today. I care about clean air, and to deal with clean air I believe we have to deal with sulfur, nitrogen, mercury and carbon. I hope, Madam Chairman, that the legislation that Senator Carper has worked so hard on the last several years, and several of us on both sides of the aisle have cosponsored, will form a framework for responsible action this year in this committee.

Thank you.

Senator BOXER. Senator, I want to thank you from the bottom of my heart for the contribution you are making to this issue. I think you and Senator Carper, as Senator Lieberman and Senator McCain have proven, that we can work across party lines. I know that we have been working with both your staffs. I think the bill has moved in the best of directions. I am optimistic that whatever happens here, your work will have been a huge part of what we eventually do. So I just want to thank you very, very much.

Now, just so we know, we are going to hear from Senator Lautenberg, if Senator Warner is not back, Senator Craig, if Senator Clinton is not back, and Senator Klobuchar. Is that right, Bernie? Was she here before you?

Senator SANDERS. She says so.

[Laughter.]

Senator BOXER. All right.

Senator Lautenberg.

OPENING STATEMENT OF HON. FRANK LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator LAUTENBERG. Thanks, Madam Chairman. I want to commend you for presenting an openness here that portends good things for the future. So my compliments for doing that.

As I have listened to various presentations, I have to be a little defensive in terms of whether or not the question is livelihood or life. I don't think that ought to be the way to do the equation. The suggestion that we can't adapt our systems so that we are producing less carbon dioxide, less greenhouse gases, for me is a wondrous question.

There are sources of revenue that are diverted to other things than important research like stem cell research of course, but in energy independence as well. If we had some of those funds available for these studies, maybe we could improve the situation that

we face. It is shocking to me when finally with a lot of hard work, and there are no accusations intended here, but we see a report in today's New York Times. Madam Chairman, it was brilliant planning to have this report in the New York Times today from the world scientists, the U.N. Intergovernmental Committee on Climate Change, they are going to release their report on February 2 before this week is out.

They say several things in there that kind of challenge what I am going to call the relative complacency that we have seen about this problem, and continually debate whether or not the costs for doing so are going to remove job opportunities, increase costs of living. The costs of dying are the ones that I don't want to pay.

I don't want my grandchildren to be the substitute for the proverbial canary in the coal mine. I don't want anybody else's grandchildren to be the testing mechanism for seeing whether global warming is having a negative affect on our being. These scientists say things like this, their findings that the Arctic Ocean could largely be devoid of sea ice during summer later in this century. European Mediterranean shores could become barely habitable in summers, while the Alps could shift from snowy winter destinations to summer havens from the heat. Growing seasons in temperate regions will expand, while droughts are likely to ravage further the semi-arid regions of Africa and Southern Asia. Concerns about climate change and public awareness on the subject are at an all-time high. We know that.

The chairman of the panel told delegates on Monday, and some time ago a report was developed for the use of the Pentagon, and I submit that we ought to see if we can get it distributed.

Madam Chairman, this report was done in October 2003, and is a grim conclusion about what could happen as we continue to see sea levels rising. They are fairly close projections in time. We heard a commentary that Al Gore's pitch for the presidency is a primary reason, the production of the film that he helped produce, and displays very directly what the consequences are of the current trends toward global warming.

I think that Al Gore did us all a major service. I am particularly disturbed that the evidence we see in front of us has not been taken seriously. My State of New Jersey had the unique leadership in the change in temperature among all 50 States in the Country. We are at the top of the ladder in terms of the degree of change, not very comforting.

I also want to talk, and start today by talking about the Doomsday Clock. The Doomsday Clock is maintained by the Bulletin of the Atomic Scientists, a group of international experts who are committed to our, "security, science and survival." The hands on the clock convey how close the human race is to destroying itself, the metaphoric "midnight" or the end of life as we know it.

In the past, the clock moved closer to midnight because of nuclear weapons testing or war, but this year the Doomsday Clock was pushed 2 minutes closer to midnight because of global warming. Stephen Hawking, scholar, author of "A Brief History of Time," said, "Terror only kills hundreds of thousands of people. Global warming could kill millions. We should have a war on global warming."

The United States needs to actively engage in the war on global warming, and it starts with this committee, Madam Chairman. I am pleased to see the action that you have kicked off today.

The average global temperature in 2006 was 2.2 degrees warmer than the average temperature throughout the 20th century, and that is according to NOAA. This is not an anomaly. It is a recurring fact. The last seven 5-year periods were the warmest 5-year periods on record. As the temperature rises, our world suffers. Polar Bears, long a symbol of the wilderness, may soon have a new home, and that is on the threatened species list. Their habitat has already melted so much that bears have drowned swimming and searching for food.

The ocean level is being altered. We know that the ocean level is rising, and it threatens coastlines across the globe. I have already pointed out the effects of what we are seeing could be gigantic in their outcome.

The United States, the glaciers in Glacier National Park are shrinking. The park's largest glaciers are one-third of their 1850's grandeur. We also know that the Pentagon sees security risks coming from global warming, and I indicated that there is a report that was developed for the Pentagon.

So here is Congress's choice: deny these real and rising impacts of global warming, or confront them. I think that what we have seen here today is a serious attempt to get the ball rolling. The answer is obvious. We have to act and here is what we need to do. We need to cap and reduce greenhouse gas emissions. We need to increase CAFE standards. We need to create incentives for cities and companies to go green and build green. The one thing that we have to end is censorship or suppression of government scientists' reports who do critical research on global warming. That has been going on.

All of this has to be done right now. The public is taking better care of our environment. They want to do more. People are buying cars based on fuel efficiency by way of example. This year, Senator Sanders has a Global Warming Pollution Reduction Act, which calls for an 80 percent reduction in global warming pollutants by 2050, and I am pleased to be a cosponsor of that.

So we end up now by saying, enough of this cynicism that we have seen in the past, enough of the suggestions that global warming was a hoax perpetrated on the American people. It is time for action and the time to start is now.

Thank you very much, Madam Chairman.

[The prepared statement of Senator Lautenberg follows:]

STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Thank you Madam Chairman for holding today's forum on the biggest environmental threat of our time.

I want to start today by talking about the Doomsday Clock.

The Doomsday Clock is maintained by the Bulletin of the Atomic Scientists, a group of international experts who are committed to our "security, science and survival."

The hands on the clock convey how close the human race is to destroying itself—the metaphoric "midnight," or the end of life as we know it.

In the past, the clock moved closer to midnight because of nuclear weapons or war. But this year, the Doomsday Clock was pushed two minutes closer to midnight because of global warming.

Stephen Hawking, the scholar and scientist said, "Terror only kills hundreds or thousands of people. Global warming could kill millions. We should have a war on global warming. . . ."

The U.S. needs to actively engage in the war on global warming. And it starts with this committee.

The average temperature in the United States in 2006 was two-point-two degrees warmer than the average temperature throughout the twentieth century, according to NOAA.

And this is no anomaly—it is a recurring fact: the last seven five-year periods were the warmest 5-year periods on record.

And as temperatures rise, our world suffers: The Polar Bear, long a symbol of the wilderness, may soon have a new home: the "Threatened Species List."

Their habitat has already melted away so much that some bears have drowned swimming and looking for food.

The ocean is being altered. We know the ocean level is rising, threatening coastlines across the globe.

In Germany, the Alps could lose nearly three-quarters of its glacial mass this century, according to the World Glacier Monitoring Service.

Back in the United States, the glaciers in Glacier National Park are shrinking. The park's largest glaciers are one-third of their 1850's grandeur. If what the scientists say is accurate, Glacier National Park will have to drop the word "Glacier" from its name.

We also know the Pentagon sees security risks from global warming. A 2003 Department of Defense report begins by saying "There is substantial evidence to indicate that significant global warming will occur during the 21st century."

That same report says that Bangladesh could become nearly uninhabitable because of a rising sea; mega-droughts could affect the world's major breadbaskets, such as America's Midwest—and future wars could be fought over the issue of survival in this new, hotter climate.

So here is Congress's choice: Deny these real and rising impacts of global warming?

Or do what our citizens sent us here to do—confront them?

The answer is as obvious as the problem. We simply have to act.

And here is what we need to do:

We need to cap and reduce greenhouse gas emissions from power plants and other facilities that pollute.

We need to increase CAFE standards to get car and truck emissions down, and dependence on foreign oil down, too.

We need to create incentives for cities and companies to go green and build green.

We must end the censorship and suppression of government scientists who do critical research on global warming.

And we must do all of this right now.

The public is taking better care of our environment—and they want to do more. People are buying cars based on fuel efficiency, for example.

Some in the private sector are taking better care of our environment. Last week, we had CEO's from some of America's largest companies, such as General Electric and DuPont, call for strong, national legislation to reduce greenhouse gas emissions.

It's time for the federal government to wake up and do its part.

This year, I am proud to co-sponsor Senator Sanders' "Global Warming Pollution Reduction Act", which calls for an eighty percent reduction in global warming pollutants by 2050.

And I will be introducing the 'High Performance Green Buildings Act' with Senators Snowe and Boxer. I also want to thank former Senator Jim Jeffords for his work on this issue.

Buildings—from small apartments to skyscrapers—account for nearly forty percent of our greenhouse gases. And the federal government can have a major impact, because it is the biggest landlord in the country.

So our bill promotes energy efficiency in the design and maintenance of federal buildings. And with greater efficiency, we get fewer greenhouse gases.

On Friday in Paris, the International Panel on Climate Change will release its long-awaited report on global warming; the work of twenty-five hundred scientists. It will paint a vivid portrait of how global warming is affecting our planet.

With this report as a catalyst, my hope is that we can answer the Doomsday Clock's call—and take real action to protect future generations from the threat of global warming.

Our children and grandchildren cannot afford us waiting any more.
Thank you Madam Chairman.

Senator BOXER. Thank you, Senator Lautenberg. I know you very well, and I know that everything you do is with the next generation in mind, and I thank you for giving us that perspective.

I am very pleased to call on Senator Craig, a new member of the committee, but certainly one who has very firm ideas, and we look forward to hearing from you, Senator. You have 10 minutes.

OPENING STATEMENT OF HON. LARRY E. CRAIG, U.S. SENATOR FROM THE STATE OF IDAHO

Senator CRAIG. Madam Chairman, thank you very much for the forum as we move forward on this issue. There are some givens here and there are some realities. I thought that what I ought to do at first is to suggest that most of us already have an opinion that we have shaped over a good period of time on this issue. Some of us have modified our opinion a bit.

So I asked CRS to find out how much had been spoken by U.S. Senators on climate change. Well, here are my speeches, Madam Chairman. I will ask you to file them for the record; 59 of them on the floor of the Senate since the 102d Congress. Now, here is CRS's search of the rest of you. These are not the actual speeches. This is imply referencing the 50,000 pages spoken on the floor of the U.S. Senate approximately since the 102d Congress on this issue.

[The referenced document follows on page 139.]

As we all know, we have voted numerous times on a variety of proposals, and each time they have failed. They have failed out of skepticism and concern on the part of a good number of us that we hadn't quite got the science right, and we were going to plunge, as some of us have suggested, our economy into a recession or depression that would dramatically impact our citizens.

I find it ironic that in the recession of this Bush administration, when we lost 3 million jobs in our Country, we hit 1990 emission gas levels that are the Kyoto principles. Actually, Kyoto is 1990 minus 5.2 percent. So with the loss of 3 million jobs under current technology, 5 years ago we met the standard.

So some of us who have argued at that time that we should not move until we knew what to do, I must say we were reasonably accurate in our projection. Like many of you, I have traveled the world to climate change conferences. I found it fascinating when I listened to some countries talk about what they could do and what they were going to do.

Now, all of those that ratified Kyoto, by 2012 there will only be two countries remaining that are in or near compliant: Sweden because they are dominantly hydro and nuclear; and Great Britain because they rush to gas. The rest of them will be substantially out of compliance, and the reason is really quite simple: to grow an economy in today's world you have to have energy, and our forms of technology that produce that energy are less than clean.

So Japan will be well out. Italy will be well out. By 2012, most of them will have stepped back and walked away from Kyoto.

But Kyoto was a beginning of a discussion that I think is tremendously important for us. I think the environmental community, at

least the extremists, were frustrated because they lost and they were not used to losing these kinds of debates. But when you promise the developing world that the only way to save their future is with a candle and living in a cave, you should accept the rejection that Kyoto got.

I find it interesting, the former Vice President was in my State recently, a large gathering, talking about The Inconvenient Truth, which is the new packaging of an old book, but I guess he is going to get Hollywood to recognize him for that. But I find it very principled that the World Food Organization, World Health Organization and the United Nations itself don't support his approach. Why? For the very reason all of us have talked about the importance of doing it right. And that is that we do not want to subject the rest of the world to the status quo. We should obviously enhance the world toward a better life, and that is where technology comes in.

I was telling Senator Carper a few moments ago, don't apologize to your kids. Don't say you haven't done anything to date. That is simply not true. We passed the National Energy Policy Act in 2005 and in the last three quarters, it has produced the largest investment in the history of this Country in clean technology. When we passed it in July 2005, there was one nuclear reactor on the drawing board. Today, there are 30 nuclear reactors on the drawing boards, and probably half of them will be built.

We are investing heavily now in coal gasification. We are standing up an ethanol distillery about one a week, to the point where we are now consuming 20 percent of the corn supply of our Country. We have reduced cattle feeder prices by 20 percent because of the lack of feed grains. Now, we will get that all in balance, but it is being driven, Madam Chairman, by what we collectively and in a bipartisan way have done.

My sense is a rush to climate change at this moment, all due apologies to Senator Clinton, is something about a 2008 election. Every so often everybody gets very, very anxious about this issue. I am one who said in 2001, our world is warming. I am going to be more sensitive to that, and I am going to be an advocate of all forms of technology in all forms of energy. I really believe that is where we ought to go.

Madam Chairman, let me thank you for S. 167, cellulosic distribution. I am the guy who helped get the loan guarantee that we finally got stuck in the CR this last week that will stand up the first cellulosic commercial plant somewhere in the United States. We ought to be about all of that.

I am one of those who convinced this President to openly and publicly denounce Kyoto, and he did. I said, "Mr. President, once you do that, though, you must do something more. You must then lead the world in clean and new technologies, because in the absence of that, we will not get where we need to get in the world."

The Asian Pacific Initiative is a direction that he has taken. It is a good one. It brings China and India into the fold, to begin to talk more about nuclear and less about coal.

I am not at all frightened about our future, and I am not going to wring my hands and play politics with this issue. I will vote for the right kind of technologies. I will not vote to penalize the con-

sumer. Senator Bingaman, in a very sincere way, last week rolled out an idea that has been studied now. Environmentalists said it is less than half of what we need, but it impacts every consuming household by $800 a year, and it is minimal in the cap and trade concept of today's technology.

As a result of that, that is a penalty or a price to pay. If in solving the cap and trade approach and bringing on the kind of revenues that it will generate, we turn to the American consumer and say you are going to have to pay $1,200 or $1,400 a year. We pick winners and losers. That is where we find the money to do all the new technology works, I am not sure that is quite the direction we ought to head in.

I assume that consumers are going to pay more for energy. I say quite often that the bad news about the summer was gas was $3 a gallon. The good news is gas was $3 a gallon. It created one of the greatest levels of conservation for a period of time in our Nation's history. Why? Because consumers made a choice: price is a moderator. There is no question about that.

At the same time, it also stimulated the greatest investment in new and clean technologies ever in our Country's history, backed up against EPAC, the Environmental Energy Policy Act of 2005. That is not to suggest that we ought to rest on our laurels, but doggone it, to suggest we have done nothing is simply a false statement, playing to the politics of today's emotion.

This Congress moved in a substantial way, in a most significant bipartisan way in 2005. Now we ought to go steps further. I chastised the Administration last week for not funding appropriately, and this Congress failing to react to the necessary funding in the Energy Policy Act. I took on our new leader, Harry Reid, for not coming forth and finalizing appropriations bills. That is where all the research money is. That is where all the development money is.

We are losing a year in time on all of these new technologies because we are not doing our homework, and not getting it done now. We ought to be held accountable for that.

Madam Chairman, I am very excited about working with you on some of these tremendously important issues. There is no question they are of great import. But to sit here for political reasons and say we have done nothing, when we invest $3.5 billion a year in clean technology and environmental technology on a factor of five to one to the rest of the world. We are leading the world toward cleaner technologies, and we are the only Country who has the capability of doing that. For that, I am very proud.

Thank you.

Senator BOXER. Thank you, Senator.

Let me just say, I did not hear anyone say we have done nothing. Honestly, I haven't, but that is how you interpret it. But I have to say, we are not here to vote our fears. We are really here to vote for solutions. I used a phrase in my opening remarks that I am an optimist about it. I think you are sitting next to a Senator who is an optimist. You and I have worked on cellulosics, and will continue. I think we will find that common ground.

But I just have to say, we have done some things. I am glad you reminded us of what they are. But if you look at the studies that

have been done internationally, the last one I saw out of the 56 largest emitters of carbon, they ranked them, we were No. 1. We know eventually, in 2009 we are expecting China to surpass us. They have done nothing, or next to nothing. But the argument is, since when do we wait for China to lead the world? That is wrong. We should lead the world.

The point is, in this study we ranked 53 out of 56, just a few countries, I forget, they were Saudi Arabia, China and Malaysia had done less overall.

Senator CRAIG. Madam Chairman?

Senator BOXER. I will yield to you, because I want you to have a chance.

Senator CRAIG. That is absolutely right, and it is consistent. We are 25 percent of the world economy today, and under today's technologies if you are 25 percent of the world's economy, you are going to be the largest emitter. We have lifestyles to prove it, and all of us live that lifestyle and none of us want to deny it to our citizens.

I am not at all apologetic for that. I would suggest, and think I said it in my statement. We have the resources now to move the technology ahead to make the world a cleaner place, when few other nations of the world have it.

Senator BOXER. OK. Well, I would just say that no one is suggesting destroying the American way of life. As a matter of fact, in my experience ever since I have been a county supervisor, as we have cleaned up our air, as we have cleaned up the drinking water, our quality of life has gotten better and better and better, and we have created jobs.

I know we have some strong disagreements here, but today I am going to seize on the agreement we have on cellulosics and some other things. I also agree that many Senators have been heard over the years, and you point that out very clearly. But this is a different Senate. I mean, I would point out that there was an election, some retired, and some lost. It is important for me as the Chair, who does want to move affirmatively, and I hope in some ways you can help in some areas, to really see where people are today.

I think this also is an area where there is more and more information coming out. Now, some of us embrace the information and say it is clear, and others attack the information. But this is not something that is a stagnant issue. But I do appreciate your eloquence on your side of things. I do hope that we can find those areas of common ground, and I believe we will. We have done it on Agriculture jobs, and we have done it on other things. I think we can do it here.

I thank you very much.

Senator Clinton, we are delighted to have you here and look forward to your remarks.

OPENING STATEMENT OF HON. HILLARY RODHAM CLINTON, U.S. SENATOR FROM THE STATE OF NEW YORK

Senator CLINTON. Thank you very much, Madam Chairman.

Obviously, we are going to have a lot of spirited discussions, but under your leadership I am not only hopeful, but confident that we will be able to reach a consensus about legislation that will set our

Country on the course of leadership with respect to climate change that we should be exhibiting.

I am sorry that Senator Craig is leaving, because I wanted to certainly express my very strong support for maintaining America's lifestyle. As I recall on my many visits to California, which has kept electricity use for 30 years, the lifestyle is pretty good. I think we can make progress, as has been put forth in this call to action by a number of organizations whose leaders, so far as I know, are not running for political office, who see this as an issue whose time has come.

I, too, have supported cellulosic ethanol; signed onto the letter that Senator Craig circulated last year, and I am pleased that I hope we are going to get those loan guarantees. This is a big opportunity, certainly in my State, and in other places around the Country.

But if we look at where we are, and even after the Energy Act, we are not making progress. In fact, emissions are still going up. That is another of those inconvenient facts that I think need to be addressed. So I am hoping that we can get beyond the usual rhetoric and try to find some common ground. I am confident that is exactly what our Chairwoman is attempting to achieve.

From my perspective, if you look at the call to action, if it hasn't been done already, Madam Chairman, I would like to move to have the call to action that was issued by these distinguished American businesses made a part of the record.

Senator BOXER. Without objection, so ordered.

Senator CLINTON. If you look at this, it makes several very important points. First, it unequivocally accepts the science. Now, this Friday, the Intergovernmental Panel on Climate Change, the so-called IPCC, will release its fourth assessment report. I hope that we can agree with our leaders of business and industry, and scientists around the world, that this is a problem whose time has come.

Second, the call to action makes the point that standards drive technology. It is a chicken and an egg. There have been some positive developments because of the Energy Act, with much more investments in new technology and certainly looking for ways to incentivize the venture capital community, to be part of looking for solutions. But the Government must set the standards and lead the way.

I have been struck, and I know you are having a hearing where we will have international representatives, next week, I think, or the week after. I have been struck by what happened in Great Britain, an economy and a culture similar to ours that decided to go into Kyoto. They not only have reduced emissions, increased conservation and efficiency, cleaned up their utility plant emissions, particularly, but they have created jobs.

So I am one of those who believes that this is a win-win. It is good for our security. It is good for our environment, and it is good for our economy. Innovation is what will drive the responses we are looking for. It will also lead to increased American competitiveness. This is one of the areas that I am particularly interested in.

I have been struck, despite some of the references to all the speeches that have been made, I have been struck in the debates

we have had, principally around the Lieberman-McCain approach, which was the bipartisan approach on the floor of the Senate in the past several Congresses, at the level of pessimism that seemed to be expressed by some of my colleagues, as though we could not take on this issue because of dire and inevitable disastrous economic consequences.

I reject that. We are the most innovative Nation in the history of the world. We have put our best minds to work. We can actually begin to make progress and lead the world again.

My objection to the President taking us out of Kyoto is not that he decided to go out of an existing process, but that he didn't start any other process. The legitimate concerns about China and India were not addressed. I think those were legitimate to be raised. I hope that there can be, at the same time we are proceeding here on a national agenda, a reopening of a process that will include India, China and other fast developing nations who do have to be part of an international consensus about what we must do to deal with climate change.

Unfortunately, we do not see much evidence of that from the President, although I was heartened that he did finally acknowledge the issue in the State of the Union, and he has continued to speak about technology and voluntary solutions, which are not adequate unless there is a framework of standards.

So I do not underestimate the task that we face, but I am optimistic, as my Chairman is. What can we do? Well, there are a lot of things. We should be addressing the very clear challenge of how we create a market. I want to commend the eloquence of my colleague, Senator Carper, who has been working on this ever since he and I arrived in the Senate together. We can look to create a market through a cap and trade system.

I thought for a moment Senator Craig was advocating a gas tax. I don't think that is what he meant, but certainly his argument led to that conclusion, not a bad idea, but hardly politically palatable at this moment. But if he wishes to introduce it, I will be very intrigued to follow that debate.

We have obviously a lot of work ahead of us. What you are working is to bring us together to try to make progress. I am very grateful to you and look forward to working with you.

Thank you.

[The prepared statement of Senator Clinton follows:]

STATEMENT OF HON. HILLARY RODHAM CLINTON, U.S. SENATOR FROM THE STATE OF NEW YORK

I thank you for holding this important hearing and for doing it in such an open way. I think it speaks volumes about your leadership that you have made climate change your top priority for the Environment Committee and that you are starting by inviting all members of the Senate to come here to express their views.

This is a complex issue, but to me, the bottom line is very simple: it's time to act to reduce the growing threat of global warming.

While some scientific uncertainties remain, the picture grows clearer with each passing year. On Friday, the Intergovernmental Panel on Climate Change, or IPCC, will release part of its "Fourth Assessment Report," which will summarize the current state of climate science. The document is being finalized this week, but here are some of the conclusions in the draft, according to press reports:

• It is virtually certain the warming observed over the last 50 years cannot be attributed to natural causes. In fact, the report will note that the warming occurred

during a time when the most significant natural climate forcing factors, such as volcanic activity, would have been expected to produce cooling rather than warming.

• Temperatures are likely to rise by between 2 and 4.5 degrees Celsius over the coming century.

• It is likely that in the coming century that heat waves will be more intense, longer-lasting and more frequent, and tropical storms and hurricanes are likely to be stronger.

That's just a sampling from the draft, which will come out in final form on Friday.

To me, the new report reinforces what I have believed for a number of years now: we know enough to know that it is time to act. We need to start on a path to slow, stop and reverse the growth of greenhouse gas emissions. It will require moving to new energy technology solutions. This is a daunting task. But I believe that inaction is the riskier course to both our environment and our economy. The longer we wait, the harder the transformation required by this challenge will become.

Many U.S. business leaders now agree. Last Monday, a group of business and environmental leaders known as the U.S. Climate Action Partnership called on Congress and the President to act to address climate change, and released a set of principles and recommendations for how to go about it. The report they released, "A Call for Action," is one of the most significant climate change policy document in recent years, both for what is says and for who is saying it. I urge all of my colleagues to spend the five minutes to read it, and I ask unanimous consent that it be entered into this hearing record.

I was particularly struck by one paragraph in the report that I want to share with this committee:

"In our view, the climate change challenge, like other challenges our country has confronted in the past, will create more economic opportunities than risks for the U.S. economy. Indeed, addressing climate change will require innovation and products that drive increased energy efficiency, creating new markets. This innovation will lead directly to increased U.S. competitiveness, as well as reduced reliance on energy from foreign sources. Our country will thus benefit through increased energy security and an improved balance of trade. We believe that a national mandatory policy on climate change will provide the basis for the United States to assert world leadership in environmental and energy technology innovation, a national characteristic for which the United States has no rival. Such leadership will assure U.S. competitiveness in this century and beyond."

Madame Chair, that is a statement endorsed by Alcoa, BP, Caterpillar, Duke Energy, Dupont, Florida Power and Light, GE, Lehman Brothers and PNM Resources. It's a diverse set of companies, many of whom have major investments in status-quo energy technology. Yet they acknowledge the imperative to act believe that it represents an opportunity to increase U.S. competitiveness.

Madame Chair, I strongly agree. In October of 2003, we debated the question of limiting greenhouse gas emissions for the first time in the Senate, and I was struck by the pessimism that many of my colleagues expressed about dealing with the issue. Even some who conceded the need to act seemed resigned to failure or disastrous economic consequences of taking the issue on. As I said at the time, I reject the idea the America—the most innovative, creative nation the world has ever seen—cannot cope with this problem. I strongly believe that if we put the right incentives in place, then we will drive American enterprise to tackle this problem.

That is why I have been working to address climate change since I arrived in the Senate in 2001. I worked with you and others on legislation to limit carbon dioxide emissions, mercury and other pollutants from power plants. I traveled with Senate colleagues to the Arctic and to Alaska to see first-hand the dramatic impacts of climate change that are already occurring and to try to draw attention to the issue. I have proudly supported the bills put forward by Senators Lieberman and McCain in 2003 and 2005, and have joined as a cosponsor of the updated bill that they introduced in this new Congress.

I expect they will describe it in some detail, so I won't go into details, but I think some of the key features of this legislation are that it sets strong targets, uses flexible, market-based mechanisms to get there, provides for investments in new energy technologies, and offsets impacts on low-income Americans.

Senator Sanders and the chair of this committee have a proposal of their own. And we will hear from many others today about their ideas. As a Member of this Committee, I will work to pass a strong, effective, flexible bill from this committee.

But Congress cannot succeed without support from the President. For six years now, he has refused to acknowledge the problem, and we have wasted valuable time as a result. Had the President made good on his 2000 campaign pledge to limit carbon dioxide from power plants, we would be much further along today. Last week, the President did finally acknowledge the issue in his State of the Union, but he

did not offer a serious solution. Instead, the President continued to talk about technology and voluntary solutions. I agree with the President that technology is the key to solving this problem. But technology doesn't come out of a vacuum. We need to set the conditions that will drive innovation.

I don't underestimate the task. Action by the United States alone cannot solve this problem, but American leadership is critical to bringing developing countries into the solution. Here at home, we will need to pursue a range of technologies and strategies. But we know what many of them are and it's time to get serious.

Energy efficiency is an enormous and underutilized energy resource. It's the fastest, cheapest, and cleanest solution, and we ought to be doing more. California has done a particularly good job on efficiency, holding total electricity use flat for the last 30 years and the economy has boomed.

We need to get serious about the next generation of clean coal technologies, particularly carbon sequestration. Our bill has strong incentives to promote more rapid deployment of this technology.

There are many other examples. Another important priority is to change our tax system so that we quit subsidizing oil and gas and do a better job at promoting renewable energy and efficiency. I have proposed a Strategic Energy Fund that would do just that.

Madame Chair, there are so many things we can and should be doing. And I am increasingly optimistic that this Congress will do them. One of the big reasons for that is that more and more people understand the issue. For that I think for that we all owe a debt of gratitude to Vice President Gore for his tireless and creative advocacy.

In conclusion, I want to restate my belief that we must act and that we can do it in a way that makes economic sense. But global warming is much more than just an issue of competitiveness, of weighing the costs and benefits.

This is a profound moral question that confronts us. With the knowledge we now possess, do we face our responsibility to act or do we continue to look the other way? Do we act or do we accept the risk of handing a degraded, and perhaps broken, planet to our children, our grandchildren, and their grandchildren? Do we act or do we pass on a world that many of us would not even recognize, with disappearing islands and shorelines, increased floods and droughts, and the extinction of plants and animals that cannot adapt to changes in climate?

I think the answer is clear: it is time for us to act.

Senator BOXER. Thank you so much, Senator. I am glad you raised the Prime Minister Blair of Great Britain issue, because a few of us went up to meet with the Prime Minister. He had invited Republicans and Democrats who head these various committees. He told us two things, Senator Clinton. One was that the Brits expected to surpass their Kyoto goals, and that jobs were being created at a rapid rate.

One more thing I think would really interest you, and I think it would be a great proposal coming from you and others, and I would join you in that, is that he suggested a meeting, a smaller meeting of countries. In other words, not every country in the world, but the countries that really have to face this head-on, like China, India and America, among others, and the Europeans. So it is a smaller, more workable groups of nations where the United States could convene this kind of meeting.

Because you are right. We have to deal with China. We have to deal with India, but we can't if we don't talk to them about this. So it is an idea that the Prime Minister had I thought maybe you would find interesting.

I thank you for your contribution, the tone that you have set. I do hope that we will make progress. I feel after hearing what I have heard so far, that we will make progress, and that if this President will join with us, there is nothing that could stop us. If he doesn't, there will be a lot more of the work to do later, but I hope that he will join us. I thank you for your contribution today.

I am happy to call on a new member of the committee. We are very pleased that she is on the committee, Senator Klobuchar.

OPENING STATEMENT OF HON. AMY KLOBUCHAR, U.S. SENATOR FROM THE STATE OF MINNESOTA

Senator KLOBUCHAR. Thank you, Madam Chair. I am honored to be here today to talk with you about such an important topic. I am especially glad to be here at a time where this discussion has advanced beyond whether or not global warming exists, to what the solutions are to solve it.

I respect the leadership of so many of my colleagues on this issue, and the work that is being done on a bipartisan basis, especially my friend, the new Senator Sanders, who showed his usual chivalry by allowing me to go first today. Thank you.

As a member of this committee, as well as the Agriculture and Commerce Committees, I look forward to being very engaged in positive bipartisan solutions to global warming. These solutions should build on our efforts to develop homegrown energy sources, so we can move away from our dependency on foreign oil.

Every day, Congress makes decisions that have a great impact on the American people and the people throughout the world. But our decisions on global warming may well be the ones that have the most profound impact on our future generations, and on the very fate of our Earth.

Madam Chair, in Minnesota we love the outdoors and we take pride in the richness and beauty of our natural resources. We protect our forests and our prairies, our lakes and our rivers, and our diverse wildlife and abundant farmland. It is January now in Minnesota, and this past weekend the temperatures in my State were below zero. We have the Winter Carnival going on. Ice Box Day is in International Falls. We always welcome you to visit.

But many people here might wonder why Minnesotans would be concerned if it warmed up a few degrees. Well, we are concerned. We are deeply concerned. We are concerned for ourselves and the rest of the world. We are concerned for the impact of global warming and the effect it is already having. Global warming is on the rise, with enormous consequences for our world and our economy. The year 2006 was the hottest year ever in this Country, capping a 9-year streak, unprecedented in the historical record.

December in Minnesota felt more like October. Our ice fishing seasons are shorter and our skiers and snowmobilers haven't seen much snow. Worldwide, glaciers are rapidly melting. Just last week, it was reported that glaciers in the European Alps will be all but gone by the year 2050. Experts worry that within 25 years, there won't be a single glacier in Glacier National Park.

We have seen record storms all across the world. Globally, sea levels have risen 4 to 10 inches over the past century. The frequency of extremely heavy rainfalls has increased throughout much of the United States. The impact is especially dire in Greenland and the Arctic regions. The temperature changes there have been the greatest, resulting in widespread melting of glaciers, thinning of the polar ice cap, and rising permafrost temperatures.

In Minnesota, stewardship for the environment is a part of our heritage, and it has been an especially important part of preserving

our economy. So global warming is an issue that strikes us close to home.

That is why I want to mention several notable Minnesotans who are trying to draw attention to global warming and its impact on our planet. They are adventurer-explorers who have gone literally to the ends of the Earth, not just to pursue adventure, but also to pursue greater knowledge and an understanding of our place in the world for the benefit of us all.

Will Steger is one of those Minnesotans, and he is a good friend of mine. He has led the first dogsled expedition to the North Pole and the first dogsled crossing of Antarctica. Next month, he embarks on a new expedition, a 4-month, 1,200-mile trip by dogsled through the Canadian Arctic. Later this year, he plans to kayak around masses of melting sea ice in Antarctica. I figure if he can do this, we can get a bipartisan bill.

At age 62, why is Will Steger doing these things? It is to promote greater public awareness of global warming and the urgent need for action. He says his many journeys over the past four decades have shown him firsthand the effects of global warming. During the past year, he has been in practically every church basement and every community center meeting room in Minnesota to talk about this subject.

A friend says that Will's new determination is rooted in sorrow. He is watching the places he loves melt away, literally. But Will's message is ultimately one of hope. He knows it is within our power to do something about it. Some people don't believe this is happening, he says, but the even bigger danger is that some think we can't do anything about it.

Another notable Minnesota adventurer-explorer who feels the same way is Ann Bancroft. She was a member of Will Steger's North Pole expedition in 1986. She was also the first woman to cross both polar ice caps to reach the poles, and she was the first woman to ski across Greenland.

In 2001, Ann and Norwegian adventurer Liv Arneson captivated millions of people worldwide as they fulfilled their childhood dream and became the first women to ski across Antarctica. Next month, she, too, is embarking on a new adventure. Ann and Liv are now preparing for an arduous 530-mile journey by foot across the frozen Arctic Ocean to the North Pole.

Schoolchildren around the world will be able to follow them online with a website charting their daily progress, with videos, photos and audio postings. Ann Bancroft's mission, like Will Steger's, is to inspire action on global warming. She acknowledges that climate change is a major challenge that cannot be solved easily or overnight, but her goal is to prove that small steps add up.

Finally, there is one more Minnesota adventurer, an outdoorsman I want to mention. He is not quite in the same league as Will Steger and Ann Bancroft, but he is in a class by itself. His name is Jim Klobuchar and he is my dad. For 30 years he was a sportswriter and columnist for the Minneapolis Star Tribune. He is also an avid mountain climber and hiker.

Now in his 70's, my dad continues to operate an adventure travel club, that among other things takes people to what he calls the high places of the world, including the Himalayas, the Alps, and

Mount Kilimanjaro. My dad has been to the summit of Mount Kilimanjaro five times, and he has told me that each time he goes, he sees clear and dramatic signs of global warming there. The snow crown is visibly shrinking. Where he once trekked through snow, it is now dry land, and it keeps getting worse.

Three decades ago, he went to the village of Gletsch in the Swiss Alps. He stayed at a hotel right at the very edge of the famous Rhone Glacier. But this glacier has already retreated hundreds of feet since the time he saw it, and now tourists come to watch it melt in front of their eyes.

The stakes here are as high as they get. The American people are hoping that this new Congress will at last confront the challenge of global warming. This is going to call for a bipartisan, ambitious, comprehensive effort on the part of this Congress and also for an enlightened response from the business community, which we are already starting to see with the call to action that the other Senators have mentioned.

There is much work to be done, and many stakeholders to consider. My colleagues here in the Senate that have begun this work have advanced a number of thoughtful proposals. There are several key elements that I hope to see in the final result: first, strong limits on economy-wide emissions of greenhouse gases; some version of a cap and trade system; strong renewable fuel content standards for cars and trucks; incentives for both the manufacture and purchase of hybrid and flex-fuel vehicles; strong renewable energy standards for electricity generation so we can make greater use of wind, solar and other renewable energy sources; aggressive Federal support for research and development to build a new Manhattan Project for new energy sources.

Finally, we need to stop the giveaways and special favors for the big oil companies. One of the best things that we can do to respond to global warming and to achieve energy independence is develop our home-grown renewable energy. We should be investing in the farmers and the workers of the Midwest, instead of the oil cartels of the Mideast.

Like most Americans, and you Madam Chair, I am an optimist. I believe in the power and promise of science and technology and innovation when we need to solve a problem. I believe in the intelligence and the ingenuity of the American people when we are confronted with a challenge. I believe in the capacity of our democratic system of government to make the right decisions for the good of our Country.

I think of the tremendous courage and determination of explorers like Will Steger and Ann Bancroft. With a single-minded focus, they overcame the most difficult hardships and obstacles imaginable to reach their destinations. That is the American spirit.

I believe we, too, can reach our destination. We can turn the corner on the devastating effects of global warming. We can take giant strides toward energy independence.

As you know, former Vice President and former Senator Al Gore has been a strong voice on the need to address the urgent challenges of global warming. He has stressed the importance of farsighted, forward-looking leadership to tackle this issue. He recalls the words of General Omar Bradley at the end of World War II,

when America was confronted by the challenge of building a new post-war world. The General said, "It is time we steered by the stars, not by the lights of each passing ship."

We, too, must now steer by the stars. Like explorers Will Steger and Ann Bancroft, we must do so with the determination to surmount the obstacles in our way to reach our goal.

Thank you very much.

[The prepared statement of Senator Klobuchar follows:]

STATEMENT OF HON. AMY KLOBUCHAR, U.S. SENATOR FROM THE STATE OF MINNESOTA

Madam Chair, I'm honored to be here with you to talk about this important subject. I'm especially glad to be here at a time where this discussion has advanced beyond whether or not global warming exists but to what the solutions are to solve it.

I respect the leadership of so many of my colleagues on this issue, the work that's being done on a bipartisan basis. Especially my friend, the new Senator Sanders who showed his usual chivalry by allowing me to go first today. Thank you.

As a member of this committee, as well as the Agriculture and Commerce committees, I look forward to being very engaged in seeking positive bipartisan solutions to global warming. These solutions should build on our efforts to develop homegrown energy sources, so we can move away from our dependency on foreign oil.

Every day, Congress makes decisions that have a great impact on the American people and people throughout the world. But our decisions on global warming may well be the ones that have the most profound impact on our future generations and on the very fate of the earth.

Madam Chair, in Minnesota, we love the outdoors and we take pride in the richness and beauty of our natural resources. We protect our forests and our prairies, our lakes and rivers, our diverse wildlife and abundant farmland.

It's January now in Minnesota—and this past weekend the temperatures in my state were below zero. We've had the Winter Carnival going on, Ice Box Days in International Falls—we always welcome you to visit. But many people here might wonder why Minnesotans would be concerned if it warmed up a few degrees.

Well, we are concerned—we're deeply concerned. We are concerned for ourselves and for the rest of the world. We are concerned for the impact of global warming and the effect it's already having.

Global warming is on the rise, with enormous consequences for our world and our economy.

2006 was the hottest year ever in this country, capping a nine-year streak unprecedented in the historical record. December in Minnesota felt more like October. Our ice fishing seasons are shorter and our skiers and snowmobilers haven't seen much snow.

Worldwide, glaciers are rapidly melting. Just last week, it was reported that glaciers in the European Alps will be all but gone by the year 2050. Experts worry that within 25 years, there won't be a single glacier in Glacier National Park.

We've seen record storms all across the world. Globally, sea levels have risen 4 to 10 inches over the past century. The frequency of extremely heavy rainfalls has increased throughout much of the United States.

The impact is especially dire in Greenland and the Arctic region. The temperature changes there have been the greatest, resulting in widespread melting of glaciers, thinning of the polar ice cap and rising permafrost temperatures.

In Minnesota, stewardship for the environment is a part of our heritage and it has been an especially important part of preserving our economy. So global warming is an issue that strikes us close to home.

That's why I want to mention several notable Minnesotans who are trying to draw attention to global warming and its impact on our planet.

They are adventurer-explorers who have gone—literally—to the ends of the earth. Not just to pursue adventure, but also to pursue greater knowledge and an understanding of our place in the world—for the benefit of all of us.

Will Steger is one of these Minnesotans, and he is a good friend of mine.

He has led the first dogsled expedition to the North Pole and the first dogsled crossing of Antarctica.

Next month, he embarks on a new expedition—a four-month, 1,200-mile trip by dogsled through the Canadian Arctic. And later this year, he plans to kayak around

masses of melting sea ice in Antarctica. I figure if he can do this, we can get a bipartisan bill.

At age 62, why is Will Steger doing these things? It's to promote greater public awareness of global warming and the urgent need for action. He says his many journeys over the past four decades have shown him firsthand the effects of global warming.

During the past year, he has been in practically every church basement and every community center meeting room in Minnesota to talk about this subject.

A friend says that Will's new determination is rooted in sorrow. "He's watching the places he loves melt away"—literally. But Will's message is ultimately one of hope: He knows it is within our power to do something about it.

"Some people still don't believe this is happening," he says. "But the even bigger danger is that some think we can't do anything about it."

Another notable Minnesota adventurer-explorer who feels the same way is Ann Bancroft.

She was a member of Will Steger's North Pole expedition in 1986. She was also the first woman to cross both polar ice caps to reach the poles, and she was the first woman to ski across Greenland. In 2001, Ann and Norwegian adventurer Liv Arnesen, captivated millions of people worldwide as they fulfilled their childhood dream and became the first women to ski across Antarctica.

And next month, she, too, is embarking on a new adventure: Ann and Liv are now preparing for an arduous 530-mile journey by foot across the frozen Arctic Ocean to the North Pole.

Schoolchildren around the world will be able to follow them online, with a Web site charting their daily progress with videos, photos and audio postings.

Ann Bancroft's mission, like Will Steger's, is to inspire action on global warming. She acknowledges that climate change is a major challenge that can't be solved easily or overnight, but her goal is to prove that small steps add up.

Finally, there is one more Minnesota adventurer and outdoorsman I want to mention. He's not quite in the same league as Will Steger and Ann Bancroft. But he's in a class by himself. His name is Jim Klobuchar—and he's my dad.

For 30 years he was sportswriter and columnist for the Minneapolis Star Tribune. He's also an avid mountain climber and hiker. Now in his 70s, he continues to operate an adventure travel club that, among other things, takes people to what he calls "the high places of the world"—including the Himalayas, the Alps and Mount Kilimanjaro.

My dad has been to the summit of Mount Kilimanjaro five times. And he has told me that, each time he goes, he sees clear and dramatic signs of global warming there. The snow crown is visibly shrinking. Where he once trekked through snow, it is now dry land. And it keeps getting worse.

Three decades ago, he went to the village of Gletsch in the Swiss Alps. He stayed at a hotel right on the very edge of the famous Rhone Glacier. But this glacier has already retreated hundreds of feet since the time he saw it. And now tourists come to watch it melt in front of their eyes.

The stakes are high as they get.

The American people are hoping this new Congress will, at last, confront the challenge of global warming. This is going to call for bipartisan, ambitious, comprehensive effort on the part of this Congress and also for an enlightened response from the business community who are already starting to see what the call to action that the other senators have mentioned.

There is much work to be done and many stakeholders to consider. My colleagues here in the Senate that have begun this work have advanced a number of thoughtful proposals.

There are several key elements that I hope to see in the final result:

- First, strong limits on economy-wide emissions of greenhouse gases,
- Some version of a cap and trade system,
- Strong renewable fuel content standards for cars and trucks,
- Incentives for both the manufacture and purchase of hybrid and flex-fuel vehicles.
- Strong renewable energy standards for electricity generation, so we can make greater use of wind, solar and other renewable energy sources.
- Aggressive federal support for research and development to build a new Manhattan Project for new energy sources.
- Finally, we need to stop to the giveaways and special favors for the big oil companies.

One of the best things we can do both to respond to global warming and to achieve energy independence is to develop our homegrown renewable energy. We

should be investing in the farmers and the workers of the Midwest instead of the oil cartels of the Mideast.

Like most Americans and you Madam Chair, I'm an optimist. I believe in the power and promise of science, technology and innovation when we need to solve a problem. I believe in the intelligence and ingenuity of the American people when we are confronted with a challenge. And I believe in the capacity of our democratic system of government to make the right decisions for the good of our country.

I think of the tremendous courage and determination of explorers like Will Steger and Ann Bancroft. With a single-minded focus, they overcame the most difficult hardships and obstacles imaginable to reach their destinations. That's the American spirit.

I believe we, too, can reach our destination: We can turn the corner on the devastating effects of global warming, and we can take giant strides toward energy independence.

As you know, former Vice President—and former Senator—Al Gore has been a strong voice on the need to address the urgent challenges of global warming. He has stressed the importance of far-sighted, forward-looking leadership to tackle this issue.

He recalls the words of General Omar Bradley at the end of World War II, when America was confronted by the challenge of building a new post-war world. The general said: "It is time we steered by the stars, not by the lights of every passing ship."

We, too, must now steer by the stars. And like explorers Will Steger and Ann Bancroft, we must do so with the determination to surmount the obstacles in our way to reach our goal.

Thank you very much.

Senator BOXER. Senator, I just want to thank you. As one of the new members, you have added tremendously to this debate. I think what you are telling us is when we talk about our way of life, this is just the problem you are pointing out. Our way of life is threatened by global warming and you pointed that out. I thank you very much.

Senator Sanders, followed by Senator Cardin. Welcome, Senator.

OPENING STATEMENT OF HON. BERNARD SANDERS, U.S. SENATOR FROM THE STATE OF VERMONT

Senator SANDERS. Senator Boxer, thank you very much for holding this extraordinarily important hearing and for raising consciousness on one of the most severe problems faced by our planet in its history.

As you know, I have introduced S. 309, the Global Warming Pollution Reduction Act. This legislation, I believe, is the boldest effort in Congress aimed at halting global warming. Some would say that this bill goes too far. I disagree. The reason for that is that if we are not strong, if we are not bold, if we are not aggressive, the planet that we are going to leave to our children, grandchildren and great-grandchildren will be a very different planet than we enjoy, and their quality of life will be greatly, greatly diminished.

Madam Chair, I can go on about all of the different things that the best scientists in the world have told us about global warming. I could detail the scientific community's effort to get policymakers to pay attention. In that regard, I notice that some have said, "Well, isn't it great; the President of the United States actually uttered the words 'global climate change.'"

Frankly, I have to tell you that it is not so great. It is a bit of an embarrassment, when you have the entire world scientific community talking about the enormous problems, and finally we have the President beginning to acknowledge. My hope is that he will now be serious in trying to address it.

Madam Chair, I want to suggest, as others have, that I see our ability, this Nation's ability to move forward against global warming as laden with huge opportunities. Like you, I do not accept the argument that if we are aggressive in combating global warming, it is going to hurt the economy. Quite the contrary, I believe that we have the potential to create millions of good paying jobs as we finally move this Country to strong energy efficiency, as we lead the world into sustainable energy.

The bill that I have introduced, S. 309, is a bipartisan bill. It has 10 Democrats and 1 Independent. That was a joke.

[Laughter.]

Senator SANDERS. We hope to make it a tripartisan bill. I do want to thank you, Senator Boxer, for being a co-sponsor, as well as Senator Kennedy, Senator Menendez, Senator Lautenberg, Senator Leahy, Senator Reed, Senator Akaka, Senator Inouye, Senator Feingold, and Senator Whitehouse for their support.

This bill is economy-wide. It is science-based, and it has two main goals: one, to stabilize the atmospheric concentration of carbon at 450 parts per million; and two, to keep temperature increases below 3.6 °F. To meet these goals, the legislation requires that emissions be reduced to a level that is 80 percent below 1990 levels by 2050, the same reductions as required by the State of California.

S. 309 describe standards for both powerplants and vehicles. It also includes a requirement that 20 percent of the Nation's electricity come from renewable resources such as wind, solar, biomass and geothermal by 2020. Of course, there are other provisions, including one on cellulosic ethanol, but we don't have time to get into all of those details.

The opportunities provided by S. 309 are quite literally revolutionary, but the concept is simple. Transforming our energy habits away from polluting fossil fuels to renewables will reshape our economy and make the United States a leader in clean and efficient energy technologies.

Some people have said this morning, well, we don't want to change the American lifestyle. Well, you know what? I do. I think we have to end the disgrace that the vehicles that we are driving today get worse mileage per gallon than was the case 20 years ago. If our lifestyle is about driving cars to get 10 or 12 miles per gallon, as we destroy our planet, I say yes, I think the American people are, in fact ready to change that aspect of our lifestyle.

A national requirement for 20 percent of our electricity to come from renewables by 2020 would increase our renewable power by nearly 11 times, compared to current levels. In the process of reducing our greenhouse gas emissions under this 20 percent requirement, more than 355,000 new jobs in manufacturing, construction, maintenance and other industries would be created.

Now, I want to take this opportunity to thank not only my colleagues here in the Senate who have cosponsored this bill, but equally important, many, many environmental groups who also understand that we have to be very bold in addressing this crisis, among others, Friends of the Earth, Greenpeace, the League of Conservation Voters, National Audubon Society, National Environmental Trust, National Wildlife Federation, Natural Resources De-

fense Council, Physicians for Social Responsibility, Public Citizens, Sierra Club, Union of Concerned Scientists, USPIRG. I want to thank them, and the many others that I didn't support, for their support of this legislation.

What would increased renewable energy mean for the average consumer? What would that mean? A 20 percent renewable requirement would, over the long run, reduce the bills our constituents receive every month. It is incredible to me. We in the State of Vermont—actually I think are doing better than any State in this Country—is moving to energy efficiency. Yet I just spoke yesterday with some of the experts in our State and they say that only, at most, 20 percent of the eligible sockets are using compact fluorescent bulbs, in the State that is leading the Nation. The potential to move just in that direction is extraordinary.

Chairperson Boxer, let me also highlight another area where there is tremendous opportunity. That is the movement toward sustainable energy. We are making breakthroughs, but we have a huge way to go. I know that you appropriately want to see the Federal Government lead our society as we move forward.

The potential for solar once we start producing solar panels to the degree that we should is extraordinary; the potential for wind; the potential for biomass; the potential for geothermal, it is all sitting there waiting to explode.

In fact, what has happened for many years is that technology has gone forward, but the government has lagged behind the technology, behind the people. In my view, the people of this Country want to break our dependence on fossil fuels. They want to become more energy efficient, and they understand that we in fact can make huge breakthroughs and create a very significant number of jobs if we do that.

Some have suggested earlier about the economic dislocation in beginning to combat global warming. I think the answer is, A, it is not true. If we are smart about it, we can create millions of jobs more than we lose in that transformation. But the second point is, what will it mean to the economy if we do not address this crisis? "The answer is, according to Sir Nicholas Stern, former Chief Economist for the World Bank, what he said is if no action is taken in addressing global warming, we will be faced with the time of downturn that has not been seen since the Great Depression and the two World Wars."

So Madam Chair, I think we have the American people behind us. I think they want action. I think S. 309 is a very good start and we look forward to working with you, with the Senate, and with the American people to see that legislation passed.

Thank you very much.

[The prepared statement of Senator Sanders follows:]

STATEMENT OF HON. BERNARD SANDERS, U.S. SENATOR FROM THE STATE OF VERMONT

Good morning Chairman Boxer, Ranking Member Inhofe.

As you know, I have introduced S. 309, the Global Warming Pollution Reduction Act. This legislation is the boldest effort aimed at halting global warming. Some would say that the bill goes too far; I say it doesn't go far enough. This is because we aren't talking about your run of the mill problem—we are, in the most literal sense, talking about the future of the planet.

Madam Chairman, I could go on and on about all of the different things the best scientists in the world have told us about global warming—I could detail the scientific community's efforts to get policy-makers to pay attention; I could talk about U.S. Government scientists being silenced because their research wasn't in line with the Administration's denial of global warming; I could talk about the melting of Arctic sea ice decades earlier than previously expected; and of course I could talk about the changes in agriculture and water systems, sea level rise, new threats to public health such as increased incidence of infectious diseases like West Nile virus and malaria, and the extreme weather patterns, including more intense hurricanes, that we are told will accompany global warming, but there just isn't enough time for me to give each of these topics the attention they deserve.

So instead, I want to focus on the tremendous opportunity that is currently in front of us as we set about to tackle the largest environmental challenge of our time. To do so I will use some of the provisions of the legislation I introduced and that is being cosponsored by the Chairman of this Committee, Senator Boxer, and by Senator Kennedy, Senator Menendez, Senator Lautenberg, Senator Leahy, Senator Reed, Senator Akaka, Senator Inouye, Senator Feingold, and Senator Whitehouse.

My bill is economy-wide, science-based, and has two main goals:

(1) To stabilize the atmospheric concentration of carbon at 450 parts per million, and

(2) To keep temperature increases below 3.6 degrees Fahrenheit.

To meet these goals, the legislation requires that emissions be reduced to a level that is 80 percent below 1990 levels by 2050—the same reductions as required by the state of California. S. 309 describes standards for both power plants and vehicles. It also includes a requirement that 20 percent of the nation's electricity come from renewable resources such as wind, solar, biomass, and geothermal, by 2020. Of course, there are other provisions, including one on cellulosic ethanol, but I won't get into any of those details.

The opportunities provided by S. 309 are quite-literally revolutionary, but the concept is simple: transforming our energy habits away from polluting fossil fuels to renewables will reshape our economy and make the United States a leader in clean and efficient energy technologies—creating millions of good paying jobs in the process. Let me go into some detail here.

A national requirement for 20 percent of our electricity to come from renewables by 2020 would increase our renewable power by nearly 11 times compared to current levels. In the process of reducing our greenhouse gas emissions under this 20 percent requirement, more than 355,000 new jobs in manufacturing, construction, maintenance, and other industries would be created. In fact—and this is one of my favorites—truly putting our minds to developing renewables could create almost twice as many jobs as producing the same amount of electricity from fossil fuels! The addition of these jobs, a net increase of roughly 157,000, is expected to generate an additional $8.2 billion in income and $10.2 billion in gross domestic product.

We create more jobs, support the American economy, AND reduce air pollution that threatens our health and the future of the planet—why would anyone be against that?

But what would increased renewable energy mean for the average consumer, since we know that the growing income inequality in our country has put more and more pressure on our working families as they try to get by? A 20 percent renewable requirement would, over the long run, reduce the bills our constituents receive every month. More specifically, by 2020, total consumer savings from lower energy prices would be $49.1 billion, with people seeing an average annual reduction of 1.8 percent. Every dollar that doesn't have to be spent on energy can be put toward something else.

Chairman Boxer, let me highlight another area where there is tremendous opportunity—energy efficiency. Using what we have in a smarter way seems so obvious, and yet, the commitment to efficiency, whether it be in our transportation or in our homes, isn't nearly what it should be.

We all know that efficiency in our transportation sector is an utter embarrassment. China, Japan, the European Union, and Australia all leave us in the dust. My bill implements the vehicle emissions standards already in place in California and adopted by many other states, including Vermont. While the auto companies could meet this requirement through increased CAFE standards, that is not the only way. Of course, instead of focusing on making cars more efficient, most of the automakers are focusing their efforts on beating the California law in court. What a waste of their time.

When it comes to our homes, efficiency measures are two-thirds less expensive than generating and delivering electricity. Just a quick example: Energy Star compact fluorescent lights use ⅔ less energy than standard incandescent bulbs but pro-

vide the same amount of light, last up to 10 times longer, and can save a person $30 or more in energy costs over the lifetime of each bulb! In fact, if we could change 50 percent of all lighting in the country to compact fluorescent bulbs, consumers could save $9 billion. And, I haven't even mentioned how efficient lighting reduces greenhouse gas emissions: simply by putting one compact fluorescent light bulb in every home across the country, we would prevent the equivalent amount of emissions as would be produced by 800,000 cars.

It is clear that responsibly addressing global warming will not cause us economic ruin, as some like to suggest, but that it will provide for new jobs, enhance efforts geared toward greater energy efficiency, and will reduce our energy costs if we get serious about using renewables instead of fossil fuels.

In fact, it is a lack of bold vision that will financially cost us. In October of 2006, Sir Nicholas Stern, a former chief economist of the World Bank, turned the old economic arguments against taking action on climate change on their head. In a report to the British government, he writes that bold action to combat the threat of global warming will in fact save industrial nations money and that inaction could cost between 5 to 20 percent of global gross domestic product. Let me repeat that: FAILURE to act to boldly curb global warming is what will cost us—and it won't be cheap. Speaking to the issue in no uncertain terms, the report states, "If no action is taken we will be faced with the kind of downturn that has not been seen since the great depression and the two world wars."

Madam Chairman and all of my colleagues, grassroots support for action on global warming is clear. Not only do we know it from our interactions with our constituents, we also know it because over 300 mayors have committed their cities to meeting the standards described in the Kyoto Protocol. In fact, with over 54 million citizens represented, the U.S. Mayors Climate Protection Agreement provides irrefutable evidence that everyday citizens are demanding bold action. Additionally, a group of northeast states have already implemented a regional effort to reduce greenhouse gas emissions—the Regional Greenhouse Gas Initiative. And, we all know that the state of California has recognized the need to act on global warming and is moving forward with a tremendous program.

Everybody is moving forward—isn't it time that the federal government be involved?

To be quite frank, while I appreciate today's forum, I must say that the time for talk is over—it is time for bold federal action. The American public expects nothing less.

Senator CARPER. [assuming chair.] My colleague, Senator Boxer had to slip out of the room for a moment.

Senator Cardin, while I am tempted to call up the legislation that Senator Alexander and I introduced, I will forego that temptation.

Senator CARDIN. You probably don't have the support yet. You might want to wait for a few more members.

Senator CARPER. That might be smart.

Senator Sanders, thank you very, very much not just for your words, but for your voice and emotion and conviction that you bring to this debate. Thank you. Welcome.

Senator Cardin.

OPENING STATEMENT OF HON. BENJAMIN L. CARDIN, U.S. SENATOR FROM THE STATE OF MARYLAND

Senator CARDIN. Mr. Chairman, thank you very much. I thank our leadership on this committee for holding these hearings on global warming. I think it is extremely important. I am going to ask that my entire statement be made part of the record, and some of the provisions that are in there.

Senator CARPER. Without objection.

Senator CARDIN. For the sake of our Nation, for our security needs, for our economic needs, for our environmental needs, we need an energy policy in America. We need an energy policy that recognizes that we need to produce enough energy in our own

Country to meet our needs. We need an energy policy in America that weans us off of fossil fuels. We certainly need an energy policy in this Country that recognizes the environmental risks that we all sustain.

So on security, you all know 65 percent of our oil is imported. We use petrodollars, the consumers of America are financing a lot of countries with policies that are very unfriendly to America. For our economy, when OPEC decides to change the amount of oil production or price, it has a direct impact on our own economy. On our environment, we know the risks of global warming. They are real. We need to do something about this.

In the 109th Congress, when I was in the other body, I introduced legislation that addressed an energy policy for America. It established a goal to be 90 percent independent of foreign energy sources within 10 years, to be 90 percent independent of fossil fuels within 20 years. I also believe it is reasonable for us to set goals by the year 2030 to reduce our greenhouse gases by 26 percent.

Madam Chairman, I am going to ask that I make available and put in the record two programs that were on Discovery Channel. Discovery Channel happens to be headquartered in the State of Maryland. They had a program, Addiction to Oil, which Thomas Friedman presented. I think it is very compelling about our need to become energy independent and to rid ourselves of imported oil. Tom Friedman points out that to be green is to be red, white, and blue. I think that is an important message for our Country.

The second Discovery program I am going to be asked to made part of our record deals with global warming, by Tom Brokaw, and again points out the real risks to our Country and to the world that global warming presents.

Senator BOXER. [resuming chair.] Senator, we will put them in the record.

Senator CARDIN. Thank you, Madam Chair.

[The referenced documents are retained in the committee's file.]

Senator CARDIN. Global warming, as you know, deals with the loss of ice in the Arctic. It deals with the sea level rise, water temperature increases, and extreme weather. I am going to talk a little bit about my State of Maryland, the people that I represent in the U.S. Senate.

Maryland is particularly vulnerable. Twelve percent of our land has been designated in the national flood insurance program as special flood hazard areas. That represents 68,000 homes and buildings in the State of Maryland, over $8 billion in assessed value. Maryland is the third most vulnerable State in our Nation to flooding.

Sea level rises in Maryland has grown twice the world average. We are vulnerable. I have a few slides that I am going to share with the committee. The first that is being shown shows the impact of what would happen if we have a 1-meter increase in sea level. Just to make that clear, that is not that unusual. The next slide will show that within a relatively brief period of time, we actually have increased the sea level by that amount. That was done in a period of 100 years, but we know that it is increasing at a much greater rate today.

So we are at risk in Maryland. All of our areas around the sea, around the water are being literally uninhabitable if we do not deal with global warming.

I have a few slides that show some history in our State. We used to have an island called Sharp's Island. Sharp's Island was a rather large entity, and consisted of over 700 acres. Today, it is down to less than 100 acres of land. This land is in the bay and will be gone in the not too distant future.

James Island, in the mid-19th century, you see the outline of James Island. Today, it is less than one-third of its size 150 years ago. When we look at what has happened to our wetlands in Maryland, this slide will show you that in a little over 50 years, how much of the wetlands we have lost in the Blackwater Wildlife Refuge, which is critically important to many species of life, including 20 different species of duck, which my colleagues like to come to the Eastern Shore and hunt. Well, if we are going to be able to have the diverse wildlife population, we need wetlands and we are losing our wetlands as a result of sea level increases.

We have one inhabitable island that remains in Maryland, Smith Island. Thirty percent of that land has been lost since the mid-19th century. It is reported that Lloyds of London is the only insurance available for the residents of Smith Island because of the uncertainty of their fate, and the residents of Smith Island cannot afford Lloyds of London prices.

This is an issue that is affecting the people of Maryland. It is affecting their lives today. What do we need to do about it? We need a comprehensive commitment. You can't do it by one issue. You need a comprehensive solution. It starts with conservation, and conservation starts with transportation. Yes, we need to at least double the CAFE standards.

It is interesting that when the Model T came on, it got 25 miles per gallon. Our CAFE standards today are 27.5 miles for passenger cars. We need to do a lot better. Replacement tires, yes, we have done good with low resistance for tires for new cars. We need to make that replacement for the older cars that are out there. We need to deal with public transportation and smart growth, including pedestrian and bike paths. We need to deal within our homes with energy conservation, the Energy Star program, and weatherization programs. We need to deal with our commercial buildings, tax incentives for green building designs and government must be a leader in the way that it operates its business, including the way it purchases vehicles. Employers need to be encouraged to use more telecommuting.

All that can conserve energy and that must be our start. But we also must deal with renewable energies and developing much more aggressively renewable energies. We need requirements on our utilities to produce a larger part of their electricity from renewable sources. We need to use the biograins more effectively.

Madam Chairman, this is biodiesel. It is produced in Maryland by a person who on his own without any government help decided to do something about our energy and environmental needs in the lower Eastern Shore, James and Virginia Warren. They have produced biodiesel. If you smell this, it smells like I was in the movie theater and with my grandchildren over the weekend. It smells

very pleasant, very clean. It can help the solution on dealing with global warming and energy issues.

The problem is, it is hard to find a diesel pump that has biodiesel, if you want to use biodiesel fuels. There are so many diesel vehicles the government owns, and why we are not using biodiesel is beyond me.

So there is a lot more that we can do just in the simple area of dealing with biodiesel. We need to look at wind. We need to look at solar. We need to increase the Federal research dollars that go into energy independence. We know that there is promise with hydrogen powered cars and nuclear fusion technology. But it is not here today, and we know that unless we invest the money for the future, it won't be here for decades to come.

Last, Madam Chairman, I suggest we have blue ribbon commission, that we enact changes in law and that we have a commission that monitors it to see that we make the adjustments necessary so that we do accomplish our goal of being energy independent, fossil fuel independent, and more gentle to our environment.

For the sake of our security, for the sake of our economy, for the sake of our environment, we need to move forward now on these issues. We cannot wait any longer. I applaud you for holding these hearings.

[The prepared statement of Senator Cardin follows:]

STATEMENT OF HON. BENJAMIN L. CARDIN, U.S. SENATOR FROM THE STATE OF MARYLAND

For the sake of our security, economy and environment, America needs an energy policy that is independent from foreign energy sources and weans America off of fossil fuels.

America's current energy policy is simply unsustainable.

We all know the security issues: The U.S. imports over 65 percent of our oil from foreign countries—many of them openly hostile to our country. American consumers are literally financing extreme anti-American groups that we fund through our oil dollars. Our petroleum habit creates national security risks and causes long-term energy price instability for American consumers—a price or supply change by OPEC can directly affect our economy. We are currently spending billions of dollars a year to subsidize oil companies, while their profits have increased dramatically—Exxon Mobil is on track to break its own record-breaking $36 billion dollar profits from 2005.

America's energy policy has also had a serious impact on our economy: Five years ago, the average American family spent $3,300 on gasoline, home heating, and electricity. Average U.S. households paid nearly $5,000 to power their homes and vehicles in 2006—32 percent greater than just 2 years ago. Households with incomes under $15,000—about one-fifth of all households—spent about one-tenth of their income in 2006 on gasoline. Leading economists noted after the release of monthly economic reports in September, 2006, that energy prices are rising much faster than wages and becoming "increasingly difficult for consumers to absorb."

While each of these is important, this hearing is about global warming, and about how our energy policy can deliver reductions in global warming.

I introduced legislation in the 109th Congress with many rigorous goals to get us on the right path, but there are many ways to accomplish these goals. At its heart, America's energy policy needs to address energy independence, fossil fuel reduction, and global warming.

It is reasonable to establish the goal of meeting 90 percent of our energy needs from domestic sources by 2017. America imports 30 percent of its overall energy needs, but imports over 13 million barrels of oil each day—more than 65 percent of U.S. oil needs. The majority of our imported energy is oil, and the largest consumption of oil in the U.S. is for transportation. 84 percent of U.S. imported energy in 2005 was petroleum, representing 28.9 quadrillion Btu. U.S. transportation consumption accounted for 28.1 quadrillion Btu, mostly in petroleum.

It is reasonable to establish a goal to meet 90 percent of our energy needs from non-fossil fuel sources by 2027. Fossil fuels—coal, oil, and natural gas are America's primary source of energy, making up over 70 percent of our electricity generation. Fossil fuel-fired electricity generation is the single greatest source of air pollution in the United States, and power plants are the leading U.S. source of carbon dioxide emissions—a primary contributor to global warming. U.S. conventional oil production peaked in 1970, and only produces enough oil to meet 35 percent of its oil needs. We have an abundance of coal, but we lack the technological ability to use coal in an environmentally secure manner.

It is reasonable to establish the goal of reducing our emissions of global warming-causing greenhouse gasses by 26 percent by 2030. With only 5 percent of the world's population and 6 percent of the world's land area, the U.S. is the No. 1 emitter of carbon dioxide in both tons and in per capita emissions, in the world. Greenhouse gasses are emitted primarily by the burning of fossil fuels and the clearing of forests. Carbon dioxide, along with other heat-trapping gasses, remain in the atmosphere for decades or even centuries, and have been melting ice, making Earth's water warmer, and increasing extreme weather events, such as higher-intensity tropical storms. By 2012, cuts in greenhouse-gas emissions required under the Kyoto Protocol will be swamped by emissions from new coal-fired plants built in China, India, and the United States. These 3 countries are expected to emit an extra 2.7 billion tons of carbon dioxide. The Discovery Channel has produced a couple of stellar programs outlining our global warming problems: Addiction to Oil—with Tom Friedman, and Global Warming—with Tom Brokaw. I'd like to introduce these programs into the record at this point.

Global warming poses an especially serious threat to my own State of Maryland, with a large part of our State consisting of low-lying coastal areas that would be inundated if global temperatures keep rising. Global warming pollution in Maryland is up by 55 percent from 1960.

More than 12 percent of land in Maryland is designated under the National Flood Insurance Program as a Special Flood Hazard Area.

An estimated 68,000 homes and buildings are located within the floodplain in Maryland. These structures represent nearly $8 billion in assessed value.

According to 2005 report of the Maryland Emergency Management Agency Maryland is the 3d most vulnerable State to flooding and has the 5th longest evacuation times during a tropical storm event.

Tide gauge records for the last century show that the rate of sea level rise in Maryland is nearly twice the global average. Studies indicate that this rate is accelerating and may increase to two or three feet along Maryland's shores by the year 2100.

The effects are already evident: about a third of the marshes at Blackwater Wildlife Refuge on Maryland's eastern shore have been lost to sea level rise over the past 70 years. Smith Island, the only inhabited island community in Maryland and the subject of a recent documentary on global warming, has lost 30 percent of its land mass to sea level rise since 1850. Lloyds of London is reportedly the only company that will insure homes on Smith Island and the premiums and high deductibles are unaffordable to most residents. Allstate Insurance Corp., one of our largest insurers, recently announced that it will stop writing new homeowners' policies in coastal areas of the State, citing concerns that a warmer Atlantic Ocean will lead to more and stronger hurricanes hitting the Northeast. Hurricane Isabel in 2003, which was a modest hurricane, underscored how vulnerable Bay communities are to coastal flooding from storm surge. Maryland's premier beach resort—Ocean City—representing more than $4 billion in public and private investment—remains especially vulnerable to sea level rise unless our beach renourishment projects are continued and expanded. The combination of sea-level rise and warmer temperatures as well as increased salinity levels could have tremendous ecological impacts on the Chesapeake Bay.

Clearly sea level rise will have devastating effects not only on the hundreds of thousands of Marylanders who live in low lying areas but on our economy, our environment and our quality of life.

Our first goal must be to conserve energy. This conservation effort needs to start w/transportation. The U.S. must increase Corporate Average Fuel Efficiency (CAFE) standards significantly over the next 10 years. The Ford Model T got 25 mpg, yet our current CAFE standard calls for 27.5 mpg for passenger cars, and 21.6 mpg for light trucks. "In 1981, the last time gas prices breached $3, adjusted for inflation, the average car got 21 miles to the gallon. Jump ahead 24 years, a period when there have been huge advances in automotive fuel efficiency, and the average passenger vehicle on the road gets . . . 21 miles to the gallon."—CNN 9/14/05

Under Federal fuel-economy standards, automakers equip new vehicles with tires that have a lower rolling resistance, which leads to higher fuel efficiency. By requiring replacement tires to be as efficient as new car tires, we could rapidly begin gasoline savings, and save more than 7 billion barrels of oil over the next 50 years. These changes would particularly aid lower-income drivers, who are more likely to drive used cars with replacement tires.

There is no one solution to our energy problems, other conservation examples include increasing Energy Star funding, and adding solar water heaters to the list of products that wear the Energy Star label. The Energy Star program brings consumers energy efficient choices in appliances, light bulbs, and other goods. This vital program helped Americans save enough energy in 2005 to prevent greenhouse gas emissions equivalent to 23 million cars—while saving $12 billion on utility bills.

According to the DOE, commercial buildings account for 35 percent of America's electricity consumption. An upfront investment of 2 percent in green building design, on average, results in life cycle savings of ten times that upfront investment. I would increase the Energy Efficient Commercial Buildings deduction—to encourage business owners to look forward and plan ahead by using buildings that will save money and electricity over the long run.

Transportation costs accounted for 58 percent of Federal energy consumption in fiscal year 2002. The Federal Government would decrease energy costs by both requiring that the Federal fleet exceed CAFE standards and requiring that at least 10 percent of the motor vehicles purchased by an Executive agency in any fiscal year will be high-efficiency vehicles or hybrid electric vehicles.

America's energy policy must encourage energy efficient communities and behavior. Congress should encourage smart growth through funding transit-oriented development corridors with upgrades in transit facilities, bicycle transportation facilities, and pedestrian walkways.

America should promote energy efficiency in all communities by increasing funding for weatherization assistance. In the 27 years since its founding, DOE's Weatherization Assistance Program has served over 5.3 million low-income families. Low-income families spend an average of 14 percent of their annual income on energy costs, while other households spend only 3.5 percent. Weatherization reduces greenhouse gas emissions by one ton per weatherized home, and decreases U.S. energy consumption by the equivalent of 15 million barrels of oil every year.

Congress should create Federal tax incentives for employers who provide telecommuting to their employees. Telecommuting has successfully reduced both transportation and energy use, and the EPA reports that if just 10 percent of the nation's workforce telecommuted just 1 day a week, Americans would conserve more than 1.2 million gallons of fuel per week.

The U.S. needs to enact mandatory, tradable emissions caps. Not only is this a policy that enjoys the broad support of businesses, environmental groups, scientists, and Members of Congress, it is the right thing to do for our Country's future, and for the well-being of our children and grandchildren.

America must make renewable energy commercially viable, and make the up-front investment in renewable energy infrastructure that will bring renewable energy to the marketplace.

The U.S. needs a Federal renewable portfolio standard to ensure consumer access to renewable energy, by requiring electric utilities to get a larger portion of the energy they provide to Americans from renewable sources.

America needs to find new ways to move renewable energy—by creating electricity transmission lines designed to carry electricity from renewable sources.

Congress must make the renewable energy production credit permanent, to provide long-term incentives to increase private infrastructural investment in the production of renewable energy.

America has lagged behind Europe in using biodiesel as one way to reduce our use of oil. Maryland Biodiesel, owned by James and Virginia Warren, is the only plant of its kind in the State, and will use plant and animal oil byproducts that are currently thrown away. More than 600,000 cars capable of running on alternative fuels have been produced each year since 2000. The U.S. must dramatically increase the Federal commitment to alternative fuels and vehicle technology programs, and increase the use of alternative fuels in Federal and State fleets, by developing biofuel plants in every region of the country, and speeding development of standards that are needed to promote alternative fuels use.

We need to increase the renewable energy use and energy efficiency of the Federal Government—the Federal Government should lead the country in energy efficiency. All new Federal buildings should be required to live up to green building LEED (Leadership and Energy in Environmental Design) standards, set by the United States Green Building Council. Energy used in buildings in fiscal year 2002 ac-

counted for 38 percent of the total Federal energy bill. Total Federal buildings and facilities energy expenditures in fiscal year 2002 were $3.73 billion. This Federal investment in green building will save the treasury millions while reducing overall electricity consumption.

The Federal Government should ensure that at least 20 percent of the electricity consumed by non-defense activities of the government will be generated from renewable sources or zero-emission fossil fuel energy sources by 2017.

America should establish a program of grants, low-interest loans, and loan guarantees for the commercialization of new renewable energy and energy efficiency technologies.

The U.S. must dramatically increase Federal energy research and development commitments.

Increasing America's energy research dollars will help bring technologies that hold great promise but are not feasible today—such as hydrogen powered automobiles, cellulosic ethanol, and nuclear fusion energy—to the marketplace faster.

Congress should implement the changes suggested by the National Academy of Sciences' Report, Rising Above a Gathering Storm—to ensure U.S. competitiveness in research and scientific development, including marked increases in The Department of Energy's R&D funding.

Finally, we should create a Blue Ribbon Energy Commission, which would meet every 2 years starting in 2008, to evaluate our progress in efforts to become energy independent and the impact of provisions of new policy, and to recommend additional changes to be made in reports to Congress—so that our energy policy remains focused on our 3 goals of energy independence, fossil fuel independence, and the reduction of greenhouse gas emissions.

For the sake of our security, economy and environment, America needs a comprehensive energy policy that is independent of foreign sources and weans America off of fossil fuels.

Senator BOXER. Senator, I just want to thank you very much for your encouragement and your ideas. They make a lot of sense. I was just recently reading an article where insurance companies are very reticent now to come into the coastal areas. This is the private sector telling us very clearly they are worried. So, so many things are coming together, as Senator Carper pointed out, that just reiterate to us that maybe we are just the last ones to get on board here. But I think we are going to do it.

Senator Whitehouse, I know you have been all morning at Judiciary. I am so glad you made it back, just for the sake of those in the audience and those who are still here with me, those that deserve a prize. Senator Carper, you deserve a prize. After you speak, Senator Whitehouse, I believe that is the last member of the committee who planned to speak. It would bring us to I believe 14 or 15 Senators. I could go back and check.

We have a panel that is supposed to start at 11:45, with Senators Bingaman, Feinstein, Kerry and Biden. If any of those arrive earlier, I will just sit here, and as soon as they come, we will take their testimony. We are getting some testimony to place in the record that also is very important testimony, bipartisan testimony which I will read just little parts of.

I don't know how many people are aware that Senator Whitehouse has been a tremendous leader in the environment of his State, particularly in protecting the health of children. So we are most honored that you are on the committee and we welcome you, Senator. You have 10 minutes.

OPENING STATEMENT OF HON. SHELDON WHITEHOUSE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator WHITEHOUSE. Thank you, Madam Chair. I am thrilled to be here. I applaud you for holding this hearing. I am a very proud

cosponsor of your farsighted legislation. I hope and expect, truly, that today's hearing marks a turning point in the energy and direction of our effort to address this critical problem.

I thought I would speak very locally. If left unchecked, climate change will clearly affect communities around the globe, but I would like to draw particular attention to the way it will affect Rhode Island. There is no place more local than the street where you live. So I thought I would lead with this photograph, which is taken of a cherry tree on Adelphi Avenue outside of my house in Providence. It was taken on January 7.

You will notice that the tree is starting to bud and in a couple of places has gone into full bloom. Now, that may seem like an anecdotal aberration, and clearly it is the first time in the 20 years we have lived in the house where that tree has bloomed in January. But it refers to a trend that the orchard owners in Rhode Island have described and noted, that spring blooms come earlier every year, earlier and earlier.

So an aberration, yes, but we know these sorts of temperature aberrations are themselves indications of global warming.

The heart of Rhode Island, of course, is Narragansett Bay. It is our greatest natural resource. It is our environmental prize. Here, we see what has been happening to water temperatures in Narragansett Bay since 1955. They have been climbing steadily. The mean annual surface water temperatures, as you see, has increased 2.5 degrees in that period, and actually that understates the effect because in the winter the temperature has increased 4 degrees in the last 20 years. As the scientists at the University of Rhode Island who track this stuff have recognized, 4 degrees in that environment is a full ecosystem shift, so it makes an enormous, enormous difference.

One of the differences that it makes is illustrated in this photograph. This is a photograph of Greenwich Bay, which is a sub-basin of Narragansett Bay, in the summer of 2003. The warm water in the bay led to stratification, which trapped the decaying organic manner at the bottom of the bay so that oxygenation did not occur and these fish asphyxiated. They suffocated swimming in their native waters as a result in large measure of the warming that we are seeing.

It's not getting better. In fact, it is predicted to get a good deal worse. From 2010 to 2039, depending on the emissions, the scenario could lead to another 3-degree increase, another 7-degree increase by 2069, and by 2099, a 12-degree increase at the higher emissions levels. At lower emissions level, it is still a problem, but it is a substantially lesser one.

Now, at the higher emissions levels, Rhode Island will become a State that has the present weather patterns of the Carolinas. It is interesting, to a fellow who lives in Newport, because Newport was first inhabited as a summer resort by merchants from the Carolinas, who came north to enjoy the cool waters of Narragansett Bay and Rhode Island, and the cool summer air. Now here it is, 100 and some years later, it looks like the Carolina weather will be following them there, and we will no longer be a refuge from such temperatures.

Obviously, ecosystem changes of that nature have not only a dramatic effect on the environment, but also the economy. In northern New England you would see an end to the ski industry, and throughout New England you could very well lose our famous foliage.

One of the effects of all this, Madam Chair, is the increase in water level. We are seeing it on a small scale already in Rhode Island. This is the Newport Harbor tide chart. It shows the increase here in the main sea level to this point, and then it extrapolates forward the sort of increase that we could see. It is happening slowly right now, but it is projected to increase. I would note that the projections do not incorporate the nightmare scenario that Vice President Gore laid out in his Inconvenient Truth. If that were to take place, if the Greenland ice cap were to melt and the sea water levels were to rise consistent with the presentation Vice President Gore makes, you would start to see some very significant changes in our Ocean State.

This is downtown Providence as it exists now. Here is our central business district. Here is Brown University. Here is what becomes of it with a 20-foot increase. The downtown business district is gone. There is our new mall, where my daughter loves to shop. Gone. Here is the AMTRAK rail and the train station. Gone. Our capitol building is on famous Smith Hill, on a high promontory, so the capitol at least will survive, but the business district where I worked, here is the Federal court where I practiced as United States Attorney. Gone.

If you turn to other Rhode Island landmarks, this is the famous Newport Harbor. The historic waterfront through here, the ballfield where the Newport Gulls play down here, historic Trinity Church right here, an astonishing resource for our State and a great piece of history throughout this photograph, old buildings, a concentration of history that is really remarkable, and there is what happens. Completely inundated, completely submerged and completely lost.

Finally, even bedroom communities can be hit pretty hard. This is a lovely bedroom community in Rhode Island called Barrington. As you can see, there is a school here and many houses through the dappled neighborhood lanes. In the event of the sort of rise in water level the Vice President has talked about, it is all gone, Madam Chair. It is all submerged.

So the stakes that we are talking about are very, very high. The economic effect, the environmental effect, and the long term welfare of our Country, particularly my State, are very, very much implicated in these hearings.

The last point I will make is that, as anxious as we may be about these potential consequences, there is real hope by changes in public policy. Just in Rhode Island, the environmental community gathered together and they charted different outcomes based on public policy decisions that were made in Rhode Island, and how they would affect the tons of carbon released by Rhode Island, which of course connects directly the global warming and climate change and to the rise in the oceans. What you see is that at the top line, if we did nothing there is a very, very substantial gap over the existing policies that are already in effect in Rhode Island and

are already driving our carbon emissions to level, and indeed decline a little bit.

Indeed, policies that are presently under consideration could drop it further, to this line. Ultimately, here is the green line of where we could end up. This is a significant gap and it is the kind of gap that we very, very much need to close. So I think the important message for today is, the problem is real. The problem is here. The consequences are potentially extraordinarily severe, but it is within our control and within our hands to get the situation right and prevent these outcomes.

Once again, Madam Chair, I salute the turning point that I think this hearing represents, and appreciate your leadership.

Senator BOXER. Senator, I want to thank you. I think everyone was just riveted to your presentation. I would urge you to just keep that passion going because from now on, we are going to have to really work hard so that none of that ever happens that you showed us.

I want to also say before you leave, just to give everyone here an idea of where we are going. My understanding is we have now heard from 14 Senators, including myself. That is the number that wanted to speak, from the committee. We are going to be moving to other Senators shortly within the next 5 minutes.

Before, Senator Whitehouse, you leave, and I really want to thank Senator Carper who is just a stalwart with me on this issue, I wanted to quote from two statements that I am going to now place in the record. The point of this, Senator Whitehouse, is to say you are part of the New England delegation that on a bipartisan basis is very concerned, I will prove that in a moment, and also to say to Senator Carper, your interest and bipartisanship is borne out by these two statements.

The first one I will put in the record is a statement by Senator Judd Gregg. He has asked that we put this in the record today. I will just quote briefly from it, "Climate change is one of the most serious environmental problems facing our planet. It touches nearly everything we do." Now, Senator Gregg is not known for overstatement.

"Our climate is inextricably linked to our economy and heritage of our Nation." He goes on in a very eloquent way. He says, "States alone cannot solve the problem. I believe Congress must take action to limit the emissions of greenhouse gases from a variety of sources." He talks proudly of working with Senator Carper for the last 4 years on legislation that would reduce carbon dioxide and other emissions from powerplants. He says he is looking forward to reintroducing that bill with Senator Carper.

He says, "Power plants are just part of the problem. That is why I have supported economy-wide, market-based approaches such as the Climate Stewardship Act's cap and trade system. I believe that is the McCain-Lieberman. He says, "I appreciate the committee's attention to this issue and I look forward to working with my colleagues on both sides of the aisle to draft climate change legislation which protects our environment and stimulates our economy." So we will put that in the record.

[The prepared statement of Senator Gregg follows:]

STATEMENT OF HON. JUDD GREGG, U.S. SENATOR FROM THE STATE OF NEW HAMPSHIRE

Climate change is one of the most serious environmental problems facing our planet. It touches nearly everything we do. Our climate is inextricably linked to our economy and heritage of our nation. Climate change affects where we live, where our food is grown, the severity and frequency of storms and disease, and many of our industries, including tourism, forestry, and agriculture. In New Hampshire, folks are already concerned with its impact on skiing, forestry, maple production, tourism, and outdoor recreation. In fact, the state was the first in the nation to pass a law in 2002 requiring carbon dioxide emissions reductions from power plants. Today, approximately 50 towns in New Hampshire are poised to vote in March on a resolution seeking the establishment of a national greenhouse gas reduction program and additional research into sustainable energy technologies.

States alone can not solve this problem. I believe Congress must take action to limit the emissions of greenhouse gases from a variety of sources. The overwhelming scientific data and other evidence about climate change cannot be ignored. It is for this reason that I have been a strong advocate for mandatory limits on greenhouse gases, and I will continue working with my Senate colleagues on legislation.

For the last four years, I have worked with Senators Carper and Alexander and others, on legislation which would reduce carbon dioxide and other emissions from power plants. The Clean Air Planning Act, which I have cosponsored, would address our nation's critical air pollution problems in a way that curbs greenhouse gas emissions, enhances air quality, protects human health, and facilitates a growing economy. This legislation reduces the four primary emissions from power plants: sulfur dioxide (a contributing factor in lung and heart disease) by 80 percent; nitrogen oxide (associated with acid rain and regional haze) by 69 percent; mercury emissions (associated with fish contamination and birth defects) by 80 percent; and carbon dioxide emissions (linked to climate change) by establishing mandatory caps. This bill would protect the quality of air we breathe and the climate we live in, while simultaneously stimulating the economy and protecting human health. I hope to reintroduce this bill with my colleagues in the coming weeks.

However, power plants are just part of the solution. That is why I have supported economy-wide, market-based approaches, such as the Climate Stewardship Act's "cap and trade" system, as reasonable ways to rein in carbon dioxide without undue harm to the U.S. economy. I also believe we need to re-examine the issue of vehicle emissions, a substantial contributor to the global carbon budget, and consider increasing the corporate average fuel economy standards for motor vehicles.

I appreciate the Committee's attention to this issue and I look forward to working with my colleagues on both sides of the aisle to draft climate change legislation which protects our environment and stimulates our economy.

Senator WHITEHOUSE. Following that is a statement by Senator Olympia Snowe that is a very comprehensive statement. I will just quote a few paragraphs. Senator Snowe: "For me, it is ludicrous to think we can expect large emerging nations to move toward reducing their emissions without any national action on our part. Only after the United States puts in place a mandatory carbon cap and trade system can we expect to sit at the international table and ask the poorer developing countries to take such action."

Madam Chair, we need to seize on a bold new program like President Kennedy did in sending a man to the moon. When on September 12, 1962, he stated, "We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and our skills, because that challenge is one we are willing to accept, one we are unwilling to postpone, and one which we intend to win."

She says, "On July 21, 1969, less than 7 years later, Astronaut Neil Armstrong walked on the moon. This is how we should be addressing global warming." In closing, she says, "Madam Chair, weather is an integral part of the economy in my State of Maine

and others as well. It is time to curb the warming. We cannot wait any longer. We need to act now."

[The prepared statement of Senator Whitehouse follows:]

STATEMENT OF HON. SHELDON WHITEHOUSE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Thank you, Madam Chairman, for convening this hearing, and for your leadership on the issue of global warming. I'm honored to serve on an Environment and Public Works Committee whose leadership acknowledges that this issue is real, that time is of the essence, and that action is called for.

Left unchecked, climate change will affect every community in every nation on earth, altering the world in ways we are only just beginning to understand. I want to take this opportunity to speak briefly about some of the scientific evidence now available about the projected effects of global warming on my home state of Rhode Island.

Alterations in the growing seasons brought on by warmer temperatures around the globe are already evident in Rhode Island. Many species of flowers and trees are blooming earlier in the spring than the historical average. The cherry tree on my street in Providence is in bloom in January for the first time in the 20 years we've owned the house. It could be an aberration, but our Rhode Island orchard growers have not seen January blooms of fruit trees in living memory. Although this bloom did not mark the actual spring bloom, the earlier and earlier arrival of the spring bloom is now a documented phenomenon, indicating a trend of warmer temperatures throughout the region.

Shifts in the timing of the seasons also have the potential to disturb biological phenomena, such as migratory cycles of birds. For example, if a bird's seasonal migration is caused by the length of the days, it could arrive at its destination out of synch with the tree species that provides necessary food but has bloomed early in response to warmer temperatures.

The land based ecosystems are not the only systems at risk; warmer temperatures will also have profound effects on oceans and estuaries. This is even more troubling because the water and land based ecosystems are so intricately linked.

The environmental heart of Rhode Island is the Narragansett Bay estuary. Narragansett Bay is Rhode Island's most distinctive ecological feature, running nearly the entire length of the state and affecting every part of our lives. It is our greatest natural resource. As we speak, the Bay is undergoing a significant ecosystem shift as the water's temperature gradually warms.

The Bay's annual mean winter temperature has increased by about 4 degrees Fahrenheit over the past 20 years. This has had a significant impact on fish and shellfish in the Bay. Cold water species, such as winter flounder, that were once abundant in the bay and had a high commercial value have been replaced by warmer water species, such as scup, that have a lower value. It amounts to a real ecosystem change with associated economic impacts.

Warmer temperatures in the summer can also have profound effects. During the summer of 2003 in Greenwich Bay, a sub-basin of Narragansett Bay, warmer temperatures caused stratification in the water column. This reduction of water column mixing led to eutrophication and consequently lower dissolved oxygen levels on the bottom, causing the fish in the bay to suffocate in the water.

This cycle is predicted to get worse—much worse—if nothing is done. At higher emissions levels, New England's climate will become more like South Carolina's. (Ironically, the first summer visitors to Newport were 19th century merchants from the Carolinas seeking to escape that heat.) The result will be a dramatic shift in the economy, as well as the ecosystem. For example, there won't be any ski resorts or winter tourism in Northern New England. We may very well lose our famous foliage.

If Greenland's ice cap melts and causes sea levels to rise by as much as 20 feet worldwide—the nightmare scenario of Al Gore's "An Inconvenient Truth"—here's what happens in the Ocean State. Downtown Providence is inundated. Newport's famous harbor overwhelms Newport's historic waterfront. And coastal residential communities like Barrington are submerged.

While these are sobering projections, Madam Chairman, there is still plenty of hope. We can be effective against these threats if we act firmly and swiftly.

Working with partners from the nonprofit and academic community, the State of Rhode Island is already taking steps to address the potential effects of global warming, with encouraging results. In Rhode Island, environmental groups have quantified the effect of actions already underway, of actions that are pending, and of pos-

sible further actions that we could take. These carbon dioxide emissions curves show how profoundly effective the action we take today can be. This kind of success requires not only direct government action, but commensurate action by private industry and individuals. We must determine not only what we will do, but how our choices will influence and stimulate others in their decision-making.

Let me be clear: I believe we cannot solve this problem without immediate and unrelenting federal support. I am proud to be an original cosponsor of the Sanders-Boxer global warming bill, a measure that I believe will help us take a critical first step in addressing the challenge of global warming. There is much more to be done, and little time to waste.

Thank you, again, Madam Chairman, for the opportunity to speak today.

I'd also like to acknowledge the members of Rhode Island's environmental community for helping us assemble this data, including Save the Bay, Environment Rhode Island, the University of Rhode Island Graduate School of Oceanography, Brown University, the Rhode Island Coastal Institute, Rhode Island Clean Water Action, the Rhode Island Chapter of the Sierra Club, and the Rhode Island Conservation Law Foundation. Most importantly, I want to recognize Dr. Sandra Thornton Whitehouse for her help, her insight, and her expertise.

Senator BOXER. So, you know, for me, this hearing has been, I don't even know how to find the right word. To say that it is important is an understatement. It has been critical. It has been inspiring to hear my colleagues, to hear my colleagues on this committee on both sides. Yes, to hear the concerns of some who might not agree, but yet in their comments still hear the nugget of some agreement where we can move forward, and some of the colleagues who are not on this committee.

So what we are going to do now is stand in recess. I am going to stay right here.

Senator WHITEHOUSE. Madam Chair? As a personal courtesy, may I quickly recognize a leader of the environmental community in Iran who is with us today, Dr. Sandra Thornton Whitehouse.

Senator BOXER. Oh, any relation?

Senator WHITEHOUSE. She was a considerable help in preparing this, and who is, as I said, one of Rhode Island's environmental leaders, and I would like, through her, to thank the environmental community for their support in putting this presentation together.

Senator BOXER. Well, it was a fantastic presentation. I think that actually it is going to, I was going to say it is going to move mountains, but I think the glaciers are already moving. That is the problem, so it might freeze glaciers, but we thank you so much.

I am so pleased and delighted, Senator Bingaman, that you are here. You came a little bit early, and I appreciate that. Your timing is impeccable. Here is where we are. We have heard from 14 members of this committee. We just heard our last presentation. I have put two statements in the record from Senator Snowe and Senator Gregg, both very strong for a comprehensive plan.

You are a leader. You and I have teamed up. We have written letters, op/ed pieces together. We intend to work together. We are honored to have you here, Senator Bingaman, with your distinguished record on the environment, on the economy, on your great State of New Mexico. Of course, you are the Chair of the Energy Committee. We are just proud to have you. So please, you have 10 minutes.

STATEMENT OF HON. JEFF BINGAMAN, U.S. SENATOR FROM THE STATE OF NEW MEXICO

Senator BINGAMAN. Thank you very much, Madam Chairman. Let me say that I think it is terrific that you have made this such a priority for this committee and for the Congress. I look forward to working with you and seeing if we can't get legislation enacted in this Congress to deal with this issue in a meaningful way.

Let me just give a general perspective on it, and then if you have any questions, I am glad to respond.

First, I don't think it is particularly useful to have a lot more hearings about whether or not there is a problem. I think most folks who have spent time looking at it are persuaded that there is a serious issue here, that manmade activity is a major contributor to the problem, and that we need to get one with planning solutions.

As I see it, there are three real challenges we need to focus on. No. 1, convincing our colleagues that some type of cap on emissions and some type of trading system for allowances or permits is the most significant thing we can do to deal with the problem. I am persuaded of that. I believe you are, and I hope that as we go through this debate, we can persuade all of our colleagues that that is the case.

No. 2, we need to figure out if we are going to have a cap and trade system that is nationwide, which I believe we need to have, how do we structure that cap and trade program? There are a lot of design issues. There are a lot of questions on how you allocate allowances, what you permit as offsets. Your State of California is struggling through those problems now, as you are trying to design a system for California, in compliance with your Governor's mandate or the legislation that was passed earlier, last fall in California.

The No. 3, major challenge that I see is getting a political consensus on how quickly we can reduce greenhouse gas emissions without significantly or adversely affecting the economy. I am persuaded that we can reduce greenhouse gas emissions in a significant way. There is a lot of debate going on as to how aggressive those targets need to be. That is the proper debate to be having.

The process that I have been involved in really got started because of the report of the National Commission on Energy Policy. This was a group of business and former government officials and environmentalists, NGO leaders. They came together under the auspices of the Hewlett Foundation, and put together a report nearly 2 years ago now. Part of their report recommended a cap and trade program along the lines that I have just described.

I think that was a very useful recommendation. I have supported the proposal that Senators Lieberman and McCain have presented to the Senate. We voted on that twice, as you know, in the Senate. I have supported it both times.

The National Commission on Energy Policy had a somewhat different set of recommendations, but a variation on what was earlier proposed. The main point from my perspective was that they also recommended putting a cost or a price on the cost of putting carbon into the atmosphere, and a very predictable price, so that people in industry who are making plans for how to increase powerplant

capacity would know precisely what they are going to be faced with if they go forward and continue to pursue options that involve substantial emissions.

I think that is the right way to go. In February of last year, Senator Domenici and I and the Energy Committee came out with a white paper on design features for a mandatory market-based greenhouse gas regulatory program. We asked a series of questions there. We had a very distinguished group of folks come into our committee and talk about answers to those questions, questions such as who should be regulated, how do we allocate the permits, should a domestic program be linked with the programs in effect in other countries, how do we engage developing countries in this effort. All of those are the right questions, I think.

We have tried to follow up on that. Most recently, I joined with Senator Specter in circulating a draft proposal to all members of the Senate. We are hoping to get feedback and have a series of meetings with people, responding to that draft proposal. The idea is that we hope to have legislation that some of us on the committee and off the committee might cosponsor, that we could introduce in the next 6 or 8 weeks. That is our hope. It would add to the other bills that already have been introduced. I hope it would add to the debate.

I think the way this issue has been put on the front burner by you and your committee is exactly what needs to happen. I congratulate you on it and appreciate the chance to be here to make a presentation.

[The prepared statement of Senator Bingaman follows:]

STATEMENT OF HON. JEFF BINGAMAN, U.S. SENATOR FROM THE STATE OF NEW MEXICO

Thank you Senator Boxer and Members of the Committee.

The 2005 Sense of the Senate resolution on climate change emphasized that the risks associated with a changing climate justify the adoption of mandatory limits on greenhouse gas emissions and that an important first step towards addressing climate change can be taken at an acceptable cost. In that spirit, Senator Specter and I circulated a discussion draft on global warming legislation last week that begins with a modest emissions-reduction target that strengthens gradually over time.

The approach is consistent with that of the successful Acid Rain Program in that it sets a "forward price" on emissions to provide both the flexibility and incentive needed to accelerate technology development and deployment. The long-term price signal that a forward price creates is critical for giving industry certainty and for focusing its decision-making on lower carbon options. In order to complement that price signal, the discussion draft also includes provisions to create incentives for new technology and provides significant new R&D funding for low- and no-carbon technologies.

The decision to circulate a discussion draft, rather than introduce legislation, reflects our desire to modify and improve the legislation in the coming months. This draft is already the product of over two years of work, but there are still many unresolved issues that must be addressed and challenges that deserve attention.

As I see it, there are three main challenges. First we must convince our colleagues that the model we have chosen, a cap and trade program, is the right model. Second, we must figure out how to structure that cap and trade program—there are many different design features that must be discussed and analyzed. Finally, we need to see what kind of political consensus we can get over the targets to reduce greenhouse gas emissions without harming the economy.

As I mentioned, this process began over two years ago. It started with the recommendations of the bipartisan National Commission on Energy Policy, or NCEP. This group of business leaders, former government officials, environmentalists and NGO leaders published a report to influence the upcoming debate on energy policy. Within that report was a recommendation to implement a cap and trade program

to slow the growth of greenhouse gases by mandating targets and allowing companies to use tradable credits in a market to meet those limits.

I supported this type of proposal when Senators Lieberman and McCain introduced their Climate Stewardship Act and I still believe that this is the most appropriate way to reduce emissions. In order to address some of the concerns with a cap and trade proposal and its impacts on the economy, the NCEP recommended that growth targets be implemented to slow the growth of greenhouse gas emissions before stopping that growth and reducing emissions. They also recommended a safety valve feature, which would allow the government to sell extra permits at a set price. That price would escalate over time, but would provide certainty to business and would prevent difficult shocks to the economy as we move into a lower-carbon economy.

After submitting this proposal to the Energy Information Administration—the nonpartisan analytical arm of the Department of Energy—I drafted an amendment to the Energy Policy Act of 2005 and considered amending the Energy Bill with it. Because of the limited amount of time available, we decided instead to circulate a Sense of the Senate Resolution and added that to the Energy Bill.

That Resolution gave us the grounds to continue exploring this issue over the remainder of last Congress. I worked very closely with Senator Domenici to have hearings in the Energy Committee and participate in a series of workshops with the NCEP. The purpose of this was to examine the structure of a cap and trade proposal.

In February of 2006, Senator Domenici and I authored a White Paper on Design Features of a Mandatory Market-Based Greenhouse Gas Regulatory Program. We asked four basic questions: (1) Who should be regulated? (2) How do we allocate permits throughout the economy? (3) Should a domestic program be able to link with other countries? (4) How do we engage developing country participation?

We received over 150 submissions from major companies, individuals and NGO's responding to these questions and Sen. Domenici and I invited 29 of those respondents to an all-day conference to discuss them here on Capitol Hill.

After incorporating many of the things we heard at this Conference into a new draft, I was joined by five of my colleagues in resubmitting the legislation to the EIA for further analysis. The results of that analysis have shown that it is possible to begin reducing our emissions here in the United States without negatively harming the economy.

It is my plan now to take the next two months to use this discussion draft and bring stakeholders and interested parties to the table to see if we can get some kind of bipartisan consensus on legislation that we can enact this year.

A first step toward that goal is to host a series of bipartisan staff workshops. This Friday at 2 pm in the Energy Committee Hearing Room, we are hosting the first staff workshop to look at the issues within the discussion draft. I encourage anyone who is interested in attending to contact my Committee Office. We are also extending the invitation to the Administration and House staff.

Thank you for the opportunity to express my views before your Committee. Global warming is an extremely important and difficult issue to resolve, but I know that we can work together in a manner that expedites action rather than delay it any longer.

Senator BOXER. Senator, Mr. Chairman, thank you very much. We are not going to ask questions today. Today is our open forum, and we are just presenting our views.

For the benefit of Senators Kerry and Feinstein, they can decide who needs to go first. Either way is fine. We are going to go to Senator Kerry first, or Senator Feinstein? Senator Feinstein, OK.

We have heard from 14 members of this committee. It has just been an extraordinary time. And now we are turning to those of you outside the committee who have shown tremendous leadership.

I agree with Senator Bingaman that the more legislation that we have on the table, the better, because we can just see, in addition to this hearing and others that I know a lot of you will be involved in, in the Commerce Committee and in other committees, we could see where our colleagues are, because I think those of us who spoke today from our heart about how we feel now are ready to take the next step. I think Senator Bingaman is right. The debate over

whether there is global warming for the vast majority of us is over. We are now moving toward solutions to the problem.

So at this time, I am going to call on my dear friend, my colleague from California, my senior Senator. She and I have worked very closely on saving the environment in our State. We are very proud of our State for taking the lead on this. She is working on a series of bills, the first of which deals with the utility sector on carbon emissions. She worked so hard with business and so many different groups to come together. It is a tremendous contribution to where we are now.

So Senator Feinstein, it is just a privilege for me to introduce you. You have 10 minutes.

STATEMENT OF HON. DIANNE FEINSTEIN, U.S. SENATOR FROM THE STATE OF CALIFORNIA

Senator FEINSTEIN. Thank you, Madam Chairman. It is actually my privilege. I have great pride in what you are doing and a great deal of faith that this committee is going to be able to produce legislation under your leadership. I am just very grateful for that.

And Senator Carper, I am on your bill, you are on my bill. So we have kind of dovetailed our efforts, and I appreciate that very much.

What I would like to do is just informally tell you what I have learned. No question, global warming is real. The science has now coalesced. No question, the Earth is warming as a product of human activity.

The question is, how fast will it warm. In talking with climatologists at Scripps Institute, they said to me, if we have erred, we have erred on the conservative side; that the Earth is apt to warm much quicker than we predict. That really sounds the clarion call for action, and for the United States taking a role of leadership in the world, which we have not done up to this point.

Now, what have I learned? I have learned you can't stop it, but what we can do is slow it. If we slow it to 1 to 2 degrees, we can adapt to it. If it goes 4 to 10 degrees, as many people believe it will by the end of the century, it is catastrophic. The Earth has tipped and we will not be able to restore the balance again. So time is of the essence.

What we have tried to do is recognize that there is no silver bullet; that we have to do a number of different things so that everybody does their share, the electric industry, industry in general, people, fuels, automobiles, trains, everything all across the board.

We have started by saying, all right, coal is dominant in 40 States, and 40 times 2 is 80. We have 80 Senators that might be a problem on cap and trade. Now, why do we go to cap and trade? We go to cap and trade because Europe is using the system, the eight Northeastern States are going to be using the system; California is going into cap and trade. It looks like it provides the regimen to provide the auction and the credits to provide the technology to move everything forward.

We thought, well, all these coal States, what do we do? So we went to a group of electric utilities called the Clean Energy Group. They are 15 percent of the electricity in this Country. They comprise Calpine, Entergy, Exelon, Florida Power and Light, which is

in 42 States, PG&E, and the Public Service Enterprise Group, which is huge in many States. We sat down with them, and we said, if we were to negotiate a cap and trade system, how would we do it so there would be some support in the industry?

The bill that Senator Carper and I have introduced, Madam Chairman, represents something that that section of the industry will support. It essentially reduces six global warming gases by 25 percent by 2020. It sets up an auction scheme that begins in 2011 with $1.9 billion to $10 billion, and goes up to $55 billion by 2036. It involves agriculture, so that they can get credits for good tillage, for growing energy-proficient crops, et cetera. It gives you something I think to pick and choose from. It has a structure.

We believe it is workable. These companies have all vetted it. They have agreed to support it. In 2020, it caps at various times the amount, so you reduce it by 25 percent by 2020. Then in 2020, it says EPA, all right, now you would go 1.5 percent a year every year. If your independent science shows that you need to do more than a year, you have the mandate to issue the directions of the cap, but absent that, it moves at 1.5 percent a year.

I believe that we have to tailor cap and trade for each industry. We are working now in the industrial sector, and it may well be somewhat different than the electricity sector. Also, we are submitting to you a biofuels bill, CAFE efficiency 10 miles over 10 years. That is 18 percent saving by 2020. Biofuels, I think, is around 20 percent saving, and then an energy efficiency bill patterned after California.

If I had to say one thing to you, I would say it is necessary to do a number of different things and do them well, do them in a practical way, and do them so that you know that the goals can be reached by people who want to reach them. It is most important that it be practical and that it be doable, and that we be able to set something. If you can go to China, that is going to shortly overcome us, and say, look, here is a regimen that we are prepared to do in our Country, in electricity, in industry, in business, whatever it is. We believe you can do it, too. And India, the same way, so that we can provide the kind of leadership that we need to on a planetary level.

Now, we did not include in our bill a preemption. That became very controversial. The Governor's people in California were concerned. I know environmentalists were concerned. But if you think about it, there should be one system, and the goal should be to make that one system worldwide so that everybody can enter into the cap and trade system, and everybody can produce the auction and the credits to do what they need to do in their own country to make technology much more improved.

So I think it is a long road. I think it is a very interesting road. I really am so proud of you and your committee for holding these hearings and enabling us to come forward and present some of these things. So thank you very much.

Senator BOXER. Senator Feinstein, I want to thank you so much for your ideas on this topic, for your work. Everything that you do, I can assure you is going to wind its way to our committee, and we will be, as I have told Senator Kerry, working the way we used

to work around here, in a very open process, when we make finally the decisions as to how we are moving.

You have laid out some very interesting points. Do we move sector by sector? Forty percent of the problem is utilities. Thirty percent is mobile sources. Thirty percent is smokestack and others. Maybe we will move that way. Maybe that is the only way we can go.

Maybe we want to get one system, as you point out, would be the best thing where you can say that you are meeting the needs that the problem suggests. If we have a good system with good goals, then one system is clearly the best. If the States are out in front, and they are the ones who are responding to the reality, then we have to take another look at it.

But I understand exactly what you are saying. Certainty, one system that meets the need is certainly what we ought to do if we can do it. But right now, it is sad to look at the state of things, where we have a patchwork.

Senator?

Senator FEINSTEIN. I was just going to say, many of these companies do business in more than one State, some in dozens of States. That is the reason I think why we have to grapple with a national standard so that everybody plays by the same rules across the board.

Senator BOXER. Absolutely, if we can get that standard strong enough so that it meets the challenge. Senator Whitehouse was here. I wish you had seen his presentation on what would happen in New England, and I think we will hear some of that passion from Senator Kerry. Senators Snowe and Gregg handed in testimony that is just a call to action, to do the strongest possible thing you can do nationally.

I would add one point. You are right. These companies, many companies do business globally, too. I think one of the incentives for them to come to the table is the work of our European friends on this, because they want to work with the EU. They want to trade with the EU. They have to package for the EU. All of these things I think are calling us together with a common purpose.

But I am really looking forward to the rest of your legislation. I would urge you to do it because once all those ideas are out on the table, Senator Bingaman's as well, and I know Senator Kerry is working as well, we will move, and you will be a very important part of writing the legislation we bring to the floor.

Thank you very much.

Senator CARPER. Madam Chair, would you yield for just a moment?

Senator BOXER. Yes, I will be happy to yield to you.

Senator CARPER. I want to welcome Senator Feinstein and Senator Kerry to this hearing, to our committee. I have had the pleasure of working with Senator Feinstein on several issues in the 6 years that I have been here. She is bright. She has great people around here. She is tenacious. She is able I think to lay out issues in a way that I can understand, and I think a lot of people could understand and relate to, which is a great gift. So thank you for being a partner with us.

I would just say to Senator Kerry, my friend, my old Navy buddy, that I think, and I have said this to you before, I think you were ahead of your time in 2004, when you ran for President with a huge focus on energy independence and a great roadmap to get us there. There is an old saying that a prophet is without honor in his own land. You were a prophet and the rest of us fortunately are just a few years behind you. Thank you for joining us today and for your leadership.

I have a bunch of people waiting for me in this hearing room, and have been waiting for some time. I am going to slip out for awhile, and if I miss your entire remarks, I will look for you at our caucus lunch and maybe you can give me the shorthand version. Thanks very much.

Senator BOXER. Senator Kerry, we are honored you are here. You have 10 minutes.

STATEMENT OF HON. JOHN KERRY, U.S. SENATOR FROM THE COMMONWEALTH OF MASSACHUSETTS

Senator KERRY. Thank you very much, Madam Chairman.

Thank you, Senator Carper, for your comments. I appreciate it and look forward to working with you.

Madam Chairman, thank you so much for having this hearing. It is wonderful to have the Chair of this committee particularly who is looking at this issue and wanting to move forward.

I just came back from the World Economic Forum meeting in Davos. It is interesting that this was really the dominant issue on the table among businessmen and leaders all over the world. It was the centerpiece of Prime Minister Blair's comments to the plenary session there. Everyone in the world is looking to the United States now. We are 25 percent of the world's greenhouse gas emissions. We have a responsibility to act. Like it or not, no matter what happens, yes, we need a global solution, but if the United States does not act, there won't be a solution.

I look forward also, and I thank you for the conversations we have had. We are going to have some hearings in the Small Business Committee and see how small business can proceed, and also, in the Commerce Committee on which you serve, and you will sort of have a double hat to wear in that capacity. But we are going to use every leverage we have here to move on this.

Back in 1987, on the Commerce Committee under the leadership of then-Senator Gore, we held the first hearings on global climate change. And then in 1990, we held an interparliamentary conference with Senator Wirth, Senator Chafee and others trying to raise the profile of this issue. In 1992, and I mention this history because I want to emphasize the urgency of why we are here. In 1992, I was a member of the delegation that went with those same folks to Rio for the Earth Summit. We came together with about 170 nations or so to discuss various ways to tackle this problem back then.

We came up with a voluntary framework, the international framework on climate change, which President George Herbert Walker Bush signed. We ratified, but it was voluntary. Nations were given an opportunity to participate. We set in process a series of meetings, several of which I attended. I went to Buenos Aires

for the COP meeting. I went to The Hague for the COP meeting. We began to see the tensions between the less developed countries and the developed countries, and the near developed countries, and the struggle to try to get this passed.

I managed the Kyoto agreement issue on the floor of the Senate, when the Byrd-Hagel resolution came up. We accepted the notion that, yes, we want less developed countries in, but we as a Nation never made an effort during those years to try to bring less developed countries to the table by working agreements with them for technology transfer, for recognition of the steps they were taking for fuel switching and other things.

So the bottom line is, nothing happened. We are here in 2006, 16 years or so after these meetings, and almost 20 years after the first hearings, and the United States, some are still in denial, and we are still not proceeding forward.

The American people are moving ahead of the Congress, which is astonishing and a sad statement about congressional irresponsibility. About 376 Mayors from 50 States have signed onto the U.S. Mayors Climate Protection Agreement, to advance the goals of Kyoto. And now we have mounting scientific evidence, which will be capped in a report that will come forward from the Intergovernmental Panel on Climate Change, written by more than 600 scientists, Madam Chairman, reviewed by another 600 experts, and edited by officials from 154 governments, to reflect the scientific consensus. Already, it is being called the smoking gun of global warming by those who have studied it.

The basic facts are that at every point in between the two poles of this planet, the Earth's surface is heating up, and at a catastrophic rate. According to the 2001 IPCC report, we have already increased an average of 1.4 degrees, about .08 °C.

With what is in the atmosphere today, there is an inevitable increase. We can't do anything about it, up to about 1.4 or 1.5 degrees. Scientists now tell us by consensus, recent discussions with Jim Hansen, with John Holden at Harvard and Woods Hole, say that we really only have a latitude of about .06 degrees. You have to hold your temperature increase to 2 °C or we have catastrophic consequence.

A few years ago, they thought it was 3 degrees. A few years ago, they thought we should hold it to 550 parts per million, but now they realize we have to decrease it to 450 parts per million to hold it down to 2 degrees because of what we have already seen in terms of the destruction that is taking place.

In 2005, 1998, 2003, 2002, 2004, 2006, were respectively the 6 warmest years on record, and all but one of the hottest 20 years on record have occurred since 1980, since the time they started measuring. We know this is the result of human activity, and we also know that carbon dioxide in our atmosphere has increased about 30 percent from the pre-industrial level of 270 parts per million. It is currently at 370 parts per million.

So Madam Chairman, that means we have a latitude of going from 370 to 450. This is the highest level of concentration of carbon dioxide in the atmosphere at any time in the past 150,000 years. If we let it go the way it is now, it could reach 600 to 700 parts per million and there will be catastrophe.

Now, here is the bottom line. Those who oppose doing something serious, as John Holdren says, to be credible, they have to explain what alternative mechanism could account for the pattern of changes being observed, and they have to explain how it could be that the known human-caused buildup in greenhouse gases is not having an impact. So they have to show those two things, what is causing it, why is what we have done not causing it. They have failed to even suggest a legitimate theory for either of those.

Senator BOXER. Senator, I am going to give you an additional 5 minutes.

Senator KERRY. Thank you very much, Madam Chair. I appreciate that.

So we are seeing these changes all over the Country. I have just been finishing writing a book about not just this, but all the environmental challenges we face today, toxins, water, oceans, et cetera. As I read about this, after 22 years in the Senate I have to tell you, it became more and more ominous, more and more frightening, more and more urgent and compelling than anything I have read in all the time I have been here, with the exception of a couple of security reports, but this is national security.

You have hunters noticing these changes. In Arkansas, the winter duck population has shrunk from 1 million to a .5 million over the past half century. Last year, drought dropped that population to 160,000. In South Carolina, they wouldn't have duck hunting now if it weren't for farm-raised ducks, and the population of migrant ducks is down to about 3,000. The number of category four and five hurricanes has nearly doubled in the last years.

As John Holdren and others will tell you, climate change is the envelope within which all the other changes take place, species change, climate, winds, hurricanes, ocean temperature. There is this ominous notion of the tipping point which we have to avoid.

So the bottom line is, Madam Chairwoman, the only way to avoid the catastrophe that they warn us of, the oceans, the ice in the oceans in the north, in the Arctic, is going to melt. Jim Hansen sat with me several months ago and said it is no longer a question of if, when or how. It is just a question of it is going to happen, probably 30 years from now. What happens if that ice melts is that more ocean is exposed. As more ocean is exposed, the heating of the sun has a greater impact on the warming of the ocean, which has a greater impact ultimately on the Greenland ice sheet.

Now, we are already seeing melting underneath that ice sheet on the top of the rock. The potential for slippage of that rock, and major breakoff like the one we saw on Ellesmere Island a few months ago, actually a year and a half ago as was detected, and reported recently, where you had a 66 kilometer square ice sheet that just broke off and is now floating as its own island in the ocean.

The ice in the Arctic as it melts doesn't change the displacement of the oceans, so sea level rise is not as much of an issue, though it is going to increase. But if the Greenland ice sheet melts, you have something ranging between a 16-foot and 23-foot sea level increase, which wipes out all ports, lowlands, and islands globally.

The impact of this on poor people, the impact of this on commerce, on species, on disease and all kinds of things is gigantic.

So Madam Chairwoman, the bottom line is we really, and the reason I mention all this, I know it is accepted. I know the science is accepted. Senator Bingaman said it. But the urgency is not accepted up here. The urgency is just not accepted. There are business leaders who are showing greater urgency, the recent 10 corporations that announced what they are going to do, then the Congress of the United States is, or then our government is. There is only one way to deal with this issue. It is carbon dioxide that is the principal greenhouse gas emission that is causing this. There are other greenhouse gases, but that is the principal one, and we have to cap the level of these greenhouse gas emissions. It is the only way to do it.

Senator Snowe and I introduced legislation last year to achieve this. We are going to reintroduce it. We establish an economy-wide cap and trade program to reduce these emissions and we will set that out further later this week. But I remember being part of this debate in 1990, with John Sununu, George Mitchell, Bill Riley and others at the table, into the wee hours of the morning. I remember the industry sitting there saying to us, if you do this, it is going to cost $8 billion and it is going to take 10 years, and you are going to ruin the industry.

The environment community said, "no, no, no, no," it won't do that. If you do it, it will take $4 billion and it will be done in about 4 years, and it won't ruin the industry.

Well, guess what? Both were wrong. It was done at about half the cost the environmental industry said it would, and in half the time. Why? Because no one was able to predict what happens when you start down the road and the technology begins to make advances, and technology begets technology and begets advances that we are not capable of predicting, which is why we need to make this commitment.

The fact is, there are only three big ways of doing this. No. 1, is energy efficiency. There are enormous gains to be made in our Country in terms of energy efficiency. DuPont and General Electric and a host of companies are recognizing this and grabbing the profits. This is a for-profit effort, and we need to get people to realize this isn't just sacrifice. This is an ability to take the lead on health, on the environment, on jobs, on national security, as well as the ability to live up to our obligation morally for the next generation. So you get about five major pluses. There are few public policy choices where you get that.

The final comment I would make, Madam Chairwoman, is that, let me pose this to you. There are two sides here. There are sides of people who are still obstructing, still saying no, and still fighting this, status quo-ists. They refuse to accept some of even the science now. Then there are those fighting to make it happen.

Well, what is the downside of accepting the predictions of the Stern Report that says we can do this at 1 percent of GDP and the costs of not doing it are fivefold to twentyfold times more expensive than the cost of doing it.

So I ask colleagues in the Senate and I ask Americans a simple question: If the people who think climate change is a serious problem are wrong, and we take the steps to deal with it, what is the worst that can happen? The worst that can happen is we have

cleaner air, a healthier Nation, more jobs created. We lead the world in technology. We have made ourselves more energy independent, and we have a better environment.

What is the worst that can happen if the people who say it is not happening or want to stop it? What is the worst if they are wrong? Catastrophe, absolute catastrophe. So the question for the U.S. Senate, for the Congress, for the Country, is which side of the ledger do we want to fall on. I think the answer to that is pretty clear.

Senator BOXER. Senator Kerry, I want to thank you for your excellent contribution to this. You gave us the overview that I certainly agree with. I mean, it is a very simple thing. If you do the right thing, the conservative thing, really, the conservative thing is to say the worst could happen; let's prepare. You have five or six tremendous benefits, starting with the health of our families, saving in their pocketbooks and the rest, profits for industry, jobs we can export, a safer world because we don't have to rely on folks we don't want to rely on. You laid it out.

So that is why I hope we can really come together. With your help, I honestly think that we can do it.

Senator KERRY. Let me just say something.

Senator BOXER. Yes, please go ahead.

Senator KERRY. Two things I just want to add in closing out.

Senator BOXER. Yes?

Senator KERRY. In addition to the energy efficiency, Madam Chairwoman, obviously the clean and alternative fuels are something everybody is talking about. But we have to be a little bit careful about where the major input is put into that, because there are huge land use, water issues and energy issues, consumption issues, in the focus on just ethanol, and not cellulosic.

Senator BOXER. Right.

Senator KERRY. Second, we have to look carefully at the clean coal technology issue and sequestration. There are serious questions about how much sequestration you could actually achieve, and we have to push forward on it.

Those are the three big ones, and those are the places where we are going to get the greatest grab in the shortest time. If we accept the science, and I think we are duty-bound to do it, than you only have a 10-year window. If there is a 10-year window, then I think we have a moral responsibility to accept that. Then, you have to grab the biggest pieces, the fastest you can.

Senator BOXER. Right.

Senator KERRY. As you know.

Senator BOXER. We call it the low hanging fruit. There is a lot of it around. The terrible news is we have done so little. The good news is we have done so little it is easy to start. I mean, that is really kind of where we are. We just have to start and get out of our paralysis.

Senator, I also thank you for making the distinction between alternative fuels and renewable fuels because when the President talks about alternatives, we don't know that they are clean. We don't know that they will necessarily help us with the greenhouse gas emissions. So there are lots of things we have to be wary of.

Obviously, you are a leader on this. You have been a leader for many years, and I am very pleased we will work together both on legislation that will come before this committee, as well as in the Commerce Committee, where we can really work together on fuel economy and the rest.

So I think it is going to be a good year for us. We are going to move forward. I thank you for your contributions.

Senator KERRY. My pleasure. Thank you very much.

Senator BOXER. The committee is going to stand in recess until 12:45 p.m., when we expect to hear from Senators Obama and McCain. If there is any change in that, we will let everyone know. Otherwise, that is the plan.

At 2:30 p.m., we have a host of people coming, Senators Levin, Murkowski, Akaka, Lincoln, Durbin and Nelson of Florida. So at this point, we intend to be back here at 12:45 p.m., and then again at 2:30 p.m. If there is any change, we will let folks know.

Thank you. We stand in recess.

[Recess.]

Senator BOXER. The committee will come to order.

We will now hear from Senator McCain. Welcome.

STATEMENT OF HON. JOHN MCCAIN, U.S. SENATOR FROM THE STATE OF ARIZONA

Senator MCCAIN. Madam Chairman, let me thank you for calling today's hearing to discuss the most important environmental issue of our time, climate change.

Over the past several years, a number of my colleagues and I have spent considerable time on the issue of climate change. We have traveled around the globe to see firsthand the impacts of climate change and how it is changing the lives of people even as we speak. I am pleased to have visited Alaska, Antarctica, Canada, New Zealand, South America, Norway, and other parts of the Arctic region. Let me say, if anyone remains in doubt that climate change is real, I invite them to visit some of these places to see for themselves.

The number of individuals in Washington who reject the clear evidence of global warming is shrinking as its dramatic manifestations mount. A large number of prominent scientists, industry leaders, environmentalists, State and local government officials, the faith-based community, and others agree that climate change is real and we must move quickly to address the problem in a meaningful and sustainable manner.

We are no longer just talking about how climate change will affect our children's and grandchildren's lives, as we did just a few years ago, but we now are talking about how it is already impacting the world with declining snow packs, forest fires, melting ice caps, species dislocation and habitat loss, and extreme weather events. All are examples of how climate change is impacting us. We need to act to mitigate and adapt to these devastating events.

More and more Americans are acknowledging that climate change is not only real, but that it is critical. On Monday of last week, a coalition of major U.S.-based businesses, with a combined market capitalization of over $750 billion, joined with environmental organizations to call upon our Federal Government to

quickly enact national legislation to achieve significant reductions of greenhouse gas emissions. The members of the U.S. Climate Action Partnership recognize that setting rules now about greenhouse gases will unleash American ingenuity in an all-out effort to meet this complicated challenge.

In their letter to President Bush, the Coalition said that, "A properly constructed policy can be economically sustainable, environmentally responsible, and politically achievable. Swift legislative action on our proposal would encourage innovation and provide needed U.S. leadership on this global challenge." They further stated that climate change will create more economic opportunities than risks for the U.S. economy.

While action at the national level is essential, it will eventually occur because the American people will demand it. I am pleased to also mention progress that is already being made at the State and local levels.

Just 6 months ago, the State of California enacted legislation requiring mandatory reduction of greenhouse gas emissions, the first of its kind in the Nation. That legislation would require that California's emissions be reduced to the year 1990 levels by the year 2020.

The Northeast States of Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York and Vermont agreed in December 2005 to implement a cap and trade program to lower carbon emissions from powerplants. This effort is continuing to grow as evidence by the State of Massachusetts joining this regional effort 2 weeks ago.

Also 2 weeks ago, an alliance of prominent U.S. scientists and members of the faith community pledged to work together to push for a reduction in the Nation's greenhouse gas emissions. In their statement, the group said that Earth is "seriously imperiled by human behavior," and called on Americans to "steward the natural world in order to preserve the planet for ourselves and future generations."

The U.S. Mayors have also agreed to take action. Over 375 U.S. Mayors, representing over 55 million people, have signed an agreement calling for emission reductions of 7 percent below 1990 levels by the year 2012.

Madam Chairman, we will continue to learn more about the science of climate change and the dangerous precedent of not addressing this environmental problem. The science tells us that urgent and significant action is needed.

Later this week, we expect to receive the United Nations' Intergovernmental Panel on Climate Change summary of their Fourth Assessment Report. Some well respected scientists are already calling it the smoking gun, and the "iconic statement" on the issue of global warming.

We recognize that many fear the costs of taking action. But there are costs to delay as well. Failure to implement significant reductions in net greenhouse gas emissions in the near term will yield only more climate change, and a much harder job in the future. Simply stated, inaction is unsustainable.

As Senator Lieberman and I have continued working for passage of legislation to address climate change in a meaningful way, and

are continuing our efforts to further improve upon our legislation with the goal of producing the most innovative, meaningful and economically feasible measure that can be embraced by the Senate, it has become clear to us that any responsible climate change measure must contain five essential components.

First, it must have rational, mandatory emission reduction targets and timetables. It must be goal oriented, and have both environmental and economic integrity. Let us realize that the climate system reacts not to emission intensity, but to atmospheric concentration levels. We need policy that will produce necessary reductions, not merely check political boxes. The reductions must be feasible and based on sound science, and this is what we have tried to do in our bill.

We realized that this problem is an environmental problem with significant economic implications, and not an economic problem with significant environmental implications.

Second, it must utilize a market-based economy-wide cap and trade system. It must limit greenhouse gas emissions and allow the trading of emission credits across the economy to drive enterprise, innovation and efficiency. That is a central component, in my view, of any legislation. Voluntary efforts will not change the status quo. Taxes are counterproductive, and markets are more dependable than regulators.

Third, it must include mechanisms to minimize costs and work effectively with other markets. The "trade" part of cap and trade is such a mechanism, but it is clear it must be bolstered by other assurances that costs will be minimized. I am as concerned as anyone about the economic impacts associated with any climate change legislation. I know that many economists are developing increasingly sophisticated ways to project future costs of compliance.

Lately, we have seen the increased interest in this area of research. As we learn more from these models about additional action items to further reduce costs, we intend to incorporate them.

Already, based upon earlier economic analysis, we have added offsets provisions in this bill in an effort to minimize costs and to provide for the creation of new markets. I assure my colleagues we will continue to seek new and innovative ways to further minimize costs.

Let me again mention, Madam Chairman, what the Coalition of CEOs of major U.S.-based companies and environmental groups said just last week, "In our view, the climate change climate will create more economic opportunities than risks for the U.S. economy." That is what the industrialists are saying.

Fourth, it must spur the development and deployment of advanced technology. Nuclear, solar and other alternative energy must be part of the equation, and we need a dedicated national commitment to develop and bring to market the technologies of the future as a matter of good environmental and economic policy. There will be a growing global market for these technologies, and the United States will benefit greatly from being competitive in capturing its share of these markets.

Unlike the Energy bill, it would be funded using the proceeds from the auctioning of allowable emission credits, rather than from

the use of taxpayers' funds or appropriations that will never materialize.

Finally, Madam Chairman, it must facilitate international efforts to solve the problem. Global warming is an international problem requiring an international effort. The United States has an obligation to lead. If we don't lead proactively, we will find ourselves following. There is no in between.

However, our leadership cannot replace the need for action by countries such as India and China. We must spur and facilitate it. We have added provisions that would allow U.S. companies to enter into partnerships in developing countries for the purpose of conducting projects to achieve certified emission reductions, which may be traded on the international market.

I believe those five components are integral to any legislation. Madam Chairman, you have a very big challenge here in trying to put this all together. I believe it has to be based on those principles. I believe we can do it so that it is valuable to the stockholders of major corporations. GE has gone green. They allege that it is going to help their stockholders. One reason is because they have to do business in Europe. I was very happy to see what happened last Monday. That would not have been possible a short time ago.

I am happy to see what is happening in California, other coalitions of States. As I said at the beginning of our conversation, one, I am grateful for your leadership and your commitment, and two, the time is now.

[The prepared statement of Senator McCain follows:]

STATEMENT OF HON. JOHN MCCAIN, U.S. SENATOR FROM THE STATE OF ARIZONA

Madame Chairman, let me thank you for calling today's hearing to discuss the most important environmental issue of our time: climate change.

Over the past several years, a number of my colleagues and I have spent considerable time studying the issue of climate change. We have traveled around the globe to see first hand the impacts of climate change and how it is changing the lives of people even as we speak. I am pleased to have visited Alaska, Antarctica, Australia, Canada, New Zealand, South America, Norway, and other parts of the Arctic region. Let me say, if anyone remains in doubt that climate change is real, I invite them to visit some of these places to see for themselves.

The number of individuals in Washington who reject the clear evidence of global warming appears to be shrinking as its dramatic manifestations mount. A large number of prominent scientists, industry leaders, environmentalists, state and local government officials, the faith-based community, and others agree that climate change is real and we must move quickly to address the problem in a meaningful and sustainable manner.

We are no longer just talking about how climate change will effect our children's and grandchildren's lives, as we did just a few years ago, but we now are talking about how it is already impacting the world. Drought, declining snow packs, forest fires, melting ice caps, species dislocation and habitat loss, and extreme weather events—all are examples of how climate change is impacting us. We need to act to mitigate and adapt to these devastating events.

More and more Americans are acknowledging that climate change is not only real, but that our action is critical. On Monday of last week, a coalition of major U.S.-based businesses, with a combined market capitalization of over $750 billion, joined with environmental organizations to call upon our federal government to quickly enact strong national legislation to achieve significant reductions of greenhouse gas emissions. The members of the U.S. Climate Action Partnership recognize that setting the ground rules now for managing greenhouse gasses will unleash American ingenuity in an all out effort to meet this complicated challenge.

In their letter to President Bush, the coalition said that, (properly constructed policy can be economically sustainable, environmentally responsible, and politically achievable. Swift legislative action on our proposal would encourage innovation and provide needed U.S. leadership on this global challenge." They further stated that ". . . climate change will create more economic opportunities than risks for the U.S. economy." I agree.

While action at the national level is essential—and it will eventually occur because the American public will demand it—I am pleased to also mention progress that is already being made at the state and local levels.

• Just six months ago, the state of California enacted legislation requiring mandatory reductions in greenhouse gas emissions, the first of its kind in the nation. That legislation would require that California's emissions be reduced to the year 1990 levels by the year 2020.

• The Northeast states of Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York, and Vermont agreed in December 2005 to implement a "cap-and-trade" program to lower carbon dioxide emissions from power plants. This effort is continuing to grow as evidenced by the state of Massachusetts joining this regional effort two weeks ago.

• Also two weeks ago, an alliance of prominent U.S. scientists and members of the faith community agreed to work together to push for a reduction in the Nation's greenhouse gas emissions. In their joint statement, the group said that Earth is "seriously imperiled by human behavior" and called on Americans to "steward the natural world in order to preserve [the planet] for ourselves and future generations".

• And, the U.S. mayors have also agreed to take action. Over 375 U.S. mayors, representing over 55 million people, have signed an agreement calling for emission reductions of 7 percent below the 1990 levels by the year 2012.

Madam Chairman, we will continue to learn more about the science of climate change and the dangerous precedence of not addressing this environmental problem. The science tells us that urgent and significant action is needed.

Later this week, we expect to receive from the United Nation's Intergovernmental Panel on Climate Change a summary of their Fourth Assessment Report. Some well respected scientists are already calling it the "smoking gun" and the "iconic statement" on the issue of global warming.

We recognize that many fear the costs of taking action. But there are costs to delay as well. Failure to implement significant reductions in net greenhouse gas emissions in the near term will yield only more climate change and a much harder job in the future. Simply stated, inaction is unsustainable.

As Senator Lieberman and I have continued working for passage of legislation to address climate change in a meaningful way, and are continuing our efforts to further improve upon our legislation with the goal of producing the most innovative, meaningful, and economically feasible measure that can be embraced by the Senate, it has become clear to us that any responsible climate change measure must contain five essential components:

First, it must have rational, mandatory emission reduction targets and timetables. It must be goal oriented, and have both environmental and economic integrity. Let us realize that the climate system reacts not to emission intensity but to atmospheric concentration levels. We need policy that will produce necessary reductions, not merely check political boxes. The reductions must be feasible and based on sound science, and this is what we have tried to do in our bill. We realized that this problem is an environmental problem with significant economic implications and not an economic problem with significant environmental implications.

Second, it must utilize a market-based, economy wide "cap and trade" system. It must limit greenhouse gas emissions and allow the trading of emission credits across the economy to drive enterprise, innovation and efficiency. This is the central component of our legislation. Voluntary efforts will not change the status quo, taxes are counterproductive, and markets are more dependable than regulators in effecting sustainable change.

Third, it must include mechanisms to minimize costs and work effectively with other markets. The "trade" part of "cap and trade" is such a mechanism, but it's clear it must be bolstered by other assurances that costs will be minimized. I am as concerned as anyone about the economic impacts associated with any climate change legislation. I know that many economists are developing increasingly sophisticated ways to project future costs of compliance. Lately, we have seen the increased interest in this area of research. As we learn more from these models about additional action items to further reduce costs, we intend to incorporate them. Already, based upon earlier economic analysis, we have added "offsets" provisions in this bill in an effort to minimize costs and to provide for the creation of new markets. And, I assure my colleagues, we will continue to seek new and innovative ways

to further minimize costs. Let me again mention what the coalition of CEO's of major US-based companies and environmental groups said last week, "In our view, the climate change challenge will create more economic opportunities than risks for the U.S. economy."

Fourth, it must spur the development and deployment of advanced technology. Nuclear, solar, and other alternative energy must be part of the equation and we need a dedicated national commitment to develop and bring to market the technologies of the future as a matter of good environmental and economic policy. There will be a growing global market for these technologies and the U.S. will benefit greatly from being competitive and capturing its share of these markets. Our legislation includes a comprehensive technology title that would go a long way toward meeting this goal. Unlike the Energy bill, it would be funded using the proceeds from the auctioning of allowable emission credits, rather than from the use of taxpayers' funds or appropriations that will never materialize.

And fifth, it must facilitate international efforts to solve the problem. Global warming is an international problem requiring an international effort. The United States has an obligation to lead. If we don't lead proactively, we will find ourselves following. There is no in between. However, our leadership cannot replace the need for action by countries such as India and China. We must spur and facilitate it. We have added provisions that would allow U.S. companies to enter into partnerships in developing countries for the purpose of conducting projects to achieve certified emission reductions, which may be traded on the international market.

These five components represent a serious challenge that will require a great deal of effort, the concentration of substantial intellectual power, and the continued efforts of our colleagues and those in the environmental, industrial, economic, and national security communities. I look forward to collaborating with the Committee in this effort as we continue to shape our legislation into its most effective form.

Madame Chairman, I believe that Senator Lieberman has already provided the Committee with a thorough description of our bill, S. 280, the Climate Stewardship and Innovation Act of 2007. I won't seek to repeat it. However, I would like to address one issue that I know has been of concern for some on the Committee, and that is the topic of nuclear energy.

I know that some here maintain strong objections to nuclear energy, even though today it supplies nearly 20 percent of the electricity generated in the U.S. and much higher proportions in places such as France, Belgium, Sweden and Switzerland—countries that are not exactly known for their environmental disregard. The fact is, nuclear energy is CLEAN. It produces ZERO emissions in operations. It has the lowest carbon footprint, and is, therefore, undeniably a valuable tool for reigning in greenhouse gas emissions both quickly and economically.

Nuclear energy is growing, and it will continue to grow substantially in the coming decades given the growing electricity needs around the world. Not only should we promote U.S. companies in their efforts to compete for important roles in this growing market throughout the world, we should be helping them in promoting nuclear in a safe and efficient manner here in the United States. The Nuclear Regulatory Commission (NRC), which is under this Committee's jurisdiction, is already preparing for a substantial number of license applications for new plants. I am confident that this committee, under the Chairman's and Ranking Member's leadership, will work to ensure that safety remains first and foremost among the NRC's responsibilities, as it must.

Finally, I, too recognize and share the concerns of what to do with nuclear waste. I am confident that given political will and time for technology development and deployment, we can solve that problem. It is important to recognize the responsible waste management that occurs in the nuclear industry today. Yet, while there is a great concern over comparatively small quantities of responsibly managed nuclear waste, there is an even more dangerous event occurring under our noses. And that is 900 tons of carbon dioxide per second being dumped in the atmosphere from fossil fuel use. Now that is a an urgent waste problem that should be concerning us most.

Therefore, I hope we can have a thorough debate about the importance of nuclear energy and its future as we grapple with how best to address global warming. We need to better understand what is necessary to bring new, safe and reliable nuclear power plants on line. I hope that we can work together, Madame Chairman, to ensure we put all options on the table so that the Senate can pass the most innovative, effective, and economically feasible climate change legislation possible.

The status quo is a strong and stubborn force. People and institutions are averse to change, even when that change is critical for their own well-being, and that of their children and grandchildren. If the scientists are right and temperatures continue to rise, we could face environmental, economic, and national security consequences far beyond our ability to imagine. If they are wrong and the Earth finds

a way to compensate for the unprecedented levels of greenhouse gases in the atmosphere, what will we have accomplished? Cleaner air; greater energy efficiency, a more diverse and secure energy mix, and U.S. leadership in the technologies of the future. There is no doubt; failure to act is the far greater risk.

Senator BOXER. Senator, before you leave, I want to say thank you for your consistency on this issue for years, and also your intensity. When we talk about carbon reductions, there is a whole argument over intensity. But intensity, when it comes to politics, is a very important thing. The reason I did these hearings, where we have such a great turnout of members, and then members outside the committee, is to gauge the intensity of feeling.

I am proud to tell you, I think it is there, for many, many reasons, not the least of which is that you and Senator Lieberman have been pounding away on this. Senator Carper, Senator Alexander and others have been pounding away on this. I am just very glad that we gave you this opportunity for you to come forward once again, because without you, frankly, we can't put this together. We thank you very much for your contribution.

Senator MCCAIN. Thank you very much, Madam Chairman. Senator Lieberman has been a millstone around my neck as we move forward.

[Laughter.]

Senator LIEBERMAN. I was just going to ask you if you wanted to venture an opinion on your leader co-sponsor, and you went ahead.

Senator BOXER. He did it.

[Laughter.]

Senator LIEBERMAN. Senator McCain has been very—he started with questions and we spent a lot of time before we introduced this bill, meeting with environmentalists, business people, and academics. This bill actually is the result of a process. It wasn't just, as great as our individual capacities are, and even more jointly. It built from a lot of work we did, and we started out trying to do something that we thought would work and be acceptable. And then, of course, John has been tireless in traveling around the world to see the actual effects of global warming, which has intensified his commitment to this.

So he has been a great leader in this. I think we both feel that we are on the verge of critical mass, the tipping point. We are pleased to have others join us on this bill, and now look forward to working together with you, Madam Chairwoman, to make this happen.

Senator MCCAIN. Madam Chairwoman, I just want to say again, we don't feel that this proposal of ours is engraved in golden tablets. We think that it can be improved. We want to work with you and build a larger consensus under your leadership. We have no pride in authorship. This is too important. Whatever direction and additions or subtractions that you and our colleagues feel is necessary, the object is to get something done and soon.

Senator BOXER. Right. We are in agreement. I thank you so much, Senator McCain.

Now, our last speaker of the morning session, actually the early afternoon session, not the least is of course the Senator from Illinois, Senator Obama, if we can hear him above the clicks of the

cameras. I always kid him. He is like a brother to me, so he has to put up with these jokes.

But Senator Obama, I miss you from this committee, but I am very glad that you took time out to come here today. I want to fill you in, as I did Senator McCain. We had an extraordinary day to day. We started at 9 o'clock a.m., and 14 members of the committee came and spoke. I am trying to put together in my mind where everybody is so we can craft something.

We had Senators Bingaman, Feinstein and Kerry come and speak, Senator McCain and now you. After lunch, we will have Senators Levin, Murkowski, Akaka, Lincoln, Durbin, Nelson and hopefully Joe Biden, who is stuck in another room in another hearing.

The point is, this is getting exciting, and we may be feeling that there is a critical mass here to be very serious about this at long last.

I also read into the record the most dramatic statements I have seen on this by Senators Snowe and Judd Gregg.

So we have bipartisanship emerging and I am just really delighted you are here. You have 10 minutes or whatever you need to present to us.

OPENING STATEMENT OF HON. BARACK OBAMA, U.S. SENATOR FROM THE STATE OF ILLINOIS

Senator OBAMA. Madam Chairman, thank you so much for your leadership and for holding this hearing. I want to commend you. I know that you have made people across the Country who takes this seriously, you have made them much encouraged because of the immediate efforts that you are putting into place.

I want to thank Senator Lieberman as well as Senator McCain for the outstanding leadership that they have shown on this issue. Sometimes I know it has felt like you are howling to the wind, but fortunately, I think the American people have come to understand how important this issue is. I think those who still diminish the real threat that climate change poses to our children and our grandchildren, they are going to be lagging behind where the American people are at this point. So I want to thank both of you for your great work, as well as Senator McCain, who just provided testimony.

For decades, we have been warned by legions of scientists and mounds of evidence that global warming is real, that we couldn't just keep burning fossil fuels and contributing to the changing atmosphere without consequence. Yet for decades, far too many have ignored the warnings, either dismissing the science as a hoax, or believing that it was solely the concern of environmentalists looking to save polar bears and rain forests. We have heard some of those views expressed, Madam Chairman, on this committee. You and I both recall some of those statements.

But today's bipartisan hearing is a sign that the long running debate over the existence of climate change is over. It represents a sea change in the attitudes of this Country and this Congress, that we have moved from the question, "Is it real?" to the question, "What can we do about it?" We know that climate change is about more than a few unseasonably mild winters or hot summers. It is

about the chain of natural catastrophes and devastating weather patterns that global warming has begun to set off around the world, the frequency and intensity of which are breaking records thousands of years old.

It is about the devastating consequences climate change might have on human health, access to water, and the production of our food. Still, despite all the ominous harbingers of things to come, and I am sure it has been noted already at this committee, the most recent studies that came out indicating that the polar ice caps would no longer exist in approximately 35 to 40 years, so it is no longer even an issue just for our children or our grandchildren, but potentially for us.

We don't have to stand helplessly by and accept this future. In fact, we can't afford to. Climate change may be unleashing the forces of nature, but we can't forget that while this has been accelerated by man, it can also be slowed by man. Since coming to Washington, I believe that the right approach begins with the proposal put forward by Senator Lieberman and Senator McCain, a proposal they have been pushing for years, and I thank them again for their leadership on this issue.

The Lieberman-McCain bill establishes limits for greenhouse gas emissions well into the 21st century. To remain below these limits, the bill encourages the market to determine how best to reduce greenhouse gas emissions, reward cost-effective approaches using a system of tradable allowances. The idea here is simple. If you are a business that cannot yet meet a lower cap on harmful carbon emissions, you have two choices. You can either purchase credits from other companies that have achieved more than their emission goals, or you can temporarily purchase a permit from the government. The money from the sale of these permits will go toward investments in clean energy technologies such as green buildings, high powered batteries for hybrid cars, safer nuclear plants to generate electricity, large scale biofuel facilities, and advanced coal powerplants that capture the carbon dioxide they generate.

This will actually spur American innovation, as Senator McCain noted, creating business opportunities as new markets develop in low carbon technologies and services. Fred Krupp, the president of Environmental Defense has said, "Once you put a value on carbon reduction, you make winners out of innovators." And that I think is the classic American way.

In short, the Lieberman-McCain proposal addresses the real costs and consequences of our current patterns of energy use and establishes a framework for a market-based solution that relies on American will, ingenuity and technological expertise. It is a framework that is not only good for the environment; it is also good for business.

In the face of Federal inaction, States, localities and private enterprise have begun to fill the void with a number of truly innovative proposals to reduce greenhouse gas emissions. I just want to give you one example from my hometown, the Chicago Climate Exchange, a voluntary global marketplace for reducing and trading greenhouse emissions. Such measures have been an important step in the right direction, but businesses that operate around the Country need regulatory certainty and that is just not possible

when they are facing a hodgepodge of State and local regulations, which is why action on this committee and hopefully on the floor of the Senate is so important.

Ultimately, climate change is one of the major tests of our generation. It is a challenge that asks us, will we stand by while drought and famine, storms and floods, overtake our planet? Or will we look back at today and say that this was the moment when we took a stand, that this was the moment when we began to turn things around. The climate changes we are experiencing are already causing us harm, but in the end, it will not primarily be us who deal with its most devastating effects. It will be our children and our grandchildren.

This is our generation's chance to protect their futures. It is a chance that won't last much longer, but if we work together and seize this moment, we can change the course of this Nation forever. The Lieberman-McCain bill makes me hopeful that we can start right away. I am proud to be an original cosponsor. I am proud of the work that you are doing, Madam Chairman. I think I would be remiss also if I failed to mention the outstanding work that former Vice President Al Gore has done on this issue, because I think that through his film, An Inconvenient Truth, as well as his book, he has done more to proselytize on this issue, not just here in the United States, but around the world.

Ultimately, the most important thing that we have to have is a sense of urgency on the part of the American people. Once the American people make a determination that something is important, politicians follow. He has made an enormous contribution in helping to make that happen.

One final note I would like to make, Madam Chairman. I was heartened by Senator McCain's comment that the Lieberman-McCain bill is not written in stone. Obviously, there are improvements that can be made. We actually have some lessons that we can learn from the cap and trade systems that they have set up in Europe under the Kyoto Protocol. We know that in some cases, windfalls have gone to companies that really did not do a lot of work because of the way that the system was calibrated. We know that there are adjustments that we can make as a consequence of the work that they did that can make our system work even better. I am sure that we are going to be examining those carefully in our hearings.

It may be that as we build consensus, it is possible that we can go even further than we have gone in this bill. That would be a wonderful thing, but I think this is a wonderful framework with which to start.

The final point I would make would be that obviously setting up a cap and trade system will be difficult politically and presents a challenge to all of us, but we shouldn't stop there. There are other things that are going to be important to do. I have a bill that I am going to be introducing relating to making sure that our fuel efficiency standards in cars are higher than they currently are.

There have been recent articles showing how much we could gain from improving basic efficiencies in buildings, in homes, the things that are relatively painless, but would have an enormous effect if we simply were systematic about it and provided incentives to both

consumers and to businesses to implement some of these steps. We are way behind countries like Japan when it comes to energy efficiency, and that would make an enormous difference.

Finally, Madam Chairman, I think that you are aware that there is an important convergence between the vital environmental concerns that we face and our national security interests. If we can move to conserve our energy consumption, our consumption of fossil fuels, then we get not only an economic benefit and not only an environmental benefit, but we also are able to strengthen our position relative to geopolitics. It gives us additional leverage in the Middle East and can potentially go a long way in terms of reducing some of our military obligations around the world.

And so this is a win-win situation, and under your leadership I am confident that we can make great progress this year.

Thank you very much.

Senator BOXER. Thank you so much, Senator. Before you leave, we are going to go to a conference lunch in a moment. I just wanted to say that what has been fascinating for me to sit here through everybody's presentations is how we are coming together.

We say it in our own way. We come from different parts of the Country. But I would say a broad consensus of those who spoke, a couple of exceptions, but not too many, is the time for action is now. We are not going to take a lot of time debating this anymore. We are just moving forward. If people still want to debate, it is free speech. Fine. But we are moving beyond the argument, and we are going to move forward to solutions.

I would close by saying, and we will resume at 2:30 p.m., you asked the central question, and it is really I think a challenge to the whole Senate. You said, "is this the moment we took a stand?"

Senator OBAMA. Right.

Senator BOXER. That is the central question. I think after what I have heard today, I want to report to you, since you asked the question, I think this is the moment that we will take a stand. It is with your enthusiasm, and Senator Lieberman's and Carper's and Alexander's and all of us together, Senator McCain, and Senators from both sides, that if we all feel this is our moment, because few have this opportunity that we have been given, by chance, by fate.

So, I think the answer is yes. This is the moment we are going to take a stand.

Senator, did you want to respond?

Senator OBAMA. Look, I am ready and willing to work as hard as I can on this issue. One point that I am sure has been made in previous testimony is that the world is going to be watching us over the next several years to see what kind of leadership we take on this issue. We did not ratify Kyoto, and I think all of us would acknowledge that there were problems with Kyoto, but we did not come back with a solid proposal that we could participate in.

As a consequence, we abdicated responsibility. The world moved forward. The industrialized world moved forward. We were laggards on this issue and that has then given an excuse to some of the rapidly developing nations, like China and India, to say if the United States, with all its wealth and its enormous energy con-

sumption, is unwilling to do this, why would we, who are still trying to feed our people, want to invest in dealing with this problem?

It is inexcusable, I think, for a country of our wealth and ingenuity and power not to be leaders. This gives us an opportunity to show the world that we are prepared to work with them in a constructive, positive, but aggressive way to deal with this threat.

The only other point I would make, for those who are still skeptical about the issue of climate change, almost everyone in this room, I presume, has some form of insurance. You hope that you are not going to get cancer. You hope that you are not going to get hit by a bus. You hope that things work out in the end, but you plan for the possibilities of personal catastrophe. Even those who are skeptical about climate change, and still dispute the pace with which climate change is taking place, or are still disputing the causes of climate change, have to acknowledge that something out there is happening that is disturbing; that it is potentially an enormous problem; and that if we can take intelligent steps now to assure that this problem is dealt with, why wouldn't we do so? Why wouldn't we take that step?

It is a significant investment, but in an economy of our size, it is not an insurmountable one. As Senator McCain indicated, it actually may point the way toward an entire new set of industries and enormous economic development. So my hope is that even for those who are still debating the science, they recognize that there is a serious enough possibility of a threat that it is worthwhile for us to take the steps now, as opposed to waiting until it is too late.

Senator BOXER. Senator, thank you.

Senator Lieberman, the last word.

Senator LIEBERMAN. Thanks, Madam Chairwoman.

I wanted to thank our colleague, Senator Obama, for his eloquent statement and for his decision to sign onto the bill as an original cosponsor with Senator McCain and me. It matters a lot to us, but more than that I think it matters a lot to the cause that you have put the weight of your support behind this proposal.

I was thinking as you were talking, you know, some scientists think we are approaching a climatological tipping point where we may get to a point where it is hard to come back, and some of the effects of climate change will indeed be catastrophic. We are in a race, and the question is do we hit the political tipping point when America comes together to assume its appropriate leadership role in the fight against global warming. Does that political tipping point come before the climate tips against us?

I think what we are seeing here, including your moving to a leadership position here, is that maybe we will see the light, if you will, and hear the call to responsibility and show political leadership.

Second, the President spoke less than a sentence about global warming in the State of the Union, but as I said earlier today, it was enough to elicit an eruption of hope around the world. It shows how much the world is yearning for American leadership. Of course, we have a moral responsibility to do that. I hope the President's statement, and I believe it is, will also encourage some of our Republican colleagues here in Congress to now become part of a solution, because I believe the President was clearly stating this is a real problem.

The final point, just to state again, none of us who are original cosponsors of our proposal believe it is fixed in stone. The key parts are fixed, which is that there needs to be a cap. We tried it without a cap during the 1990's after the Rio agreements, and nobody did anything. So you need to create a cap, and that trading system underneath, but there is a lot of room to negotiate a lot within those parameters. I am hopeful together we will do that.

Thank you very much.

Senator OBAMA. Thank you so much, Madam Chairman.

Senator BOXER. Senator Obama, thank you so much.

Senator Lieberman, thank you again.

We will stand in recess until 2:30 p.m. when we will hear from a number of our colleagues.

[Recess.]

Senator BOXER. The committee will come to order.

I am very delighted that we expect this afternoon Senators Levin, Murkowski, and Akaka who are here, Lincoln, Durbin, and Nelson of Florida. We have also gotten several colleagues to send in statements. What I wanted to just tell my colleagues is, we are having an amazing day. We started at 9 a.m. We heard from 14 members of the committee, and then we had outside members come in, Senators Bingaman, Feinstein, Kerry, McCain and Obama.

So we are really moving along, and now with the three of you, I am just delighted.

Now, is it true, Senator Levin, that you are in a very big rush?

Senator LEVIN. Yes, Madam Chairman. [Remarks off microphone.]

Senator BOXER. We did. Is it possible for us to go Levin, Murkowski and Akaka? Is that all right? OK.

Senator Levin, I was just saying, we have heard from about 20 of our colleagues in person, and we have about six statements put in the record. So by the time the end of the day comes, we will have heard from more than one-third of the Senate on global warming.

So we welcome you, Senator, and you have 10 minutes. If you have a statement to put in the record, we will do that. If you want to summarize it or read it, is your call. Thank you, Senator.

STATEMENT OF HON. CARL LEVIN, U.S. SENATOR FROM THE STATE OF MICHIGAN

Senator LEVIN. Madam Chairman, your meeting here is very, very important.

Senator BOXER. Is your mic on?

Senator LEVIN. Thank you. You are performing here a really great service by having hearings such as this, and opening up yourself, your other colleagues on this committee and the staff to hearing various positions on the subject at hand.

Global warming is a fact as far as I am concerned. It has been for a long time. There is a consensus or near consensus among scientists that action is required. It is a global problem. It will get worse unless there is a global agreement to do something about it.

I believe we need an effective international treaty for starters that is enforceable. The only way I know to enforce it and make sure that the countries that are producing more and more CO_2

come on board is if there are ways, if there are teeth in a treaty. One of the ways that I would contemplate if there were a reopening of the global warming, the Kyoto discussion, would be to allow countries that have trading relations with other countries who are not on board a global warming or CO_2 reduction scheme, to tell those countries that we are not going to accept products that come from countries that are not in agreement with a global warming scheme.

I think you have to have some kind of teeth. It has to be global. It is global warming. You need an international agreement, a treaty that binds all nations, including the countries such as China and India whose increase in CO_2 production will swamp any reductions we are able to achieve in this Country unless they are on board. So an effective international treaty is No. 1. It has to be enforceable.

No. 2, I understand that China is opening up a coal-fired powerplant every week. We can argue here all day, night and year about what we should do to reduce our contribution to this major problem, but unless China, India and other countries are on board, it is almost irrelevant. I wouldn't say it's irrelevant, but it is just going to be almost fruitless what we are hoping to do in this Country by various ways.

Now, where does the United States fit? We have a chart. This is really to help me understand the picture. This is just a chart we finished this weekend. The square is the global CO_2 production in 2007. The square inside of that square is the U.S. contribution, which is 21 percent. The square inside that square is the transportation contribution to the U.S. contribution. And then inside that is the U.S. passenger vehicle and light trucks.

So these numbers we will put in the record. World CO_2 production is 28 million metric tons. The U.S. contribution is 6 million metric tons.

Senator BOXER. Senator, before you go on, I just want to, because I am having a difference with you on something you said, and I want to make sure. The big square is?

Senator LEVIN. World CO_2.

Senator BOXER. World CO_2. The next one is our contribution, 21.8 percent.

Senator LEVIN. Right.

Senator BOXER. The next square, as I understand it, according to my experts here, is the 6.8 percent is a percentage of the world, not the percentage of the United States.

Senator LEVIN. That is correct.

Senator BOXER. Because in the United States, it is one-third of the problem.

Senator LEVIN. That is correct.

Senator BOXER. Thank you.

Senator LEVIN. It is one-third of the U.S. contribution.

Senator BOXER. That is right. Thank you.

Senator LEVIN. I misspoke.

Senator BOXER. We are together.

Senator LEVIN. The transportation contribution to the U.S. contribution, it is one-third of the U.S. contribution.

Senator BOXER. Correct.

Senator LEVIN. Then the passenger vehicle contribution is about less than one-fifth of the U.S. contribution. It is about 1.1 million metric tons of the 6.1 million metric tons.

As we see it, that is the big picture.

Now, a common goal would be to reduce carbon dioxide. I assume that is why we are here, is to reduce that, and I am going to focus just on vehicles, although vehicles are not the major part of the contribution. Nonetheless, obviously that is the part, coming from Michigan, which I have been focusing on for many years.

Senator BOXER. Of course.

Senator LEVIN. We want to reduce carbon dioxide. If we do it right, Madam Chairman, if we do it right, I believe we can unleash great technological advances in vehicles. We can make leaps in hydrogen use, in hybrid use, including plug-in hybrids, and biofuels, if we focus on the leap-ahead technologies and give the incentives to manufacturers to move to those technologies, instead of to meet the incremental increases which we otherwise would be arguing about relative to CAFE.

On the CAFE issue itself, I want to make one point, which it may not even be visible on the chart that is up there already. That green box, which is the U.S. passenger vehicle and light truck contribution, if the bill that has been introduced relative to CAFE is passed, the reduction in the size of that box in 2012 will be that little tiny triangle in the upper right hand corner of that box.

Senator BOXER. Which bill are you referring to? Snowe? Feinstein? Snowe?

Senator LEVIN. I am not sure, the ones that call for 4 percent per year. That is kind of basically what some of the bills are doing. Now, that is the way we look at it. I think it is right. I hope it is right. We have done the best we can.

It is almost unnoticeable. It is hard even to see, not just because the color was too light. That was not intentional, but if you can see that little tiny triangle in the green box. If we pass CAFE reduction or increase in CAFE, reduction in CO_2 of the type which is being talked about, 4 percent per year roughly, that is the reduction 5 years from now in carbon dioxide, that little tiny piece of that box represented by that triangle in the upper right hand corner.

Now, Madam Chairman, if we do this right, instead of spending huge amounts of money trying to reach those numbers, if we can give incentives, tax incentives, research and development programs; if we can put together a program which will work with the automobile industry, we can instead of doing the incremental things which produce a tiny little bit of advantage for CO_2, we would be able to promote the leap-ahead technologies which I know you, Madam Chairman, are interested in, and I think most of us are interested in.

But that is going to be an alternative that we face. We are going to have a choice, two paths we can follow, one of which is going to not only follow the current approach on CAFE, but is going to have less resources available as a result to put into the plug-in hybrids which we all want, hopefully, and to the advanced diesels, which many of us want, and to really do something significant, dramatic with carbon dioxide.

Now, if we do it wrong by focusing on that CAFE number, if that is our focus, we are going to do one other thing. We are not going to do even that much for the air because under the current CAFE rules, the Japanese, because of the way their fleets were structured and the credits which have been built up, can continue to sell large vehicles. What we are saying is if we follow the current CAFE structure is that they can sell as many big Tundras and other SUVs that they want, even though they are not more fuel efficient than comparably sized American vehicles.

There is a myth that Japanese vehicles are more fuel efficient than American vehicles. They are not. The same size vehicles are the same, either fuel inefficient or fuel efficient. We have another chart on that issue, and then my time is up.

We have taken examples of a large SUV, a medium-size SUV and a pickup truck. We will go down the line. A Chevrolet Suburban gets 17 miles to the gallon. A comparably sized Toyota Sequoia gets 16 miles to the gallon, less; a mid-size, Dodge Nitro, Toyota 4Runner, the same; a large pickup truck, a Silverado gets 18 miles to the gallon; Toyota Tundra gets 16 miles to the gallon.

It doesn't do anything for the air. It doesn't do anything for the environment to tell people you can buy all the Toyota Tundras you want at 16 miles per gallon, but you can't buy all the Chevrolet Silverados that are more efficient. It doesn't do anything for the environment and it hurts the American economy.

So I would urge you to do a number of things. No. 1, and I don't have to urge you to do No. 1, No. 1 you are doing, which is to look at this globally in terms of trying to figure out a way to reduce carbon use in the world. When you focus on the American contribution to the problem, that we give incentives to industry to do the leap-ahead technologies which will really make the difference, rather than to debate endlessly whether or not CAFE is raised 2 percent per year, 3 percent, or 4 percent a year.

For two reasons: No. 1, it doesn't do much. It is a peanut in the scheme of things, if that is all we are going to do. No. 2, it is highly discriminatory against American production, American workers. We lost 3 million manufacturing jobs in this Country, and if we do nothing for the environment, at the same time we lose more jobs in America, we have made two mistakes. No. 1, we focused on the wrong place to help the environment; and No. 2, we have taken a shot at American workers instead of solving our problem.

I thank again the Chair. I have gone over my time.

[The prepared statement of Senator Levin follows:]

STATEMENT OF HON. CARL LEVIN, U.S. SENATOR FROM THE STATE OF MICHIGAN

Madam Chairman, you are doing a great service by hearing different colleagues and various positions on the subject at hand.

Global warming is a fact. There is a consensus, or a near consensus, among scientists that action is required. The risks of inaction far outweigh the costs of action. The dislocations that would result from an increase of even a few degrees in global average temperatures are enormous. If we are to rise to this challenge, we need to take dramatic action and to do so without delay.

Climate change is a global problem, and it requires a global solution. I believe we need an effective and enforceable international agreement that binds all nations to reductions in greenhouse gasses, including developing nations such as China and India. Although the U.S. is currently the top emitter of greenhouse gases, China and India are producing more and more CO_2 each year. China is opening up a new coal-

fired power plant every 7 to 10 days, and in seven years China is expected to produce more greenhouse gases than we do.

We can argue here about what we should do to reduce the U.S. contribution to this major problem. But unless China and India and other countries are on board, it's almost irrelevant. Whatever we are hoping to do in this country would be almost fruitless unless these other countries join in these efforts.

Not only is it necessary that the countries that are producing more and more CO_2 come on board with a new international agreement, there must be teeth in that treaty. One of the things we must contemplate would be to allow countries to reject products from other countries that do not join an international agreement on CO_2 reductions. Additionally, we should insist that international development agencies the U.S. helps fund, such as the World Bank, the International Monetary Fund, and USAID not support countries that violate international agreements on global warming.

Where does the United States fit into an international global warming agreement? World CO_2 production is 28 billion metric tons. The U.S. contribution is 6 billion metric tons, or 21.8% of world production. U.S. transportation contributes 6.8% of the world production, and U.S. passenger vehicles and light trucks contribute 4.2% of world CO_2 production. The U.S. passenger vehicle contribution to world emissions is therefore less than one-fifth of the U.S. contribution. (It's about 1.2 billion metric tons of the 6 billion metric tons.)

Although vehicles are not the major part of the U.S. contribution, we want to reduce carbon dioxide emissions from vehicles, and, if we do it right, I believe we can unleash great technological advances in vehicles. We can make leaps in hydrogen use, in hybrid use, including plug-in hybrids, and biofuels. We need to focus on these leap-ahead technologies and give the incentives to manufacturers to develop and move to those technologies.

If we focus on corporate average fuel economy (CAFE) as the mechanism for CO_2 reductions, we will miss an opportunity to do real good and perhaps do real harm. If we pass a bill that would increase fuel efficiency by 4% per year, the reduction in CO_2 emissions by 2012 would be almost unnoticeable. It would lead to a reduction in CO_2 of less than one-tenth of one percent of world CO_2 emissions.

There is an alternative which makes more sense because it could have a far greater impact on CO_2. We can spend huge amounts of money trying to reach increased CAFE numbers which produce only a tiny reduction of CO_2. Or we can give incentives, develop research and development programs, and work with industry to promote leap-ahead technologies and alternative fuels that will really do something significant to reduce carbon dioxide emissions.

If we make the wrong choice, not only are we not going to do much to reduce CO_2, we will also be hurting our economy. Under the current CAFE rules, because of the way their fleets were structured and the credits which have been built up, the Japanese auto companies sell more and more large, fuel inefficient vehicles. If we use the current CAFE structure, we will be simply pushing consumers into imported large SUVs instead of domestic SUVs of the same size and efficiency.

There is a myth that Japanese vehicles are more fuel efficient than American vehicles. They are not. The same sized American vehicles have the same or in some cases better fuel efficiency than their Japanese counterparts. Take the examples of a large SUV, a medium-sized SUV, and a large pick-up truck. A Chevrolet Suburban gets 17 mpg, while a comparably-sized Toyota Sequoia gets 16 mpg. For the Medium-sized SUV, the Dodge Nitro and Toyota 4Runner have the same fuel economy, 20 mpg. Finally, the large pickup truck, the Chevrolet Silverado gets 18 mpg, while the Toyota Tundra gets 16 mpg.

It doesn't do anything for the air or the environment for Toyota to be able to sell all the Tundras they want at 16 mpg, but GM cannot sell all the Chevrolet Silverados they would be able to sell, even though they are actually more efficient. It doesn't do anything for the environment, and it hurts the American economy and costs American jobs.

So, I would urge you to do a number of things. Number one, look at this issue of global warming globally, to reduce carbon use in the world through a comprehensive agreement which includes all countries. Second, when we focus on the American contribution to the problem, that we give incentives to industry to develop the leap-ahead technologies and alternative fuels which will really make a difference, rather than debate endlessly whether or not the highly discriminatory against the U.S. CAFE structure should be raised 2% per year, 3%, or 4%. We have lost three million manufacturing jobs in the last six years, and if we continue to focus on CAFE we will be making two mistakes. One, we focus on the wrong place and wrong way to help the environment. And two, we take a shot at American workers instead of solving our CO_2 problem.

Again, I thank the Chair.

Senator BOXER. Thank you, Senator. That is all right, Senator.

Senator Murkowski, are you on the Commerce Committee still? OK. I am on the Commerce Committee, and a lot of the CAFE issue will be debated at the Commerce Committee. I think there are various degrees of interest in moving forward. But I will say your points are very well taken. I can tell you this, if you can sit down with the auto companies whom you represent beautifully, and the workers you represent beautifully, and have them come to the table to talk about what would be most useful, and then winding up with cars that get us somewhere.

Because you are right. This doesn't solve the whole problem. It is just a little tiny piece of the problem. As we look at energy efficiency, appliances, you could say the same thing about air-conditioners, you know, if you represent them. Gee, we get better efficiency.

But I hear you, and I think the good news that you bring to me, it is not all bad from my perspective. The good news is you are saying there are ways for the automobile industry, if I read you right, to cut back on these emissions, but it is other ideas other than CAFE.

Senator LEVIN. With leap-ahead technology.

Senator BOXER. I hear you.

Senator LEVIN. They can do it.

Senator BOXER. As someone who owns three hybrid cars, I know the difference it makes in getting what I got before, 18 miles or even less. Now, one of those hybrids gets over 50. The other one gets about 40.

So the thing is, we can work together, and that is why I am very glad you came here. You could have stayed away. This is not a happy issue for you back home. I know that, but I like what you said. The only thing I would say is, I heard when you said we have to act globally, and absolutely we do. You are right. China is going to surpass us, India. We need to work with those nations. But I think we also need to take the lead as well. I mean, Britain went ahead and did it, and now according to Tony Blair, they are reaching past their goals and there are more jobs produced.

But I think you have brought to the table this notion of the leap-ahead technologies, and I think the phrase is a good one. Why don't we pledge that we will work together to see whatever bills come out of here, that we are incentivizing those kinds of technologies, because I think it is essential that we do it, and it will be part of the mix.

Senator LEVIN. Thank you.

Senator BOXER. Thank you so much.

Senator LEVIN. Thank you, Madam Chairman, and again to my colleagues, I intruded on the other order that would have taken place, and my apologies.

Senator BOXER. We are fine. You all came very early. It is wonderful.

Senator Murkowski, the floor is yours for 10 minutes. We are honored to have you here today.

STATEMENT OF HON. LISA MURKOWSKI, U.S. SENATOR FROM THE STATE OF ALASKA

Senator MURKOWSKI. Thank you, Madam Chairman. It is nice to be back in a familiar committee room.

I want to thank you for your leadership on this issue. Very early on, before you were even officially made Chairman of this committee, you indicated your intentions as it related to global warming and climate change, and your interest in hearing from everybody. So I appreciate the invitation to appear before the committee today to kind of speak from the Alaska perspective.

I think it is important to remind my colleagues, up north in Alaska, we are America's only Arctic State. It is in the State of Alaska that I think it is fair to say we are uniquely affected by climate change, particularly if the trends continue as they have in the recent past.

Alaska is also going to be uniquely impacted since, I don't need to tell anybody, it gets cold back there. Our winters are long and they are dark and they can be very extreme. As a consequence, Alaskans are among the highest consumers of energy on a per capita basis. We are also one of the largest producers of energy in the Nation. So we have a lot at play when we talk about the issue of climate change.

Alaska theoretically leads the world in coal reserves. We likely hold about half of the Nation's undiscovered reserves of outer continental shelf oil and natural gas. We likely hold the Nation's largest single reserve of onshore oil yet to be tapped. We hold the Nation's largest unconventional source of energy; these are the gas hydrates that Senator Akaka and I have been working on developing. We have probably enough energy there with the gas hydrates to power the Country for 1,000 years.

On climate change, from Alaska's perspective, in my opinion there is no question but that something is going on, something demonstrable that we can view. Since 1979, this was the start of the satellite monitoring up north, Arctic Sea ice has shrunk by an area twice the size of Texas. Sea ice covers less of the Arctic Ocean now than ever before observed. The ice sheet in March 2006 was 300,000 square kilometers smaller than it was just a year earlier.

NOAA, in an updated report on Arctic conditions released last October, reported that our average permafrost temperatures in the State continue to rise. Everyone wants to know what is happening with the glaciers. Well, a few of our Alaska glaciers are advancing, but the majority are in retreat. The melting of the Arctic Ocean ice pack has meant more stretches of open water earlier and later, which has allowed the waves to buildup during the fall and spring storms. This is causing erosion damage the likes of which we just haven't seen in the State, forcing many, many of our villages and our coastal communities to look toward relocation, an extremely costly expense, but endangering the lives of many in our villages.

The warmer temperatures have had impacts on marine mammals, birds and sea life. You have clearly heard about the study now underway to determine whether or not to list the polar bears as threatened under the Endangered Species Act. This is not necessarily because their current populations are down. They are not in Alaska, but because they may decline if enough sea ice melts

that reduces their hunting zones in the summer and harms their nutritional intake.

We also have firmer data about the Kittlitz's murrelet. This is a bird that lives near the glaciers. They are declining. Their numbers are down 83 percent since 1976 in the Kenai Fjords area; 60 percent down in Glacier Bay. We also have the black guillemot, this is an Arctic sea bird. They used to thrive in the northern islands in the Beaufort Sea, but melting sea ice has cutoff their foraging areas and wiping out, or nearly wiping out, a major colony on Cooper Island.

If we had more time this afternoon, I could speak to the issue of the spruce bark beetle infestations, which killed to date more than 5 million acres of Sitka spruce trees. We could talk about the lakes that appear to be drying up since the melting permafrost is allowing their waters to drain. We could talk about the effect on the fisheries and the marine mammals. We see our crab stocks falling, but our salmon stocks have been increasing.

The question is whether or not we are simply in a natural cyclical warming trend that will reverse itself, or whether man-made greenhouse emissions are permanently changing the climate, overwhelming nature's ability to maintain a balance in the atmosphere. Now, the props that I have in front of me today are not just stuff from my desk. These are copies of the scientific reports that my office has been accumulating since I have been here in the Senate on climate change as it relates specifically to the State of Alaska.

So there are some of the reports that say absolutely we are seeing a change. There are other reports that will contradict that. Last fall's NOAA report entitled, "State of the Arctic," actually reports that ocean salinity and temperature profiles at the North Pole and in the Beaufort Sea, which had shown abrupt warming in the 1990's, have been moderating back toward normal since the year 2000. We have permafrost layer thickness at some testing stations in Alaska that have actually been slightly increasing over the past few years, although I will note that that is not the case in a majority of our test sites.

NOAA's report for the end of last winter showed a return to more normal temperatures in parts of the Arctic Ocean that could drive both sea ice and air temperatures back to their previous norms.

So again, the question that we find ourselves asking is whether these findings are simply a natural variability in the other direction, or is it a sign that an atmospheric cycle is ending. I have to admit, I don't know. I don't know the answer. So what I would like to suggest today, though, is not focusing too exclusively on one report, and the Stern Commission report, or the critiques of it, or that we don't venture into the storms of whether or not 2005 record number of hurricanes in the Atlantic were furthered by global warming.

Those are to a certain extent a sideshow, a detractor of I think what our main issue is. Today, I am not going to focus on all the ideas to directly limit greenhouse gases, whether by cap and trade or mandatory regulations. I think what we need to consider is that all of these options will mean a more complex, complicated, a time consuming process that deserves careful consideration. I think,

Madam Chairwoman, you are starting that conversation today, and that is very, very important.

What I am suggesting that we do now is to turn our attention to seriously funding, funding through both grants and tax policy, the research and development of the new technologies to produce alternative forms of energy, some renewable, some continuing to come from fossil fuels, but in ways that cause little or no greenhouse gas emissions. And then to produce that energy at prices that will not harm our economy or lower the standard of living, and as you have mentioned, a key focus on promoting energy conservation and fuel efficiency.

We have a great deal to do in that area, but without the technological breakthroughs and an economy that is strong enough and healthy enough to nourish and move forward that scientific advancement, we won't be able to cut our levels of emissions of greenhouse gases. We won't be able to help the developing world and other nations to reduce their emissions, something that is going to be vitally important as we look to what China is doing, and their world leader as an emitter of carbon.

What I am proposing is that we debate the science and what to do about it, and that while we are debating, we launch a full scale effort to fund a host of technologies to improve energy production that is going to be needed regardless of the outcome of the climate change debate.

In 2005, we passed legislation to aid wind and biomass and solar. We worked to jump start the next generation of nuclear power. We took some small steps toward combined cycle coal gasification. We need to do more of that. We need to provide the same support for geothermal, for hydroelectric, for all forms of budding ocean energy. This is an area I get excited about, and coming from California, you should have some interest there, too. We need to do the same things that we have done for wind, solar and biomass. We need to increase our funding for the advanced coal technologies so that we can make carbon sequestration affordable, not just possible. That is something that we must focus on.

We have to continue to support the development of biofuels, as the President has suggested, to help them to maturity, but to get them to the point where they are economically and environmentally sound at the same time. We need to treat funding alternative energy sources and advancing fuel conservation as a priority, and not as an afterthought.

We in Congress 2 years ago authorized considerable funding for a good bill to promote alternative energy technologies, but really, in fairness, we have funded very little of it. We need to implement the loan programs that we created. Because of the fiscal impacts of aid to our new technologies and our budget process, we limited the tax breaks in 2005 to such short time periods that most people can't actually design and then build the plants in time, and they can't benefit because we have narrowed those windows down. Frankly, the private sector would have been insane to proceed with too many projects based on what I consider to be very tepid price signals and a shallow show of Federal support that was offered.

I am going over my time, Madam Chairman, but I want to put in a brief plug for legislation that I have introduced that would im-

prove our CAFE standards and performance, authorize more funding for geothermal, ocean energy, small hydrate energy. I have a wonderful acronym, the REFRESH Act, and I would love to talk with you about it at some point in time.

But again, we must expand the pace of moving new energy technologies out of the development and into the practical use so that we can move the economy forward, producing the new industries, the new jobs for Americans from the new technologies that we advance.

I look forward to working with this committee, even though I am no longer a member. This is something that regardless of the State, regardless of the committees that you serve, we all have an interest in what is happening to our environment as it relates one State to another, one country to another.

So I do hope that this is the beginning of a good and a productive dialog, and would encourage you to keep up the very ambitious pace that you have set already.

[The prepared statement of Senator Murkowski follows:]

STATEMENT OF HON. LISA MURKOWSKI, U.S. SENATOR FROM THE STATE OF ALASKA

Madame Chairman (woman), Ranking Member Inhofe, thank you so much for the opportunity to appear before you. It is a pleasure to be back among you all today; who says you can't go home.

I appreciate the opportunity to offer my perspectives as Alaska—America's only Arctic state—will be uniquely affected by climate change if trends continue like they have in the recent past. Alaska also will be uniquely impacted, since Alaskans, to ward off the long winter's cold, are among the highest consumers of energy on a per capita basis, and also one of the largest producers of energy in the nation.

Alaska theoretically leads the world in coal reserves, likely holds about half of the nation's undiscovered reserves of Outer Continental Shelf oil and natural gas, likely holds the nation's largest single reserve of onshore oil yet to be tapped, and holds the nation's largest unconventional source of energy, gas hydrates—probably enough to power the country for a 1,000 years.

On climate, from an Alaska perspective, there is no question that something has been going on.

Since 1979—the start of satellite monitoring—Arctic sea ice has shrunk by an area twice the size of Texas. Sea ice covers less of the Arctic Ocean now than ever before observed. The ice sheet in March 2006 was 300,000 square kilometers smaller than it was just a year earlier.

NOAA in an updated report on Arctic conditions released last October reported that average permafrost temperatures in the state continue to rise. While a few Alaska glaciers are advancing, the majority are in retreat.

The melting of the Arctic Ocean ice pack has meant more stretches of open water earlier and later, which has allowed waves to build during fall and spring storms, causing more coastal erosion damage than previously seen. That has endangered a number of villages.

The warmer temperatures have had impacts on marine mammals, birds and sealife. You have heard about the study now underway to determine whether to list polar bears as threatened under the Endangered Species Act, not because their populations currently are down—they aren't—but because they may decline if enough sea ice melts that it reduces their hunting zones in summer and harms their nutritional intake.

There is firmer data that Kittlitz's murrelet, a bird that lives near glaciers, are declining, their numbers down 83% since 1976 in the Kenai Fjords and 60 percent in Glacier Bay. The black guillemot, an Arctic seabird, used to thrive on northern islands in the Beaufort Sea. Melting sea ice has cut their foraging areas, nearly wiping out a major colony on Cooper Island.

If I had more time we could discuss spruce bark beetle infestations that have killed more than 5 million acres of Sitka spruce trees. We could talk about lakes that appear to be drying up since melting permafrost is allowing their waters to drain. We could talk about affects on fisheries and marine mammals: crab stocks falling, while salmon stocks have been increasing.

But the question is whether we are simply in a natural cyclic warming trend that will reverse itself or whether man-made greenhouse gas emissions are permanently changing the climate, overwhelming nature's ability to maintain a balance in the atmosphere.

My staff has been collecting scientific reports on climate change as it relates to Alaska for several years, (as you can see from the piles in front of me); yet the jury still seems out on the issue.

Last fall's NOAA report, State of the Arctic, actually reports that ocean salinity and temperature profiles at the North Pole and in the Beaufort Sea, which showed abrupt warming in the 1990s, have been moderating back toward normal since 2000. Permafrost layer thickness at some testing stations in Alaska actually have been slightly increasing over the past few years—although that is not the case at the majority of test sites. And NOAA's report for the end of last winter (March 2006) showed a return to more normal temperatures in parts of the Arctic Ocean that could drive both sea ice and air temperatures back toward their previous norms.

Are these findings simply natural variability in the other direction or a sign that an atmospheric cycle is ending? I don't know.

What I would like to suggest, though, is that we shouldn't focus too excessively on the Stern Commission Report, or the lengthy critiques of it, or that we don't venture into the storms over whether 2005's record number of Atlantic hurricanes were furthered by global warming. Those are side shows.

And for this moment, I'm not even going to focus on all the ideas to directly limit greenhouse gases, whether by mandatory regulations, cap-and-trade mechanisms, or carbon taxes. In a multi-trillion dollar economy, analyzing what all of those options will mean is a complex and time-consuming process that needs more careful consideration than we have time for today.

What I am suggesting we do right now is turn our attention to seriously funding through both grants and tax policy, the research and development of new technologies to both produce alternative forms of energy, some renewable and some continuing to come from fossil fuels—but in ways that cause little or no greenhouse gas emissions—and then to produce that energy at prices that will not harm our economy or lower our standard of living. And as a corollary we should focus on promoting energy conservation and fuel efficiency; and also on more domestic production.

Even if we overnight perfect hydrogen fuel cell vehicles, we will still need to find and use more oil, natural gas or coal to produce the feed stocks for petrochemicals and building supplies and the thousands of products that come from hydrocarbons: everything from aspirin to plastics.

Without technological breakthroughs and an economy that is healthy enough to nourish scientific advancement, we can't cut our emissions of greenhouse gases by 60% to 80% without returning to the Stone Age. And we won't be able to afford to help the developing world to reduce emissions, something that will be vital given that China is likely to surpass the U.S. as the leading emitter of carbon within just two years.

What I am proposing is that while we debate the science and what to do about it, that we launch a full-scale effort to fund a host of technologies to improve energy production that will be needed regardless of the outcome of the climate change debate.

In 2005 we passed legislation to aid wind, solar and biomass. We worked to jumpstart the next generation of nuclear power and we took fledging steps toward combined-cycle coal gasification and liquid fuel plants that can actually separate out the carbon they emit and then, if we have the will, pump it and lock it back underground.

We need to do far more of that. We need to provide the same support for geothermal, hydroelectric and all forms of budding ocean energy that we have provided for wind, solar and biomass/landfill gas development. We need to increase our funding for advanced coal technologies so that we make carbon sequestration affordable, not just possible.

We need to utilize the CO_2 we will be generating to get more oil out of the ground, so-called enhanced oil recovery, because the hybrid vehicles that are reducing our fuel consumption run best on gasoline—at least until hydrogen fuel cells can be perfected or battery life for plug-in hybrids can be improved significantly.

We need to get on with finding a storage solution for nuclear waste, since nuclear power does not produce greenhouse gases, and because the world is proceeding with building nuclear power plants whether we do or not. So we will be facing the issue of their waste whether we follow suit or not.

We need to continue to support the development of bio-fuels as the President proposed, and help them to maturity, but only to the extent that they ultimately will prove economically and environmentally sound.

And I truly think we need to treat funding alternative energy sources and advancing fuel conservation as a priority, not an afterthought. We in Congress two years ago authorized considerable funding for a good bill to promote alternative energy technologies, but we have actually funded very little of it. We and the Administration have barely begun to implement the loan programs that we created.

Because of the fiscal impacts of aid to new technologies on our budget process, we limited the tax breaks in 2005 to such short periods that most people couldn't actually design and build plants in time and thus couldn't benefit. And frankly the private sector would have been insane to proceed too far with too many projects based on the tepid price signals and the shallow show of federal support that we offered.

At this point I want to put in a plug for a bill I introduced that would improve CAFE standards and performance, and authorize more funding for ocean, geothermal and small hydro energy development. I'll be happy to buttonhole you to explain the merits of S. 298, the REFRESH Act, and I'll be happy to discuss my support for the many good ideas that others have already proposed.

We must expand the pace of moving new energy technologies out of development and into practical use so that we propel our economy forward—producing new industries and new jobs for Americans—from the new technologies we advance.

In the meantime I believe we still need to both explore for and produce fossil-fuel energy to help cover our needs and improve our national and economic security until this new technology can change the current energy playing field. The idea that we aren't "weaning ourselves" off oil, simply because we continue to produce it is irrational, as long as we seriously fund, encourage and send clear signals to the markets that we want to move toward using environmentally cleaner forms of energy, as soon as they can be safely advanced.

Thank you for your time and attention.

Senator BOXER. Thank you so much, Senator Murkowski. We do miss you on this committee. I can assure you that new technologies, I think there is broad agreement that we can't do this without the new technologies.

In a free market system, they have to be able to compete, and that is why we need to make some of these investments that you are talking about. But I think you are going to find a broad array of agreement on that.

I think one of the interesting things about my having this hearing and listening to everybody is that there is just enough common ground here, I think, where we can come together on various aspects, because there isn't one thing that we are going to do to solve it. It is going to be many things. I think you have laid out that whole new technology idea.

I will say this. I think the majority of this committee, if not every person, has agreed it is time to do something. You are right. The debate will continue, but in most of our minds, there is a consensus. We are going to move forward. I think you have put before us some very exciting ideas, and I will work with you on your bill and look forward to moving those ideas into law.

Senator MURKOWSKI. If the committee would like to avail themselves of any of ours studies, we would be happy to share them with you, but we do look forward to working with you.

Senator BOXER. We do appreciate it, and I know there are so many words written about global warming. One of the things I did today in my presentation was to take what I consider to be the growing consensus from the business community, even from some of the largest producers of coal, or I would say purchasers of coal like Duke Energy and others, saying now it is time to really move. That is really remarkable, to have the business community saying

hurry up and do something. Because what is happening is a lot of our States and localities are moving ahead, and then there is a patchwork of these different rules, not to mention the EU has different rules.

So I think it is important for the economic prosperity of this Country in the future is to grapple with this issue. I think you have laid that down. I thank you for your contribution.

Senator Akaka, it is wonderful to have Hawaii and Alaska here together, our newest States and our States that will be very impacted by this. So we really appreciate your being here, Senator Akaka.

Thank you again, Senator Murkowski.

STATEMENT OF HON. DANIEL AKAKA, U.S. SENATOR FROM THE STATE OF HAWAII

Senator AKAKA. Thank you very much, Madam Chairman.

Madam Chairman, I want to congratulate you and your Committee on Environment and Public Works, and what you are doing in promoting global warming as a problem, and as an opportunity to find relief because of global warming.

I would like to also commend our new colleague, Senator Sanders, and you for your hard work and efforts to continue the legacy of Senator Jim Jeffords on this critical topic of global warming.

I congratulate you both on the reintroduction of S. 309, the Global Warming Pollution Reduction Act of 2007, of which I am an original cosponsor.

I also commend Senators McCain, Lieberman and Bingaman, who have each been critical in introducing legislation that has moved the debate forward, bills which I have cosponsored or supported as well. The cumulative effects of this discussion and debate are gratifying, and I believe we have the momentum to move our Country forward with your leadership.

The global warming debate began in Hawaii over 30 years ago, when the Mauna Loa Climate Observatory first documented evidence of increased carbon dioxide levels in the Earth's atmosphere. The international scientific community now concurs that human activities are altering the entire system.

It is important that the United States, which is the world's largest emitter of greenhouse gases, be accountable as a leader in reducing emissions and combating the threats resulting from global warming.

This bill, one of several that we will be considering during the Congress, is comprehensive legislation that will assist in decreasing U.S. greenhouse gas emissions. I have spoken before about the fact that my home State of Hawaii is disproportionately susceptible to increases in sea level and ocean temperature that jeopardize public safety, economic development, and the health of our unique island ecosystems and wildlife.

It is clear that coastal States will also face similar challenges caused by sea level rise, resulting in the flooding of low-lying property, loss of coastal wetlands, beach erosion, salt water contamination or drinking water, and damage to coastal roads and bridges.

Immediate action is needed to reverse current trends and to reduce emissions. This will be achieved by the energy efficiency tar-

gets set by S. 309, that will assist both the industry and consumers in meeting these standards. A substantial investment in research to develop technologies to control greenhouse gas emissions, including renewable energy technologies, will play a crucial role in successfully meeting the objectives of the legislation. This investment will also boost economic activity and create jobs in the United States.

In addition, I have great concern for the public health implications for tropical and subtropical areas like my State. Part of the South Atlantic and the Caribbean and Gulf of Mexico States, and territories in the Pacific. Scientists are warning that the effects of global warming will only intensify the likelihood of severe weather events, and of overall warming, particularly in tropical areas.

These trends are likely to lead to a number of public health issues, such as the growth and spread of infectious disease, air pollution, asthma and waterborne diseases. In fact, the group, Physicians for Social Responsibility, has called responding to global warming, "a public health imperative."

S. 309 set ambitious goals which will put the United States on a path to provide necessary requirements and incentives for EPA to minimize U.S. emissions and assist in the stabilization of global atmospheric greenhouse gas concentrations. We have much at stake, and I am pleased that the United States can now take a leadership role in promoting responsible energy use on a global level.

I remain committed, Madam Chairman, to working with my colleagues to enact legislation that will improve the health of our planet and the quality of life for all Americans.

Thank you and I ask that my full statement be submitted for the record.

[The prepared statement of Senator Akaka follows:]

STATEMENT OF HON. DANIEL K. AKAKA, U.S. SENATOR FROM THE STATE OF HAWAII

Thank you, Chairman Boxer, Ranking Member Inhofe, and Members of the Environment and Public Works Committee for holding this hearing today. I commend my friend and colleague, Senator Boxer, and our new colleague Senator Sanders, for their hard work and efforts to continue the legacy of Senator Jim Jeffords on the critical topic of global warming. I congratulate them both on the re-introduction of S. 309, the Global Warming Pollution Reduction Act of 2007, of which I am an original cosponsor.

I also commend Senators McCain and Lieberman for increasing awareness on the issue over the last five years and introducing their groundbreaking legislation. In addition, I thank Senator Bingaman for his leadership in putting forward a cap and trade bill that I supported during debate on the 2005 Energy bill and in the critical Senate vote in 2005. The cumulative effects of this discussion and debate are gratifying and I believe we have the momentum to move our country forward.

The global warming debate began in Hawaii over 30 years ago when the Mauna Loa Climate Observatory first documented evidence of increased carbon dioxide levels in the earth's atmosphere. The international scientific community now concurs that human activities are altering the climate system. It is important that the U.S., which is the world's largest emitter of greenhouse gases be accountable as a leader in reducing emissions and combating the threats resulting from global warming. This bill, S. 309, is one of several that we will be considering during this Congress and it is comprehensive legislation that will assist in decreasing U.S. greenhouse gas emissions.

I have spoken before about the fact that my home state of Hawaii is disproportionately susceptible to increases in sea level and ocean temperature, which jeopardize public safety, economic development, cultural resources, and the health of our

unique island ecosystems and wildlife. It is clear that coastal states will also face similar challenges caused by sea level rise resulting in flooding of low-lying property, loss of coastal wetlands, beach erosion, saltwater contamination of drinking water, and damage to coastal roads and bridges.

In addition, I have great concern for the public health implications for tropical and subtropical areas like my state, Pacific island nations, and states along the Atlantic, Carribean, and Gulf coasts. Scientists warn us that global warming will intensify the likelihood of severe weather events and overall warming, and that these trends are likely to lead to a number of public health issues, such as the growth and spread of infectious diseases, air pollution and asthma, and water-born diseases. In fact, the group *Physicians for Social Responsibility* has called responding to global warming "a public health imperative."

As stewards of our planet, immediate action is needed to reverse current trends and actively seek solutions to curb the buildup of greenhouse gases. S. 309 sets energy efficiency targets to assist both the industry and energy consumers in meeting these standards. This legislation lays out ambitious goals and necessary incentives to minimize U.S. emissions and assist in the stabilization of global atmospheric greenhouse gas concentrations.

We must invest in technology research to control greenhouse gas emissions. Encouraging renewable energy technologies will play a crucial role in successfully meeting the objectives of this legislation. This investment will also boost economic activity and create jobs in the U.S. Much is at stake and I am pleased that the U.S. can now take a leadership role in promoting responsible energy use on a global level.

Under the guidance provided by this bill, I firmly believe the state of Hawaii, along with the rest of the United States, will be poised to substantially reduce greenhouse gas emissions. I remain committed to working with my colleagues to enact legislation that will improve the health of our planet and the quality of life for all Americans.

Senator BOXER. Without objection.

Senator Akaka, I want to thank you for your leadership here. You were one of the first to go on the Jeffords bill and one of the first to go on the Sanders-Boxer bill. I call that the gold standard bill because I believe that is the bold bill, that is the one that does what California does. It is really the best insurance policy that we have against the worst predictions.

I think what has been so wonderful, and I will share this with Senator Lincoln, who I will call up in a moment, we have already heard from 27 Senators today. It is just unprecedented. We had 14 members of the committee. We had seven of you who are not on the committee, McCain, Feinstein, Kerry, Obama, Bingaman, Murkowski and Akaka. We have two statements in the record. We now have an additional four.

Now we are going to hear from Senators Lincoln, Durbin, and who are the other two? Nelson of Florida. So we are really getting toward hearing from about one-third of the Senate.

With that, I will let you go, Senator Akaka. I thank you very much for your wisdom, and we will work together.

Senator AKAKA. Thank you very much.

Senator BOXER. I am thrilled that our colleague, Senator Blanche Lincoln of Arkansas is here. I am asking her if she would come up and join with us. She is on some very important committees, not the least of which, of course, is Finance, which is going to have a lot of ability here to give the kind of incentives and tax breaks and so on, that Senator Murkowski talked about, Senator Lincoln, the incentives to our business community, incentives to our consumers to do the right thing, and to move to those better technologies.

So we welcome you here. I am really thrilled that you are here. You have 10 minutes, so please use it as you will.

STATEMENT OF HON. BLANCHE LINCOLN, U.S. SENATOR FROM THE STATE OF ARKANSAS

Senator LINCOLN. Thank you, Madam Chairman.

It is certainly not by accident that I do sit on the Finance Committee, the Agriculture Committee, and the Energy Committee, because renewable energy, as well as looking for alternative energy sources, is absolutely essential for me. As you and I have mentioned many times, it is absolutely essential for future generations, for our children and our grandchildren, that we put the dedicated time and energy into finding the solutions that will really make a difference in their lives.

So pairing those committees up together, I feel like I can look for the new and innovative ideas. I think I can look for the incentives that need to be there. I also think that we can look at using the opportunity for renewable fuels and for alternative energy sources as a way to revitalize rural America.

I look forward so desperately in working with you to really focus on what this could mean for rural America in the coming years. I think it is an important place for us to make an investment, and it is an essential part of our culture in this great Country, and I think it will make a big difference for the lives of all Americans, not just those that live in rural America, but for our entire Nation.

So I am grateful to your committee, and especially to you. I appreciate the opportunity to come before the committee and speak on such a critical issue to all of us. I would especially like to thank you, Senator Boxer, for your leadership and your energy particularly on climate change. There is no doubt that if you singlehandedly had to, you could put the energy that needs to be into this issue to solve this problem. We are so grateful to you for your dedication and your energy toward that. You have been out front on this from the beginning, and I certainly look forward to working with you in this Congress.

In 2003, Madam Chairman, when the Climate Stewardship Act came up for a vote in the Senate, I opposed it. It was one of the most difficult votes I have taken in the Senate, and I had great thought and great prayer over that vote, knowing that there were things that we needed to do, but wondering whether or not we had arrived at being able to do it through that bill.

I was concerned that the bill could drive up utility rates, with energy companies forced to use more expensive fuels or forced to develop new infrastructure, with the attendant costs being passed on to the consumers. In a State like mine, Madam Chairman, with pervasive crippling poverty, even a $5 a month increase is enormously significant in the lives of many of our families. These are people living paycheck to paycheck, with all of their income committed each month, and oftentimes more than they have in their pay being committed. That $5 has to come from somewhere, if that is what the increase is. For a family with children, it might mean school supplies or new shoes or books. For an elderly person, it could mean giving up money that should be spent on prescription drugs in order to pay those utility bills.

Either way, this would be forcing the least amongst to bear a burden that many others would not. At that time, that was the way I viewed the issue and could not support the bill on the floor. Since

then, I have had continual dialog with many of my colleagues about how we include in what we do the capacity that we have in this great Nation, and certainly in this body, to be able to ensure that there are provisions there that will not put the burden of what it is we have to do collectively as a culture and as a people, on the backs of those that are the least among us.

Now, I stand before you as not only a supporter of the Climate Stewardship Act, but one of its original cosponsors. Many have asked what has changed. The answer is simple. It is abundantly clear that we must take action on this issue now if we are to have any hope of correcting it. We are stewards of this Nation and of this planet. Our ultimate responsibility is to leave it a better place for our children. I fear that if we do not take action soon, we will have lost that chance.

Madam Chairman, it is as simple as that. We have an opportunity. We have a window of opportunity that has grown smaller and smaller, and if we don't seize the opportunity now, it is not only what we might do to ourselves, but unfortunately what we might do to our children and our children's children.

I would like to give you an example from my home State of Arkansas, and this is one that you will see readily applies to me and to my family. Recently, my husband and I took our two boys, Reese and Bennett, duck hunting. My husband and I both grew up in the duck blinds with our fathers. It was a family outing. My sisters as well would join us, and our fathers spent many cold mornings in the duck blind with their children.

We visited there. We talked about the environment. We talked about the world around us. We talked about challenges that we faced then, and that we might face in the future in our lives. It is something that generations of our families have enjoyed for quite a long time, being in the outdoors, enjoying one another's company, in the solitude of the environment.

Recently, a study by the Arkansas State University revealed the potential effects global warming would have on duck populations and migration patterns in Arkansas. What they found was not surprising. Ducks migrating from the north were not coming as far down the continent as they once did, likely because they didn't have to fly as far to find the climate that was acceptable to them. While the northern and middle parts of the Country were experiencing increasing numbers of ducks, the southern region was seeing a dramatic decrease.

If climate change were to continue on its current path, it is not too farfetched to say the ducks could stop migrating to the Deep South altogether as warmer temperatures in more northern regions would reduce their need to do so.

As the study points out, the effect on the small communities whose economies depend on hunting season could be devastating. Now, I know that is regional, and I know it is something that probably only myself and a few others could really identify with. My objection to supporting the Climate Stewardship Act in 2003 was based on economics, but as the above example illustrates, the economic impacts are far from straightforward. They multiply across the globe and certainly across regions.

These communities that depend on duck season and the boost it gives their economies once a year are filled with the people I described earlier as living from paycheck to paycheck. If a mother who is working as a waitress at the local diner loses her job because the diner closes due to the lack of its usual customers during hunting season, is that not an economic impact? We can write these bills in such a way as to compensate for an increase in utility rates for low-income people, and any bill I support must do just that.

But I am proud to say that my colleagues have reached out to me, understanding my concerns about our low-income consumers and making sure that we will have a portion of that bill dedicated to that. But I do not know if Congress has the capability to rebuild communities across this Country that will have such severe economic livelihood fundamentally altered by climate change.

It is time that we begin to ask serious questions about not just the cost of action, but more importantly, Madam Chairman, the cost of inaction. These costs can be quantified, but they can also be psychological.

My husband and I want our boys to have that wonderful opportunity to hunt on those very same lands that for generations in our families they have enjoyed, being a part of the family, enjoying one another, and enjoying the gorgeous environment that we have been blessed with. It is my belief that the only way this can happen is if we take significant action, not way down the road, but in the near future.

I want to thank the committee for giving me the opportunity to speak on this very important issue and I certainly look forward to working with this Chairwoman and this committee and all of the others interested in this body, in moving something in a timely fashion that will truly make a difference for future generations.

Thank you, Madam Chairman.

[The prepared statement of Senator Lincoln follows:]

STATEMENT OF HON. BLANCHE LINCOLN, U.S. SENATOR FROM THE STATE OF ARKANSAS

Ladies and gentleman of the committee, I appreciate the opportunity to come before and speak on this very important issue. I would like to especially thank Senator Boxer for her leadership and energy on climate change. She has been out front on this from the beginning and I look forward to working with her in this Congress.

In 2003, when the Climate Stewardship Act came up for a vote in the Senate, I opposed it. It was one of the most difficult votes I have taken in the Senate. I was concerned that the bill could drive up utility rates, with energy companies forced to use more expensive fuels or forced to develop new infrastructure, with the attendant costs being passed on to consumers. In a state like mine, with pervasive crippling poverty, even a $5 a month increase is significant. Now, I stand before you as not only a supporter of the Climate Stewardship Act, but an original co-sponsor. Many have asked, what changed? The answer is simple; it is abundantly clear that we must take action on this issue now if we are to have any hope of correcting it. We are stewards of this nation and this planet, and our ultimate responsibility is to leave it a better place for our children. I fear that if we do not take action soon, we will have lost our chance to do so.

Let me give you an example from my home state of Arkansas. Recently, my husband and I took our two boys, Reece and Bennett, duck hunting. My husband and I both grew up in duck blinds with our fathers, and our fathers spent many cold mornings in duck blinds with their fathers. It is something that generations of our family have enjoyed. Recently, a study by Arkansas State University revealed the potential effects global warming could have on duck populations and migration patterns in Arkansas. What they found was not surprising. Ducks migrating from

North were not coming as far down the continent as they once did, likely because they didn't have to fly as far to find a climate that was acceptable to them. While the Northern and middle parts of the country are experiencing increasing numbers of ducks, the Southern Region is seeing decreases. If climate change were to continue on its current path it is not too far fetched to say that ducks could stop migrating to the deep south altogether as warmer temperatures in more northern regions would reduce their need to do so. As the study points out, the effect on the small communities whose economy depends on hunting season could be devastating.

My objection to supporting the Climate Stewardship Act in 2003 was based on economics, but as the above example illustrates, the economic impacts are far from straight forward. It is time that we begin to ask serious questions about not just the cost of action, but the cost of inaction. Those costs can be quantified, but they can also be psychological. My husband and I want my boys to have the opportunity to hunt on the same lands that their grandfathers and our grandfathers hunted on. It is my belief that the only way this can happen is if we take significant action in the near future.

I want to again thank the committee for giving me the opportunity to speak on this important issue and look forward to working with you during this Congress.

Senator BOXER. Senator, I really want to thank you for your contribution. As usual, you have got it down to, you know, the family. It all comes back to that at the end of the day. You would have been very interested to hear Senator Whitehouse go through how the southerners, particularly from the Carolinas, would always come up to Rhode Island just to get away from the very hot summers, and now it is already starting to change, and the summers in Rhode Island now are getting very warm.

You point out that these are real serious changes in our way of life, in the American way of life. You talked about the hunting industry, then of course there is the fishing industry, there is the skiing industry that we have so much in our State. The ripple effect to these recreation industries, as you point out, to the waitress who serves in the diner down the road, is what we are talking about here.

I think on a larger scale, you have taken it to the small scale, on a larger scale the Stern Report that basically said every dollar we put in now to mitigate will come back to benefit us in about $5 in worldwide gross product.

So there is no question that you have hit on something, and I am very proud that you are on the, I think it is now Lieberman-McCain bill, or McCain-Lieberman. I think that is a huge amount of momentum for that approach of a cap and trade. The fact that you allowed yourself to be open to the arguments just says a lot about you as a legislator, and your constituents should be very proud.

Senator LINCOLN. Well, I appreciate that. I just want to say, you know, so much of this is about the environment, but it is about the environment of our lives and not just the outdoors. But if you think about it, one of the things that the American family is craving for the most is time. They want time to spend as a family so they can strengthen their family, so they can love and encourage their children, so that they can be a family and enjoy all of the aspects of that.

I would say that the climate, the environment that we have in this great land is one of those things that encourages that time, whether it is time that you spend on vacation at the beach or in the duck woods, or really just traveling to see the wonders of our great Nation. But it is time that people spend, and more often than

not, when they need time to be a family, what they look to is the outdoors, the environment, and it is an enormous part.

I would just say that if there is anything, I have always been an enormous believer in recycling, whether it is recycling of plastics or aluminum or anything else. One of the best ways I could convince the men in my life to recycle was to let them know that the more they recycled, the less would go into landfills that would usually cover up the duck woods that they wanted to hunt in.

So I think as we look for the practical application of making sure that whoever may not be sold on the initiatives that we want to see move forward, there are multiple ways we can explain it to them. I look forward to working with you to do just that.

Senator BOXER. Senator, no one could do it like you can. I thank you very much.

We will take a brief break while we wait for, is it two more Senators? Senator Nelson and Senator Durbin. So we will stand in recess.

Thank you, Senator Lincoln, very much.

[Recess.]

Senator BOXER. Senator, we started in this committee room at 9 o'clock a.m. We have heard from about 27 Senators either in person, the vast majority, and a few in writing. You and Senator Durbin are going to close down this hearing today, which has been just extraordinary.

I know what a great steward you are of the environment, so I was thrilled when I heard that you wanted to be heard. So you have the floor for 10 minutes, and I know that you are going to be part of the solution. So please go right ahead.

STATEMENT OF HON. BILL NELSON, U.S. SENATOR FROM THE STATE OF FLORIDA

Senator NELSON. I am going to, with your permission, distill my remarks, Madam Chair, and let me just say, as you and I have discussed privately for some period of time, I became more of an environmentalist when I went into space and could look back and see the entire ecosystem at once. When you look at the rim of the Earth from space, you see a thin little film and you realize that that is what sustains all of life. That is the atmosphere.

From that perspective, our home is so beautiful, and yet it looks so fragile. It is clearly exceptional.

Do you want me to suspend and defer to my senior colleague?

Senator BOXER. You just go ahead. You have 9 minutes left, and Senator, you have the floor, and you will close down these hearings today, if that is OK.

Bill was just talking about his trip up in space, and he is so articulate about it, this little thin, what did you say, film of?

Senator NELSON. As you look at the rim of the Earth from space, you see the thin film that sustains all of life. It is the atmosphere. Our home is so incredibly beautiful. It is this colorful creation suspended in the middle of nothing, and space is nothing. Space is an airless vacuum that goes on and on for billions of light years, and there in the middle of it is this wonderful, colorful, alive planet that is home.

You can't help, when you have an experience like that, of having some sense of greater responsibility for stewardship. For example, coming across South America, even at that altitude, I could see the destruction of the rain forests by the color contrast with the naked eye. In the same window of the spacecraft, I could look and see to the east partially the result of that destruction of the rain forest, because at the mouth of the Amazon, the waters of the Atlantic were discolored for hundreds of miles out into the Atlantic from the additional silt that comes. Now, silt is a natural phenomenon in the Amazon, but the destruction of the trees upriver is all the more so.

So I wanted to lay that as the predicate to tell you why I come to the table as a sensitive person for the environment. Now, of course, the States that we represent likewise are highly sensitive, and of course global warming, if somebody is going to be affected, it is going to be Florida. You have about 800 miles of coastline in your State. We have 1,500 miles of coastline in Florida, only exceeded by Alaska, but Alaska doesn't have any beaches compared to the beaches of Florida.

So there is a lot at stake. I can tell you when I was Insurance Commissioner, I could not get the heads of the insurance companies out of the sand. They were acting like ostriches on something that was going to have an enormous financial consequence upon them, because as the Earth warms and the seas rise, the storms have become more frequent and more ferocious. The plagues increase, and you have the result in a State like mine.

So I come to the table convinced, and we have been going through this drill where people are saying, and the scientific community is split. Well, anybody can say that they are split, but the vast majority, almost unanimous opinion, is that it is real. So we ought to do something about it and quit playing these games.

So I have sponsored the McCain-Lieberman bill. I have done that for the last 4 or 5 years. I am doing it again, but thank goodness, you are the Chair and we are going to get something moving. There will be others. Your colleague from California wants to talk to me about a particular approach that she has.

Global warming, you are really not going to do anything until we address the issue of fossil fuels. Wouldn't it be wonderful for us suddenly to understand that two policy goals, protecting the environment and at the same time getting ourselves less dependent on foreign oil, they happen to coincide, and that you could address one by addressing the other.

So why are we still the handmaidens of the oil industry and the American automobile industry that continues to refuse to modernize? Why don't we have a mandated 40 miles per gallon fleet average within 10 years? Look what that would do to our dependence on foreign oil that comes from where? Places like the Gulf, Nigeria, Venezuela, which happen to be areas of considerable political instability.

We have gone back to sleep when we had the warning in the early 1970's and we had again warning in the late 1970's, and here we are. We are back.

Now, I am going to conclude my remarks with something that I intend to address since Danny Inouye has made me his new Chair-

man of the Space and Related Sciences Subcommittee in the Commerce Committee. That is, we have a bunch of highly sensitive environmental surveying satellites that are going to go kaput by the year 2010. We have a lack of cooperation between NASA and NOAA. We have some satellites that have been planned to replace the other satellites that haven't been designed right. What this is going to be is a spelling disaster if we don't get it up.

Now, I don't want you, Madam Chairman, to fall for this seductive argument that it is either manned space flight or this. It isn't that. In a little R&D agency like NASA, which has produced so much accomplishment of exploration of peeling back the unknown, surely in a Nation as large as ours, we can find the resources not only to keep pressing the envelope on technology, which happens to be in the unmanned program, scientific satellites and so forth, but also in the manned program.

The President speaks a big line about all this. He has all this initiative, back to the moon, and go to Mars, which I support. But just like in the No Child Left Behind, when it comes time to putting the money out, he cut NASA by $1.1 billion from the authorization bill that we had passed in the Congress. As a result, the Administrator of NASA, Dr. Griffin, who is doing a great job, we finally have a rocket scientist there who knows what he is going, who also has a sense of humility, I might say. Where is he going to get the money to do everything he has to do? So there is some cut that is coming in this area.

The National Academy of Sciences have warned, mind you, they have warned that we are going to lose access to valuable information that these satellites provide, and according to that Academy report, 40 percent of the sensors and instruments on NASA's aging weather and global monitoring satellites is going to stop working, are going to stop working in 2010.

So the study blamed the budget cuts, replacement costs and delays and the lack of cooperation on NASA and NOAA. So we have to all address this, Madam Chairman, and that is what I wanted to come and share with you today.

[The prepared statement of Senator Nelson follows:]

STATEMENT OF HON. BILL NELSON, U.S. SENATOR FROM THE STATE OF FLORIDA

Madam Chair, thank you for allowing me to speak to you today on the issue of global warming.

Twenty-one years ago I was privileged to see our fragile ecosystem from the window of the shuttle Columbia as it orbited the earth. It's truly awesome to see the soft, white clouds, brilliant blue oceans, and subdued brown continents against the backdrop of the vast darkness of space.

But, from down here, we're finally acknowledging that climate change will have devastating effects on the Earth's very delicate ecological balance.

Experts largely agree that weather extremes will be more intense if global warming goes unabated. If the trend continues, Florida, and many other places around the world, could suffer relentless heat waves, beaches submerged by rising sea levels, contaminated drinking water, and more severe and damaging hurricanes.

And it will only get worse unless we begin controlling our greenhouse gas emissions.

It's about time we start taking this threat seriously. It's time for Congress to take meaningful steps to cut down on our nation's greenhouse gas emissions.

I am a co-sponsor of the Climate Stewardship and Innovation Act of 2007 (CSIA)—a bill offered by my colleagues Senators Lieberman and McCain, which will work towards this goal.

This legislation will not only hold at bay the devastating impact of global warming, but also ensure that American companies and American ingenuity plays a large role in reducing greenhouse gas emissions.

By capping greenhouse-gas emissions at 2004 levels in the next five years, we will make substantial reductions in a root cause of global warming.

But this proposal goes even further by requiring several major U.S. economic sectors to reduce by ⅔ their greenhouse gas emissions by the year 2050.

Making this legislation law is just the first step in fighting global warming, and Congress can't delay any longer.

While this is just one of several ideas being debated in Congress, we also must take steps to improve the fuel efficiency of our vehicles and develop energy alternatives to fossil fuels.

Madam Chair, I also want to tell you all about another aspect of this important debate: the tools our scientist use to measure global warming—our first line of defense against climate change.

Much of our information on global warming comes from satellites orbiting the earth. These satellites play a key role in helping us keep an eye on planetary changes. Scientists use the data to, among other things, monitor the ozone layer, solar and earth radiation, sea levels; sea temperature, wind changes, air pollution, and measure glacier and ice cap changes.

Unfortunately, according to a group of the country's leading scientists, our nation's weather and global monitoring satellites are at "great risk".

Members of the National Academy of Sciences, warned that the U.S. will soon lose access to valuable information these satellites provide. According to the report, 40 percent of the sensors and instruments on NASA's aging weather and global monitoring satellites will stop working by 2010.

The study blamed budget cuts, replacement costs and delays, and the lack of cooperation between NASA and NOAA.

Those of us in Congress need to take this warning seriously.

We can't afford to go without the tools that help us monitor and prepare for the effects of global warming. And, we can't afford to cut corners when lives, property, economies and ecosystems are at stake.

We must maintain these satellites that provide our scientists, forecasters and others with the data they need to help observe and better understand our ever-changing weather patterns and conditions here on earth.

We must do everything we can to ensure the earth remains as beautiful as it appeared from space. And, we must take meaningful steps now to reach this goal.

I look forward to working with this committee and all of my colleagues to make real progress towards reducing the effects of global warming.

Senator BOXER. Well, Senator Nelson, again my deepest thanks. You know, Vice President Gore introduced me to a scientist who said that it is critical that these satellites be continued, because otherwise we are flying blind. We don't know what is happening to us.

So I just want you to count me in as a real partner in this. I know our colleague, Senator Durbin on the Appropriations Committee and in the leadership of the Senate, this is crucial. We cannot understand global warming if we lose our eyes on this matter. So we are very fortunate to have you as Chair of that subcommittee, and look forward to working with you.

Senator Durbin, it is very appropriate in many ways that you are our final speaker. We will have heard from one-third of the Senate today. To close with your testimony is an honor for me, because you are, you know, the Assistant Leader of the U.S. Senate. So we are thrilled that you are here, and you have the floor.

STATEMENT OF HON. RICHARD J. DURBIN, U.S. SENATOR FROM THE STATE OF ILLINOIS

Senator DURBIN. Chairman Boxer, thank you. You arrived in the nick of time, and I mean that. Having seen the documentary, An Inconvenient Truth, I really sense that time is running out, the

time for talk, the time for excuses. If we don't do something decisive and soon, it literally may be too late. Some of the damage we may not be able to ever repair. I am glad you are here to lead us in this effort, which I believe will be a bipartisan effort. I think we will have many supporters, some on the other side of the aisle joining us in this effort, which is exactly what we need.

I was heartened when President Bush mentioned global warming in relation to energy security in the State of the Union Address. You and I have been disappointed in the last 6 years in several things that have occurred in this Administration when it comes to the environment, climate change. The President and his Administration commissioned government experts and scientists to complete a study on global warming, only to omit parts of the final report that really got down to the heart of the matter.

They attempted to silence a NASA scientist wanting to inform us that climate change is in fact real and must be addressed immediately. There is a long list of things which I think have been done by this Administration that moved us in the wrong direction.

But having said that, let me give you an example of one thing they suggested that is moving us in the right direction. It is called FutureGen. It may not be a big news item in California, but it is in Illinois, because what the Administration has proposed is that we would take as a demonstration project using local coal, and we have high sulfur, dirty coal in some parts of Illinois, and generate electricity with that coal with zero emissions, sequestering carbon dioxide, saying it can be done.

Well, there are four finalists for this plant, two in Texas and two in Illinois. I hope this year that Illinois is the winner, but regardless we need to develop that technology. We have this great local energy source that has been handcuffed by the environmental concerns that we share. So having been critical of the Bush administration for a lot of the scientific things that they have done in this area, let me commend them when it comes to this FutureGen. I think it is a futuristic look at where we need to go.

I just want to suggest to you, Madam Chair, if you would consider, before I talk a little bit more about global warming, I think we ought to have a very clear starting point in this debate. We ought to work together on a bipartisan basis to write this starting point, and have it enacted by the Senate. It should be a starting point that says global warming and climate change are a clear and present danger to our environment, our economy, our security and our health, and the survival of many species on Earth.

Recognizing that, we have an obligation to move with all deliberate speed to address this problem in America, setting an example here for the rest of the world. If we started there, if we had a consensus there, then a lot of things would follow. Until you took over the chairmanship, the debate was still on as to whether it was even an issue. Thank goodness we are beyond that on this committee. Now we have to move beyond it in the Senate and in this Nation.

I recently returned from an official trip with Senator Reid down to South America. We had a delegation of six Senators from both sides of the aisle. We made a point of asking in Bolivia and Ecuador and Peru what they thought about global warming. They all looked at us and kind of smiled and said, why of course it is going

on. Do you want us to show you glaciers or snow melt? We can see it here. Don't you see it there?

Well, we do, but we have ignored it and we have rationalized some position that we can't do anything about it or don't need to do anything about it. Those days are over. I think it is time for us to move forward and to understand that if we don't do it in the United States, setting the example, very few people will consider.

It also creates political instability, as we know. People who are the victims of this get up and move. I just had this recent report that came out last week from the Royal United Services Institute for Defense and Security. At a conference, Paul Rogers from Bradford University explained that recent climatology work suggested global warming could increase migratory pressures by an order of magnitude, "In other words, about 400 million people, not the current 40 million people, desperate to cross borders." That is political instability, that is failed states, that is the United States drawn into conflicts in the far reaches of the world that we don't want to be drawn into.

So we know now that this is a matter of security. The Department of Defense is joining us in that. We know that the United States has to lead the way. We use the most energy in the world. We have the most prosperous economy in the world, and we are looked to. Developing countries think the United States is trying to hold us back because they have already reached economic development success. Well, we have to demonstrate that we can achieve success economically, while still respecting the environment.

Exhibit A, your home State. For how many years did we use to kind of laugh behind our friends in California as they talked about California engines in cars and California standards for energy efficiency. But you can tell that story better than anyone here today, about that dedication to energy efficiency, and how as a result of it, you were able to have an expanding economy, while reducing the use of energy. It can be done.

Your example in California and other places in the United States should be an inspiration to all of us, because what I see coming is an opportunity, an opportunity for the United States to once again lead the world in the production of energy saving devices and technologies. Let's get out in front of this and commit ourselves to it, and have the world come to our door when they want to find ways to keep their economy moving forward and still reduce the use of energy and the pollution that results.

I think it is much like Silicon Valley and what we saw with information technology, when it comes to this new environmental technology, a great opportunity for great jobs.

Now, let me say a word about an issue near and dear to my heart, and I will confess against my own interests that I have had little or no success on the floor of the Senate with it, and that is CAFE standards. For the longest time, it struck me that if we were serious about fuel economy and fuel efficiency in the vehicles we drive, we would never seriously tackle this issue. Sixty percent of our oil goes into the cars and trucks we drive, and if we don't make them more fuel efficient, when we are going to be driving the same or more miles using more gas every single year, burning more, emitting more.

Well, as the Senator knows because she has been by my side, that each time that I tried to improve CAFE standards, I have not received a majority vote. I was disappointed, but I sense that things are changing. I sense that with the statements being made from our colleagues on both sides of the aisle, they understand this. We have to challenge automobile manufacturers and truck manufacturers in the United States and around the world to do better. We have to really tell them that it is unacceptable for us to continue to build and buy these heavy vehicles with less fuel efficiency.

I think if they get the message, they can respond to it. In 1975, faced with 14 miles per gallon, Congress mandated an increase in fuel economy and fuel efficiency in the fleet of vehicles other than trucks, and saw that number rise over 10 years to 27 miles a gallon. People say, well, I hate government mandates. Well, it worked. This mandate worked, and at the end of the day we had more fuel efficient cars.

Since 1985, we have done absolutely nothing. As a consequence, our overall statistics on fuel economy have gone down, instead of up. I think we need to rededicate ourselves to more fuel efficiencies in these cars and trucks. I hope that our friends in Detroit, making cars in America, will be listening. I think they have been too slow to respond to this change. They have unfortunately in many instances seen Japanese competitors get their first, the long lines to buy a Prius, the long lines to buy a new hybrid Toyota Camry. All of these suggest there is strong pent-up consumer demand there, and I hope that Detroit will realize it.

My wife and I bought a Ford Escape hybrid. It is good. It could be a lot better. It uses Toyota technology. I am sorry that it is Toyota technology, but at least we are trying to do the right thing in the production of those vehicles. Plug-in hybrids and all those opportunities lie ahead.

Let me conclude by thanking you for your patience. I can't think of anyone more patient than someone who would sit and listen to 33 Senators in the course of a day. But I think that all of us understand, this may be our last chance. If we don't do this right, things are going to change in this world for the worse for our kids. That is unacceptable.

Thank you, Madam Chair.

Senator BOXER. Senator Durbin, it means a lot to me that you came on a personal level, and also on a policy level, because anything we do we are going to need you down there on the floor getting those votes.

The reason I was so happy to do this today is I am really trying to figure out where the votes are and where the passion lies. I think today we have learned a lot.

So I just want to thank you. I know you are very, very hectic, so you go right ahead and you go, and while you are going I am going to put in the record, I am going to complete the record.

Senator DURBIN. Thanks.

Senator BOXER. Thank you, Dick.

I am going to put in the record a statement by Senator Feingold, one by Senator Enzi, one by Senator Kennedy, one by Senator Lugar. These are all extremely interesting. I would say to be fair

that Senator Feingold believes that "with each passing year we fail to act, the challenge of addressing global warming and reducing emissions becomes increasingly difficult and costly. The time to act is now."

Senator Enzi has a different view. He says he didn't think we had to have this hearing. He thinks people could have just expressed themselves on the floor of the Senate. He said he doesn't believe climate change is as pressing a problem as many would suggest. He says he doesn't trust his weatherman to predict the temperature, let alone what is going to happen 100 years from now. He does say, and this is the part where I always found a little nugget in everybody's testimony, that the right approach is to develop technologies and to share that technology with other nations. So as cleaner technologies spread through the world, they will address what many believe is a global problem.

So I think even Senator Enzi and his, shall we say, negative view of what we are viewing, does come up with the pathway toward better technology.

Senator Kennedy strongly supports the Sanders-Boxer bill. He says, "We need to act now."

Senator Lugar I think has a very interesting statement. He says that, "Solving these challenges will require a stronger commitment by our government to scientific research, policy innovation and diplomacy." He calls on Congress to work with the executive branch in a way that inspires Americans, and he wants to work with us to do that.

[The prepared statement of Senator Feingold follows:]

STATEMENT OF HON. RUSS FEINGOLD, U.S. SENATOR FROM THE STATE OF WISCONSIN

Thank you Chairwoman Boxer and Ranking Member Inhofe for inviting your colleagues to testify today on the important issue of global warming.

The question before us today is not should we act to address global warming. The question is how. Politicians are often portrayed as only having their sights on the next election, and being unwilling to make changes in the near-term in order to produce long-term benefits. I am delighted that this Committee is intent on seeking effective long-term solutions to this serious problem.

I was pleased to join you, Chairwoman Boxer, and several of our colleagues in cosponsoring Senator Sanders' bill, the Global Warming Pollution Reduction Act. I believe this bill provides the leadership and the comprehensive, scientific-based approach to addressing global warming that Americans demand and deserve.

Leading climate scientists have identified 450 parts per million of atmospheric carbon dioxide and increases above 3.6 degrees Fahrenheit above pre-industrial levels as the tipping point. To stay below these levels, this bill commits to incrementally reducing the United States' emissions to 1990 levels by 2020, and then to making further reductions between 2020 and 2050. I believe these goals are achievable using a combination of mandatory measures and incentives.

The bill also recognizes the importance of taking an economy-wide approach to addressing global warming, and not one that targets a single sector. Industry, power, transportation, and building sectors all have a role to play in reducing global warming-causing emissions. As many of my colleagues and I wrote to the President last year, by sending the right market signals and supporting the "deployment of existing technologies and development of new technologies to reduce emissions," we can keep U.S. businesses competitive in the emerging carbon-conscious global marketplace. I am also heartened that the economy-wide approach is supported by the majority of the 160 organizations that attended last year's conference hosted by the Senate Committee on Energy and Natural Resources.

Another key component to addressing global warming is right in the name—global. As a member of the Foreign Relations Committee, I was pleased to cosponsor, last Congress, a Lugar/Biden resolution on the need for the United States to re-

engage with the international community on climate change. We must continue to participate in international negotiations with the objective of securing United States participation in agreements that advance and protect our interests, establishing mitigation commitments by all countries that are major emitters of greenhouse gases, establishing flexible international mechanisms to minimize the cost of efforts by participating countries, and achieving a significant long-term reduction in global greenhouse gas emissions. As of the Chair of the Senate Foreign Relations Subcommittee on African Affairs, I am concerned about the threats global warming pose to the continent of Africa. As we look to the future, we must address the consequences our global energy habits will have on less developed nations, in addition to the consequences on our own constituents.

I think we all agree there is no use in a plan that does little to reduce global warming-causing emissions and makes our economy vulnerable. I do not pretend that the decisions before us are going to be easy. However, with each passing year that we fail to act, the challenge of addressing global warming and reducing emissions becomes increasingly difficult and costly—not only economically but environmentally. The time to act is now.

[The prepared statement of Senator Enzi follows:]

STATEMENT OF HON. MICHAEL B. ENZI, U.S. SENATOR FROM THE STATE OF WYOMING

Madame Chairman and Ranking Member Inhofe, thank you for allowing me the opportunity to submit a statement at today's hearing. I agree with the Ranking Member of the Committee that such a statement is better suited for a session of morning business on the Senate floor. However, I believe it is important to have a balanced debate, and so I want to make my views clear for the record.

There is no question that the issue of climate change is on the minds of the American people. Discussions on climate change, which are traditionally commonplace in the media, are now commonplace around the water cooler. Unfortunately, those discussions are dominated by misinformation and are based on scare tactics. Rather than allowing the science to run its course, the issue has become politicized.

I do not believe that climate change is nearly as pressing a problem many proponents would suggest. We do not trust our weathermen to predict the temperature a week in advance, and so it is difficult for me to believe that individuals can predict the weather 100 years from now. Particularly given that just a few decades ago, we were told that the world was entering the next ice age, I struggle to see how some can discuss the issue with absolute certainty.

Because the science is not settled on the issue of climate change, I will not support any actions that will put the United States at an economic disadvantage without any guarantees that the problem is real and without any guarantees that these so-called solutions will address the issue.

As that is the case, I base my position on climate change on the Byrd-Hagel Resolution, which passed the United States Senate on June 12, 1997 by a vote of 95–0. The legislation should set the standards for United States signature on any treaty that forces the reduction of greenhouse gases. The resolution requires that all nations, including developing nations like China and India, be a part of any agreement. Additionally, the resolution requires that any measures enacted domestically do not harm our country's economy.

If we act, we must do so in a way that makes sense and does not dramatically disadvantage the United States. My experience at the Kyoto Conference tells me that the mandatory CO_2 caps that have been proposed do not meet the high standard laid out under the Byrd-Hagel Resolution.

I was a member of the United States Senate delegation to Kyoto, Japan in 1997 where the Kyoto Protocol was drafted. One of the things I noticed when I got to that conference was that the delegation from the United States was one of the only delegations who were treating Kyoto as an environmental conference. The vast majority of nations in attendance realized that it was an economic conference. They saw Kyoto as an opportunity to harm the U.S. economy. The Chinese delegation, whose country represents the world's fastest growing emitter of CO_2, made it clear that they would never be part of a treaty that forced them to reduce their CO_2 emissions. Without involving China, no treaty or action to reduce CO_2 makes any sense.

Instead of enacting costly legislation to cap CO_2 emissions, I think the right approach is to develop technology and to share that technology with other nations. Doing so allows cleaner technologies to spread throughout the world, which is the best solution to what many believe is a "global problem."

Thank you again for allowing me to share my thoughts on this issue.

[The prepared statement of Senator Kennedy follows:]

STATEMENT OF HON. EDWARD M. KENNEDY, U.S. SENATOR FROM THE COMMONWEALTH OF MASSACHUSETTS

I commend Chairman Boxer and the Committee for scheduling this hearing today to give Senators the opportunity to voice our concerns about the growing climate crisis and our ideas on how to avert it.

We can no longer ignore the consequences of America's excessive reliance on fossil fuels. The evidence is overwhelming that they are devastating our environment and threatening public health, and our reliance on foreign oil is putting our national security at risk.

I strongly support the "Global Warming Pollution Reduction Act" introduced recently by our new colleague, Senator Sanders. The act calls for ambitious, but necessary and achievable greenhouse gas reductions—including a "20 by 2020" renewable portfolio standard—to gain control over these emissions before major damage is done to the global climate.

In dealing with the global warming challenge, Congress must also set aggressive fuel economy targets and encourage greater fuel diversity. The fuel economy standards enacted 30 years ago are no longer adequate. They should be increased for cars to at least 40 miles per gallon over the next 10 years and to at least 27.5 miles per gallon for SUVs and vans.

There's no silver bullet to end global warming, but greater use of renewable energy and increased fuel efficiency could have a major impact on cutting the nation's carbon dioxide emissions.

So can greater use of passenger rail and other forms of public transportation. In a single year, Americans travel nearly five trillion miles in the United States, more than 80 percent in personal vehicles. Yet, Amtrak is twice as energy efficient as highway traffic by car, truck, or motorcycle.

Unfortunately, the Administration is no friend of public transit. It has even sought to zero-out Amtrak's operating subsidy. Instead, we should support Senator Frank Lautenberg's bill to give Amtrak the resources it needs to manage its debt and make capital improvements, particularly in the heavily-used Northeast Corridor.

We must do more to increase fuel diversity so that cars and trucks aren't so heavily reliant on petroleum. Senator Bayh and Senator Brownback have offered legislation, the DRIVE Act, to steer motor vehicle technology in the direction of bio-fuels, fuel cell vehicles and hybrid-electric cars, and support alternative fueling infrastructure so that consumers can fill their tanks with alternatives to petroleum.

Tax policy is also an important part of the solution to the challenge, and I hope this Committee can work closely with the Finance Committee to develop a comprehensive approach. We should certainly extend the tax credits for renewable energy technology such as hydrogen fuel cells and solar energy cells. Senator Gordon Smith proposed legislation in the last Congress for a multi-year extension of the tax credits for each of these technologies, and I urge this Congress to pass it or similar legislation as soon as possible.

A long-term extension of these tax credits is needed to attract potential investors in these technologies. Massachusetts, California and Ohio are among the nation's leaders in this field. In Massachusetts alone, more than 60 companies are involved in fuel cell and hydrogen technologies.

We should also do more to enable consumers to make environmentally-wise decisions about the power they use. Hundreds of utilities across the nation now offer "Green Pricing" programs that enable consumers to have their homes powered with electricity generated from renewable energy technology. We could encourage more rapid conversion to green power by offering a "Green Power Pricing" tax credit equal to the difference in the cost of clean power over dirty power.

We can reduce energy consumption in homes. We should make construction more energy efficient, such as by establishing a grant program to train the next generation of architects and building designers in "zero-energy home" principles, so that building owners can install more energy efficient technologies. Adopting these principles for new home construction will bring down the cost of household energy and support one of our nation's bedrock industries.

Finally, any comprehensive plan should reinstate the windfall profits tax on the oil industry. We cannot rely on the oil companies to restrain themselves during the worst of times, so a windfall tax is clearly needed to protect consumers from price manipulation.

Again, I commend the Committee for taking up this immense challenge, and I look forward very much to working with you in the weeks ahead to enact legislation to deal with the urgent problem of climate change.

[The prepared statement of Senator Lugar follows:]

STATEMENT OF HON. RICHARD G. LUGAR, U.S. SENATOR FROM THE STATE OF INDIANA

Chairwoman Boxer, members of the committee, I thank you for holding this important hearing to examine the global climate change debate and to train our minds on possible solutions.

For too long, the climate change debate has been a niche issue, pitting implacable skeptics against so-called "green idealists." Yet, safeguarding the environment should not be viewed as a zero-sum decision, where limited resources may be diverted away from programs that more directly impact our immediate well-being. To the contrary, the environment and energy security are interlinked priorities, the advancement of which increases the welfare of all Americans. Conversely, the deterioration of either will harm our national security interests, economic well-being and our way of life. Both priorities also have many of the same solutions.

Current trends are endangering the priorities of our foreign policy. High prices and booming demand for oil are enriching some authoritarian regimes, which use revenues to repress democracy and fund terrorism or demagogic appeals. As we attempt to lift developing countries from poverty, high oil prices also dull the effect of our foreign aid. Without a diversification of energy supplies that emphasizes environmentally friendly energy sources that are abundant in most developing countries, the national incomes of energy poor nations will remain depressed, with negative consequences for stability, development, disease eradication, and terrorism.

Additionally, the burning of these fossil fuels has greatly increased greenhouse gases in the atmosphere that could cause major changes in the earth's climate. Climate change will bring more droughts, floods and other weather calamities. Pests and disease will spread into new regions of the world, threatening public health and economic growth and making these areas more prone to conflict.

The interlinked challenges of global health, energy security, democracy promotion, and extreme climate change should be addressed in a comprehensive way. In my view, there are at least four components in devising such a strategy.

First, America must radically reduce its reliance on oil, with an emphasis on transforming the transportation sector. In 1999, when a barrel of oil was just $20, I joined former CIA Director Jim Woolsey in warning that our over-reliance on petroleum made it more difficult for America to act responsibly in the world to safeguard peace, security and prosperity. Dr. Woolsey and I advocated the development of cellulosic ethanol as an alternative to petroleum for transportation fuel. In terms of environmental impact, cellulosic ethanol's advantages over gasoline substantially outweigh its disadvantages.

Today, President Bush and a large bipartisan coalition in Congress support the production of more biofuels like ethanol. We must now put in place the economic incentives to ensure that all cars and trucks can burn these fuels and that filling stations readily provide them.

Second, the United States needs effective programs that harness market forces to prod carbon constraints and cuts. Such programs should include a carbon trading mechanism. Last year, I listed my farm in Indiana on the Chicago Climate Exchange to set an example for farmers and foresters in my state and throughout America. The hardwood trees on my farm sequester 3,400 tons of carbon, which have market value on the exchange despite the lack of a broader cap and trade system in America. Changes sometimes come slowly, but I am hopeful that the Chicago Climate Exchange will illustrate how easily market value can attach to the most rudimentary of carbon reduction efforts.

For example, the exchange mechanism could be utilized by turning unused farmland into tree farms that sequester carbon while providing farmers with extra money. Or, farms could be used to grow grasses, which are then converted into cellulosic ethanol. I was pleased to learn of farmers in Iowa who use no-till cultivation practices—thus keeping carbon in the ground—and have subsequently placed their farms on the Chicago Climate Exchange. In short, American farmers could become the vanguard in using market forces to the benefit of both the environment and the pocketbook.

Madam Chairwoman, I would ask consent to submit into the record a report from the Pew Center on Global Climate Change entitled "Agricultural & Forestlands: U.S. Carbon Policy Strategies" in which Professor Kenneth Richards of Indiana Uni-

versity discusses in further detail strategies for greenhouse gas sequestration in agriculture and forestry.

Last October, I had the privilege to meet several energy entrepreneurs on a tour through Indiana. One dairy farm I visited was designed to capture methane gas from feedlots to power the farm. The captured methane, which would otherwise be released into the atmosphere as a potent greenhouse gas, will eventually be sold to a nearby ethanol plant. Completing a remarkable cycle, the distillers dry grains—a byproduct of ethanol production—will be returned to the farm as cattle feed. Such exemplary innovations not only improve our nation's net energy position, but generate new revenues and less waste in agriculture.

These innovations could create the foundation for an entirely new business model for rural and small town America: by utilizing crops and agricultural waste for fuel, American agriculture could reinvigorate itself, while simultaneously alleviating our energy dependence.

Third, America needs to carry out coordinated and sustained energy diplomacy with our partners abroad. Just as securing our energy requires international agreements and cooperation, so too does securing our environment. As China, India, Brazil, and other industrializing countries come on line as major energy consumers, they will increasingly become a source of global climate change and environmental degradation. It is in our interest to coax these countries into international environmental frameworks by actively participating in the agreements ourselves. For this reason, I have co-authored with Senator Biden S. RES. 30, which calls on the United States to pursue agreements under the United Nations Framework Convention on Climate Change.

Fourth, America must ready itself for the security ramifications of energy dependence and climate change in the international political sphere. As a preliminary step, I authored and the Senate approved a resolution that calls upon the United States to lead discussions about the role NATO could play in energy security. The resolution also instructs the President to submit a report to Congress that details a strategy for NATO to help in the development of secure, sustainable, and reliable sources of energy, including contingency plans should current supplies be put at risk.

In a speech I delivered in advance of the NATO Summit in Riga, Latvia, I urged NATO to consider invoking its mutual defense commitment in case of an energy cutoff affecting a NATO member state: an attack on one may require a response by all. Any such threats to America's energy supplies could be greatly reduced by focusing on sustainable fuels and preparing for supply disruption.

We must also develop strategies for dealing with environmental calamities related to climate change. Soybean rust has already migrated from tropical areas to the detriment of crops as far north as Indiana. The spread of disease or pest infestations could likewise cause political, economic and social turbulence throughout the world.

Solving these challenges will require a stronger commitment by our government to scientific research, policy innovation and diplomacy. It will require Congress and the Executive Branch to come together in ways that inspire Americans rather than divide them. I believe that we have many opportunities for furthering this work in this Congress, and I look forward to working with my Colleagues to do so.

Thank you, again, Madam Chairwoman, for calling this timely hearing.

[The referenced document follows on page 1054.]

Senator BOXER. So I think all in all, it has been quite a day. Now, is there anything else? We will keep the record open for just about 3 working days, and I will be able to publish this hearing because I think there is a lot in here for the American people to really look at.

So we will do that. We will also see if we can put it in the congressional Record as a hearing. I don't know if we can do that or not, but we are going to certainly publish it.

I meant to say to Senator Durbin something that some of you may already know. My staff will correct me if I don't say this exactly right. But if the rest of the Country had the energy efficiency record of California, in other words, the per capita use of energy in California, if just the rest of the Country did it, we would save the equivalent in energy of all the oil we import from the Middle East, at least.

So I think energy efficiency is a way to go that doesn't require giving up really any creature comforts. The first thing that every man I know asks me when I step out of the hybrid is, but does it have pick-up? I can tell you, it absolutely has pick-up.

So with that, I just want to thank the audience. A lot of you were here through this entire hearing, and I do think this is a beginning of what is going to be a fascinating journey, and at the end of that journey, as soon as we can, we are going to have something to show for it, and we are going to start to have America take the lead on this issue that is facing us.

Thank you very much, and we stand adjourned.

[Whereupon, at 3:55 p.m. the committee was adjourned, to reconvene at the call of the chair.]

[Additional statements submitted for the record follow:]

STATEMENT OF HON. DANIEL K. INOUYE, U.S. SENATOR FROM THE STATE OF HAWAII

I would like to take this opportunity to thank Senator Boxer for initiating this Members hearing on this important issue. It is an excellent opportunity to bring together the various Committees and Members with an interest in energy conservation, climate change, and the environment.

I also want to commend Senator Boxer for her leadership on these serious issues. I am proud to be an original co-sponsor of the Global Warming Pollution Reduction Act of 2007, introduced by Senators Boxer and Sanders. I look forward to working on other legislation with my many colleagues who are committed to addressing the very real problem of global warming.

As Chairman of the Commerce Committee, I would like to explain the important role the Committee would play in developing policy responses to the many problems associated with global warming. With jurisdiction over rail, surface, and air transportation, we oversee the sector of our economy that is responsible for the largest proportion of our nation's greenhouse gas emissions. The Commerce Committee exercises jurisdiction over the National Highway Traffic Safety Administration (NHTSA) and its Corporate Average Fuel Economy (CAFE) program, which sets miles per gallon (mpg) targets for the passenger automobile fleet.

The Committee has jurisdiction over science and technology matters directly relevant to climate change. For example, the Committee has primary jurisdiction over atmospheric monitoring and science, and over the principal federal agencies that conduct or fund climate change research—the National Oceanic and Atmospheric Administration (NOAA), the National Aeronautics and Space Administration (NASA) and the National Science Foundation. The Committee also developed and oversees the Global Change Research Act, which sets forth authority for federal interagency research on climate change, as well as the White House Office of Science and Technology Policy, which is charged with guiding and integrating research and science policy across government agencies. Finally, the Commerce Committee has jurisdiction over engineering and technology research and development, as well as the National Institute of Standards and Technology (NIST), which has a role to play in developing better measurements, standards, and technologies to help reduce the production of greenhouse gases.

Because of our broad jurisdiction, and the imminent need to address climate change related issues, my Commerce Committee colleagues and I anticipate an active agenda for the Committee in terms of both legislative initiatives and our hearing schedule. Let me briefly highlight some of the legislation and hearings that we anticipate working on during this session.

Last week, Senators Feinstein, Snowe, Durbin and I introduced the "Ten-in-Ten Fuel Economy Act of 2007," which would mandate that the passenger fleet, which would include light trucks weighing less than 10,000 lbs., as well as cars, achieve a combined CAFE average of 35 mpg by 2019. I would like to thank Chairman Boxer for joining us in this important effort. This bill takes a real world approach to improving passenger fleet fuel economy and would be a significant positive step in cutting our national greenhouse gas emissions. By 2025, the provisions of this bill would reduce emissions of carbon dioxide by 358 million metric tons, which is the equivalent of taking 52 million cars and trucks off our nation's roadways. In addition, assuming today's price for a gallon of gas, the Act would effectively reduce

consumption of foreign oil by 2.1 million barrels a day by saving over 35 billion gallons of gasoline annually.

The Committee's agenda at the start of the 110th Congress will feature a number of hearings on climate change science and technology issues. In a few weeks, we will be holding a hearing on climate change science and scientific integrity to address federal scientists' ability to convey research findings and conclusions to policy makers and the pubic without being constrained by any political agenda. We also expect to hold hearings on the relationship between our oceans and climate change, including the impact of climate change on our coastal environments and our marine resources.

The Committee is also concerned with the declining federal budget for climate change research, and reports that the federal climate research program is not only stagnating, but also subject to cutbacks that would endanger the future health of research and monitoring. The Committee will be pursuing legislation to strengthen the federal climate research program to ensure support for the fundamental science needed to fully understand the impact of climate change.

The Committee may also pursue legislation aimed at promoting innovative energy technology, and directing the National Institute of Standards and Technology to improve measurement technologies and standards that are essential to decreasing greenhouse gas emissions.

Given the growing number of uses of our oceans and the Commerce Committee's jurisdiction over the transportation and commerce aspects of the Outer Continental Shelf, coastal zone management, marine fisheries, and oceans, we hope to revisit some of the language in the Energy Policy Act of 2005 to account for these other aspects and to improve coordination of the permitting process for offshore activities, including oil and gas exploration.

I look forward to working with all of you to improve the environment and decrease our dependence on foreign oil.

STATEMENT OF HON. JOSEPH R. BIDEN, JR., U.S. SENATOR FROM THE STATE OF DELAWARE

If anyone wants evidence that the climate is changing, just look around this room. The climate has changed here in the Senate and climate change is on the agenda. The heat is on us to do something about it.

I congratulate Senator Boxer on her ambitious agenda for this committee, and for convening this forum today.

One of the President's first acts in office was to break his promise to do something about climate change. Instead of action, he turned his back on international cooperation and pulled us out of the Kyoto process.

That train has now left the station. The rest of the industrial nations have taken on commitments to reduce their emissions to 7 percent below 1990 levels, during the period 2008 to 2012. We missed the chance to find a way to make the Kyoto Protocol workable for the United States. We missed a chance to begin the process of slowing, stopping, and reversing our emissions.

We missed the chance to turn the impending threat of catastrophic climate change into an opportunity to reduce the security threat of our dependence on oil, to reduce the health threat from pollution, to reduce the sheer waste and inefficiency in our economy.

And we missed the chance to do what many of the leading businesses in this country know we should do capture a leadership position in the global competition for the next generation of clean technologies. Last week, we heard from an alliance among some of our most important corporations and some of our most respected nongovernmental organizations, the United States Climate Action Partnership. I am particularly proud that DuPont, from my home state of Delaware, has taken the lead on this issue for many years.

Once again this year, Senator Lugar and I have joined together to introduce a resolution calling on the Administration to return to a leadership role in international climate change talks.

Our resolution calls for United States participation in negotiations under the United Nations Framework Convention on Climate Change—signed by the first President Bush—that will protect the economic and security interests of the United States, and that will commit all nations—developed and developing—that are major emitters of greenhouse gases to achieve significant long-term reductions in those emissions.

The resolution also calls for a bipartisan Senate observer group—based on our experience with arms control negotiations—to monitor talks and ensure that our negotiators bring back agreements that all Americans can support.

S. Res. 30 states that evidence of the human role in global warming is clear, that the environmental, economic, and security effects will be costly, and that the response must be international. The resolution recognizes that there are real economic benefits from both reducing the waste and inefficiencies inherent in greenhouse gas emissions, and from the markets for new, climate-friendly technologies. Most importantly it puts the Senate on record, calling for the United States to resume its role as leader in the international effort to address this global threat.

As the body that will ratify any international treaty on climate change, the Senate's position must be clear to the rest of the world. This resolution says we are reading to take on binding commitments that achieve significant long-term reductions in global greenhouse gas emissions.

The physical consequences of global warming are right before our eyes: the shrinking polar ice cap, retreating glaciers, stronger storms driven by warmer ocean waters, and changing growing seasons, animal migration, and rainfall patterns.

Future consequences if we continue business as usual will include rising sea levels, the spread of diseases, abrupt climate shifts that could shut down of the Atlantic cycle that warms Europe, or the shrink the Amazon rainforest that provides twenty percent of the oxygen we breathe.

These changes will profoundly alter the assumptions on which the economic, political, and security arrangements of our world have been constructed. Our national borders, our cities, our cultures, are all built around patterns of rainfall, arable land, and coastlines that will be redrawn as global warming proceeds.

By one estimate, 200 million people, in the coastal cities of New York, Tokyo, Cairo, and London, in low-lying countries such as Bangladesh, in the islands of the Pacific and Caribbean, could be permanently displaced by climate shifts.

Throughout human history, massive population shifts, frustrated expectations, and the collapse of economies, have all led to conflict. Even the richest nations, source of the emissions behind global warming, will face huge costs coping with those catastrophes.

The poorest nations, whose economies have contributed little or nothing to the greenhouse gases in our atmosphere, will be hit the worst, and will have the fewest resources with which to respond. This is a recipe for global resource wars, and even greater resentment of our wealth by those less fortunate—a new world disorder.

We are failing in our responsibility to steward the riches we have inherited. We are bequeathing our children not just a ruined landscape, but a world of conflict as well.

This is a classic tragedy of the commons. We have treated our atmosphere as a costless dump for the waste gases that are the byproduct of our great wealth.

There was a time when we could plead ignorance. That day is past. The science is now clear. There was a

time when we might have claimed the cost of changing our ways was too great. That day is past. We now know the costs of inaction are unacceptably high. There was a time when we could claim that our actions, in isolation, would be ineffective. That day is past. It is now clear that our inaction reduces the effectiveness of international efforts to address climate change, and provides an excuse for China, India, Mexico, Brazil, and the other leading emitters of the future to stay with us on the sidelines.

I personally believe that the single most important step we can take to resume a leadership role in international climate change efforts would be to make real progress toward a domestic emissions reduction regime. For too long we have abdicated the responsibility to reduce our own emissions, the largest single source of the problem we face today. We have the world's largest economy, with the highest per capita emissions. Rather than leading by example, we have retreated from international negotiations.

Beginning with the hearing Senator Boxer has convened today, we will see renewed efforts to pass legislation to create that regime, to reduce our domestic emissions, and to open our many responsible American businesses to both international emissions trading and the new markets for clean technologies in the developing world. Moving toward that goal will be crucial to the effectiveness and credibility of our international efforts.

There are many possible paths to that goal. Our legislative process will provide the forum for us to consider many options. One option that we do not have is inaction.

We are all on this planet together. We cannot protect ourselves from the effects of climate change by acting alone—this is a global problem that will require a global

solution. To undertake meaningful reductions, countries will need to know that their actions will not be undercut by "free riders" who continue business as usual while they commit to change. To build that trust will require commitments by all of the key players, and the institutions to coordinate the actions of independent nations.

That is why the United States must be a leader on climate change issues, and that is why I have been working for three decades to take on this challenge.

On this issue, quite literally, history will be our judge. I congratulate Senator Boxer for her leadership on this issue, as well as my colleagues on both sides of the aisle who will have joined in this effort.

A copy of Senator Biden and Senator Lugar's resolution calling for the United States to return to international negotiations on climate change is attached.

[The referenced document follows on page 1135.]

Eleven National Academies of Sciences Urge "Prompt Action" to Address Global Warming

The National Academies of Sciences from the United States, Japan, Russia, United Kingdom, France, Germany, Italy, Canada, China, India, and Brazil all agree that "there is now strong evidence that significant global warming is occurring…[I]t is likely that most of the warming in recent decades can be attributed to human activities…We urge all nations…to take prompt action to reduce the causes of climate change. (2005)

AMERICAN BUSINESSES CALL FOR ACTION ON GLOBAL WARMING

Endorse Goals that Match the Toughest Proposal

"We Know Enough to Act on Climate Change"

"[W]e, the members of the U.S. Climate Action Partnership (USCAP) have joined together to recommend the prompt enactment of national legislation in the United Sates to slow, stop and reverse the growth of greenhouse gas (GHG) emissions over the shortest period of time reasonably achievable." (2007)

- Alcoa
- British Petroleum
- Caterpillar
- Duke Energy
- DuPont
- Environmental Defense
- Florida Power and Light Group
- General Electric
- Natural Resources Defense Council
- Pew Center on Global Climate Change
- Pacific Gas and Electric Corporation
- PNM Resources
- World Resources Institute

An Urgent Call to Action

Scientists and Evangelicals Unite to Protect Creation

"We agree that our home, the Earth which comes to us as the inexpressibly beautiful and mysterious gift that sustains our very lives, is seriously imperiled by human behavior. The harm is seen throughout the natural world, including a cascading set of problems such as climate change..."

Joint Statement by Religious and Scientific Leaders (2007), including

- Eric Chivian, M.D., Harvard Medical School;
- Rev. Richard Cizik, National Association of Evangelicals;
- Howard Frumpkin, M.D., US Centers for Disease Control
- James Hansen, Ph.D., Director, NASA Goddard Institute for Space Studies

State and Local Action to Address Global Warming

13 States and 376 Mayors from all 50 States Recognize the Threat of Global Warming and Have Taken Steps to Address the Threat

"Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California."

AB 32, California Global Warming Solutions Act of 2006

"Climate disruption of the magnitude now predicted by the scientific community will cause extremely costly disruption of human and natural systems throughout the world including: increased risk of floods or droughts; sea-level rises that interact with coastal storms to erode beaches, inundate land, and damage structures; more frequent and extreme heat waves; and more frequent and greater concentrations of smog…"

U.S. Mayors Climate Protection Agreement (2005)

"Southwestern states have particular concerns about the impacts of climate change and climate variability on residents, businesses and the environment, including the potential for prolonged drought, severe forest fires, warmer temperatures, increased snowmelt, reduced snowpack…"

Southwest Climate Change Initiative, Arizona and New Mexico Agreement (2006)

A Sample of Editorial Boards from Across the Country on the Need to Address Global Warming

- "Denial and despair let us, and our politicians, off the hook…This is not time for denial or despair. By denying global warming—in the face of overwhelming scientific evidence—we can convince ourselves that we need not change our behavior…It is no time for denial or despair. It's a time for action."
  Idaho Statesman (2007)

- "Global warming poses a significant threat to the nation's coastal cities, and especially greater New Orleans…The United States should be leading efforts to combat global warming, instead of straggling behind."
  New Orleans Times-Picayune (2005)

- "The United States needs proactive policy to make a dent in dangerous climate trends."
  Philadelphia Inquirer (2006)

- "We've said it before: Global warming is the greatest environmental threat that humanity has ever faced."
  San Jose Mercury News (2007)

- "Most scientists and policymakers agree that global warming is a major concern… Congress should deal with this problem, relying on the latest research on the environmental and economic impacts of trying to reduce greenhouse gases."
  The Columbus Dispatch (2007)

A Sample of Editorial Boards from Across the Country on the Need to Address Global Warming

- "Some New Year's intentions...[W]e offer these suggestions with the hope that others will turn them into resolutions...By the General Assembly, to recognize that Virginia, with all its low-lying vulnerability, may be hard hit by the consequences of global warming, and to join other states that are trying to stop a tide that may yet be reversible."
  Newport News Daily Press (2007)

- "[C]limate change, aka global warming, is real...[T]he real debate involves what to do from this point forward, knowing that we don't know all there is to know about the connection between global warming and human activity. But here's what we do know: What you don't know can hurt you, and it can hurt your children and your grandchildren even more."
  Newport News Daily Press (2007)

- "Where in the past people talked of the effects of global warming as something in the far distant future - rising sea levels and parched cropland - the realization is coming upon us that the future is now. With our coastal population growing, larger and more powerful hurricanes pose an ever-increasing threat to life and property. We can do something about it, if we act and act soon. But will we?"
  Anniston Star, Alabama (2005)

A Sample of Editorial Boards from Across the Country on the Need to Address Global Warming

- "The industry and state government are wise to confront today's even-greater challenge: to slow the progress of global warming by cutting back on greenhouse gases. Having technologies in place before regulations come will make complying with them far easier. But helping to develop those technologies would accomplish even more by making Ohio a leader in what promises to be a lucrative industry."
  The Columbus Dispatch (2007)

- "Global warming is a fact. Some voices are trying to sound the alarm, but the one form of life in position to stop the warming trend - the human race – isn't doing nearly enough to address the issue. Nature is giving the world all the proof it needs. The only question is whether people in position of influence will heed nature's undeniable message."
  The Tennessean (2003)

- "While the political debate in the United States over global warming spins in mindless circles, scientific evidence that man-made gases are dangerously heating the planet keeps piling up… State-by-state efforts are helpful but ultimately aren't enough. Since the White House is still dithering on this issue, the incoming Congress must make crafting a national climate change policy a legislative priority."
  The Atlanta Journal-Constitution (2006)

Oil Companies on the Need for Action on Global Warming

"For Shell, the debate on climate change is over. It's time to work on solutions. A national approach to greenhouse gas management is important to the future. Such an approach requires a regulatory framework that enables markets to work for both supply and demand side needs. It would be very challenging to have different state-by-state regulatory requirements."

John Hofmeister, President, Shell Oil (2007)

"Companies composed of highly skilled and trained people can't live in denial of mounting evidence gathered by hundreds of the most reputable scientists in the world."

Lord Browne, CEO, British Petroleum (2002)

U.S. Defense Department Sponsored Report, Climate Change and Its Implications for National Security

The report commissioned by the Department of Defense suggests that with the potentially dire consequences of abrupt climate change the United States "will find itself in a world where Europe will be struggling internally, with large numbers of refugees washing up on its shores and Asia in serious crisis over food and water. Disruption and conflict will be endemic features of life."

Report Commissioned by the U.S. Department of Defense (2003)

President Bush State of the Union Address

"[T]echnological breakthroughs…will help us be better stewards of the environment, and they will help us to confront the serious challenge of global climate change." (2007)

Interior Secretary Kempthorne Announces Proposal to List Polar Bears as Threatened Under Endangered Species Act

"'Polar bears are one of nature's ultimate survivors, able to live and thrive in one of the world's harshest environments,' Kempthorne said. 'But we are concerned the polar bears' habitat may literally be melting.'...The administration treats climate change very seriously and recognizes the role of greenhouse gases in climate change."

Department of Interior Press Release (2006)

Prime Minister Tony Blair's Recent Comments on Global Warming

"We know it is happening. We know the consequences for the planet.

We now know urgent action will prevent catastrophe and investment in preventing it, will pay us back many times over.

We will not be able to explain ourselves to future generations if we fail." (2006)

Senator Larry E. Craig
Climate Change
Floor Statements

January 30, 2007

Congressional Record -- Senate

Wednesday, October 7, 1992

102nd Cong. 2nd Sess.

138 Cong Rec S 17150

REFERENCE: Vol. 138 No. 143

TITLE: FRAMEWORK CONVENTION ON **CLIMATE CHANGE**

Mr. CRAIG. Mr. President, I will be voting in favor of Senate ratification of the U.N. Framework Convention on **Climate Change.**At the same time, I strongly disagree with those who argue that the convention did not go far enough and that the United States should have agreed to legally binding targets and timetables for limitations on U.S. emissions of carbon dioxide and other greenhouse gases. Those who make such criticisms, in my opinion, fail to reckon with facts concerning the issue of potential global **climate change.**Interestingly, one of the most important of those facts has been acknowledged by the junior Senator from Tennessee, our colleague Al Gore. On April 7, 1992, during Senate debate on comprehensive energy legislation, as reported in the Congressional Record at page S4890, the Senator stated:If the United States not only stabilizes emissions but reduces **greenhouse gas** emissions by 50 percent, and if every other industrial country also reduces greenhouse emission by 50 percent, and the developing countries continue on their current path, then worldwide **greenhouse gas** emissions will, by the year 2030, increase by 250 percent.Senator Gore's observation was confirmed by the Department of State's Environmental Documentation, which it submitted to the Committee on Foreign Relations. Commenting on the thinking of the nations that negotiated the **Climate Change** Convention, it noted:[T]here was awareness that the 'savings' achieved by the industrialized countries -- the only countries to which binding limits would apply -- could be eclipsed by increased emissions of developing countries.The industrialized countries now account for around half of global **greenhouse gas** emissions. However, the relative contribution of different countries is shifting. Emissions from the developing countries are increasing rapidly, as their populations grow and they seek improved standards of living through economic development. Once the countries of the former U.S.S.R. and of Eastern Europe make the transition to market economies, their economies will grow, rather than shrink, as has been the case during the last few years. That means more emissions from those nations. As a consequence of the increased **greenhouse gas** emissions from these other countries, it is estimated that, by 2025, the net carbon dioxide emissions from developing nations and from those with economies in transition will constitute two-thirds of the world total, and, when all greenhouse gases are considered, the emissions from these other nations jumps to as much as three-quarters of the world total.The correct point made by Senator Gore and by the State Department is that the projected growth of developing countries' **greenhouse gas** emissions will more than offset -- indeed, will dwarf -- any amount of **greenhouse gas** emissions that would be avoided by the United States and other industrialized countries if they and we had agreed in the **Climate Change** Convention, or in the future would agree, to so-called stabilization of such emissions at 1990 levels by the year 2000.What we have to remember, Mr. President, is that proponents of limiting carbon dioxide emissions of the industrialized countries in 2000 to their 1990 levels simply cannot tell us how much unacceptable, potential global **climate change,** if any, would be avoided during the next century as a result of such policies. Moreover, even if there were some DE MINIMIS avoidance of **climate change,** as a result of what industrialized nations did, there is no credible scientific evidence that it would last more than a very few years at most, because of the huge, ongoing increases in emissions from

the developing nations in particular.We also have to consider the economic cost of such proposals. There are studies by eminent economists that policies necessary to stabilize U.S. carbon dioxide emissions at 1990 levels by the year 2000 could cost American workers hundreds of thousands of their jobs and cost the economy more than $90 billion of gross national product. Whether those predictions are better than those which forecast less drastic consequences ignores the crucial point, which is this: Now is not the time to gamble recklessly with our Nation's economic future, especially when, as on this issue, nobody can tell us how we or the world would benefit from that gamble.Unless and until we have persuasive evidence that binding emissions targets and timetables for the United States and other industrialized countries will actually avert any material amount of global **climate change,** there is no justification for our taxpayers and consumers to be asked to endure the economic burdens.The **Climate Change** Convention, as written, goes quite far enough from the standpoint of U.S. obligations. We should only ratify it and talk about increasing [*S17156] the burdens on our citizens, if ever, when we have sound scientific reasons for doing so.

THWARTING THE WILL OF THE SENATE (Senate - August 19, 1994)
[Page: S12141]

THE ISSUE OF GLOBAL CLIMATE CHANGE

Mr. CRAIG. Mr. President, I rise to register my strong concern regarding the position to be taken by the Clinton administration at next week's meeting in Geneva of the International Negotiating Committee for a Framework Convention on Climate Change , or `INC' as it is known.

At the last INC meeting in February, the U.S. delegation flatly announced that the commitments contained in the Climate Change Treaty were inadequate. In fact, the treaty a that point had not even entered into force. Now I ask you: how is it possible to make an informed judgment about the adequacy of a treaty whose terms have not yet even taken hold?

Of further concern is the fact that the Climate Change Treaty already outlines a process for considering the adequacy issue, a process which the Clinton administration seems intent on circumventing. Under the treaty, ratifying countries are required to review the document's adequacy at their first official session in March 1995 in Berlin.

The review is to be carried out `in light of the best available scientific information and assessment on climate change and its impacts, as well as relevant technical, social and economic data.' While I fully support the concept that public policy should be based on a firm scientific foundation, I understand the next full scientific assessment of climate change is not due until late 1995. Moreover, I understand much of the data gathered on climate change since the last scientific assessment in 1992 does not support the notion that changes are necessary.

Notwithstanding these concerns, the U.S. delegation appears to be on the verge of beginning work on a protocol, amendment, or political declaration at next week's INC meeting. As under Secretary of State and former Senator Tim Wirth said recently, `As a first priority for the future, we need to set an aim that can guide our efforts for the initial period after the year 2000.'

Likewise, Assistant Secretary of State Wendy Sherman said recently,

[Page: S12145]

If work is not done at the INC meetings in August and next February, it seems unlikely that the conference of the parties [next March in Berlin] will be able to achieve meaningful results.

I am concerned such `meaningful results' might include support for nations like Germany and the Netherlands which are calling for protocols setting mandatory greenhouse gas emissions reduction targets and timetables for developed countries 20 to 25 percent below 1990 levels by the year 2005.

Separately, the Clinton administration is charging ahead on the domestic front as well. Last October, the president issued a 50-point climate change action plan that commits the United States to reduce its greenhouse gas emissions to their 1990 level by the year 2000. The plan relies primarily upon voluntary measures by industry to reduce greenhouse gases .

However, the administration is now discussing the possibility that additional mandatory controls on emissions of greenhouse gases may be necessary. Ironically, according to an August 16 article in the New York Times, one reason for this is that strong economic growth has led to increased greenhouse gas emissions.

Mr. President, the Clinton administration should resist the temptation both internationally and domestically to embrace new emissions reduction targets, higher taxes, or other regulatory regimes. The potential damage to the U.S. economy and to its international trade competitiveness, with attendant job losses, cannot be justified on the basis of the current state of the science.

In addition, any future changes in the treaty must address the question of participation by the nonindustralized nations of the world. It is widely acknowledged that greenhouse gas emissions from developing nations will far outstrip those from the United States and the rest of the developed world in the years ahead.

The U.S. delegation in Geneva should focus on assuring a careful assessment of what other countries are doing, with the objective or moving them to the level of commitment that the United States has already made, based on a careful understanding of the science of climate change .

HEALTH REFORM AND JOBS: THE CLINTON PLAN (Senate - July 11, 1994)
[Page: S8458]

Mr. CRAIG. Mr. President, several studies have been performed examining how the Clinton health security plan would affect jobs in America. Leading economists predict that employer mandates, Government subsidies, and other aspects of the Clinton plan will result in serious wage reduction and job loss.

To avoid these adverse effects, Mr. President, reforms cannot place intolerable burdens on employers, but rather must further expand and improve the current system, allowing the market to develop naturally.

When President Clinton introduced his health reform plan last year, his administration stated that as many as 600,000 people could initially lose their jobs, if everything works as planned. Since then, other studies have predicted job loss anywhere from 624,000 to 3.8 million. In addition, as many as 23 million workers could experience lower wages, lower benefits, or reductions in hours worked. Any President who could stand before the American people and advocate a policy that would put people out of work amazes me.

Mr. President, employer mandates will obviously place burdens on many employers who do not currently offer health insurance to their workers. The President's solution to ease this new burden is to provide subsidies from the Federal Government.

According to the Clinton health plan, employer contributions must equal 80 percent of a `weighted average premium,' and the individual employees would pay the difference between the 80-percent employee contribution and the actual premium. However, the proposal also places limits on the percentage of the payroll spent on health insurance premiums.

No employer will be required to pay more than 7.9 percent of the payroll; if health premiums exceed this amount, the Federal Government will make up the difference. This is the essence of the President's Federal subsidies.

But the regulations are more complex than this, and Federal subsidies may only add to the difficulties created by an employer mandate.

Liability is further limited as the number of employees falls and average wage decreases, creating a potentially serious problem. Employee liability as outlined in the Clinton plan provides a great incentive for cutting back employees and disincentive for hiring.

For example, if a company has 49 employees with an average wage of $20,000, hiring the 50th person would cost the employer more than $9,000. Accordingly, a company with 50 employees earning an average wage of $20,000 will save over $9,000 by dismissing 1 worker.

Mr. President, the Federal subsidies are designed to protect jobs by releaving financial pressures placed on employers. However, the combined effect of incentives for fewer workers with lower

incomes and increased competition among employers to attract skilled workers will escalate employer-employee tension.

In addition, to avoid expanding entitlements and thus adding to the Federal deficit, the Clinton plan places caps on these Federal subsidies. For example, the Congressional Budget Office predicts that small businesses would require $58 billion in subsidies under the Clinton plan in the year 2000, although the subsidies are capped at $4.1 billion.

To maintain the level of Federal subsidies the President has promised, the Federal Government would be forced into even greater deficit spending to make up the difference in cost; on the other hand, if the Federal Government remains true to its caps and is forced to cut back on subsidies, financial pressure on employers will far exceed that predicted by the President, and job loss will be much greater than forecasted.

Mr. President, a large portion of the job losses will affect small businesses with fewer than 100 workers, and an overwhelming

majority of those workers who would lose jobs currently make less than $40,000. In addition, job losses would disproportionately affect minorities. Most of the jobs will be lost in services, manufacturing, and retail businesses; all States will be hit hard, with an average job loss near 1 percent of the total work force throughout the country.

Whether the total number of jobs lost is closer to 600,000 or 4 million, almost all Americans will know someone who will have lost a job as a direct result of the Clinton health security plan.

In response to this projected job loss, the President claims his health security plan will create new jobs. However, this will not offset the initial shock of job loss. Jobs will not be replaced as soon as they are lost. Employers are often quick to recognize savings opportunities by releasing workers, but corporate expansion, on the contrary, is generally gradual. No wise businessperson welcomes possible liabilities, and additional workers in an unproven system appear to be exactly that.

In addition, the promised new jobs will affect a different group of workers. Job losses will affect a working population in services, manufacturing, and retail; new jobs will appear in health professional, policy, and administrative fields.

Mr. President, we should be protecting rather than jeopardizing jobs. The Consumer Choice Health Security Act (S. 1743), which I cosponsor, will do this. This bill is designed to guarantee high quality, accessible health care services.

I am particularly pleased with how this plan would enable us to move toward achieving universal access and comprehensive coverage. Refundable tax credits, based on the percentage of gross income spent on medical services, and the introduction of medical savings accounts are two features of this plan which will dramatically improve access without taking the choices from the consumer.

Mr. President, we can reform our health care system without the serious side-effects of job loss and decreased wages. In supporting health care reform, my goal has been to empower people, to let them choose their own health plans and doctors. Individuals are certainly better able to determine their needs than is the Federal Government.

We do not need extensive Government intervention to provide universal health care. On the contrary, excessive Government involvement only increases bureaucracy, reduces quality of services, and weakens a vibrant private business sector. The Federal Government functions best when simply developing the framework in which the market can work, and health care reform should focus on building this foundation.

Mr. President, I ask unanimous consent that the following materials be printed in the Record:

`Strike Bill Could Destroy Critical Workplace Balance'--an op-ed in today's Christian Science Monitor, by two former members of the National Labor Relations Board with more than 100 years experience, between them, in employer-employee relations;

`Preparing for the `Jobs Summit': The 5 Principles of Job Creation'--a Backgrounder by the Heritage Foundation;

`Why Employer Mandates Hurt Workers'--a Brief Analysis by the National Center for Policy Analysis;

`F.Y.I.: The Jobs Impact of Health Care Reforms'--a Heritage Foundation Backgrounder;

A white paper prepared by the National Federation of Independent Business on the President's proposed `Health Security Act'; and

`Enraging Species Act'--a Wall Street Journal editorial from April 19, 1994.

There being no objection, the material was ordered to be printed in the **Record,** as follows:

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From the Christian Science Monitor, July 11, 1994

[FROM THE CHRISTIAN SCIENCE MONITOR, JULY 11, 1994]

Strike Bill Could Destroy Critical Workplace Balance

(BY HOWARD JENKINS AND JOHN A. PENELLO)

For many years we served as representatives of the federal government in various capacities with the National Labor Relations Board (NLRB). We were appointed board members under both

Republican and Democratic administrations. Together we represent more than 100 years of experience in labor-management relations.

While we did not always agree on the outcome of cases brought before the NLRB--member Jenkins's decisions were more often pro-union and member Penello's dissents were more often pro-employer--we agree that the Strike Bill would destroy the core principle of balance in collective bargaining.

The Strike Bill, which has passed the House and is expected to be voted on today by the Senate, would prohibit employers from defending their businesses by offering permanent jobs to replacement workers during a strike over economic issues such as pay raises and benefits.

Proponents of the Strike Bill claim that employers' use of permanent replacement workers during an economic strike is a recent phenomenon. This simply is not true. The National Labor Relations Act, enacted in 1935, provided a delicate balance that allows unions to strike over wage demands and allows employers to defend their businesses by hiring permanent replacement workers.

The striker-replacement legislation would destroy this core principle of United States labor law, which has been consistently supported by Democratic and Republican presidents and federal courts for over half a century.

In our experience, the balance of power inherent in these countervailing economic weapons is what has made the system work. Take away either the right to strike or the right to operate with permanent replacements, and the other party will be sure to overreach. We fear the striker replacement legislation will encourage confrontation and `risk-free'
strikes, where economic strikers could make unreasonable demands and shut down employers with no risk of their own.

Some contend that the system is not balanced, that permanent replacement of economic strikers is the equivalent of being fired. Again, this isn't true. Even so-called `permanently replaced' strikers have continuing rights to reinstatement to all available future jobs. The NLRB developed adequate safeguards for economic strikes, one of which puts employers under an affirmative continuing obligation to first offer jobs to unreinstated economic strikers on a preferential basis before hiring new employees.

Furthermore, the actual number of workers replaced is minute. A Bureau of National Affairs study found nearly 40,000 economic strikers were replaced in 1991-1992, out of a US labor force of 125 million. That's less than .03 percent. Nearly 70 percent of these 40,000 strikers were later reinstated to their jobs. Also, the number of strikes in the US has been decreasing since 1947, the first year the US Department of Labor's Bureau of Labor Statistics began to maintain strike data.

Current collective bargaining is a fair and reasonable system that has worked for over 50 years. We see no compelling evidence to suggest that any changes to this law are needed or even wanted by the American people. In fact, a recent Gallup poll shows that 57 percent of Americans oppose a ban on permanent replacement workers.

The current debate in Congress reflects these facts. In an effort to save the Strike Bill, proponents of the legislation are searching for an acceptable compromise. However, none of the proposed compromises improve the original legislation. Any Strike Bill compromise would have the same result as the original legislation--risk free strikes.

Under the most discussed compromise proposal--a moratorium on hiring replacements--strikes would be limited to durations of four to 10 weeks. This would avoid few strikes, since most strikes last less than 10 weeks, and would do little to mitigate the devastating economic impact of the original bill.

Economic strikes were never intended by Congress to be risk-free. And the right to strike was never guaranteed to be successful in forcing an employer to accede to a union's bargaining demands. To the contrary, the core principle of our national labor law is a balance of rights and obligations, risks and reward, which, through the dynamics of collective bargaining, drives parties closer together toward labor contracts and peacefully negotiated settlements.

For these reasons and based upon our long experience in administering federal labor policy we must now speak out against the strike-replacement legislation--in any form. We believe the Strike Bill would imperil future decades of improving cooperation between labor and management and return us to the disruptive labor disputes of previous decades.

Strikes in the US are at an all-time low. In 1974 there were 424 strikes involving 1.8 million workers and 32 million lost workdays, compared with 1993, when there were only 35 major work stoppages involving 182,000 employees and 4 million lost workdays.

With the incidence of strikes at a record low, it is difficult to understand why Congress would pass legislation that would actually increase the number of strikes in America.

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From the Heritage Foundation Backgrounder, Mar. 11, 1994

[FROM THE HERITAGE FOUNDATION BACKGROUNDER, MAR. 11, 1994]

Preparing for the `Jobs Summit': the Five Principles of Job Creation

INTRODUCTION

Leaders from the major industrialized countries are scheduled to meet in Detroit, Michigan, on March 14-15, at the request of President Clinton, to discuss the causes of the persistently high levels of unemployment in their countries. Announcing the goals of the summit in Europe this January, President Clinton declared that, `We simply must figure out how to create more jobs and how to reward people who work both harder and smarter in the workplace.' 1

1 Footnotes at end of article.

The President is right to focus on how to create more jobs in this country. Although he boasted during his State of the Union address that 1.6 million jobs were created in 1993, job growth, in fact, is much weaker than normal this long after a recession. Since World War II, total employment growth has averaged 9.2 percent 33 months after a recession. But since the bottom of the 1990-1991 recession, total employment in the United States has climbed by just 2.5 percent. 2 President Clinton would do well to ponder the anemic job growth in Europe, because European firms are encumbered with costly mandates and taxes on employment that have discouraged hiring and held back employment growth. The President should recognize that his Administration's policies are repeating the mistake of the Europeans, and contributing to slow growth of earnings and employment in the United States. For example, the Administration has:

Enacted the biggest tax increase in American history, which will discourage new business investment and job creation by raising corporate and individual tax rates.

Signed the mandated Family and Medical Leave Act, which will raise labor costs and force employers to be far more selective about whom they hire, since they are required to offer certain employees more time off.

Proposed a massive overhaul of the health care system, which would raise labor costs by mandating that employers cover workers. According to Lewin-VHI, one of the country's leading health care econometrics firms, the Clinton health plan would mean that among firms now providing health insurance, 19.9 percent would see cost per employee rising $500-$1,000 per year, 51.6 percent would face cost increases per employee of $1,000-$2,500, while another 15.2 percent would face costs per employee of more than $2,500. 3

Proposed worker training and unemployment insurance reform, that would cost between $3 billion and $9 billion per year. 4

Considered a hike in the minimum wage from $4.25 to $4.75 an hour, which would further increase the disincentive to hire teenage and poor, inner-city unemployed individuals.

Moved ahead with an ambitious environmental regulatory agenda ranging from global warming to new logging policies. 5

These policies signal an apparent misunderstanding of the employment and job policies that led to the creation of over 20 million new jobs in the 1980s. 6 Each of these new programs or proposed policies add to the three principal governmental barriers that discourage employers from creating new jobs: taxes, credit barriers, and regulatory and mandated benefit burdens. These barriers, which have steadily increased over the past few years in the United States, have discouraged business expansion and increased the cost of hiring new workers. Failure to reduce these barriers or --worse still--the imposition of new barriers, means that America will become a slow-growth economy.

President Clinton should realize that high wages and mandated benefits are ruining the European economies and leading to high unemployment rates. In fact, several European countries and Japan are now trying to lower their labor costs and dismantle their generous `safety nets.' Instead of continuing to add more burdens on employers, President Clinton should take the opportunity of the summit to advocate five simple principles of job creation:

Principle #1: European-style job training and employment policies have proven incapable of keeping unemployment low or raising the worker's overall standard of living.

Principle #2: High tax rates on employers and capital is the quickest way to insure high unemployment.

Principle #3: Excessive financial and banking regulations, which restrict the amount of capital firms can obtain, greatly limit business and job expansion.

Principle #4: Increasing the regulatory burden and mandating numerous employee benefits is a recipe for job destruction.

Principle #5: Sustained job growth results from competitive, efficient industries that are free of excessive government interference.

Only by talking bluntly to the European allies and shunning `solutions' to the continuing problems of unemployment that will only slow wage growth, can President Clinton help the industrialized world to correct its economic ills. Adopting European-style employment policies, on the other hand, will lead only to European-style results.

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UNDERSTANDING THE FIVE PRINCIPLES OF JOB GROWTH

Principle #1: European-style job training and employment policies have proven incapable of keeping unemployment low or raising the worker's overall standard of living.

During his speech announcing the jobs summit, President Clinton declared, `We Americans have a lot to learn from Europe in matters of job training and apprenticeship, of moving our people from school to work into good-paying jobs.' 7 Undoubtedly, Americans have much to learn from the Europeans, but not about their employment policies.

The true effects of the European policies which the President and others glorify are best illustrated by the case of Germany. German workers enjoy roughly six weeks paid vacation each year, the shortest work week of any major industrial nation, high wages (averaging $26 an hour), and extensive health benefits mandated by the government. But as Ferdinand Protzman of The New York Times notes, `Unfortunately, [the German system] no longer works. Instead, the social contract that once made Germany's economy a model of stability has helped erode the nation's competitiveness as it struggles to recover from the worst recession in postwar history.' 8

Like many of its European neighbors, Germany is struggling with what has come to be known as `Eurosclerosis,' which signifies a stagnant growth environment. As the chart on the following page shows, adherence to this model has brought the European Union (EU) slow growth and high unemployment. Unemployment has averaged almost 10 percent over the past decade in the major European countries, and is projected to average 12.1 percent in 1994 for the members of the EU. At the end of last
year, approximately 32 million Europeans were jobless, which is roughly equivalent to the combined workforces of Spain and Sweden. 9 Overall, the U.S. rate of employment growth has far outstripped Europe. Observes C. Fred Bergsten, director of the Institute of International Economics, `The U.S. has kept labor costs down and created 40 million new jobs over the past 20 years. In Europe, wages have risen about 60 percent during that span but only 2 or 3 million jobs have been created.' 10

Peter Gumbel of The Wall Street Journal maintains this Eurosclerosis is caused by a `tangle of labor regulations and rising costs for employers [which] acts as a major disincentive to job-creation--and a powerful incentive to moving production elsewhere.' 11 Not surprisingly, perhaps, some 30 percent of business surveyed recently by the German Chamber of Commerce say they are considering shifting production to a more hospitable business environment.

Beside the European burdens on employers which discourage job expansion, employment is also discouraged through extensive unemployment insurance programs. Explains David R. Henderson of the Hoover Institution, `A single 40-year-old previously employed at the average production worker's wage would get benefits equal to 59% of previous earnings in France, 58% in Germany and 70% in the Netherlands.' 12 These benefits can be collected for many years as well. Hence, although the broad safety net available to displaced workers seems compassionate on the surface, it actually creates disincentives to full employment and a productive workforce. Absenteeism, for example, ran at 9 percent in Western Germany in 1992, 8.2 percent in France, and 12.1 percent in Sweden. By way of comparison, the U.S. rate is only 3 percent. 13

Also overrated is the German job training system, which Clinton and his Labor Secretary, Robert Reich, seek to emulate. While the German educational system focuses on highly technical training for its future workers, the U.S. system focuses on generalized training. Some academics, such as Lester Thurow of MIT argue that the German approach has created a superior workforce which enjoys a better standard of living. But a recent comparison of the two systems by Kenneth A. Couch, of Syracuse University, disputes this belief. Couch concludes that, `an apprenticeship program by itself is unlikely to have widespread positive effects either on economic measures such as employment or in directly related social problems.' 14 For example, comparing German and American 24- to 33-year-old high school graduates without further education, Couch found roughly the same percentage were employed (with actually more Americans than Germans possessing manufacturing jobs), more of the Americans in the sample group were married, and slightly more Americans had children. Likewise, from 1983 to 1988, Couch found American workers outperformed their German counterparts overall. America experienced average annual employment growth during the period of 2.4 percent, versus Germany's meager 0.4 percent. And real GDP growth over the same period averaged 3.9 percent for America and 2.3 percent for Germany. Other European countries have fared no better relative to America.

If American policymakers choose to move toward a more technical-based educational system, the German approach thus is not the obvious model to follow. As Couch notes, `Emulating the German approach may in fact five us an educational system that will not perform better but will cost more than our current one.' 15

Following the Failed Model. European-style job training and employment policies which have been implemented in America have met with failure. Public employment programs have proven to be net job destroyers, since the amount of money required to create a public sector job is typically several times that of private sector job creation. 16 A recent study of public transit investment by John Semmens of the Chandler, Arizona-based Lassez Faire Institute, notes that for the $61.5 billion invested since 1965, only 800,000 jobs were created. If that same amount of money had been invested by private business through a corporate tax cut, 8 million jobs could have been created. 17 Likewise, Semmens found that 13 million to 20 million jobs would have been created if the $61.5 billion had instead been devoted to a capital gains tax cut, or an expansion of Individual Retirement Account investment in Treasury bills or co mmon stocks. 18 Most important, instead of producing the high-wage, well-skilled jobs the current Administration calls for so frequently, public programs only provide low-wage, low-skill, temporary employment, which often costs taxpayers dearly in the process.

Further, it cannot be argued that
government sponsored employment training policies provide European citizens with greater purchasing power and a higher standard of living than Americans. Purchasing power parity, which is the most accurate measure of comparative consumer power, shows that the U.S. consumers have a clear advantage over foreign citizens (see table at end of article). Following Europe's poor example, therefore, likely will lead not only to lower growth and fewer jobs, but also to a lower standard of living for American citizens.

The `Europeanization' of American Labor Market. Despite the failure of the European system to sustain employment and a higher standard of living, America's federal labor market policy is being molded to resemble German, French, and other European models. This `Europeanization' of the American labor market policy threatens to undermine industrial competitiveness, increase budgetary strains, and lower the average worker's standard of living.

Principle #2: High tax rates on employers and capital is the quickest way to insure high unemployment.

To hire additional workers, employers need capital. Capital fuels job creation by allowing employers to invest in the various means of production, including land, equipment, factories, new technologies, and labor. Capital can be acquired in one of two ways: saving it from profits or bo rrowing it. Examining each method of capital accumulation indicates why U.S. employers are finding it increasingly difficult to obtain the fuel for job creation.

The Current Tax Environment. Past recoveries show that the U.S. economy is performing below typical levels. Whereas employment in the previous post-war recoveries averaged 9.2 percent 33 months after the end of the recession, the current recovery has only seen approximately 2.5

percent growth over a similar period of time. One factor that aided recoveries during the early 1960s and early 1980s was a reduction in tax rates.

Unfortunately, the most recent recession, which followed the 1900 tax hikes, has been followed by tax rate increases. The Clinton tax plan adopted by Congress last year increased taxes on business and investment. The corporate tax rate on business, for example, was raised from 34 percent to 36 percent. Likewise, top individual rates moved up from 31 percent to as high as 42.5 percent. This is important since approximately 80 percent of small businesses pay taxes under the personal income tax code. The excessive taxation of capital gains also continues. The capital gains tax on individuals currently stands at 28 percent, up from 20 percent in 1986. As the chart on the following page shows, before this rate jump, new business incorporations had risen steadily throughout the 1980s. After the increase, start-ups fell immediately and sharply. The aggregate effect of these taxes is a huge barrier to job creation, as capital shifts from the hands of investors to the government.

The Effects of the Tax Barrier. High taxes reduce investment in businesses and slow job growth by encouraging individuals and firms to seek alternative investments with a more profitable return on their dollar. It should be no surprise that America's current savings and investment rates are lower than those required for robust, long-run economic growth. This is due directly to the trade-off investors face when contemplating increasing consumption versus saving or in vesting. Increasing consumption
carries little penalty; few taxes or ot her disincentives exist for immediate purchases. But forgoing current consumption to invest assets represents an increasingly unattractive option if the rewards of profitability springing from investment are penalized with higher tax rates. Moreover, earnings in the U.S. are still penalized twice through taxation, first at the corporate level and then later at the individual level. Therefore, if an investor had $10,000 to spend or in vest, spending currently would more than likely represent a more attractive choice than investing.

Taxes raise the cost of capital for industrial equipment and machinery. As the American Council for Capital Formation (ACCF) reports, `Recent research confirm[s] . . . that the volume of investment in equipment is a critical factor in the pace of economic growth and development. [I]nvestment in equipment is perhaps the single most important factor in economic growth and development.' 19 Yet, ACCF points out that despite the beneficial effects of the tax-reducing Economic Recovery Act of 1981 on such investment, tax policy in the following years became heavily biased against such investment incentives. The tax acts of 1982 and 1986, which raised taxes, each resulted in an increase in the cost of capital for equipment as investors found such opportunities less attractive. Largely as a result of these high-tax policies, the total cost of capital for manufacturing equipment increased by 22.9 percent from 1981 to 1986. The most recent revisions of the tax code are likely to further discourage investment, and thereby increase barriers to expansion and job creation.

Hence, the potential for long-term job creation in the current tax environment is not encouraging, since entrepreneurs are less able to entice investors to risk their money on new business ventures. Because taxes create disincentives to invest in businesses, capital for future job creation is being produced at a lower rate.

Principle #3: Excessive financial and banking regulations, which restrict the amount of capital firms can obtain, greatly limit business and job expansion.

In recent years, the term `credit crunch' has been coined to refer to how difficult it has been for many businesses to obtain loans. One reason this crunch has occurred has been the sharp rise in banking regulation in recent years. In addition to $10.7 billion in general regulatory compliance costs in 1992, bankers face costs from lost interest payments on reserves they are required hold at the Federal Reserve, and deposit insurance premiums. 20

The Effects of the Credit Barrier. How do these trends affect job creation? This regulatory burden has had a restrictive effect on credit growth in recent years. The American Bankers Association observes that over this same period, more than 40 major federal regulations affecting bank operations were promulgated. 21 Although estimates of the regulatory burden on banks are not available for previous recessionary periods, there is no doubt that the number of regulatory restrictions and burdens the banking industry faces have increased significantly over the past 20 years. Declares the American Bankers Association: `Hog-tying the banking system with regulatory red tape means two things--more expensive bank credit and less of it.' 22

Just as higher taxes restricted job creation by holding back entrepreneurs, so too has the credit crunch. Without easy access to credit, American firms are forced to postpone plans for job expansion. A 1993 survey of small and mid-size businesses by the Arthur Anderson Enterprise Group revealed that 38 percent of all businesses surveyed were unable to fulfill their capital needs. Perhaps more important, 58 percent of businesses that were in their first three years of operation have been unable to fulfill their capital needs. The same survey noted that, due to the lack of capital, 39 percent of the surveyed businesses were unable to expand operations and almost 20 percent of them reduced employment. 23 Limited access to capital has also made it more difficult for firms to purchase their own equipment, forcing an increasing number of small businesses to lease equipment, often at very high interest rates. 24

In response to this problem, the Clinton Administration has called for new banking regulations governing how loans are made. The Administration hopes to boost the number of loans made through the Small Business Administration to `make SBA more responsive to those industries with the potential for creating a higher number of jobs, those involved in international trade, and those producing critical technologies.' 25 But this is unlikely to be a solution to the underlying problem of restricted
credit growth. The SBA loan program accounts for only a small percent of capital for new firms, and in any case tends to funnel dollars to favored businesses rather than the best investments.

Clinton's new plan to reform banking regulation through agency consolidation will not help either. Monopolizing regulatory power in the hands of one agency will make it easier for heavy-handed and manipulative policies to be implemented, thereby raising the regulatory burdens faced by banks. Lawrence Lindsey, a member of the Board of Governors of the Federal Reserve System, says, `Monopoly regulation is a bad idea. [It] will greatly harm both the banking industry and the economy, and lead to an unfortunate politicization of bank regulatory policy.' 26

Principle #4: Increasing the regulatory burden and mandating numerous employee benefits is a recipe for job destruction.

The number of regulations and mandated benefit requirements that employers are forced to comply with has grown steadily in recent years. Estimates of the total cost that regulations impose on the economy range from a low of $615 billion to a high of $1.7 trillion. 27 This burden translates into millions of foregone job opportunities. 28 For example, Michael Hazilla and Raymond Kopp have estimated that environmental regulations reduced aggregate employment by 1.18 percent as of 1990, 29 which means over one million jobs would have existed without the regulations. 30

Regulation and mandated benefits take their toll indirectly. When the government increases this burden on the private sector by promulgating new rules, firms must adjust their behavior accordingly. This adjustment process may require an increase in worker training, paperwork requirements, or ev en retooling. Regardless of the adjustment method, costs will be incurred. The costs of adjustment directly affect the firm's profits since a greater than expected amount of earnings will be exhausted in compliance measures. In addition there may be extra costs associated with hiring new workers. As a result, firms will try to pass the costs of adjustment on to their consumers, or, i f that is not possible due to competitive market conditions, scale back future production, investment, or ne w hiring. If the new compliance and adjustment costs are sufficiently high, firms may scale back existing production and lay off workers.

The Effects of the Regulatory and Mandated Benefits Barrier. Several studies point to the job-destroying effect of the regulation and mandated benefits explosion that has taken place in recent years. 31 With the passage of mandates included in the
Clean Air Act Amendments of 1990, the Americans With Disabilities Act of 1990, and the Civil Rights Act of 1991, and the increases in the minimum wage in 1990 and 1991, the burdens on employers have ballooned.

The dramatic rise in the minimum wage alone, from $3.35 in 1989 to $3.80 in 1990 and $4.25 in 1991, helped push teenage unemployment to the highest rate in a decade. If the Clinton Administration proceeds with plans for a 50 cent hike in the minimum wage, and the labor market adjusts as it has in the past, there is likely to be an increase in the teenage unemployment rate of between 0.5 percent and 3 percent.

Another burdensome employer mandate will be the `employer trip reduction' requirement of the Clean Air Act. Starting this year, this will require employers in nine metropolitan areas to reduce the number of employees driving to work. Although no employment loss estimates are available, over 12 million employees will be covered by the act, making a difficult to believe that some jobs will not be affected. 32

Whatever this intentions, civil rights employment mandates also take their toll. Peter Brimelow and Leslie Spencer of *Forbes* recently estimated the total cost of civil rights regulation to be $236 billion, which translates into a loss of 4 percent of GNP. 33

The Family and Medical Leave Act of 1993, which grants employees as much as 12 weeks unpaid leave each year, discourages job creation. Because many employers will not be able to absorb the high costs and lost output resulting from mandatory worker leave, the policy will have the unintended consequence of encouraging struggling businesses not to hire individuals who might take advantage of the leave policy. The SBA has found the overall costs of this act to total as much as $1.2 billion. 34

Other employer mandates that currently burden the labor market include the health care requirements found in the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA), the prevailing wage requirements of the Davis-Bacon Act, and workers and unemployment compensation payments. These factors create added disincentives to job expansion since taking on an additional worker means steadily higher employer payroll burdens.

Employment Thresholds. In recent years, many legislators have come to realize that added regulation and mandates have a destructive effect on job growth, particularly in the small business sector. But, instead of attempting to craft more sensible policies or de regulate where possible, they tend to respond to small business concerns by adopting employment thresholds. Employment thresholds exempt smaller-sized businesses from certain regulations. For example, the Americans With Disabilities Act currently exempts all firms with fewer than 25 employees from the regulation; this will be lowered to cover firms with fewer than 15 employees after July 26, 1994. Other examples include the Family and Medical Leave Act, which exempts business with fewer than 50 employees and the Plant Closing Law, which exempts businesses below 100 employees.

These thresholds have the unfortunate side-effect of discouraging employers near the threshold from hiring new employees. Pointing to the Family and Medical Leave Act, Ruth Stafford, president of the Kiva Container Corporation, says, `Fifty is the magic number.' 35 Her firm, like many others, plans to hold employment stable just under the 50 employee barrier using more temporary or pa rt-time workers. This phenomenon is already being seen: according to the Bureau of Labor Statistics, temporary employment grew by 20 percent in 1993, up from 6 percent in 1990.

Principle #5: Sustained job growth results from competitive, efficient industries that are free of excessive government interference.

Steering America onto a path of greater job creation, low unemployment, and a higher standard of living will require a shift of current American economic policy. The three primary governmental barriers to job expansion--high taxes, limited credit through irrational financial regulations, and excessive regulations and added mandated benefits--all must be corrected. Adopting the European system would be a mistake. America should instead learn from history that where goods, services, labor, and wages have been allowed to move or fl uctuate freely, prosperity, entrepreneurship, and high employment have been the result.

To put American back on the high-employment, high-wage track, President Clinton should take several specific and immediate steps to ensure American industries remain strong and competitive:

Step #1: Lower tax rates on businesses and capital. The effects of high tax rates on employers and capital are direct and damaging. Lowering both corporate tax rates and the capital gains tax rate (while indexing it for inflation) would provide an immediate and strong job stimulus by reducing the cost of hiring workers and unlocking the capital needed for business expansion.

Step #2: Reject all attempts to establish a European-style employment policy, especially expensive job training programs. High wages, sustained employment, and increased business activity should be guiding goals of public policy. Mandating them should not. Costly and ineffective job training programs should be ruled out as job-creating options. Americans need only look at the failure of European programs to understand why such an approach is a mistake. Such programs require massive amounts of public spending for the small number of jobs which are created.

Step #3: Cap federal spending. This will aid job creation by increasing the amount of private savings available for business investment.

Step #4: Enact comprehensive regulatory reform. The `hidden tax' of regulation and increased mandated benefits directly increase the cost of employing workers. The President and Congress should establish a federal regulatory budget and
estimate the employment impact of regulations before they take effect. The regulatory budget would place a limit on the total cost that is imposed on the economy each year by new federal regulations. When the budget had been passed, no new regulations could be imposed--unless other rules were withdrawn.

Step #5: Adopt rational health care reform based upon consumer choice and not new employer mandates. No new policy action threatens to do as much damage to the labor market in the immediate future as does employer-based health care mandates. While reform is needed, it should not simply push the cost of comprehensive health coverage onto employers through expensive new payroll taxes. Accomplishing reform in this manner will result in the loss of millions of jobs. 36

Step #6: Reform America's archaic financial and banking laws. Financial restrictions such as the McFadden Act of 1927, the Bank Holding Act of 1956, and the Glass-Steagall Act of 1933 retard bank stability and expansion and, therefore, limit the credit opportunities they can offer to businesses. Eliminating these impediments to financial efficiency would allow businesses to take advantage of expansionary opportunities by borrowing needed capital.

Step #7: Overhaul antiquated antitrust laws. America's outdated antitrust laws, such as the Sherman Antitrust Act of 1890 and the Clayton Antitrust Act of 1914, make it difficult for firms to enter into joint production alliances that could raise industrial efficiency and create new job opportunities.

Step #8: Pass product liability reform and other tort reform legislation. Currently, America's tort system saps private sector entrepreneurialism, hinders product innovation, and threatens the continuation of numerous businesses. Without reforms limiting punitive damages and streamlining costly cost procedures, an increasing number of jobs will be placed at risk.

Step #9: Continue to push for trade liberalization globally while eliminating domestic barriers to free trade. While the job gains will result from the wise actions already taken of passing the North American Free Trade Agreement (NAFTA) and General Agreement on Tariffs and Trade (GATT) agreements, further efforts should be made to expand free trade agreements while lowering the domestic barriers to imports.

Step #10: Encourage the use of privatization and contracting out whenever possible. Privatization and contracting out not only insure that services are delivered more efficiently for less money, they also allow private firms to raise capital and re-invest in more productive, long-term private sector jobs. Vice President Gore's National Performance Review failed to tap such methods of real government reform. 37 Undertaking such measures would encourage increased private sector employment while demonstrating that the Administration is serious about changing the way Washington works.

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CONCLUSION

The Jobs Summit affords President Clinton the opportunity to outline the fundamental principles of job creation to the industrial nations of the world. Unfortunately, many nations, specifically in Europe and more recently the United States, have forgotten that low taxes, easy access to credit, rational regulations, and vigorous exposure to competition, are the foundation for a healthy, job-creating economy.

The most important lesson that President Clinton can bring back from Detroit is that government policies that increase the cost of hiring people mean that fewer people will be hired.

Adam D. Thierer,
Policy Analyst.

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Note.--Nothing written here is to be construed as necessarily reflecting the views of The Heritage Foundation or as an attempt to aid or hi nder the passage of any bill before Congress.

ENERGY AND WATER APPROPRIATIONS ACT OF 1994 (Senate - September 30, 1993)

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Mr. CRAIG. Madam President, I say to my fellow colleagues here in the Senate, within a few moments they will be asked to cast an important vote, a vote that will determine our ability to provide energy in the future, long term, with a safe, sound, environmentally clean technology, while at the same time doing what this country has so longed to do for so many decades, to reduce nuclear proliferation around the world. To begin to deal with the treaties we, as a Nation, are responsible for having caused to bring down the nuclear threat, and to do it in a safe and sound way by investing our tax dollars while accomplishing an ability through the generation of civilian power, to pay for it.

I yield the remainder of my time.

Exhibit 1

Department of Energy,
Washington, DC, August 16, 1993.

Hon. J. Bennett Johnston,
Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.

Dear Mr. Chairman: In response to Senator Craig's request during the August 5, 1993, hearing before the Senate Committee on Energy and Natural Resources, enclosed is a discussion of questions and issues raised during recent deliberations on the actinide recycle program and the advanced liquid metal reactor.

Your interest in the actinide recycle program is appreciated. Please let me know if I can be of any further assistance.

Sincerely yours,
E.C. BROLIN,

Acting Director,
Office of Nuclear Energy.

--

Department of Energy, August 1993

[DEPARTMENT OF ENERGY, AUGUST 1993]

The Actinide Recycle Program: Analysis and Discussion of Budget Issues

SUMMARY

The questions raised in floor debate and related discussions on actinide recycling and the advanced liquid metal reactor (ALMR) which would be required for its use, can be summarized as follows:

The actinide recycle and advanced liquid metal reactor programs present serious economic, environmental and proliferation concerns.

Actinide recycling uses a liquid metal reactor that can be converted from a plutonium burner to a plutonium breeder without much difficulty--on the order of removing the governor from a car engine.

Actinide Recycling:

Has strong economic potential (could save billions of dollars over 60 years by recycling actinides, which are isotopes of uranium, plutonium, neptunium, americium found in light water reactor spent fuel)

Offers major environmental, health, and waste management benefits (would allow high-level nuclear waste to be used to produce energy while emitting no greenhouse gases , reduce need to mine and mill uranium, and could enhance waste repository capacity)

Would use a process that is proliferation resistant (at no point in the process is plutonium present in its pure form; other actinides and impurities preclude direct use in a nuclear weapon, and high levels of radioactivity make handling difficult. Thus, the handling and separation equipment that would be required for weapons processing are significant barriers to diversion and surreptitious use)

Would use an ALMR that is not a breeder system (conversion to plutonium breeding would require extensive core rearrangement including blanket assembly insertion, and could not be done surreptitiously)

A specific discussion of each point is provided in the following sections. More detailed supporting information can be made available and discussed upon request.

NUCLEAR WASTE POLICY ACT OF 1997--MOTION TO PROCEED (Senate - June 02, 1998)

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Mr. CRAIG. Mr. President, this Nation has a nuclear legacy that some would like to shy away from. It is, in fact, the legacy of which I am proud. It has brought safety and security to this country for decades. Now we must handle it in a responsible fashion, because from that legacy there is a debt, and the debt is the safe and responsible management of nuclear waste from the military side.

Some years ago, we decided that a permanent repository would also house high-level military nuclear waste. While all of that legacy is a responsibility of our Government and our citizens, there is another legacy that we can be even more proud of, and that is the history of the commercial electrical generating industry that chose to generate electricity from nuclear energy. About 20 percent of our electrical base today is nuclear, and our scientists and environmental friends tell us that if we are to obtain the clean air standards in the nonattainment areas, we will probably have to have more nuclear generated electricity, or at least we will have to keep the same ratios even with the growth of our country.

All of a sudden, out of a Kyoto discussion comes a new recognition of a phenomenally clean, safe form of electrical generation. We all understand that. We all find it terribly important. If we are going to address the reality of climate change --and all of us are concerned about it--one of our obligations is to provide a safe, clean source of energy, and it is nuclear. And to do so, we must find a safe, clean way to handle the spent fuel. That is what we have understood for a long time, and that is what this country will demand.

That is what we are putting forth today--to deal with this legislation, to put it to the President, hopefully, for his signature. And I will tell you that the Senators from Nevada have said he might veto it. Well, the President of the United States does not run the legislative branch of Government, nor should we view that threat as something that would deter or direct our policy formation. We are a separate branch, and while the President might suggest he would veto it, we also have the power to override. And in the last vote we had on this issue, we missed that by one vote. I am convinced today, based on the increased importance of this issue and the reality of the court tests and the simple explanation of our President as he throws his political hands up and says, `I have no solution to the problem, and I will do nothing,' even though the courts and the law say he must, that he is acting in a fully irresponsible fashion. The Congress of the United States knows that, and 41 States know that. And the public is beginning to say, `Wait a moment, Mr. President. You have an obligation under the law. Didn't you take an oath of office? Aren't you responsible for upholding the law?'

But so is the Congress. And the Congress and the President, in concert, can resolve this issue. The resolution is in the very legislation that we are attempting to debate on the floor, to build a safe, temporary repository to begin to take possession of the waste that we promised we would in 1982 as we began this process and as we began to tax the ratepayers of the nuclear-generating utilities of this country.

We can do that and we should do that, if that is what we debate today. This is not a debate about tobacco. That is a false argument. It was the Senators from Nevada and the minority leader who denied the Senate the right to debate both issues. So let us not use that again. It is a phony argument. It is a false-based argument. This Senate, under Democrat or Republican leadership, has dealt with two or three issues at a time. When we get under time constraints, as we are in this political year when our colleagues will want to be out campaigning by early October, there will be many times on the floor of the Senate when we will want to deal with multiple issues.

This is one where some have chosen to be selective, but let the record show that is a false choice. We can do both. We should do both. That is the intent. That is why we are here today, to debate a motion to proceed so we can handle both at the same time in a responsible way, so we can turn to our citizens and our electorate and say, as we close the business of the 105th session of the U.S. Senate, that we dealt in a timely fashion with our environmental responsibilities with nuclear waste, high-level waste materials, and that we also dealt with the responsibility to the teenagers of America, and that is to deal with tobacco and try to restrict it from their access and their use. We can do both, and we should, and that is what we are attempting here this afternoon.

I yield the floor.

U.N. GLOBAL CLIMATE TREATY (Senate - April 20, 1998) Mr. CRAIG addressed the Chair.

The PRESIDING OFFICER. The Senator from Idaho is recognized.

Mr. CRAIG. Mr. President, it is great to be back from our recess and once again to convene the Senate in the work of the citizens of this country.

Mr. President, let me, first of all, recognize my colleague from Nebraska and my colleague from Wyoming and, for the record, praise them for the leadership they have demonstrated on the most critical issue that we address here on the floor this morning. Senator **Hagel** has become the Senate's leader, along with Senator **Byrd** of West Virginia, on this issue of climate c hange a nd trying to convince the Administration, and I think some of our critics, that the course this Administration pursues is not only unrealistic, it really is unjustified. Both Senator **Hagel** and Senator **Enzi**, as was recognized by the Senator from Wyoming, were in Kyoto to watch as this Administration negotiated and began to work on some form of protocol.

I think we three Senators join on the floor this morning proud that during this century our Nation has developed into the strongest economic and military power ever to exist on the face of the Earth. Our democratic system of government, which ensures unparalleled freedom for its citizens, is the envy of the world. All of us in this body are entrusted with the responsibility to protect and enhance that very stature.

Because I feel so strongly about that responsibility, it is with the most chilling concern that I comment today on the President's contemplated signing of the Kyoto Protocol on Global C limate C hange. Despite grave bipartisan warnings from the Congress since the conclusion of the U.N. Global C limate S ummit in Kyoto, the President insists on committing our country to an agreement that I believe threatens our way of life; indeed, it threatens the heart of our Nation's power--and the American economy.

I, like many of my Senate colleagues, am confounded as to why the President is contemplating signing this agreement. I can only hope that it is not simply misguided loyalty to the Vice President, who every American knows is the main protagonist in this ill-conceived campaign to avoid what he calls `an imminent environmental holocaust' caused by global w arming.

Let me repeat those words. Catch the flavor and the emotional ring of `an imminent environmental holocaust.' If anybody stood on the street corner of America and spoke with those terms, surely they would catch the attention of some. When the Vice President speaks in those terms, he catches the attention of many. There is only one problem with that kind of rhetoric. Few, if any, scientists today believe that the world is facing an environmental holocaust from global w arming, much less an imminent one.

In fact, as more and more American scientists review the available data on global w arming, it is becoming increasingly clear that the vast majority believe the commitments for reduction of greenhouse g as e missions made by the Administration in the Kyoto Protocol is an unnecessary response to an exaggerated threat--`to an exaggerated threat' that the Vice President himself is

caught up in making. Indeed, just today more than 15,000 scientists, two-thirds with advanced academic degrees, released a petition they signed urging the United States to reject the Kyoto Protocol. The petition, expressly states that:

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There is no convincing scientific evidence that human release of carbon dioxide, methane, or o ther greenhouse g ases i s causing or w ill cause catastrophic heating of the Earth's atmosphere and disruption of the Earth's climate.

Mr. President, why must the United States be a party to an agreement that will substantially and negatively affect our economy, change o ur way of life, and potentially weaken our ability to maintain the world's most powerful military without sufficient scientific evidence of impending doom--sufficient scientific evidence of impending doom? I submit that this Administration has yet to adequately answer that question. The President of the United States, over anyone else in our country, must answer that question.

Even if we were to ignore the scientific evidence and assume that the world is facing an imminent environmental problem, this agreement does nothing to avoid the threat. Bert Bolin, a Swedish meteorologist and the outgoing chairman of the U.N. Intergovernmental Panel on Climate C hange, recently said that `[t]he Kyoto conference did not achieve much with regard to limiting the buildup of greenhouse g ases i n the atmosphere.'--The Washington Post, February 13, 1998

Therefore, I ask again: Why is the President going to sign this agreement, which, if ratified in its current form, will raise the costs for nearly everything in a typical American budget, in both the short term and long term?

The Administration has attempted to relieve our economic concerns with a superficial analysis that presents a simplistic view of how American industry can adapt to new economic challenges and includes assumptions about the success of emission trading proposals that are untested in the international arena. This so-called economic analysis is contained in a 20-page paper by Janet Yellen, the Chairman of the President's Council of Economic Advisers, submitted as testimony to the House Commerce Committee and the Senate Committee on Agriculture, Nutrition, and Forestry.

However, in testimony recently given before the Senate Agriculture Committee examining the Kyoto Agreement, Mary Novak, senior vice president of a respected economic forecasting forum --you have heard of them--called Wharton Econometrics Forecasting Associates, well-known worldwide for its expertise, stated that the Administration's economic analysis of the impact of the Kyoto Agreement is terribly flawed--not possibly flawed, not flawed in limited ways, but terribly flawed. Ms. Novak predicted that the total U.S. cost of meeting the Kyoto Agreement would be $250 billion, or a loss of 3.2 percent of gross domestic product. In addition, Ms. Novak stated that about 2.5 million jobs would be lost, and the annual expense per family would exceed $2,700 a year.

If the Senate of the United States were, at this moment, contemplating an income tax increase that would increase the average family's taxes by $2,700, and if we passed it, very few, if any, of us would withstand the public outcry, let alone the voters at the ballot box in November. Yet, this President, because he thinks he can hide it through the processes of time and the procedure of international agreement, is proposing just that. That is what the WEFA says--an annual expense per family to exceed $2,700.

Mr. President, if this administration were sincere about reducing greenhouse g as e missions, we would have seen in the President's budget proposal strong support for an array of reliable electric energy that we all know has a benign impact on the very environment that we all cherish and want to protect. Conspicuously absent from the President's Climate C hange T echnology Initiative was any support for nuclear or h ydroelectric power. In fact, the President and the Vice President are hostile to nuclear and hydroelectric power. This very Administration has initiatives that will ultimately grind nuclear energy generation to a halt and would restrict us from any further development of hydro, let alone maintaining the status quo. Yet, both of these sources of power, as we know, do not produce one single molecule of greenhouse g as e missions into our atmosphere. Indeed, it is hard to imagine a cleaner source of power than falling water, or n uclear fission.

What about the sincerity of this Administration's commitment to our Nation's global c ompetitiveness?

I was watching television yesterday catching the news shows and talk shows discussing the American economy. Many pundits were concerned about the aggressiveness of the stock market. Well, concerned, yet happy; but will this happiness last? We are surely concerned about the economics of the Pacific rim at this moment; and, nearly every economist on these shows were talking about the power of the current economy of the United States, how it pulls other economies with us, and that we continue to expect growth in the coming year; growth of about 2.5 percent, growth very similar to the kind we had last year. And, while we are talking about that, while we recognize that our competitiveness in the global e nvironment drives the global m arket, we have an Administration that is tinkering around with the idea of restricting the ability of our country to lead economically and to help out all other nations of the world with their own economic problems.

Mr. President, our Nation's agricultural industry is one of several industries that will be adversely affected by the requirements of the Kyoto Agreement. American agriculture has evolved with the rapid adoption of new technology; it is both highly capital and energy intensive. Energy use in both direct and indirect ways, including the fuel and lubricants for machinery and vehicles, the natural gas u sed to dry crops and pump irrigation water, and the electricity used in a wide variety of ways, has caused the American agricultural economy to be the most competitive and the most productive in the world. We use fertilizer and pesticides, all containing large energy components. For these reasons, our agricultural system is very sensitive to the kinds of changes the Vice President and the President are proposing.

American farmers buy $166 billion worth of inputs and services, sell about $212 billion worth of products and services, and receive just about $54 billion in cash income to cover costs and

provide incentives for future investment. Moreover, American agriculture is deeply integrated into the world economy and depends on more than $60 billion in export sales--the fastest growing market for our food and our fiber products.

That is just one example of an economy in this country that helps set the pace for the world.

The Kyoto Agreement would cause fertilizer prices to go up, and while the President says carbon taxes are not a part of his plan to meet the treaty's requirements, the administration intends to pressure fossil fuel prices through other ways that would have the impact of burdensome tax increases. One of the results of the Administration's approach to compliance will be higher costs for diesel fuel for trucks and tractors.

It takes no genius to understand what that means: Increased costs for farmers, which translates into increased costs for food and finished goods at the grocery store. In addition, since most products are delivered by diesel-powered trucks, nearly every item in nearly every store in America will cost more. And all of this will be done by an Administration that pursues a policy which it has no strong scientific or e conomic basis or l ogical reason to pursue.

One of the many potential tragedies of this treaty would be the higher cost of food, not just for those who can afford it but for those who cannot. And remember our Judeo-Christian ethic as a country, the hundreds of millions of dollars of food we send around the world to poor nations, to starving people. Could we afford to send more if it cost more? I doubt it. And yet that is exactly what the President proposes.

According to Data Resources, Inc., another respected economic forecasting firm, 37 percent of American households have less than $20,000 after-tax income and spend about 21.2 percent to more than 100 percent of after-tax income on food. For these families, the impact of America's compliance with the Kyoto Agreement would be severe and very negative.

Mr. President, I believe this will be the first time in the history of our country that a President has allowed foreign interests to control and to limit the growth of the American economy.

Let me repeat that for the record because I believe, after our research, that is a pretty profound statement, not just coming from me but coming from the historic records of our country, that this would be the first time in our history that an American President has allowed foreign interests to control and limit the growth of the American economy. Never before have we allowed foreign interests to dictate the amount of energy Americans can use.

The Kyoto Agreement requires Americans to cut energy use by the year 2010 to 7 percent below what it was using in 1990. That was just 8 years ago.

This weekend, I was at a special school out in Idaho, a collection of bright young kids. They are developing an electric car. They are going to race it next week in a race in north Idaho, an electric car. But guess what. You have to use nuclear hydrocarbons to generate the electricity that goes in the battery that powers the car that creates no pollution.

Get the message. No matter where you turn, whether it is fueling the cars for the great urban areas of our country that might be powered by electricity in the future, that electricity still has to be generated. And a lot of bright people are trying to accomplish that, so we can reduce that kind of impact on our environment. And yet, Mr. President, you are denying the ability to generate the energy by suggesting that we progressively reduce our ability to consume.

Mr. President, to illustrate the emissions requirement of the Agreement, Jay Hakes, head of the Energy Information Administration--a statistical arm of the Department of Energy--said in

February testimony before the House Science Committee: `A 7 percent reduction [below baseline levels under the agreement] for energy-related carbon emissions alone would require a reduction of about 550 million metric tons of carbon in 2010, or a bout 31 percent,' below current projections. According to EIA data, the mark of 550 million metric tons is greater than the total carbon emissions produced by electricity generation in the United States for 1990 or 1 996 which were 477 million metric tons and 517 million metric tons, respectively.

So let me say to all Senators and to the American people, tonight, walk around your house. Think about the light fixture you have just turned on, the appliance you have just turned off, the telephone device you might make a call on, or t he computer you will sit down to, to communicate anywhere in the world. Many of these things you have added to your home since 1990. Look at the car you drove home from work. And to the farmer who is out there on the plains and the farmlands of America this very hour, that marvelously efficient diesel tractor that is pulling the plow and the drill to plant the crop that creates the abundant harvest that feeds not just the people of America but the people of the world. All of those tools are a product of energy. In fact, Americans today are consuming more energy as the economy continues to grow, and we will need to consume more. We will need to turn on our lights and our computers. We will need our cars. In the future, they will be better and they will be cleaner, but they still must consume energy.

The Administration knows this protocol is seriously flawed. In a news conference held in Kyoto, Japan, on December 8, 1997, Vice President **Al Gore** acknowledged: `We've said from the beginning that, in order to send an agreement to the Senate, we must have meaningful participation by key developing countries.' We now know that developing countries did not sign the agreement. Is it fair to let these countries off the hook while we Americans are subject to such stringent requirements?

Here's what Stephen L. Miller, President of the Center for Energy and Economic Development had to say about the Kyoto Treaty: `The proposed Kyoto treaty is like a card game where the deck is stacked. American workers are being dealt a losing hand through the negotiating process. In the end, there will be no real environmental benefit and America's working families will be forced to pay higher energy and consumer costs while we export U.S. jobs to countries that are exempted from action under the Treaty.'

So let us call once again upon our President to incorporate in this agreement developing nations, growth nations like China, Mexico, and India, that have simply walked away because they

cannot be a part of an agreement that would cut back on the opportunity they are trying to offer their citizens.

Mr. President, Mr. Vice President, sign something that is a winning agreement for America. Sign something that promotes our economy, that promotes the environment of the world. Sign something that all countries of the world can agree with. Please do not turn us away from the kind of economic growth and development that all of our citizens expect and demand. There is simply no compelling reason for our government at this time to force Americans to take preventive measures of uncertain competence against a problem that may or m ay not lie in the Earth's future.

The Administration carries a heavy burden of persuasion that the CO2 compliance measures contained in the Kyoto Agreement are worth the sacrifice it will require of the American people. We here in the Senate must, and will, ensure that our nation's global e conomic competitiveness, our nation's military readiness, and our way of life, are not compromised merely to advance misguided political agendas.

It bears repeating--the Kyoto Agreement is flawed. It is based on politic science and not lab science. And it is only through sound lab science that we, working collectively together with our colleagues around the world, will produce a better world.

Once again, I thank my colleague from Nebraska for recognizing the importance of this special order this morning as we talk about global c limate c hange a nd its importance to our country and to our friends and neighbors around the world.

I note the absence of a quorum.

The PRESIDING OFFICER (Mr. **Hagel**). The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS (Senate - March 13, 1998)

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By Mr. LUGAR (for himself, Mr. **Biden**, Mr. **Chafee**, Mr. **Leahy**, Mr. **Abraham**, Mr. **Akaka**, Mr. **Allard**, Mr. **Craig**, Mr. **Cochran**, Mr. **DeWine**, Mr. **Glenn**, Mr. **Harkin**, Mr. **Inhofe**, Mr. **Jeffords**, Mr. **Johnson**, Mr. **Kerrey**, Mr. **Kerry**, Mr. **Kempthorne**, Mr. **Levin**, Mr. **Moynihan**, and Mr. **Murkowski**):

S. 1758. A bill to amend the Foreign Assistance Act of 1961 to facilitate protection of tropical forests through debt reduction with developing countries with tropical forests; to the Committee on Foreign Relations.

THE TROPICAL FOREST CONSERVATION ACT OF 1998

Mr. LUGAR. Mr. President,

along with Senators **Biden**, **Chafee** and **Leahy**, I am today introducing the Tropical Forest Conservation Act of 1998, a bill to protect outstanding tropical forests in developing countries through Debt for Nature Swaps. We are joined in this effort by Senators **Abraham, Akaka, Allard, Cochran, Craig, DeWine, Glenn, Harkin, Inhofe, Jeffords, Johnson, Kempthorne, Kerrey, Kerry, Levin, Moynihan,** and Murkowski.

The Tropical Forest Conservation Act builds upon the success of President Bush's Enterprise for the Americas Initiative (EAI) and extends the debt reduction portion of that initiative to the protection of tropical forests in lower and middle income developing countries outside of Latin America and the Caribbean.

Under the EAI, $154 million has been devoted to environmental protection and child survival in Argentina, Bolivia, Chile, Colombia, El Salvador, Jamaica and Uruguay. One of the novel features of the EAI has been the linkage between debt reduction and the generation of local funds for the environmental protection and child survival. Whereas the U.S. receives dollar payments for the remaining principal payments after debt reduction, interest streams on the remaining debt are channeled into these local funds.

The first Debt for Nature bill enacted into law was the `Debt for Nature Exchange' provision of the International Finance and Development Act of 1989. Under the authority of the **Biden Lugar** bill, the U.S. Agency for International Development has established environmental endowment funds in Costa Rica, Honduras, Indonesia, Jamaica, Madagascar, Mexico, Panama, and the Philippines. By committing $ 95 million of its own funds, US AID has leveraged an additional $51 million. This is an effective use of scarce federal conservation dollars.

The Tropical Forest Conservation Act of 1998 is a companion bill to H.R. 2870, coauthored by Representatives **Rob Portman** (R.-Ohio), **John Kasich** (R- Ohio) and **Lee Hamilton** (R.-Indiana), which was recently ordered to be reported by the House International Relations Committee.

The Tropical Forest Conservation Act of 1998 would authorize the use of three `debt for nature' mechanisms to protect outstanding tropical forests in lower and middle income developing countries.

Under the Buy Back option, an eligible country would be able to buy back its debt at its asset value in exchange for its willingness to place an additional forty percent of this value in local currency in a tropical forest fund. Suppose, for example, that the asset value of the country's debt was fifty cents on the dollar. In return for being allowed to buy back its debt at its asset value, the developing country would have to agree to place forty percent of that value, or twenty cents, into a fund to protect its tropical forests.

Under this option, there would be no cost to the United States Government since the debt is being bought back at its value as determined under the Federal Credit Reform Act of 1990.

Second, the bill authorizes a Debt Swap option under which a nonfederal individual or organization would be able to engage in Debt for Nature Swaps with lower income developing nations. These purchasers would work with the United States government, but would use their own funds to assist these developing countries to reduce or buy back their bilateral debt owed to the United States Government in return for their placing local currencies in a tropical forest fund.

Under this second option, there would also be no cost to the United States Government because the financial assistance involved would come from nongovernmental or private entities.

Third, the bill authorizes a debt reduction mechanism based upon the Enterprise for the Americas Initiative. Under the EAI Model, the developing country is allowed to place the interest on the reduced debt instrument in a tropical forest fund to be administered by a tropical forest board within that country.

When the third option is exercised, the bill authorizes appropriations to compensate the United States Treasury for the reduction in the revenue stream which occurs. However, as in the case of the EAI, these funds would be effectively leveraged because the amounts placed by a eligible country in its tropical forest fund would exceed the amount of revenues foregone by the United States Treasury. For example, in the case of the EAI, $90 million in U.S. funds resulted in $154 million being placed by the Latin American and Caribbean countries in these local funds.

The Tropical Forest Conservation Act applies to concessional loans made under the Foreign Assistance Act of 1961 and credits granted under the Agricultural Trade and Assistance Act of 1954. It is consistent with established Treasury Department debt reduction practices as well as with the Federal Credit Reform Act of 1990.

The bill authorizes $50 million in FY 99, $125 million in FY 2000 and $225 million in FY 2001, subject to appropriations.

Within each developing country, the tropical forest fund would be administered by a commission representing a majority of local nongovernmental, community development and scientific and

academic organizations, representatives of the host government and a representative of the United States Government.

The tropical forest fund could be used to provide grants for the following purposes:

(1) to preserve, maintain or restore the tropical forest of the beneficiary country through establishing parks and reserves;

(2) to develop and implement scientifically sound systems of natural resource management;

(3) to provide training programs to strengthen conservation institutions and the scientific, technical and managerial capacities of individuals and organizations involved in conservation;

(4) to provide for restoration, protection and sustainable use of diverse animal and plant species;

(5) to mitigate greenhouse gases in the atmosphere;

(6) to develop and support individuals living in or near a tropical forest, including the cultures of such individuals.

Oversight of this program would be accomplished through expanding the existing Enterprise for the Americas Board by two federal and two nongovernmental representatives so that the Board would be composed of fifteen members, eight of whom would represent federal agencies involved in the protection, restoration and sustainable use of tropical forests and seven of whom would represent nongovernmental organizations and experts engaged in these activities.

This legislation provides an incentive for the lower income developing nations to repay their debt owed to the United States. Government. It protects outstanding tropical forests throughout the world. And it stretches the limited federal dollars which are available to assist in this effort, therefor making an effective use of international environmental assistance.

I ask unanimous consent that a copy of the bill be printed in the **Record**. I urge my colleagues to join in this effort.

There being no objection, the bill was ordered to be printed in the **Record**, as follows:

[Page: S1952] *GPO's PDF*

S. 1758

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. DEBT REDUCTION FOR DEVELOPING COUNTRIES WITH TROPICAL FORESTS.

The Foreign Assistance Act of 1961 (22 U.S.C. 2151 et seq.) is amended by adding at the end the following:

`PART V--DEBT REDUCTION FOR DEVELOPING COUNTRIES WITH TROPICAL FORESTS

`SEC. 801. SHORT TITLE.
`This part may be cited as the `Tropical Forest Conservation Act of 1998'.

`SEC. 802. FINDINGS AND PURPOSES.
`(a) **Findings**: The Congress finds the following:

`(1) It is the established policy of the United States to support and seek protection of tropical forests around the world.

`(2) Tropical forests provide a wide range of benefits to humankind by--

`(A) harboring a major share of the Earth's biological and terrestrial resources, which are the basis for developing pharmaceutical products and revitalizing agricultural crops;

`(B) playing a critical role as carbon sinks in reducing greenhouse gases in the atmosphere, thus moderating potential global climate change ; and

`(C) regulating hydrological cycles on which far-flung agricultural and coastal resources depend.

`(3) International negotiations and assistance programs to conserve forest resources have proliferated over the past decade, but the rapid rate of tropical deforestation continues unabated.

`(4) Developing countries with urgent needs for investment and capital for development have allocated a significant amount of their forests to logging concessions.

`(5) Poverty and economic pressures on the populations of developing countries have, over time, resulted in clearing of vast areas of forest for conversion to agriculture, which is often unsustainable in the poor soils underlying tropical forests.

`(6) Debt reduction can reduce economic pressures on developing countries and result in increased protection for tropical forests.
`(b) **Purposes**: The purposes of this part are--

`(1) to recognize the values received by United States citizens from protection of tropical forests;

`(2) to facilitate greater protection of tropical forests (and to give priority to protecting tropical forests with the highest levels of biodiversity and under the most severe threat) by providing for the alleviation of debt in countries where tropical forests are located, thus allowing the use of additional resources to protect these critical resources and reduce economic pressures that have led to deforestation;

`(3) to ensure that resources freed from debt in such countries are targeted to protection of tropical forests and their associated values; and

`(4) to rechannel existing resources to facilitate the protection of tropical forests.

`SEC. 803. DEFINITIONS.
`As used in this part:

`(1) **Administering body**: The term `administering body' means the entity provided for in section 809(c).

`(2) **Appropriate congressional committees**: The term `appropriate congressional committees' means--

`(A) the Committee on International Relations and the Committee on Appropriations of the House of Representatives; and

`(B) the Committee on Foreign Relations and the Committee on Appropriations of the Senate.

`(3) **Beneficiary country**: The term `beneficiary country' means an eligible country with respect to which the authority of section 806(a)(1), section 807(a)(1), or paragraph (1) or (2) of section 808(a) is exercised.

`(4) **Board**: The term `Board' means the board referred to in section 811.

`(5) **Developing country with a tropical forest**: The term `developing country with a tropical forest' means--

`(A)(i) a country that has a per capita income of $725 or less in 1994 United States dollars (commonly referred to as `low-income country'), as determined and adjusted on an annual basis by the International Bank for Reconstruction and Development in its World Development Report; or

`(ii) a country that has a per capita income of more than $725 but less than $8,956 in 1994 United States dollars (commonly referred to as `middle-income country'), as determined and adjusted on an annual basis by the International Bank for Reconstruction and Development in its World Development Report; and

`(B) a country that contains at least one tropical forest that is globally outstanding in terms of its biological diversity or represents one of the larger intact blocks of tropical forests left, on a continental or global scale.

`(6) **Eligible country**: The term `eligible country' means a country designated by the President in accordance with section 805.

`(7) **Tropical forest agreement**: The term `Tropical Forest Agreement' or `Agreement' means a Tropical Forest Agreement provided for in section 809.

`(8) **Tropical forest facility**: The term `Tropical Forest Facility' or `Facility' means the Tropical Forest Facility established in the Department of the Treasury by section 804.

`(9) **Tropical forest fund**: The term `Tropical Forest Fund' or `Fund' means a Tropical Forest Fund provided for in section 810.

`SEC. 804. ESTABLISHMENT OF THE FACILITY.
`There is established in the Department of the Treasury an entity to be known as the `Tropical Forest Facility' for the purpose of providing for the administration of debt reduction in accordance with this part.

`SEC. 805. ELIGIBILITY FOR BENEFITS.
`(a) **In General**: To be eligible for benefits from the Facility under this part, a country shall be a developing country with a tropical forest--

`(1) whose government meets the requirements applicable to Latin American or Caribbean countries under paragraphs (1) through (5) and (7) of section 703(a) of this Act; and

`(2) that has put in place major investment reforms, as evidenced by the conclusion of a bilateral investment treaty with the United States, implementation of an investment sector loan with the Inter-American Development Bank, World Bank-supported investment reforms, or other measures, as appropriate.
`(b) **Eligibility Determinations**:

`(1) **In general**: Consistent with subsection (a), the President shall determine whether a country is eligible to receive benefits under this part.

`(2) **Congressional notification**: The President shall notify the appropriate congressional committees of his intention to designate a country as an eligible country at least 15 days in advance of any formal determination.

`SEC. 806. REDUCTION OF DEBT OWED TO THE UNITED STATES AS A RESULT OF CONCESSIONAL LOANS UNDER THE FOREIGN ASSISTANCE ACT OF 1961.
`(a) **Authority To Reduce Debt**:

`(1) **Authority**: The President may reduce the amount owed to the United States (or any agency of the United States) that is outstanding as of January 1, 1998, as a result of concessional loans made to an eligible country by the United States under part I of this Act, chapter 4 of part II of this Act, or predecessor foreign economic assistance legislation.

`(2) **Authorization of appropriations**: For the cost (as defined in section 502(5) of the Federal Credit Reform Act of 1990) for the reduction of any debt pursuant to this section, there are authorized to be appropriated to the President--

`(A) $25,000,000 for fiscal year 1999;

`(B) $75,000,000 for fiscal year 2000; and

`(C) $100,000,000 for fiscal year 2001.

`(3) **Certain prohibitions inapplicable**:

`(A) **In general**: A reduction of debt pursuant to this section shall not be considered assistance for purposes of any provision of law limiting assistance to a country.

`(B) **Additional requirement**: The authority of this section may be exercised notwithstanding section 620(r) of this Act or section 321 of the International Development and Food Assistance Act of 1975.
`(b) **Implementation of Debt Reduction**:

`(1) **In general**: Any debt reduction pursuant to subsection (a) shall be accomplished at the direction of the Facility by the exchange of a new obligation for obligations of the type referred to in subsection (a) outstanding as of the date specified in subsection (a)(1).

`(2) **Exchange of obligations**:

`(A) **In general**: The Facility shall notify the agency primarily responsible for administering part I of this Act of an agreement entered into under paragraph (1) with an eligible country to exchange a new obligation for outstanding obligations.

`(B) **Additional requirement**: At the direction of the Facility, the old obligations that are the subject of the agreement shall be canceled and a new debt obligation for the country shall be established relating to the agreement, and the agency primarily responsible for administering part I of this Act shall make an adjustment in its accounts to reflect the debt reduction.
`(c) **Additional Terms and Conditions**: The following additional terms and conditions shall apply to the reduction of debt under subsection (a)(1) in the same manner as such terms and conditions apply to the reduction of debt under section 704(a)(1) of this Act:

`(1) The provisions relating to repayment of principal under section 705 of this Act.

`(2) The provisions relating to interest on new obligations under section 706 of this Act.

`SEC. 807. REDUCTION OF DEBT OWED TO THE UNITED STATES AS A RESULT OF CREDITS EXTENDED UNDER TITLE I OF THE AGRICULTURAL TRADE DEVELOPMENT AND ASSISTANCE ACT OF 1954.
`(a) **Authority To Reduce Debt**:

`(1) **Authority**: Notwithstanding any other provision of law, the President may reduce the amount owed to the United States (or any agency of the United States) that is outstanding as of January 1, 1998, as a result of any credits extended under title I of the Agricultural Trade Development and Assistance Act of 1954 (7 U.S.C. 1701 et seq.) to a country eligible for benefits from the Facility.

`(2) **Authorization of appropriations**: For the cost (as defined in section 502(5) of the Federal Credit Reform Act of 1990) for the reduction of any debt pursuant to this section, there are authorized to be appropriated to the President--

`(A) $25,000,000 for fiscal year 1999;

`(B) $50,000,000 for fiscal year 2000; and

`(C) $50,000,000 for fiscal year 2001.
`(b) **Implementation of Debt Reduction**:

`(1) **In general**: Any debt reduction pursuant to subsection (a) shall be accomplished at the direction of the Facility by the exchange of a new obligation for obligations of the type referred to in subsection (a) outstanding as of the date specified in subsection (a)(1).

`(2) **Exchange of obligations**:

`(A) **In general**: The Facility shall notify the Commodity Credit Corporation of an agreement entered into under paragraph (1) with an eligible country to exchange a new obligation for outstanding obligations.

`(B) **Additional requirement**: At the direction of the Facility, the old obligations that are the subject of the agreement shall be canceled and a new debt obligation shall be established for the country relating to the agreement, and the Commodity Credit Corporation shall make an adjustment in its accounts to reflect the debt reduction.
`(c) **Additional Terms and Conditions**: The following additional terms and conditions shall apply to the reduction of debt under subsection (a)(1) in the same manner as such terms and conditions apply to the reduction of debt under section 604(a)(1) of the Agricultural Trade Development and Assistance Act of 1954 (7 U.S.C. 1738c):

`(1) The provisions relating to repayment of principal under section 605 of such Act.

`(2) The provisions relating to interest on new obligations under section 606 of such Act.

`SEC. 808. AUTHORITY TO ENGAGE IN DEBT-FOR-NATURE SWAPS AND DEBT BUYBACKS.
`(a) **Loans and Credits Eligible for Sale, Reduction, or Cancellation**:

`(1) **Debt-for-nature swaps**:

`(A) **In general**: Notwithstanding any other provision of law, the President may, in accordance with this section, sell to any eligible purchaser described in subparagraph (B) any concessional loans described in section 806(a)(1) or any credits described in section 807(a)(1), or on receipt of payment from an eligible purchaser described in subparagraph (B), reduce or cancel such loans (or credits) or portion thereof, only for the purpose of facilitating a debt-for-nature swap to support eligible activities described in section 809(d).

`(B) **Eligible purchaser described**: A loan or credit may be sold, reduced, or canceled under subparagraph (A) only to a purchaser who presents plans satisfactory to the President for using the loan or credit for the purpose of engaging in debt-for-nature swaps to support eligible activities described in section 809(d).

`(C) **Consultation requirement**: Before the sale under subparagraph (A) to any eligible purchaser described in subparagraph (B), or any reduction or cancellation under such subparagraph (A), of any loan or credit made to an eligible country, the President shall consult with the country concerning the amount of loans or credits to be sold, reduced, or canceled and their uses for debt-for-nature swaps to support eligible activities described in section 809(d).

`(D) **Authorization of appropriations**: For the cost (as defined in section 502(5) of the Federal Credit Reform Act of 1990) for the reduction of any debt pursuant to subparagraph (A), amounts authorized to appropriated under sections 806(a)(2) and 807(a)(2) shall be made available for such reduction of debt pursuant to subparagraph (A).

`(2) **Debt buybacks**: Notwithstanding any other provision of law, the President may, in accordance with this section, sell to any eligible country any concessional loans described in section 806(a)(1) or any credits described in section 807(a)(1), or on receipt of payment from an eligible country, reduce or cancel such loans (or credits) or portion thereof, only for the purpose of facilitating a debt buyback by an eligible country of its own qualified debt, only if the eligible country uses an additional amount of the local currency of the eligible country, equal to not less than 40 percent of the price paid for such debt by such eligible country, or the difference between the price paid for such debt and the face value of such debt, to support eligible activities described in section 809(d).

`(3) **Terms and conditions**: Notwithstanding any other provision of law, the President shall, in accordance with this section, establish the terms and conditions under which loans and credits may be sold, reduced, or canceled pursuant to this section.

`(4) **Administration**:

`(A) **In general**: The Facility shall notify the administrator of the agency primarily responsible for administering part I of this Act or the Commodity Credit Corporation, as the case may be, of eligible purchasers described in paragraph (1)(B) that the President has determined to be eligible under paragraph (1), and shall direct such agency or Corporation, as the case may be, to carry out the sale, reduction, or cancellation of a loan pursuant to such paragraph.

`(B) **Additional requirement**: Such agency or Corporation, as the case may be, shall make an adjustment in its accounts to reflect the sale, reduction, or cancellation.
`(b) **Deposit of Proceeds**: The proceeds from the sale, reduction, or cancellation of any loan sold, reduced, or canceled pursuant to this section shall be deposited in the United States Government account or accounts established for the repayment of such loan.

`SEC. 809. TROPICAL FOREST AGREEMENT.
`(a) **Authority**:

`(1) **In general**: The Secretary of State is authorized, in consultation with other appropriate officials of the Federal Government, to enter into a Tropical Forest Agreement with any eligible country concerning the operation and use of the Fund for that country.

`(2) **Consultation**: In the negotiation of such an Agreement, the Secretary shall consult with the Board in accordance with section 811.
`(b) **Contents of Agreement**: The requirements contained in section 708(b) of this Act (relating to contents of an agreement) shall apply to a Agreement in the same manner as such requirements apply to an Americas Framework Agreement.
`(c) **Administering Body**:

`(1) **In general**: Amounts disbursed from the Fund in each beneficiary country shall be administered by a body constituted under the laws of that country.

`(2) **Composition**:

`(A) **In general**: The administering body shall consist of--

`(i) one or more individuals appointed by the United States Government;

`(ii) one or more individuals appointed by the government of the beneficiary country; and

`(iii) individuals who represent a broad range of--

`(I) environmental nongovernmental organizations of, or active in, the beneficiary country;

`(II) local community development nongovernmental organizations of the beneficiary country; and

`(III) scientific or academic organizations or institutions of the beneficiary country.

`(B) **Additional requirement**: A majority of the members of the administering body shall be individuals described in subparagraph (A)(iii).

`(3) **Responsibilities**: The requirements contained in section 708(c)(3) of this Act (relating to responsibilities of the administering body) shall apply to an administering body described in paragraph (1) in the same manner as such requirements apply to an administering body described in section 708(c)(1) of this Act.
`(d) **Eligible Activities**: Amounts deposited in a Fund shall be used to provide grants to preserve, maintain, and restore the tropical forests in the beneficiary country, including one or more of the following activities:

`(1) Establishment, restoration, protection, and maintenance of parks, protected areas, and reserves.

`(2) Development and implementation of scientifically sound systems of natural resource management, including land and ecosystem management practices.

`(3) Training programs to strengthen conservation institutions and increase scientific, technical, and managerial capacities of individuals and organizations involved in conservation efforts.

`(4) Restoration, protection, or sustainable use of diverse animal and plant species.

`(5) Mitigation of greenhouse gases in the atmosphere.

`(6) Development and support of the livelihoods of individuals living in or near a tropical forest, including the cultures of such individuals, in a manner consistent with protecting such tropical forest.

`(e) **Grant Recipients**:

`(1) **In general**: Grants made from a Fund shall be made to--

`(A) nongovernmental environmental, conservation, and indigenous peoples organizations of, or active in, the beneficiary country;

`(B) other appropriate local or regional entities of, or active in, the beneficiary country; and

`(C) in exceptional circumstances, the government of the beneficiary country.

`(2) **Priority**: In providing grants under paragraph (1), priority shall be given to projects that are run by nongovernmental organizations and other private entities and that involve local communities in their planning and execution.

`(f) **Review of Larger Grants**: Any grant of more than $100,000 from a Fund shall be subject to veto by the Government of the United States or the government of the beneficiary country.

`(g) **Eligibility Criteria**: In the event that a country ceases to meet the eligibility requirements set forth in section 805(a), as determined by the President pursuant to section 805(b), then grants from the Fund for that country may only be made to nongovernmental organizations until such time as the President determines that such country meets the eligibility requirements set forth in section 805(a).

`SEC. 810. TROPICAL FOREST FUND.

`(a) **Establishment**: Each beneficiary country that enters into a Tropical Forest Agreement under section 809 shall be required to establish a Tropical Forest Fund to receive payments of interest on new obligations undertaken by the beneficiary country under this part.

`(b) **Requirements Relating to Operation of Fund**: The following terms and conditions shall apply to the Fund in the same manner as such terms as conditions apply to an Enterprise for the Americas Fund under section 707 of this Act:

`(1) The provision relating to deposits under subsection (b) of such section.

`(2) The provision relating to investments under subsection (c) of such section.

`(3) The provision relating to disbursements under subsection (d) of such section.

`SEC. 811. BOARD.
`(a) **Enterprise for the Americas Board**: The Enterprise for the Americas Board established under section 610(a) of the Agricultural Trade Development and Assistance Act of 1954 (7 U.S.C. 1738i(a)) shall, in addition to carrying out the responsibilities of the Board under section 610(c) of such Act, carry out the duties described in subsection (c) of this section for the purposes of this part.
`(b) **Additional Membership**:

`(1) **In general**: The Enterprise for the Americas Board shall be composed of an additional four members appointed by the President as follows:

`(A) Two representatives from the United States Government, including a representative of the International Forestry Division of the United States Forest Service.

`(B) Two representatives from private nongovernmental environmental, scientific, and academic organizations with experience and expertise in preservation, maintenance, and restoration of tropical forests.

`(2) **Chairperson**: Notwithstanding section 610(b)(2) of the Agricultural Trade Development and Assistance Act of 1954 (7 U.S.C. 1738i(b)(2)), the Enterprise for the Americas Board shall be headed by a chairperson who shall be appointed by the President from among the representatives appointed under section 610(b)(1)(A) of such Act or paragraph (1)(A) of this subsection.
`(c) **Duties**: The duties described in this subsection are as follows:

`(1) Advise the Secretary of State on the negotiations of Tropical Forest Agreements.

`(2) Ensure, in consultation with--

`(A) the government of the beneficiary country,

`(B) nongovernmental organizations of the beneficiary country,

`(C) nongovernmental organizations of the region (if appropriate),

`(D) environmental, scientific, and academic leaders of the beneficiary country, and

`(E) environmental, scientific, and academic leaders of the region (as appropriate),

that a suitable administering body is identified for each Fund.

`(3) Review the programs, operations, and fiscal audits of each administering body.

`SEC. 812. CONSULTATIONS WITH THE CONGRESS.
`The President shall consult with the appropriate congressional committees on a periodic basis to review the operation of the Facility under this part and the eligibility of countries for benefits from the Facility under this part.

`SEC. 813. ANNUAL REPORTS TO THE CONGRESS.
`(a) **In General**: Not later than December 31 of each fiscal year, the President shall prepare and transmit to the Congress an annual report concerning the operation of the Facility for the prior fiscal year. Such report shall include--

`(1) a description of the activities undertaken by the Facility during the previous fiscal year;

`(2) a description of any Agreement entered into under this part;

`(3) a report on any Funds that have been established under this part and on the operations of such Funds; and

`(4) a description of any grants that have been provided by administering bodies pursuant to Agreements under this part.
`(b) **Supplemental Views in Annual Report**: Not later than December 15 of each fiscal year, each member of the Board shall be entitled to receive a copy of the report required under subsection (a). Each member of the Board may prepare and submit supplemental views to the President on the implementation of this part by December 31 for inclusion in the annual report when it is transmitted to Congress pursuant to this section.'.

THE GLOBAL CLIMATE TREATY (Senate - October 23, 1997)

Mr. CRAIG addressed the Chair.

The PRESIDING OFFICER. The Senator from Idaho.

Mr. CRAIG. Mr. President, I join with my colleague, the Senator from Nebraska, this morning to speak out against the proposal that our President yesterday announced to the Nation and to the world as it relates to this country's concept of how the world ought to be when it comes to the issue of global warming .

But first let me thank the Senator from Nebraska for the leadership role he is taking on behalf of a very large bipartisan coalition of Senators in bringing clarity to this issue and demonstrating what is a clear opposing point of view, an opposing point of view based on science, an opposing point of view based on economics and an opposing point of view based on one of the largest coalition-building efforts I have witnessed, at least in my public life, between labor and business and public officials in this country.

The Senator spoke out very clearly this morning on the discrepancy as it relates to what our President announced yesterday compared to what the Hagel-Byrd resolution that was adopted by the Senate some months ago spoke to. That was, if we are to enter an agreement, that agreement must be, by its definition, a world agreement, that all parties involved, that is, all nations of the world, must come together in recognition of what may or may not be an environmental problem.

I am disappointed that the President of the United States, clearly recognizing the constitutional obligation of this body, chose largely, yesterday, in his proposal, to ignore us. While he gave us lip service and while his spokespeople have given us lip service over the last several months since the almost unanimous adoption of the Hagel-Byrd resolution, I must tell you that what our President laid down for his negotiators in Bonn yesterday is not reflective of what he has been saying or what his people have been saying.

To the parliamentarians of the world, it is important that you understand that we are not a parliament and the President is not a prime minister. He does not speak for the majority of the U.S. Congress. He speaks for himself and for what I believe to be a narrow interest of people whose agendas take them well beyond just the concept of a better environment, but to a desire to do some industrial or economic planning nationwide, if not universally, all without any reliance whatsoever on the good judgment of the American consumer and/or the free market that this country has relied on since its very beginning.

`Serious harm,' those are important words. Those are words that the Hagel-Byrd resolution spoke to, `serious harm to the U.S. economy.' Important words, simple words, easy to understand, a relatively small measurement and threshold to be understood by anyone negotiating a treaty that, in the long term, might bind this country in an international obligation.

We will not, nor should we, seriously harm our citizens, the economy in which they live, and the opportunities for which they strive. And yet, the President, we believe, ignored that and talked

about the need for catastrophic emissions reductions by the year 2012. Mr. President, 2012. A long time off? No, not really; clearly within my lifetime, clearly within everybody's reasonable imagination, and something that if you are to accomplish a 30-percent reduction of fossil fuel emissions off from the current path, then you must start now in significant ways to change that and alter it. It is something that you do not wait until you get out to 2008 and then you say, `Oh, my goodness.' Because if we are to be responsible in relation to a negotiated treaty, a `binding' relationship by that point would draw us into a situation

that we could not meet, or , if we chose to meet it, we would truly handicap the economy of this country.

This Senator will not vote to make our country and its citizens second class to the rest of the world. I cannot nor will I do that nor do I believe any Senator in this body will knowingly vote in that way. Yet, the President is proposing that we allow 130 economies, 130 nations of the world, be exempt, to be able to do anything they choose while we would choose to restrict and control ourselves.

Mr. President, we are a nation today that is proud of its environmental legacy. We have moved faster and more directly in the last two decades to improve the environment in which our citizens live than any other nation of the world, and we have paid a big price for it. But we have been willing to pay it. We have been willing to pay it and able to pay it because we are a rich nation. Rich nations move to do things to clean up their environment. Poor nations simply cannot afford to. They are too busy trying to feed themselves, clothe themselves and put shelters over the heads of their citizens. All of those items in this country are secondary considerations because we take them for granted, because we are rich, and we are rich because of a free-market system unfettered by Government rule and regulation and, in my opinion, by the silly politics that this administration perpetrates today on faulty science or certainly a lack of science or a knowledge of what all of this means.

I have to say, in all fairness, the President gave some reasonable suggestions for conservation, and there is no question we ought to create the kind of incentives within our economy that move our citizens, and the economy that drives us, toward conservation. That is fair and that is reasonable, and we could assume a better world with all of that in mind.

But the thing that frustrates me most is that there is emerging out of all of the current negotiations a reminder that the developing world is saying something to us that is most significant, and I am not sure that our President is listening at this moment. They are, in essence, saying, and when they laid down their position on the table in Bonn on October 22, that developing countries are demanding reductions of 35 percent below 1990 levels of emissions and that fines be assessed against the United States and the other developed nations if those targets are missed. They want global warming gas reductions, but guess who is supposed to pay for it? Not the consumers of the developing world, but us rich Americans. Rich Americans are supposed to pay for any economic inconvenience the developing world would encounter because we are foolish enough to agree to impose these kinds of reduction targets on ourselves.

I am sorry, Mr. President, I don't buy that, the American consumer is not about to buy it, nor do I believe the U.S. Senate will.

So in 10 to 14 years, at about the time that the baby boomers are retiring and our Social Security system is challenged, at about the time when we are once again going to have to make tough decisions in this country about our social character and the economics that drive our social well-being, the President yesterday said we are going to lay yet a bigger burden on the economy; we are going to say that you are going to have to be at a certain level of emissions reductions and, if not, we are going to take drastic measures to drive up the cost of energy, to drive down the amount of consumption, and that's what we are prepared to do based on faulty science and interesting politics.

I suggest, Mr. President, that what you have proposed to the world and to the Nation and to this Congress is unacceptable. It certainly appears to be unacceptable at this moment to the U.S. Senate and to all who have spent any time studying the critical issue of global warming .

While this Nation will continue to strive for a cleaner world--and it should--and a cleaner nation and will be reasonable and responsible players, we expect the rest of the world to do the

same. But we can also understand that where a nation tries to feed itself and clothe itself and cause its citizens, by the economy in which they live, to rise to a higher standard of living, we understand that we have had that privilege and opportunity over the years and we should not restrict nor should we cause them to achieve anything less.

Our technology can assist, and we need to be there to help. But I suggest, Mr. President, that binding obligations, no matter how far out you push them to allegedly conform with what our country believes ought to be done, simply do not work. This proposal won't work. I agree with my colleague from Nebraska, this Senate, in my opinion, will not concur in this, will not agree to the kind of treaty that our President and his associates are attempting to cause the rest of the world to agree to.

So, Mr. President, I hope that you understand and I hope the world understands that this Senate, the Senate responsible for the ratification of these kinds of agreements, will, at this time, not ratify what you are proposing

EXPRESSING SENSE OF SENATE REGARDING U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE (Senate - July 25, 1997)

[Page: S8113] GPO's PDF

Mr. CRAIG. Mr. President, I thank my colleague for yielding, and let me thank Senator **Hagel** and Senator **Byrd** for bringing this resolution to the floor in a timely manner. I know several of my colleagues wish they could have spent a longer period of time this morning debating the issue, and I can't blame them. Let me suggest to them that this is only the beginning of a long and very important debate for our country to become involved in. It also was very important, though, that the Senate of the United States, the ratifying body of our Government and our country, speak out clearly and boldly before the ad hoc climate ch ange ne gotiating group convenes next Wednesday in Bonn, and carries their meetings through August 8. The reason it is important that the Senate speak out is because we do not believe the sky is falling. We are not sure if the sky is cracked, and if it is, maybe we need to build a superstructure to hold it up. But this country cannot commit itself to this kind of binding agreement unless the science is clearer and the understanding of the American people is fairly reached when it comes to this issue.

Let me speak for a few moments about my frustration that our President has decided to use his bully pulpit, in my opinion, to terrorize the American people into supporting the administration's quest for commitments for energy use reduction that are legally binding on the United States. The President has been quite frank about building a propaganda campaign about calamities of future global wa rming, b eginning with yesterday's White House meeting on climate ch ange. T he President has indicated his propaganda drive will culminate in a White House conference on global wa rming in October. The conference is not likely to be a thoughtful roundtable. It may now be more thoughtful, because I think the administration has finally recognized that the Senate in fact will become engaged and must become engaged.

Why did I use the words I just used? Here is the reason. Here is the plan that our administration is now supporting: That they would cause us to enter into a binding agreement that the United States would be responsible for 48 percent of the world's obligation to reduce energy use. We said a long time ago that any climate ch ange ag reement that affects the United States should not be binding, but voluntary on the world. Is the administration's plan a dramatic departure from where we were? Here is where it is. It is dramatic because when we arrive at the year 2010, to achieve our 1990 levels, the United States will be contributing about 20 percent of the world's emissions, while the rest of the world will be contributing 80 percent. Yet China and India and other Asian nations and developing countries, by this administration's negotiations, would be exempt. That is why it is time we come to the floor to speak about this.

Senate Resolution 98, under the authorship of Senator **Byrd** and Senator **Hagel**, says just that, that we cannot become involved unless we are all involved and that we should not become involved unless the science is sure, or so sure that we will commit this country and the rest of the world into a course that could bind us and reshape our economies and clearly design a different destiny for the American people than one that we might otherwise choose.

The President and the Vice President stand next to flooded homes in the Dakotas and suggest that this unfortunate event is a product of global wa rming. T hat is not fair, because the science doesn't prove it. So when I use the word `terrorize,' or I use the word `propaganda,' it is not by

chance that I use those words. The science simply doesn't support the claims being made by this administration, it is important to understand that. Last year, in the Leipzig Declaration, 100 scientists from around the world, climate sc ientists--not politicians, but scientists--expressed their doubts about the validity of computer-driven warming fo recasts. Why? You heard the Senator from Oklahoma just now say the reason is the science isn't bearing it up. People who watch

our satellites say that our satellites tell us we are getting cooler. Yet people who watch our ground temperatures suggest we might be getting warmer. Instead of sponsoring a fair debate, the administration is only using part of the available science, while denegrating the other side.

What is so important for this country to understand, what is more important for the parliamentarians of the world to understand, is that the President does not necessarily speak for this Senate. But what is critically important is that this Senate will speak for itself. And it is, without question, the responsibility of the Senate of the United States to approve treaties. What we do not want to happen is the lifting of the level of expectation projected by the rhetoric and the selective science by an administration that would bring us into negotiations to produce a treaty in Kyoto in December that simply would not speak to the realities or th e responsibilities that we ought to be engaged in.

The administration must realize that a strong American economy is essential to our Nation if we are going to spend upwards of $2 billion a year on climate ch ange re search, if we are going to adapt to changing climate, i f needed, and if we are going to adjust our economy and our economic base for those purposes.

So, I am pleased to endorse, and I hope Senators will join with me in a strong endorsement, of Senate Resolution 98. It is important that we speak now. I view, as others do, that this is a preliminary statement in what will be a long and complex debate for all of us to become involved in, because I don't know where our science will lead us. But if it, in fact, can show us the way and clearly demonstrate that there is a climate ch ange re sponsibility for this Nation, then all the rest of the nations in the world must participate. We cannot shoulder 48 percent of the burden for the rest of the world.

Mr. President, let me close with this last chart. If you were to turn the United States into a forest with no emissions whatsoever, by the year 2100 here is the problem with the rest of the world. The problem is that we want to be at 1990 levels by 2010. If you take the United States out of the equation, the total concentration of greenhouse ga ses ha rdly changes. Yet this administration, at least by their rhetoric of the last several months, would take China out of it, the other developing world nations out, and leave us to bear the burden. That is why S. Res. 98 is so critical for us today, for the world tomorrow, as we march toward Kyoto in December.

STAR PRINT--S. RES. 98 (Senate - June 18, 1997)
[Page: S5945] GPO's PDF

Mr. BYRD. Mr. President, I thank the distinguished Senator.

Mr. President, on June 12, Senator **Hagel** and I and other Senators introduced Senate Resolution 98, expressing the sense of the Senate regarding the conditions of the United States becoming a signatory to any international agreement on greenhouse gas emissions under the U.N. convention. On that same day, in addition to Senator **Hagel** and myself, 44 Senators cosponsored that resolution, making the total 46.

Since that time, 14 additional Senators have indicated an interest in being cosponsors. So I will read their names shortly. But in addition to requesting a star print of Senate Resolution 98, I indicate for the **Record** a substantive change in the resolution. It is required that there be a substantive change in order for there to be a star print. I want a star print to show the additional 14 Senators' names. The additional names are: Senator **Akaka**, Senator **Coats**, Senator **Cochran**, Senator **Domenici**, Senator **Gramm**, Senator **Grams**, Senator **Lott**, Senator **Moseley-Braun**, Senator **Robb**, Senator **Rockefeller**, Senator **Sessions**, Senator **Smith** of New Hampshire, Senator **Specter**, and Senator **Stevens**.

Now, Mr. President, the substantive change would be in the form of an additional `whereas' clause. I will read it:

Whereas, it is desirable that a bipartisan group of Senators be appointed by the majority and minority leaders of the Senate for the purpose of monitoring the status of negotiations on global climate change and reporting periodically to the Senate on those negotiations: Now, therefore, be it'.

That is the new `whereas' clause, and those are the words that would constitute the substantive change .

Therefore, I will ask unanimous consent that there be a star print of Senate Resolution 98 which will indicate the additional 14 Senators' names and the additional whereas clause.

May I say, parenthetically, that I think it would be good for the administration to know that there is an independent group of Senators who have status, who have been authorized by the U.S. Senate to monitor the developments and negotiations on global climate change , and who will be authorized to report periodically back to the Senate concerning those developments. That is the purpose of the additional clause, and I, therefore, make that request.

Mr. CRAIG. Mr. President, reserving the right to object--and I will not object--let me again thank the Senator from West Virginia for his leadership in this area and the refinement of this Senate resolution, what he is doing. What now 61 Senators are saying is that this is a very, very important issue for this country, and to the world. And the Senate wants to be active players and observers in the development of this potential treaty because ultimately it gets here to the floor of the United States Senate for us to make that decision.

Senator **Byrd** has offered us tremendous leadership in this area. I thank him. Mr. President, I, too, know that you have become our leader on this issue, and I appreciate that. Thank you.

SENATE RESOLUTION 98--EXPRESSING THE SENSE OF THE SENATE REGARDING THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (Senate - June 12, 1997)

[Page: S5622] *GPO's PDF*

Mr. BYRD (for himself, Mr. **Hagel,** Mr. **Hollings,** Mr. **Craig,** Mr. **Inouye,** Mr. **Warner,** Mr. **Ford,** Mr. **Thomas,** Mr. **Dorgan,** Mr. **Helms,** Mr. **Levin,** Mr. **Roberts,** Mr. **Abraham,** Mr. **McConnell,** Mr. **Ashcroft,** Mr. **Brownback,** Mr. **Kempthorne,** Mr. **Thurmond,** Mr. **Burns,** Mr. **Conrad,** Mr. **Glenn,** Mr. **Enzi,** Mr. **Inhofe,** Mr. **Bond,** Mr. **Coverdell,** Mr. **DeWine,** Mrs. **Hutchison,** Mr. **Gorton,** Mr. **Hatch,** Mr. **Breaux,** Mr. **Cleland,** Mr. **Durbin,** Mr. **Hutchinson,** Mr. **Johnson,** Ms. **Landrieu,** Ms. **Mikulski,** Mr. **Nickles,** Mr. **Santorum,** Mr. **Shelby,** Mr. **Smith** of Oregon, Mr. **Bennett,** Mr. **Faircloth,** Mr. **Frist,** Mr. **Grassley,** Mr. **Allard**, and Mr. **Murkowski**) submitted the following resolution; which was referred to the Committee on Foreign Relations:

S. Res. 98

Whereas the United Nations Framework Convention on Climate Change (in this resolution referred to as the `Convention'), adopted in May 1992, entered into force in 1994 and is not yet fully implemented;

Whereas the Convention, intended to address climate change on a global basis, identifies the former Soviet Union and the countries of Eastern Europe and the Organization For Economic Co-operation and Development (OECD), including the United States, as `Annex I Parties', and the remaining 129 countries, including China, Mexico, India, Brazil, and South Korea, as `Developing Country Parties';

Whereas in April 1995, the Convention's `Conference of the Parties' adopted the so-called `Berlin Mandate';

Whereas the `Berlin Mandate' calls for the adoption, as soon as December 1997, in Kyoto, Japan, of a protocol or another legal instrument that strengthens commitments to limit greenhouse gas emissions by Annex I Parties for the post-2000 period and establishes a negotiation process called the `Ad Hoc Group on the Berlin Mandate';

Whereas the `Berlin Mandate' specifically exempts all Developing Country Parties from any new commitments in such negotiation process for the post-2000 period;

Whereas although the Convention, approved by the United States Senate, called on all signatory parties to adopt policies and programs aimed at limiting their greenhouse gas (GHG) emissions, in July 1996 the Undersecretary of State for Global Affairs called for the first time for `legally binding' emission limitation targets and time-tables for Annex I Parties, a position reiterated by the Secretary of State in testimony before the Committee on Foreign Relations of the Senate on January 8, 1997;

Whereas greenhouse gas emissions of Developing Country Parties are rapidly increasing and are expected to surpass emissions of the United States and other OECD countries as early as 2015;

Whereas the Department of State has declared that it is critical for the Parties to the Convention to include Developing Country Parties in the next steps for global action and, therefore, has proposed that consideration of additional steps to include limitations on Developing Country Parties' greenhouse gas emissions would not begin until after a protocol or other legal instrument is adopted in Kyoto, Japan in December 1997;

Whereas the exemption for Developing Country Parties is inconsistent with the need for global action on climate change and is environmentally flawed; and

Whereas the Senate strongly believes that the proposals under negotiation, because of the disparity of treatment between Annex I Parties and Developing Countries and the level of required emission reductions, could result in serious harm to the United States economy, including significant job loss, trade disadvantages, increased energy and consumer costs, or any combination thereof: Now, therefore, be it

Resolved, That it is the sense of the Senate that--

(1) the United States should not be a signatory to any protocol to, or other agreement regarding, the United Nations Framework Convention on Climate Change of 1992, at negotiations in Kyoto in December 1997, or thereafter, which would--

(A) mandate new commitments to limit or reduce greenhouse gas emissions for the Annex I Parties, unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Country Parties within the same compliance period, or

(B) would result in serious harm to the economy of the United States; and

(2) any such protocol or other agreement which would require the advice and consent of the Senate to ratification should be accompanied by a detailed explanation of any legislation or regulatory actions that may be required to implement the protocol or other agreement and should also be accompanied by an analysis of the detailed financial costs and other impacts on the economy of the United States which would be incurred by the implementation of the protocol or other agreement.

Sec. 2. The Secretary of the Senate shall transmit a copy of this resolution to the President.

[Page: S5623] *GPO's PDF*

Mr. BYRD. Mr. President, I am submitting a sense-of-the-Senate resolution, and joining me in the introduction of this resolution are the following Senators: Mr. **Hagel**, Mr. **Hollings**, Mr. **Craig**, Mr. **Inouye**, Mr. **Warner**, Mr. **Ford**, Mr. **Thomas**, Mr. **Dorgan**, Mr. **Helms**, Mr. **Levin**, Mr. **Roberts**, Mr. **Abraham**, Mr. **McConnell**, Mr. **Ashcroft**, Mr. **Brownback**, Mr.

Kempthorne, Mr. **Thurmond**, and Mr. **Burns**. As I say, Mr. President, I urge other Senators and their staffs to take note of this resolution and to consider joining as cosponsors within the next day or so because we welcome the support of Democrats and Republicans.

This resolution addresses some central issues regarding the conditions for U.S. agreement to revisions to the United Nations Framework Convention on Climate Change . In particular, it addresses the clear need for the participation of developing nations in the ongoing negotiations to undertake such revisions to the global climate change convention, first signed in Rio in 1992, at the so-called Earth Summit.

As my colleagues know, President Bush signed the United Nations Framework Convention on Climate Change in 1992, which was subsequently approved by the Senate and ratified. The treaty calls on all signatories to adopt policies and programs to limit their greenhouse gas [GHG] emissions on a voluntary basis. The goal was to exhort industrialized nations to attempt to scale back their emissions to 1990 levels by the end of the present decade, a goal that has not been achieved by the U.S. nor by the vast majority of the developed nations. Those nations that have met the voluntary goals are those like Russia, whose economy has been in a free fall, its industries idle and its people hurting. This is not the way that anyone wants to meet an emissions reduction target.

This is an important negotiation attempting to address the fundamental issues of man-created climate changes and how to limit the adverse consequences that have been projected by recent scientific analysis. The perceived culprits in the warming of the globe--emissions of so-called greenhouse gases , including, particularly, carbon dioxide--are caused partly by fossil fuel combustion. Limiting and reducing such combustion and its resultant carbon dioxide are a principal objective of the treaty. It is an effort which has been led by Vice President **Al Gore** and he is to be highly commended for his sustained effort and achievement in moving this multinational negotiation along. The schedule for the negotiations to revise the Rio Pact is to culminate in meetings in Kyoto, Japan early this December.

The administration, as a result of the disappointing results of the voluntary goals contained in the 1992 agreement, has moved toward supporting mandatory, legally-binding, limitations on emissions to address the long-term effects of the greenhouse gases on the global climate . Worrisome as the prospects of adverse climate change are for all of us, I believe it is unfortunate that the developing world has not seen fit to step up to the plate and assume its clear responsibility to share in the effort being proposed by the United States to limit and reduce greenhouse gas emissions. This is most troublesome because without the participation of the developing world, the goals of the treaty will be largely frustrated, since the amount of carbon dioxide which will be produced by the developing world will exceed--get that--exceed in total, that produced by the industrial OECD nations very soon--by the year 2015. That is not very far away. Indeed, the amount of carbon emissions produced by China alone in that year will exceed the amount produced by the United States.

So we are talking about the country with the greatest population in the world, China. India is another, and India probably has 800 million people, perhaps more. But I should emphasize that China alone, in the year 2015, which is only 18 years away, will exceed the United States in its

production of carbon dioxide. China is rapidly accelerating her demand for electricity, soon to exceed that of the United States, but China has resisted all efforts to include her as a responsible party in the renegotiation of the Rio Pact.

Mr. President, the big carbon dioxide emitters of the developing world--including, as I have just indicated, in addition to China, the countries of India, Mexico, Brazil, South Korea, and Indonesia--cannot expect to continue or expand their extremely inefficient methods for fossil fuel combustion, producing huge, growing quantities of carbon dioxide, and at the same time insist that only the developed nations, the so-called Annex I nations under the Treaty, agree to legally-binding targets and schedules for limiting these gases . This is particularly troublesome, I believe, because, first, without the participation of the developing nations the process of climate change will continue without much human control. Second, there are certainly technological ways that fossil fuel combustion techniques can be made far more efficient than at present in these nations, so that the extent of economic sacrifice that may be required to limit greenhouse gas emissions may not be onerous if all nations will pull together. Third, under the Treaty, industrial facilities in the Annex I countries will be tempted to move behind the borders of developing countries in order to escape legally-binding controls on their greenhouse gas emissions because that means that if the developing countries are not also on the hook with the Annex 1 countries like the United States, industries will be tempted to go overseas and to send their factories overseas to those so-called developing nations that are not required, if they are not required, to commit themselves to abide by the standards that are to be negotiated by our Government. It would be cheaper, then, for U.S. industries to go overseas. That means our jobs will go overseas. We have seen too much of that already in West Virginia.

This would also frustrate the goals of the Treaty, and cause economic distress, as I have indicated, in the Annex I countries. The developing world should be encouraged to expand its industries in an environmentally responsible manner, knowing that it, too, must prepare to meet limits on greenhouse gas emissions, and not sink to the temptation for quick and dirty development by harboring industrial fugitives from the developed world's mandatory emissions controls.

Therefore, Mr. President, the resolution I am introducing today on behalf of myself and Senator **Hagel** and the other Senators whose names I have stated, resolves that the United States should not be a signatory to any protocol to the Rio Pact or to any other agreement which would `mandate new commitments to limit or reduce greenhouse gas emissions for the Annex I Parties, unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Countries within the same compliance period.' In other words, what is good for the developed goose should be good for the developing gander, in that both should be responsible for their actions if the effort to clean up the global barnyard is to be anything other than a halfway effort. And a halfway effort, in the final analysis, rerves nobody.

In addition, Mr. President, it is not yet clear what regulatory and legislative initiatives may be required in the United States to implement the binding agreement now under negotiations. Therefore, the resolution would also require that any Treaty signed by the United States, when it is submitted to the Senate for its advice and consent, be accompanied by a `detailed explanation

of any legislation or regulatory actions that may be required to implement the protocol or other agreement and should also be accompanied by an analysis of the detailed financial costs and other impacts on the economy of the United States which would be incurred by the implementation of the agreement.' I understand that the distinguished junior Senator from Nebraska [Mr. **Hagel**], Chairman of the relevant Subcommittee of the Foreign Relations Committee will be holding hearings on this matter beginning on June 19, and I commend him for this initiative.

This is a matter that will require substantial consensus building. That will take time. And I am delighted that Senator **Hagel** will begin those hearings in the very near future, June 19. I hope that consideration of the resolution that we are offering today will be seen as a contribution to that consensus building process.

Now, there may have to be some adjustments made to the verbiage that we have chosen and I am sure that Senator **Hagel** and the other cosponsors and I will be willing to consider any proposed adjustments, be willing to sit down and talk about any changes that need to be made. And with the hearings that Senator **Hagel** plans to conduct, the opportunity will be offered to Senators to appear and make statements, expressing their support, raising questions, offering suggestions, as I say, or whatever. But the important thing is this. We must begin to engage in this consensus building.

[Page: S5624] *GPO's PDF*

Mr. CRAIG addressed the Chair.

The PRESIDENT pro tempore. The able Senator from Idaho.

Mr. CRAIG. Mr. President, I thank you very much.

I stand this morning to join my colleague, the Senator from West Virginia [Mr. **Byrd**], in the introduction of a sense-of-the-Senate resolution on climate change negotiation.

The Senator from West Virginia and I agree that the administration needs to understand the Senate is very concerned about the potential adverse consequences of the proposed changes to the U.S. Framework Convention on Climate Change to which this body gave its consent shortly after it was signed by President George Bush at the Rio de Janeiro conference in 1992.

I hope this resolution will be a much needed wake-up call to the administration about the seriousness of the Senate's views on its current negotiating position. I do not think it was proper for this administration to change the position of the United States from a voluntary approach that was endorsed by the entire developed world to a legally binding treaty to impose enforceable greenhouse gas reduction targets by a date certain.

I am particularly concerned the administration did not consult with Congress prior to taking this new position which I am told was reached in the early morning hours of the last day of the Berlin

negotiations. Subsequently, the administration has not sought, and certainly not received, consensus support from the Senate on its new approach.

The attitude of this administration toward honest scientific inquiry is very troubling. I do not approve of using political science instead of real science. Mr. President, let me repeat that. I do not approve of this administration's use of political science instead of the real science that is critically necessary when negotiating and understanding an issue of this importance.

It is outrageous that this administration has been running around the country and the whole world, for that matter, claiming, as Deputy Secretary Tim Wirth has done on a number of occasions, that as far as the scientific hypothesis that human activity is warming the planet is concerned, `the debate is over.'

Instead of fairly testing that hypothesis, this administration is using its $1 billion-plus annual budget to try to prove only that carbon dioxide is warming the planet and to discredit any studies that might appear legitimate to the contrary.

The Earth has warmed about a degree centigrade since the depths of the of the Little Ice Age of the early 1600's. All but a tiny amount of that increase occurred prior to World War II before significant human loading of carbon dioxide into the atmosphere. In fact, the world's scientists are still debating the extent, if any, to which human emissions of carbon dioxide rather than predominantly actual causes are actually increasing Earth temperatures.

There is agreement on one point, however: That any future change in world temperature caused by human activity will be slight and there is no reason to rush to a new agreement in Kyoto in December of this year.

Finally, Mr. President, it is unacceptable that this administration has refused to admit the details of its proposal or to release any analyses of the anticipated impact of the proposal. The administration has not revealed to us what kinds of differences its proposal would actually have on global temperatures.

The administration's negotiators have refused to release any of their internal economic studies that show huge decimation in the industrial sector of our economy. One can only assume that it is to ensure that they will have free rein to commit the United States to whatever they decide to do in the early morning hours of the last day of the Kyoto conference in December. This kind of secret planning and hidden agenda is contrary to a democracy, and, Mr. President, it is just flat wrong.

The administration should immediately start a more public debate and a more honest consultation with the Senate, which, after all, has the final say on whether the United States will be legally bound to any international agreement. A great time to begin to bring this position into the sunshine will be during the Foreign Relations Committee's hearings scheduled for next week by my colleague and the prime cosponsor of the resolution that is coming to the floor this morning, Senator **Hagel**. So I look forward to a more open and honest airing of the issue.

I see the Senator from West Virginia is in the Chamber and let me again thank him for his leadership in the authoring of this very important sense-of-the-Senate resolution on global climate change . I am proud to be a sponsor and to work with him on this effort.

Mr. President, I yield the floor.

NUCLEAR WASTE POLICY ACT AMENDMENTS--MOTION TO PROCEED (Senate - April 07, 1997)

[Page: S2781] GPO's PDF

The Senate continued with the consideration of the motion to proceed.

Mr. CRAIG. Mr. President, when it comes to establishing national priorities--and I know what our President is doing in the area that I am about to discuss now--it is a great frustration to many States across our Nation because this President refuses--I repeat, refuses--to take a firm position and

establish as a national priority in this country the appropriate handling of spent nuclear fuel and high-level nuclear waste in a way that is acceptable to the American people and commensurate with the public law.

So what I am about to speak to is a piece of Senate legislation that I and the chairman of the Energy and Natural Resources Committee introduced on this floor last year, and that we passed last year in the U.S. Senate with 63 votes--63 bipartisan voices that said that this administration was wrong with their policy, and wrong with their priorities when it came to honoring public law and the 42 States that felt it necessary that this President honor public law. I am talking about the expeditious and timely management of high-level nuclear waste and spent nuclear fuel.

For all the right reasons, our Nation has spent a long time generating radioactive materials--nearly five decades. Most of this material is the byproduct of two principal activities: National defense operations, and commercial nuclear power plants. While it was our national policy for well over five decades that the Federal Government have oversight and primacy in the area of management and control of nuclear materials, it is no longer, tragically enough, a high-level policy of this country that is discernible by administrative position and by the clearness of administrative leadership. That is why we are here today on the floor of the U.S. Senate debating a timely action that this country must take to be responsible for the five decades of activity in the generation of high-level radioactive waste.

What I am talking about clearly is a national concern. To ignore this responsibility would be unwise, irresponsible, and in some instances, with regard to taking timely action, unsafe.

I am pleased now to rise in support of Senate bill 104, the Nuclear Waste Policy Act of 1997. As I mentioned, last year I and the Senator from Alaska were here on the floor with the Senators from Nevada debating a similar bill, although this year we have changed the bill some by actions in the committee itself and by possible amendments that will be made here on the floor during the course of the debate and the final vote on this legislation.

What we are talking about is the timely storage and disposal of spent nuclear fuel and high-level nuclear waste from our Nation's defense program and from, of course, the commercial nuclear power plants. Senate bill 104 creates an integrated system that will ensure construction of an interim storage facility and permanent repository to manage spent fuel and high-level waste that is currently stored in over 80 sites in 41 States across this country.

I have in the backdrop a map of our country that demonstrates the locations of reactors and storage sites, 80 sites in 41 States. Yet our administration basically has had no policy for nearly two decades on this issue.

We spoke as a Congress and we spoke as a people in 1982: That there needed to be a national policy and a national program. The legislation that we have before us, in my opinion, demonstrates that kind of critical need, and the need also to operate and respond in a timely fashion.

Transferring nuclear waste from the many defense and commercial nuclear sites to a single Federal facility beginning in 1998 was the intent of the Congress and the President of the United States when the Nuclear Waste Policy Act passed in 1982.

It became law. It was signed by the President. It was a national commitment. It was this Nation speaking to the need to handle the kind of waste that I am talking about and to do so in a safe and responsible fashion.

Unbelievably, we are less than one year away--just 9 months--from the date when the Department of Energy is obligated by the law that was passed in 1982 and is obligated under contract, in response to the law signed and honored by our Government, to accept the waste. Now we have to come to the floor in the 11th hour and plead with this administration to come with us in the shaping of

national policy to deal with this issue. Just last year the U.S. Court of Appeals reaffirmed the Federal obligation.

The Nevada test site was selected in the early 1970's as one of the sites under consideration for a geologic repository. This site has been under study for now over two decades by scientists and engineers. Here is a photograph of the Nevada test site where the interim storage facility would be located. Scientists and engineers at Yucca Mountain near this site where a permanent geologic repository for these high-level wastes would be placed have conducted the most thorough and comprehensive geological survey ever undertaken on any piece of property on the face of the Earth.

Let me repeat that claim because I believe it to be valid. The site that we are looking at, the Yucca Mountain deep geologic repository, has been studied more thoroughly, more comprehensively, both from a geologic point of view, from a seismic point of view, and from the overall need to meet the certification process for it to be a permanent, safe, high-level waste repository--that site has been more comprehensively studied than any piece of real estate on the face of the Earth. During all of this time and all of the studies, nothing has been discovered which would indicate that this site is unsuitable for use as a repository.

Because of the endless bureaucratic delays that have plagued the program, the Federal Government now says it will not have a repository operating until the year 2010 at the earliest. Remember, this was a Federal Government that in 1982 signed the Nuclear Waste Policy Act committing by contract to take the waste by 1998, 9 months from now. Yet this administration

and their representatives at the Department of Energy shrugged their shoulders and said, `Well, gee, the year 2010 will have to do because we just can't get there.' Yet the courts last year said `Wrong. Foul ball. Go back to home plate. You have to abide by the law.' And the Department of Energy said, `Yes. You are right. We do have to do that. We recognized that.'

This is 12 years after the Federal Government is contractually obligated to take title to and remove spent fuel from civilian power plants. Electric consumers and taxpayers have committed approximately $12 billion solely to study, test and build a radioactive waste management system. So when the Federal Government made its obligation in 1982 to the taxpayer, but most importantly the ratepayer of the utilities that were generating electricity through nuclear power, and the Government owed this commitment by paying out money to build the facility, to do the siting, to do the studies, to do all of the test work and to have a facility ready to operate and receive by 1998. That was a $12 billion commitment and $4.5 billion of that money has already been spent. This chart will give you an idea of where the moneys come from.

So, in other words, these were the folks that made the commitments. These were the folks that signed the contracts. These were the folks that believed that the Federal Government was an honorable agent that would honor those contracts. And the courts just this past year said, `You are right. The Federal Government has to do it.' And the administration says, `Well, we can't do it. In fact, we probably won't be able to do it until 2010, or sometime beyond.'

We enjoy the benefits of having the world's most reliable and powerful electricity supplies to drive our economy. In supplying more than 20 percent of the Nation's electricity, nuclear energy is part of the foundation of our Nation's high standard of living and economic growth. Twenty percent of the lights in our country, of the industry in our country, of the economy of our country, is fueled by nuclear power plants.

Mr. President, here is the thing that frustrates me most. I am going to quote from the President of the United States, this President. This is the President who doesn't have any idea how he will honor the commitment that the courts said just this last year he has to honor. This is the President who, in my opinion, has established the most antinuclear policy and attitude of any President since Harry Truman. Yet, this President this year in his fiscal 1998 budget request for the Department of Energy includes the following statement.

He says, or the Department of Energy says, this President's Department of Energy:

[Nuclear power] plants represent a $200 billion investment by electric ratepayers and provide reliable baseload power without emitting harmful pollutants such as those associated with global climate change .

In other words, it is this President who recognizes that nuclear power or electrical power generated by nuclear energy is the safest, the cleanest, and provides a huge investment of $200 billion. Yet, this is the President who shrugs his shoulders and says, `But we don't know what to do with the waste. We do not have a policy. We cannot react.'

I agree with the statement that I just quoted from the Department of Energy's fiscal year 1998 budget. Nuclear power is a major generator. Nuclear power is safe. Nuclear power is clean. Responsible management and disposal of spent fuel from these plants is a vital component of the energy security of this country and is, in my opinion, the No. 1 environmental issue that we face. Managing the waste stream safely and soundly is the No. 1 environmental issue in 41 States at 81 sites across this country.

S. 104 authorizes construction of an interim storage facility on the Nevada test site near Yucca Mountain. This facility will be constructed in full compliance with the regulations of, and will be licensed by, the Nuclear Regulatory Commission. It is an interesting drawing we have up here on this chart that shows how simple the technology to store this fuel is, but what is important to understand is that you do it by the rules and you do it by the science, the technology, and the engineering of the day.

The interim storage capacity provided for in the legislation would stem the Government's looming financial liability in its current lawsuit with utilities. In other words, I have just entered into a new dimension in this battle that we now have going over--how to be responsible and where to be responsible and when to be responsible as it relates to the appropriate management of spent fuel and high-level nuclear waste.

On January 31 of this year, 46 State agencies and 36 utility companies filed suit against the Department of Energy in Federal court. The lawsuit asks the court to order immediate action by the Department of Energy to comply with the Nuclear Waste Policy Act of 1982 by beginning to remove spent nuclear fuel from reactor sites by January 31, 1998, as specified under the act. The Department of Energy not only has failed to take any steps to fulfill this obligation, as I have spoken to earlier, but, rather, it has acknowledged it will not begin waste acceptance in 1998 and has solicited suggestions on what it might do in light of this failure.

Let me repeat. Here is the Department of Energy that has basically said: We cannot do it, so tell us how to do it. Give us some ideas of how we, as Government, can honor the commitment that we have made under the law.

Let me suggest to our Secretary of Energy and to the President that the way you honor the commitment is S. 104. Don't fight the Congress. Don't fight a majority bipartisan effort here. Come with us, work with us in solving this problem as S. 104 provides. Not only does it recognize the commitment by law, but it recognizes the need to respond in a timely fashion.

Just last week our new Secretary of Energy, Federico PenÿAE6a, met with nuclear energy executives. Despite the potential for billions of dollars of liability judgments against his Department, Secretary PenÿAE6a and the administration again failed to offer any concrete solution to this issue. Why did they fail to offer it? Because they do not want to recognize the need for S. 104. They do not want to recognize the commitment they have made, or at least are responsible for under the law.

In the course of this debate, you will hear and you have already heard the two Senators from the State of Nevada talk about the issue of transportation. Our opponents will raise the specter of a mobile Chernobyl. This fear-mongering is simply not supported by facts.

Let me digress here to talk about the safety of transportation for a moment. In doing so, let me make this statement. I have had the privilege over the course of my time in service in the U.S. Congress from the State of Idaho to deal with a lot of issues, all of them or most all of them were political, but 99 percent of them are not just political. Some of them deal with economics. Some of them had differing opinions as to the engineering or the science or the technology involved in a given issue. But never have I dealt with an issue that, in my opinion, is exclusively political--not scientific, not engineering, not mechanical in any way. Because when it comes to the management of nuclear waste, none of those charges have any base to them. The only dynamics in this debate is politics. Where do you want to put the waste? Because, once that decision is made, our science, our engineering, and our technology knows without question that it can be effectively and responsibly stored and safely stored in an environmentally sound way.

Those decisions were made--that it be a deep geologic repository. So, when it comes to the movement of that waste to that repository, the same argument holds true. The fact is, there have been over 2,500 commercial shipments of spent fuel in the United States in the timeframe that I have talked about; the same timeframe we have dealt with the management and the handling of nuclear waste. There has not been a single death or injury from the radioactive nature of the cargo.

Let me repeat. There has never been a single death or injury from the radioactive nature of the cargo.

What am I saying when I say that? I am saying that the integrity of the shipment vessel in which high-level nuclear waste or nuclear fuel was transported was never breached, even though there were some accidents. There is no other product or waste material transportation in our country today that can make that claim--none, except nuclear waste. It has been transported more safely with no escape of radioactivity, and therefore no human injury resulting from it, and transported more safely than any other waste, toxic substance, or human-harming substance in the United States. That is a unique claim.

The reason that claim can be made was the understanding at the front end of the need to transport this waste in a safe manner and the importance of the vessel in which it was transported in accomplishing this.

Let me add to these national statistics by describing the experience of my State, because my State receives high-level nuclear waste shipments. There have been over 600 shipments of Navy fuel and over 4,000 other shipments of radioactive material to my State. I will say that while some Idahoans resist and speak out about these shipments, none of them have been harmed. There has never been a spill. There has never been an accident that resulted in the radioactivity of the cargo being released. There have never been--let me repeat once more, for the record--injuries related to the radioactive nature of shipments.

Why? Why the great record? Well, largely because of what I just said, because there was rigorous attention paid in the very early days, recognizing the need for safe transportation of these materials. In fact, according to the Nuclear Regulatory Commission, `The safety record for spent fuel shipments in the United States and in other industrialized nations is enviable. Of the thousands of shipments completed over the last 30 years, none have resulted in an identifiable injury through a release of radioactive material.'

An example of this care and handling is the testing sequence to which spent fuel packages must be subjected. Once again, we have talked about the routes. You have seen the picture. Here are some examples of the kind of testing that has gone on to create the integrity of the shipping vessel that allows me to make the claims on the floor of the U.S. Senate that I have just made. For a spent fuel package design to receive a license from the Nuclear Regulatory Commission, it must be demonstrated that the cask can survive the following tests, in sequence: A 30-foot drop onto an

unyielding surface. In other words, I am talking about a concrete slab; then, a shorter drop onto a vertical steel punch bar. In other words, dropping a vessel onto a steel spike, if you will, of the size that could fully penetrate the vessel; that it be engulfed in fire for 30 minutes; finally, submerged in 3 feet of water; and separately, that the cask must not leak for 1 hour under 200 meters of water. That is the rigorousness of the testing and that is why, of course, I can make the claims I made, that no spills have resulted.

To further ensure that this care and caution be continued, we have supported an amendment offered in the committee by our colleague from Oregon, Senator **Wyden**. All shipments pursuant to S. 104 will be conducted in full compliance with all relevant Nuclear Regulatory Commission and Department of Transportation regulations, in addition to complying with the Department of Energy's requirements for advance notification and emergency response.

My colleagues from Nevada have been very vocal on this issue of transportation. I would like to quote from a letter dated March 11, 1997, sent by the Western Governors' Association, of which Nevada is a member. This letter went to Senator **Wyden**, giving the Western Governors' Association response to Senator **Wyden**'s transportation amendment that our committee accepted, that is now within S. 104. The letter reads:

[Y]our transportation amendments to S. 104, dated March 11, are generally consistent with the WGA's adopted policies for the safe and uneventful transport of radioactive waste through western States.

We feel that the committee action has strengthened the already substantial transportation safeguards of S. 104, as introduced.

The point of this whole comment was that not only had we made significant strides to ensure questions about transportation, because the vessel itself is not of issue, in my opinion, nor are there scientists or engineers that would argue it.

The other question happens to deal with the general nature of exposure, and what is 100 millirems. We are going to talk about this in the debate. Already the Senators from Nevada have had this issue on the charts before us. I think it is important that we set radiation exposure levels in context, so that we can compare them to exposures that we assume routinely in our day-to-day living.

Mr. President, it is something that not all of us recognize or understand, but the fact is that we receive radiation by just being alive under natural environments, whether it is your relationship in altitude and exposure to the Sun or whether it is the fact that you are encased in granite or marble. For example, we receive 80 millirems dosage on an annual basis by merely serving in the U.S. Senate. Why? Because of the general radioactive nature of granite and marble. That is the way our world is made up.

In your State of Colorado, and in your city of Denver, residents receive approximately a 53-millirem annual dose because you live in a mile-high city where the air is thinner and your exposure to solar radiation is simply higher.

It is the character of the environment we live in.

When I hear suggestions that we set exposure levels at 4 millirems for groundwater or setting a level of 15 millirems, I am reminded of the quote I heard when this debate occurred earlier. It talked about the differences of exposure in, again, Denver--and I do not know why they like to use Denver, CO, as an example--the difference between 4 millirems exposure for groundwater and setting it at 15 millirems is a difference of standing up or sitting down in Denver, CO, as it relates to your relative exposure to radiation and the Sun. I doubt that anybody in the State of Colorado, or in the city of Denver, thinks that they are more exposed standing or less exposed seated, to the natural environmental radiation that occurs there and has always occurred there because of the altitude and the atmosphere.

What I am trying to make here is a point that if you want to stand on the floor of the U.S. Senate and debate millirems in the 15 or the 4 context, you do not have a point. It cannot be made. It does not make sense, because you receive them in the natural environment of Denver or you receive them in the natural environment by being encased in a building of sandstone and marble and granite right here in the U.S. Senate. That is the reality of what we have. That is the situation that we face.

Support of S. 104 is coming from all quarters, including State and local government officials, public utility commissioners, newspapers, editorial boards, labor unions, chambers of commerce, national trade associations, the electric utilities, just to name a few. A similar measure, as I have mentioned, S. 1936, passed this body last year with strong bipartisan support.

I know that many people would prefer not to address the problem of spent nuclear fuel disposal. For this Congress not to address this problem, in my opinion, would just be irresponsible. We cannot let the source of 20 percent of our country's electricity drown in waste, nor can we allow our Government to default on contractual obligations that it has made. This Government's default would leave the taxpayers of this country vulnerable to a financial liability as high as $80 billion.

As I close, let me use these examples. The minority leader and I were just discussing budgets and who is on first and who is on second and who proposed and who has not proposed. The bottom line is we are all concerned about the budget and, most importantly, we are all concerned about getting it to balance in a responsible fashion and not doing so with major tax increases.

Yet, if this Government walks away from its commitment under the law, it may well be placing itself in a liability environment that could equal upwards of $80 billion. How does that translate? That translates to an additional $1,300 per family in the United States. On the dollar and cents costs, let me relate them to you as I understand them.

If we do not assume the responsibility and deal in a timely fashion, the cost of storage of spent fuel, because the courts have said to the Federal Government, `You will take charge of it. It will become your obligation,' it will start costing the taxpayers money. That cost could go as high as $19.6 billion. Return of nuclear waste fees could be $8.5 billion. Interest on nuclear waste fees, $15 to $27.8 billion, depending on the interest rates used, and consequential damage for shutdown of potential nuclear powerplants that would lose their storage capability and would not be allowed to license new storage capability could be upwards of $24 billion.

When the bipartisan leadership of the House and Senate met with the President and the Vice President some weeks ago, our leader, **Trent Lott**, said to the President, `It is our priority to deal with the nuclear waste issue.' The President deferred to **Al Gore** and said, `It is not ours,' and the Vice President largely said, `Leave it where it is until the year 2010.'

Eighty billion dollars and 2010? Mr. President, Mr. Vice President, wake up. Not only will the taxpayers not allow that, but the politics of this country will not tolerate that. We must deal with this

issue, and S. 104 is clearly a way of dealing with it.

The United States has benefited from the many uses of nuclear materials which have deterred a global conflict. Our nuclear fuels now generate electricity in a clean, non-air-polluting way. Our generation now must take the responsibility that it has to properly manage spent nuclear fuels for the defense program of our country and for the 110 commercial powerplants that it obligated itself to do so in 1982.

The Nuclear Waste Policy Act of 1997, the legislation that we are now asking for the right to proceed with on the floor and deal with in a timely fashion, S. 104, is the proper way to move. It allows our citizens the comfort of knowing that our Government has acted responsibly to assure environmentally safe long-term storage and disposal of spent nuclear fuel and high-level radioactive material. I hope that tomorrow evening, when we vote cloture that would give the Senate the right to proceed to debate on the legislation, that we can have the kind of overwhelming, bipartisan support of the type that we have received in the past.

Mr. President, I believe we will get that support. I believe it because it is now time to deal with this issue. I hope that during the course of the debate on the floor of the Senate and action that will follow in the House, that somehow and in some way we can catch the attention of this

administration, to do what they are legally and contractually obligated to do, so that we can stand bipartisan, shoulder to shoulder, in a national policy that deals with this issue in a way that we can all be proud of. Then we can say to our fellow citizens, `Yes, when the Government makes a commitment, when the Government signs a contract, when the Government obligates resources and taxes it citizenry for a dedicated cause, that cause can be responded to in a timely fashion.' S. 104 allows us to do so, and I hope that by tomorrow evening we will have the support to vote cloture. I yield the floor.

LESSONS FROM THE HAGUE -- (Senate - December 14, 2000)
[Page: S11766] GPO's PDF

Mr. CRAIG. Mr. President, recently, I attended the Sixth Conference of the Parties to the United Nations Framework Convention on Climate Change (COP-6) at The Hague, in the Netherlands. I went to observe Undersecretary of State Frank Loy and the rest of the U.S. negotiating team confront the complex issues associated with the requirements of the 1997 Kyoto Protocol to reduce greenhouse gas emissions.

The experience brought into clearer focus for me some disturbing themes that appear to be behind the intense international pressure brought to bear on the United States to reach agreement on some profound economic, social, and environmental issues.

At the outset, let me make clear that I did not arrive at The Hague without first studying the climate issue. For several years now, I have closely followed the progress of the climate change debate.

I have sought the input of nationally recognized scientists credentialed in the disciplines of atmospheric, ocean, and computer modeling sciences. I have reviewed scientific reports, most notably the document entitled Research Pathways for the Next Decade, prepared by scientists affiliated with the National Academy of Sciences Board on Atmospheric Sciences and Climate .

In addition, I have traveled to institutions such as the Woods Hole Oceanographic Institute in Massachusetts and met with ocean scientists who are very involved in climate research.

All of these scientists have, for many years, studied and disagreed on how much our planet is warming , and whether it was driven by natural causes or by carbon dioxide emissions from industry, and other human activities.

Scientists from around the world have had legitimate disagreements on how drastic a problem global warming is likely to be in this century and beyond. The debate has been further complicated by politically motivated ``junk science'' predictions of ``imminent'' environmental catastrophes capitalizing on weather events that most scientists agree are not linked to current temperature increases.

The emotional intensity of this debate cautioned many policymakers not to take sides early. However, as Republican Policy Committee Chairman, I felt compelled to address the many valid concerns expressed about this issue in a balanced way.

This led me to introduce with my colleagues, Senators **MURKOWSKI**, **HAGEL**, and others, over a year ago, comprehensive legislation that I believed, and still believe, provides the framework for some responsible and immediate consensus action on this issue.

A few days before leaving for The Hague, I met with the Director of the National Research Council's Board on Atmospheric Sciences and Climate , and other scientists on the Board to

discuss the status of the scientific research on climate change . Prior to that date, the NRC was reluctant to agree with earlier summary scientific assessments of the United Nations Intergovernmental Panel on Climate Change (IPCC) that humans were contributing to increasing temperatures recorded around the globe--the so-called ``anthropogenic effect."

Indeed, at a Senate Energy and Natural Resources Committee hearing held just last Spring, Dr. Joe Friday, testifying on behalf of the NRC stated that the ``jury is still out" on why global temperatures are rising. The NRC was clearly unable at that time to state on the record that it had detected clear evidence of an anthropogenic fingerprint on the warming trends of earth's climate .

At our meeting a few weeks ago, the NRC scientists were less passionate in their refusal to acknowledge the ``anthropogenic effect." I took from our discussion that day that there was increasing evidence that land-use practices and human emissions of greenhouse gases were having some contributing effect to the increased land surface temperatures monitored around the globe.

To be sure, the scientists did not suggest or imply that temperatures would reach dangerously high levels during the next 50 to 100 years. Indeed, the scientists offered their opinion that the rise in temperature would more likely be closer to 1.5 degrees rather than the 5 to 10 degree high range predicted for later this century by the IPCC.

Moreover, the NRC scientists underscored the uncertain nature of the computer modeling results on which most, if not all, predictions depend. They cautioned against fully embracing any set of predictions because of the uncertain nature of input data and the ability of computers to fairly and adequately handle the many variables that are included in computer programs.

They further noted the need for continued technological advancement in super computer capability.

What was clear to me after that meeting was that the issue of human contributions to increasing temperatures was reaching some consensus within the National Academy of Sciences.

However, it was also clear to me from my discussions with those scientists that many other important scientific issues concerning the extent of the human contribution to warming trends, the extent to which the earth will continue to warm, and perhaps, most important, the extent to which mankind can take actions that will effectively stop or slow climate change are far from settled and will likely take years to determine.

Indeed, the consensus that is forming among scientists working on this issue for the National Research Council is that we need a

plan to focus more on climate change ``adaptation" rather than climate change ``mitigation." This thinking would have been considered radical a little over a year ago and today still may be anathema to many in the environmental community. Yet, a July, 2000, Atlantic Monthly article

entitled ``Breaking the Global Warming Gridlock'' by Daniel Sarewitz and Roger Pielke, Jr. boldly and intelligently addresses this issue and persuasively makes the case for new thinking on what many of us would agree is one of the most important issues for this new century.

Instead of discussions at The Hague centering on ways to reach consensus on actions that would reduce vulnerability to climate change such as encouraging democracy, raising standards of living, and improving environmental quality in the developing world through the use of innovative American and other industrialized countries technology, many discussions were consumed by scathing anti-American rhetoric.

Some non-governmental environmental organizations and some European Environmental Ministers were criticizing the United States for not wanting to surrender some of its sovereignty by allowing other nations to police American fuel use and economic expansion strategies.

Many in the developing world were brazenly demanding billions of dollars in ``pay-offs'' for the perceived harm that climate change --in their opinion, brought about by American greed--was causing developing countries. Astonishingly, all of this pay-off money would be in addition to the large sums currently being sent to developing countries through AID and many other American taxpayer programs designed to help developing nations reach better standards of living.

The motives of America's strongest critics at The Hague Climate Conference appeared to be nothing more than transparent efforts to have wholesale redistribution of wealth to the developing world and to maneuver our competitors in the global market place into stronger competitive positions.

Many in the non-governmental environmental community appeared to be more interested in promoting non-growth and anti-population agendas than taking actions that would offer the best prospects to reduce greenhouse gas emissions or helping vulnerable nations adapt to capricious climate variations.

I believe America will responsibly move forward in addressing the climate change issue whether or not Kyoto is ever ratified by the Senate. We should not, and the Senate will not allow the international community or powerful non-governmental environmental organizations to force our nation to accept a deal that will be economically threatening or scientifically ineffective.

Secretary Loy and his negotiating team at COP-6 should be commended for their hard work and steadfastness in demanding from the international community solid proposals that fully recognize both America's determination to defend its sovereignty and its unmatched ability through its technological prowess to help the world deal with any potential calamities as a consequence of climate change .

Moreover, the United States won key concessions from international negotiators at Kyoto that now appear to be at serious risk. Indeed, European negotiators at The Hague, with strong pressure from some non-governmental environmental organizations, made aggressive attempts to rescind those concessions.

The flexible mechanisms provision and the sinks provision were elements of the Protocol that were prominently displayed to Congress by the Clinton/Gore Administration when Congressional Oversight Committees questioned the costs associated with the Protocol. Each time the Administration responded to such queries, the Administration would point to the carbon sink and flexible mechanism provisions to rationalize its assessment that compliance with the Protocol would be inexpensive.

Clearly, without those provisions, the Protocol's cost will be prohibitive and violate one of the critical tenets of Senate Resolution 98--the Byrd/Hagel Resolution--which passed the Senate 95-0 in 1997.

I can only hope that the current Administration will do nothing to compromise these principles in the coming weeks. To do so would be irresponsible and unproductive. Clearly, it would be politically ineffective inasmuch as the Senate would not ratify such agreement.

Meanwhile, as scientists continue to research, discover, and even disagree on the causes and effects of global warming , I will continue to work with my colleagues in Congress to aggressively establish a system of incentives that reduce the environmental impacts of human activity, while preserving the freedoms and quality of life that make the United States the greatest Nation on Earth.

CLIMATE CHANGE AND GLOBAL WARMING -- (Senate - October 12, 2000)
[Page: S10485] *GPO's PDF*

Mr. CRAIG. Mr. President, I would like to speak for a couple of moments on an issue that I know is important to many of us and has been addressed by both myself and the chairman of the Energy and Natural Resources Committee who has now joined us on the floor, Senator Frank **MURKOWSKI** of Alaska.

Last night, the Vice President stated his belief that global warming is caused by fossil fuel use. The Senator from Alaska and I have both introduced legislation to deal with the question of climate change and global warming . We have looked at this issue extensively over the last several years, and through the eyes of the committee by a resolution, expressed on the floor of the Senate, as it related to the Kyoto Protocol.

With all of that, the Vice President said one thing last night. Governor Bush said he was not certain that climate change was a direct result of fossil fuel use. In fact, he said, science would govern environmental decisionmaking in his administration, and he did not believe that science had yet fully resolved that fossil fuel use and the creation of greenhouse gases was, in fact, creating climate change .

I happen to agree with the Vice President. I say that because the scientists we have had before us may generally agree that our globe is gaining some heat, with some temperature change , but they do not yet agree that fossil fuel usage and the aftereffects, the greenhouse gases , are in fact the sole cause or are they causing climate change ?

Which opinion is more supported by the scientists themselves? On Monday, the Washington Post reported, in unusual detail, a new theory of global warming that is being advanced by scientists from Denmark to UCLA. It goes like this:

First of all, they say, charged particles from space, better known as cosmic rays, cause cloud formation by changing atmospheric molecules with neutral charges into charged ions. The charged ions cluster, forming dense, low clouds.

Now, this may sound like a scientific lecture, but this was the kind of detail that the Washington Post was giving in this article.

They said, secondly, the Sun's magnetic field deflects much of the cosmic rays away from the Earth, reducing their ability to trigger cloud formation.

With less cloud cover to shade the Earth, the Earth gets warmer.

That seems like pretty reasonable logic, doesn't it?

It turns out that satellite data over the last 20 years reveal an uncanny correlation between changes in the Sun's magnetic field and cloud cover. Meanwhile, Greenland ice-cores show that cosmic rays have declined over the past century.

James Hensen of NASA, once a leading proponent of the human cause theory that the Vice President embraces to the exclusion of all others, now acknowledges in the Post that the Sun has probably been a significant contributor in past climate change . But Hensen would still like to see some convincing evidence. Hensen, by the way, has also published recent work suggesting that methane gases , many of which are emitted naturally, may be as large a contributor to climate change as CO

2.

How can we find out what is right? Here is what the Post reports:

A consortium of more than fifty scientists have petitioned CERN, the European particle physics facility in Geneva, to conduct an experiment that could help settle this theory, this argument, this general issue, as reported by the Washington Post.

The researchers want to use one of CERN's particle beams as a source of artificial cosmic rays that would strike a ``cloud chamber'' containing the equivalent of air in the lower atmosphere. If there is a clear link between cosmic rays and cloud formation, the experience should reveal it.

The scientists proposing the experiment say:

If this link is confirmed, the consequent global warming could be comparable to that presently attributed to greenhouse gases from the burning of fossil fuels.

In other words, what the scientists are saying is, if this theory and this test were proven accurate, then cosmic rays and their influence in the atmosphere and the formation of clouds could have equal or greater influence over the Earth's atmosphere and climate change or global warming .

How can we in the Senate use this information? If this experiment indicates that changes in solar magnetic fields account for all of the detected warming , then burning fossil fuel might account for none of it. Interrupting our

economic growth by arbitrarily curtailing energy use either by taxing it or regulating it could be a far costlier experiment than the one these scientists have proposed at CERN. And because the human cause/effect is so weak and so few countries are likely to join our self-destructive experiment, useful scientific results may never materialize.

Let's do the real science, and do it now. In other words, I believe Gov. George Bush was right last night when he said, I believe there is a field of science we ought to understand and err on

before we send this country down the road. He said his administration would make decisions on climate change based on science, not the politics or the popularity of the politics of the day.

Let's make science drive the issue. Science has to drive public policy in this area, not vice versa. We dare not let public policy drive science.

Meanwhile, let us hold off on dangerous experiments such as Kyoto that place our economy at risk in an attempt to prove one man right in the face of so much doubt. Truly, the kind of taxation the Vice President proposes and proposed but wouldn't own up to last night could certainly turn our economy into a recession and disadvantage our producers against other producers around the world.

In other words, what the Washington Post reported in great detail in an article well over a half a page long, on Monday, was exactly what Governor Bush was saying last night.

Mr. Vice President, the jury is still out. And the jury is scientists all over the world who have not yet confirmed, nor do they agree, that fossil fuels are the sole cause of a climate growing warmer.

Let's err on the side of science and not politics as we make these decisions.

CONSEQUENCES OF CLIMATE CHANGE -- (Senate - June 16, 2000)

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Mr. CRAIG. Mr. President, earlier this week the Administration released, with much media fanfare, a draft document known as the climate ch ange `` National Assessment'' that purports to assess ``the potential consequences of climate va riability and change'' in the United States. I have received several media requests for comments on this document.

The document is of considerable length, Mr. President--approximately 600 pages. Frankly, because of its length and the short time I've had to review it, I have been able to give it only a quick review.

My preliminary conclusion is that the National Assessment could provide a useful contribution to the climate ch ange de bate if it stimulates more serious national interest in advancing climate sc ience.

What is clear to me, even after only a quick read, is that the National Assessment was produced in a style and method that is somewhat akin to writing good science fiction. The authors begin with a few baseline assumption, then apply a vivid imagination to extrapolate outcomes based on those assumptions.

The literary application of science concepts makes the story intriguing to read, especially for readers with a scientific bent.

But the National Assessment is not the only current document that talks about climate ch ange sc ience. The ``Pathways Report'' published last Fall by the National Research Council of the National Academy of Sciences, is also a stimulating read. But it takes an entirely different approach.

One way you can tell that the National Assessment and Pathways Report are different in style is from the selection of punctuation. The National Assessment uses lots of exclamation points. Perhaps, that is one of the reasons why this document has gotten pretty good media attention already. The Pathways Report uses mostly question marks.

The National Assessment takes a single, linear approach to the climate ch ange qu estion. It simply extrapolates continued worldwide growth in carbon dioxide emissions throughout the 21st century, and assumes that growth will correlate to steadily rising temperatures around the world. The implications of those increases in temperature and carbon dioxide concentrations supply the creative images that the National Assessment's authors offer up.

The Pathways Report is dry by comparison. It is short on creative literature and long on technical issue framing--not particularly suitable for catchy media headlines, which may explain why many newspapers showed little interest in its existence or im port.

But its critical and thorough scientific analysis of the current states of our climate ch ange kn owledge is what makes the Pathways Report so important to policy makers.

Now, if you are like me and you find out that America's National Research Council has just published the most comprehensive report in history on the state of climate sc ience--you don't want to read all 550 pages! You want to cut to the chase and read the report's bottom line conclusion! And the last thing you want is a report that provides more questions than answers.

But the Pathways Report authors are brutally honest. To best explain the current state of climate sc ience they had no choice but to lay out a whole series of potentially show-stopping questions. Now, none of these questions asks ``Is global wa rming fo r real?'' No, in fact, once you begin to ponder the Pathway questions you realize that the climate ch ange is sue cannot be resolved with any simple thumbs up or th umbs down.

Here are some of the scientific questions that the Pathways Report focuses on:

How much do we know about the earth's capacity to assimilate natural and man-made greenhouse ga s em issions? Do we need to learn more? What, in particular, do we know about the oceans' capacity to absorb carbon dioxide? How much of this absorption occurs naturally? What can be done to increase ocean assimilation of carbon dioxide?

And these are just the opening round of questions.

What is the effect of the oceans on our climate? W hat is the state of our understanding of ocean cycles and of other changes in ocean temperature and salinity, and of how those changes, in turn, affect climate? H ow do we evaluate the natural variability of the climate, i ncluding such phenomena as El Nin 6o and the North Atlantic oscillation? Can we improve our understanding here?

Mr. President, let me stop for a moment and reflect on a recent trip I made to Woods Hole, Massachusetts with the Senator from New Hampshire, **BOB SMITH,** and our colleague from Rhode Island, **LINCOLN CHAFEE.** We spent a day at the Woods Hole Oceanographic Institute exploring these questions with over 30 scientists. It was a real eye-opening experience.

Dr. Berrrien Moore, who coordinated the publication of the Pathways Report, helped lead a discussion on where

science and public policy intersect. Dr. Bob Weller and Dr. Ray Schmitt along with several other prominent ocean scientists of the Woods Hole Oceanographic Institute, gave us progress reports and fascinating explanations of their work and its relevance to climate sc ience.

For example, Mr. President, did you realize that for each one degree change in the temperature of just the top three meters of ocean water, there is a corresponding one degree change in the temperature of the atmosphere above the surface of that water all the way to outer space? Did you know, Mr. President, that 80 percent or mo re of our climate va riation is influenced by the oceans?

Two themes came through clearly in those discussions, Mr. President:

There are significant gaps in scientific understanding of the way oceans and the atmosphere interact to affect climate; a nd

Scientists need more data, especially from the oceans to better understand and predict possible changes.

Mr. President, it was humbling to get a glimpse of how much we don't know.

Now let me continue with the rest of the questions the Pathways Report urges us to consider.

How accurately can we predict climate tr ends whose recurrences are measured in years? In decades? In centuries? In millennia? Are we capable of plotting the effects, and counter effects, of these complexly interwoven trends on each other? Do we even have the capability to observe these trends and counter-trends accurately? Do we have the computational ability to integrate all these trends and counter trends into one big equation?

How much carbon dioxide in the atmosphere emanates from the oceans? Does this amount vary from place to place and time to time? Does such variation matter?

Those are just some of the questions that we policymakers cannot answer ourselves. But we need answers--and to get them, we will have to support the scientists on a more serious level than we have to date.

But there are more questions, Mr. President. These next ones we should be thinking about ourselves and discussing with scientists and with all of our concerned constituents.

Should U.S. policymaking on climate ch ange re ly primarily upon climate mo deling performed by others outside the U.S.? Or sh ould the U.S. have the capability to marshal data and scientific conclusions independent of foreign countries who may or ma y not share our domestic policy concerns?

Again, Mr. President, let me pause for a moment and refer to the recent National Research Council's Climate Re search Committee's report entitled ``Capacity of U.S. Climate Mo deling to Support Climate Ch ange As sessment Activities."

First, let me thank Dr. Maurice Blackmon from the National Center for Atmospheric Research, for his patience with me and my staff. He has helped us have a balanced appreciation for these issues. That report provides valuable guidance on this subject. On page 5 of that report, the NRC's Climate Re search Committee states:

Although collaboration and free and open information and data exchange with foreign modeling centers are critical, it is inappropriate for the United States to rely heavily upon foreign centers to provide high-end modeling capabilities. There are a number of reasons for this including the following:

* * * * *

2. Decisions that might substantially affect the U.S. economy might be made based upon ..... simulations ..... produced by countries with different priorities than those of the United States.

Mr. President, the National Assessment depended on the use of foreign computer models only. The authors of that document are completely up-front about that fact, and I commend them for their honesty. However, for the reasons contained in the NRC's modeling report, I am uncomfortable relying on the conclusions in the National Assessment.

The pace of science is dynamic and unpredictable. For example, just last month Science magazine reported on some intriguing experiments undertaken in the Indian Ocean. Those experiments raised the prospect that certain assumptions about aerosols incorporated in the Canadian and British climate mo dels that underlie the National Assessment were fundamentally flawed. This means that the warming pr edictions from even these models are probably way too high.

Dr. Neal Lane, a White House spokesman, acknowledged this at Senator **MCCAIN'S** hearing on May 17 and feels it may be several years before this can be resolved. Unfortunately, the National Assessment's vivid scenarios were sent to the printer before this new discovery became public.

This seems to give us as policymakers only two choices: Either disregard the National Assessment and all the hard work that went into it, or re -do it with the assumptions corrected, this time using U.S. models.

Mr. President, when we make tough, historic policy decisions around here on everything from multilateral defense strategies, to global tr ade, to international farm output, we use our own intelligence and analysis, we don't simply rely on the technical work of other countries which may not see the world through the American prism.

With continued regard to America's climate mo deling capability, Mr. President, I must ask-- What are our national objectives? Do we have a national strategy in place to achieve those objectives? Is the strategy integrated and coordinated across all relevant agenices? Are NASA and DOE and NOAA and the National Center for Atmospheric Research, all building the same model using a common blueprint?

Do we have adequate computational resources to fully exploit our evolving modeling capability? Do we have enough human talent dedicated to these tasks?

What is our confidence level in the integrity of all observational data used to validate climate mo dels? Are our measurements ``close enough for government work''?

How can we be sure that the scientists are even measuring the right climate va riables? Are there any important climate va riables that are inadequately measured, or no t measured at all?

Do we build climate ob serving requirements into existing, ongoing operational programs? At sea? In the atmosphere? In space? Should we do more? How many ships at sea are measuring

water temperature and salinity? How many weather balloons and satellites are measuring and transmitting data?

Oceanographers I've visited tell me that they don't know the temperature or sa linity of the ocean in most spots around the world today, much less ten or a hundred or a thousand years ago.

Do we need a discretely funded activity for the development and implementation of climate-sp ecific observational programs? Where are we on the technology to monitor relevant national and global da ta? Is it developed? Is it fully deployed? Will other countries fully support this?

Have we assessed the capability and potential of U.S. and North American carbon sequestration, includng carbon sequestration through crops, forests, soils, oceans, and wetlands?

How do we ensure that the science that informs U.S. policy making is objective and complete? Do scientists have unfettered access to each other's completed work, especially when that work is funded by the government? Is the process of peer review adequate to assure all viewpoints are examined?

Regardless of politics, we in Congress share one tough job with our friends at the other end of Pennsylvania Avenue. Science must drive policy and not vice versa. I don't know how else to make sure that happens other than to guarantee that the science gets put out on the table and is subject to public discussion and public scrutiny.

The American people have never been afraid of the truth. We'll deal with that. What we can't hack is being kept in the dark or be ing lied to by our own government.

The National Research Council's Pathways and Climate Mo deling Reports raise some profoundly important questions. Our best policy decisions could turn on the answers to any of them. We owe to our constituents and to future generations to seek answers and not hide from whatever turns up.

The United States with its abundant resources, technological superiority, and economic power is in a unique position to provide leadership in scientific research that can lead to a more complete understanding of the natural and human influences currently at work in our oceans and atmosphere.

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What is needed, Mr. President, is a national commitment embodied in a government framework that provides a ``blue print'' for responsible action based on consensus. Chairman **MURKOWSKI** and I have been working on that legislative ``blue print.''

Taken together, our bills provide that ``blue print'' for consensus. While S. 882, Chairman **MURKOWSKI**'s bill, appropriately focuses on our nation's enormous technological abilities, S. 1776, the bill I introduced last October constructs a complementary framework that ensures:

A critical analysis, evaluation, and integration of all scientific, technological, and economic facts;

A ``blue print" for coordinated action that is both practical and conscientious so that the government will not neglect an issue or ba ck us into less than optimum policy choices;

The advancement of climate sc ience by integrating and focusing it on core questions;

Immediate actions that reduce greenhouse ga s em issions in ways we will appreciate;

The encouragement of technology development;

No unnecessary burdens on citizens that can be caused by the government prematurely picking winners and losers; and

Process for consensus for future government actions.

Without consensus, Mr. President, our nation will languish in political stalemate, causing us to fall behind other nations in key technological areas.

Some insist that we sharply reduce our reliance on carbon as an energy source. Again, cost impact estimates vary widely--from little economic impact to belief that such action will mortally wound our economy. Yet, there has been no serious effort to systematically and critically analyze this issue by our government.

The National Assessment does not provide it. S. 1776 does.

Another area of concern expressed in National Research Council Reports, and mentioned prominently in recent NAS testimony before the Senate's Energy and Natural Resources Committee, is the lack of governmental structure with the primary mission of coordinating climate pr ograms.

S. 1776 directly addresses this concern by providing a structure for coordination of all government action on climate ch ange.

This is merely one approach to this very complicated problem. We in Congress need feedback from experienced leaders in science, economics, and government to help us design the optimum structure for coordinating climate ch ange po licy.

It has been ten years, Mr. President, since Congress enacted the Global Ch ange Re search Act of 1990. We have learned much since then. Much of the sensation generated by the National Assessment, stems from the vivid worst case scenarios described in that document.

Let's not be provoked into rash action by these scenarios. Even the co-chairman of the National Assessment, cautions that:

We're not making a specific prediction about what the future will be like. It would be farcical to try to do that.

Indeed, the National Research Council recently testified before the Senate that the ``jury is still out'' on whether Human influence is even a significant factor in climate ch ange.

Instead, let's roll up our sleeves and pursue the more methodical approach:

Answer the core science questions;

Pursue the economic analyses;

Take immediate, risk-free actions that reduce greenhouse ga s em issions.

The NRC, based on its study of the successes and failures of the U.S. Global Cl imate Re search Program established by the 1990 act, has provided Congress with excellent recommendations and pathways for future action. It would be irresponsible to ignore them.

Moreover, it has also been almost 8 years since the Senate ratified the Framework Convention on Climate Ch ange in 1992. We cannot, nor should we, roll back our ratification of the Framework Convention. Instead, we should ensure that the United States is thoroughly and conscientiously responding to the Framework Convention commitments. Our ``blue print'' does precisely that.

For example, the Framework Convention says take flexible action now. So does S. 1776. The Framework Convention says explore and integrate the science. So does S. 1776. The Framework Convention says climate ch ange me asures must be cost-effective. Every measure in S. 1776 stands on its own two feet.

The Framework Convention says steps to mitigate climate ch ange ar e effective if based on relevant science, technology, and economics, and continually evaluated. S. 1776 spells out how U.S. policy will--by law--be based on a combination of science, technology, and economics ..... and the President must reevaluate each of these factors each year.

Mr. President, our legislation provides a framework for national consensus. Stalemate on the climate ch ange is sue should no longer be tolerated. We have the vehicle to move forward. We should do so expeditiously, and with the constructive support of the administration.

I anxiously await the response to my April 3rd letter to the Chairman of the White House Climate Ch ange Ta sk Force, where I described how we could get there. I ask unanimous consent that the April 3rd letter be printed in the **RECORD**.

There being no objection, the letter was ordered to be printed in the **RECORD**, as follows:

U.S. SENATE,

Washington, DC, April 3, 2000.
ROGER S. BALLENTINE,
Chairman, White House Climate Ch ange Ta sk Force, The White House, Washington, DC.

DEAR MR. BALLENTINE: Thank you for your recent letter commenting on the two separate pieces of legislation that my friend and colleague, Senator Murkowski and I have introduced on the subject of climate ch ange. S enator Murkowski and I have been working together on this legislation for a year now. We are both sponsors of both bills. I welcome the opening you give us to work with the Administration as well.

Your letter was particularly helpful for two reasons. First, it helped me appreciate how much the Administration agrees with us. Secondly, it gives me a chance to clarify how portions of S. 1776 work to complement, not contradict (as your letter implies), so much of what the Administration is already doing.

First, we agree (and see that we agree) on, in your words, ``emphasis on promoting the research, development and diffusion of technologies to reduce or se quester the greenhouse ga ses... ....'' Secondly, we both want to ``improve voluntary reporting of greenhouse ga s em issions.''

Now let's turn to the many additional points on which we agree, even though your letter reflects a few gaps in appreciating that agreement. Along those lines, you urge that it be made clear that our legislation is not ``intended as a substitute for more comprehensive action.'' Thank you for the opportunity to reassure the Administration that it is not. Here is that reassurance in detail.

To begin, you listed nine bulleted Administration initiatives, repeating in each instance that our legislation ``is no substitute for'' those Administrative initiatives. I agree. Neither S. 1776 nor S. 1777 (my companion tax incentive bill), is, nor is intended to be, a substitute for any of the nine initiatives. If I had intended to substitute my legislation for any of the nine, you would see provisions in my legislation repealing or pr eempting those initiatives that I meant to substitute with mine. You do not, because I did not set out to do so. Let's take a closer look at each of those nine bullets to help you appreciate how close we are:

1. Ongoing federal efforts to accelerate the research, development, and deployment of efficient technologies and renewable energy--

My bills only enhance those ongoing efforts. With regard to federally funded R&D, we provide for some extra quality assurance by calling for periodic independent critical evaluations of ongoing projects so Congress and the Executive Branch can be confident that deployment of finite R&D and demonstration resources is current, optimum, and fully accountable to the taxpayers.

2. The President's proposed package of tax incentives--

Nothing in my tax incentive bill, S. 1777, contradicts anything in the President's package. My proposal to permanently extend the R&D tax credit for projects addressing climate ch ange, a nd my provision providing a graduated scale of tax credits for achieving increasingly challenging energy efficiency benchmarks over a series of time periods would complement the President's ideas in the short-term and long-term.

Further, I call on Treasury and Energy to collaborate on a set of meaningful tax incentives to directly spur voluntary actions by ordinary citizens, and indirectly by entities that are tax exempt such as municipal power agencies, universities, and others.

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3. The President's proposal to spur development of bioenergy and bioproducts that can benefit farmers and rural areas, reduce reliance on foreign oil, cut air pollution, and reduce greenhouse ga s em issions--

This program first surfaced, of course, in an article by Senator Dick Lugar in *Foreign Affairs* magazine over a year ago. It is embodied in his bill which recently passed the Senate without dissent. Actually, in the early drafting stages I contemplated adding the text of the Lugar legislation to my bill, but did not do so out of deference to Senator Lugar whose strategy was to move his bill separately. Instead, in public speeches leading up to its approval by the full Senate I helped promote his legislation as a stand-alone proposition. Let's both hope that the House takes it up quickly and sends it to the President for enactment!

4. An initiative to encourage open competitive markets and promote the export of American clean energy technologies into the multi-billion dollar market of developing transition countries around the world--

Again, we are in harmony. My bill takes the Administration's proposal a few steps further with an entire title on technology transfer. Projects that replace older machinery in other countries with more advanced energy-efficient technologies will qualify for a suite of export incentives. These will undoubtedly be deployed in developing countries because the bill is crafted in a way to target these projects where local hosts do not have the economic clout to finance them on their own.

5. The ongoing Vision 21 Power Plant program to develop coal-fired power plants that would be about twice as efficient as current plants--

My approach to achieve this objective is by way of tax incentive. S. 1777 spurs continuing efficiency breakthroughs by offering incentives to reach increasingly challenging efficiency benchmarks--achievable in the short-term, improving in the long-term.

6. Nuclear energy plant optimization--advanced technologies that can help ensure the longer term reliability and efficiency of existing nuclear power plants--

While my bills do not specify nuclear power projects for short- or lo ng-term promotion, I am confident that nuclear power will benefit from my legislation. First, the current and future Presidents are called upon to recommend to Congress legislation to respond to climate ch ange. A ny comprehensive execution of this provision would have to address the role of nuclear power. However, if a President should overlook nuclear in the mandated report and recommendation to Congress, I offer a back-up. My bill also includes a statutory requirement for the General Accounting Office to identify statutory or ad ministrative barriers to reducing greenhouse ga s em issions. If any exist with regard to nuclear power, I would expect GAO to find them and highlight them, along with all others.

I considered folding into S. 1776 the most important step toward securing long-term reliability of nuclear power's contribution, namely, nuclear waste legislation. I did not do so because of the President's repeated vetoes. My goal from the beginning remains unchanged: to find consensus, not division, on climate ch ange. < p> On a separate complementary track, as a member of the Senate Appropriations Committee I have strongly supported DOE's Nuclear Energy Plant Optimization program and Nuclear Energy Research Initiative.

7. Law to give businesses protection against being penalized down the road when they take real, tangible actions today to reduce their greenhouse ga s em issions--

Unlike some other proposals, my legislation actually accomplishes this in hard currency immediately when such actions are taken. My tax incentives, all of which are available for the year in which the qualifying investments are made, are all predicated on reporting the reductions achieved by those investments under Section 1605(b) of EPAct, as amended by S. 1776.

8. Help states and local communities undertake efforts to encourage innovation and reduce greenhouse ga ses--< /em>

With the same stated purpose, but in contrast to the Clean Air Partnership Fund's top-down approach, S. 1776 explicitly preserves state-initiated climate ch ange re sponses by protecting them from future federal preemption. It works as follows. If a state has a program that has as one of its effects the reduction (or se questration) of greenhouse ga s em issions, it remains in effect despite future federal enactments to the contrary. The only exception: when a future Congress recites in future legislation the specific section number in my bill as either (1) being repealed outright, or (2) as not applying to the specific state program. I have been assured that this provision passes Constitutional muster. I am confident that future Congresses will look long and hard before deliberately and conspicuously tampering with states' rights and climate ch ange pr ograms.

9. Diplomatic effort to complete the unfinished business of the Kyoto Protocol--

While our perspectives on this bullet in your letter to me do not match, my legislation is silent on the subject. Again, this is because my primary objective was to explore policies on which consensus with the President and others is possible. Let's not let our differing perspectives get in the way of policies we can and do agree on.

However, as an aside, I do believe that both an international and domestic consensus on Kyoto is achievable and, in fact, emerging. As months and years pass since Vice President Gore personally negotiated its terms and the President signed it, several governments have distanced themselves from--or, i n Norway's case--impaled itself on Kyoto. A sure way to resolve the issue once and for all here in the United States is for the President to submit the Treaty for Senate ratification. Sweeping in scope as my legislation is, however, treaty ratification would not be germane to my bill.

Finally, in the same spirit of sharpening our mutual understanding, let's focus on an area where you seem to see even more agreement between us than I do. Interpreting our legislation as reflecting ``a shift in the terms of the debate from whether there is a problem to what actions we can take to address it,'' you take it one step further by quoting Texaco: ``protracted debate about the adequacy of the science is something [we need] to move beyond.''

On the question of the adequacy of the science, I side with the National Research Council of the National Academy of Sciences. In the March 30, 2000 hearing before the Senate Energy Committee, Dr. Elbert W. (Joe) Friday, speaking for the National Academy, stated plainly: ``the jury is still out.'' What portion of the warming si gnal is attributable to anthropogenic effects and what to natural variability he declined to speculate on, except to explicitly refuse to say that Mankind's contribution is primary. Nor did he, speaking on behalf of the science community, indicate that any proposed suite of climate ch ange re sponse policies would appreciably alter global te mperature trends. Instead, he focused the Committee's attention on the milestone Pathways Report published just last Fall by the National Academy of Sciences.

The fundamental gaps in climate sc ience underscored in that report are the foci of the science title of S. 1776. Having worked closely with leading U.S. climate sc ientists on these issues, I am now convinced that the United States (and, therefore the world) has the potential capability to solve these riddles. However, resources and hard work will be required to do so. The science community has consensus: climate sc ience has a long way to go. Instead of pretending that we have learned everything we need to learn as many advocates on both sides of the climate ch ange is sue do for quite different reasons, I advocate aggressive exploration and resolution of these uncertainties.

In the meantime, my bill does stand for the proposition that we needn't wait for that resolution to take immediate, no regrets, steps to reduce greenhouse ga s em issions. Additionally (and perhaps, even more importantly), I set out the elements to put into place an inter-branch process by which all relevant information--science, economics, and technology--can be marshaled to guide conscientious, contemporary public policy in a fast-changing world.

Should it turn out that sacrifice by American citizens--even the stark sacrifices such as those portended by Kyoto--are warranted, we must have confidence that all the information is in, integrated, and understood, not only by elected officials, but also by the people we are privileged to serve.

I look forward to getting together soon to explore ways for real progress--consensus action--this year.

Sincerely,

Larry E. Craig,
U.S. Senator.

Mr. CRAIG. Mr. President, I yield the floor.

AUTHORITY FOR COMMITTEES TO MEET -- (Senate - May 17, 2000)

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COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

Mr. CRAIG. Mr. President, I ask unanimous consent that the Committee on Commerce, Science, and Transportation be authorized to meet on Wednesday, May 17, 2000, at 9:30 a.m. on global warming .

The PRESIDING OFFICER. Without objection, it is so ordered.

NUCLEAR WASTE POLICY AMENDMENTS ACT OF 2000--VETO -- (Senate - May 02, 2000)

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Mr. CRAIG. Mr. President, I thought it was important for my colleague, the senior Senator from the State of Washington, to make those statements because, as we are here today on the floor talking about nuclear waste, I must tell my colleague from the State of Nevada it is an important issue. I am sorry he and his colleagues haven't gained traction on the issue of guns, but America is wise to that. Try as you may, second amendment rights prevail in our country.

What we are here to talk about today is the absence of this administration's energy policy. Now, brownouts and blackouts and escalating fuel prices seem to take second or third place on the list of priorities about which the Senator from Nevada would like to talk. I think the American consumer and that elderly person whose air-conditioning may go out this summer at the peak of a heat spell would say this issue is a mighty important issue for this Senate to be considering.

So as it relates to priorities, while I am going to say that some of what the Senator from Nevada suggested is important for the Senate to address, but this issue is among them in priority. But, of course, my colleagues on the other side have been running for cover for months because they know that Bill Clinton has no energy strategy, never has had one, and doesn't propose one. He simply runs around Nevada sticking his head in the sand and talking about the politics of the issue instead of the substance of the issue.

Well, the veto we are here to attempt to override today is the fundamental difference between politics and substance. You heard the Senator from Alaska, Mr. **MURKOWSKI**, in great detail talking about the practicality of needing a national nuclear waste policy implemented in this country to be able to sustain our nuclear energy as we now have it, but, most importantly, to move forward into the future.

For a few moments today, let me talk about where we get our electricity. Somehow, it just comes when you throw on a switch. The bulbs light up, the heater turns on, the air-conditioner turns on, and we don't stop to think about the long-term strategy and policy that this country has been engaged in for decades to assure that the light does come on, that the air-conditioner does turn on, and that we have abundant energy.

Sixty percent of our electricity comes from coal. Given the concern of the other side about climate change, we aren't building new coal plants, we are not pushing forward on the technology of clean coal--the kind of technology that we ought to be pushing and giving priority to. The Clinton-Gore administration wants to make this situation dramatically worse by tying our hands and tying U.S. power companies to a Kyoto treaty, while allowing our economic competitors in developing nations to pollute at will.

Shame on you, Bill Clinton and **AL GORE**, for that kind of silly environmental policy. Climate change is a serious issue, but it isn't addressed in a helpful manner when you walk away

from the negotiating table with an agreement that lets China and India and other major developing nations pollute at will, penalizing our economy, and doing so by trying to develop an anti-fossil-fuel bias in this country, along with the anti-nuclear-energy bias on which the President based his veto.

We get 20 percent of our electricity from nuclear power. That is why we are having this debate today. We have to sustain at least 20 percent of our energy base coming from nuclear if we are ever going to have clean air and gain the standards in the nonattainment areas that we want to set. Any right-thinking scientist and right-thinking politician today knows that fact. They can't argue otherwise. We won't get to the clean air levels this country wants without at least a 20-percent blend in our energy base coming from nuclear.

We have about 10 percent of our electricity coming from

hydropower, and the Presiding Officer and I know how silly this has become in the Pacific Northwest. We have a President, a Vice President, and a Secretary of the Interior who want to take dams down--all in the name of what? Environmental radicals who want to roll back to a history of a century ago and try to reestablish ourselves without the kind of very clean power that our hydro base provides for us. It is not a large base; it is 10 percent of our base, though. Again, it is part of that 10 percent, 60 percent, 20 percent that has built the stability of an integrated power system for our country over the years that has brought us the best electrical service of any nation in the history of the world.

What we are talking about today is sustaining that capability. We are not talking about tearing dams down. We are talking about finding a safe repository for nuclear waste so we can complete the cycle of nuclear energy and allow it to go forward.

We get a small percentage of our electricity from solar and wind and biomass. Let me be perfectly clear about my support for these technologies because I do support them and I am willing to continue to allow taxpayer dollars to go into the investment of the technology as it relates to solar and wind and biomass. I am also willing to invest in fuel cells and fusion energy and other kinds of new technology that may someday supplant the kind of technology about which we are talking.

But let's have a reality check because if the Senator from Nevada is going to talk about the importance, or the lack thereof, of what we debate today, let's talk about this President and this administration's energy budget and where they want to spend money. They want to spend a lot of money on wind. They have even said that it is their goal to have 5 percent of our electricity generated by wind by the year 2020. It just so happens that the States of Nevada and Idaho have a little wind. It doesn't all come from politicians. It is kind of natural, and it flows through the Rocky Mountains out of Canada. It is the way Mother Nature created the natural environment which creates a wind opportunity out there.

But let me talk to you for a moment about a recent report in analyzing the 5 percent wind blend by the year 2020 that this President wants.

If you calculate what is needed to meet the goal of 5 percent of our electricity coming from wind energy that would require 133,000 windmills. The current wind turbines generate about 750 kilowatts of electricity each. Some of these 750 kilowatt wind turbines have been installed in Iowa. They are impressive and huge in size. They are on towers 213 feet tall. In addition to that, they have blades with a sweep of 164 feet in diameter. What is something comparable in height? Well, that is about the height of the Capitol dome in the building in which we are standing today.

Can't you just see all of those spread across the State of Nevada and Idaho? What are the environmentalists going to say again about vistas, visions, and horizons? You know and I know what they are going to say--``no windmills.'' But that is what this administration wants to talk about because they have this illusion that somehow that is environmentally sensitive.

Have you ever caught an eagle in a 164-foot blade? It is referred to as ``avian mortality''--eagles, condors, flying into the turbines and being killed. Yes. Those machines aren't very environmentally sensitive, and they make a great sound across the countryside. They are probably the loudest producer of electricity of any technology we have today.

One-hundred and thirty-plus thousand windmills is the answer to no nuclear waste policy? I don't think so. I don't think America thinks so. When they are faced with those realities, I think they will turn on this administration and say, Why aren't you being responsible? Why create a problem when you can solve a problem with a single location in a permanent, deep, geologic repository that is environmentally safe and sound for all under the most stringent of laws and the best technology available?

That is what we are talking about. That is a right and responsible choice for the American people to contemplate and for this Senate to debate.

There is going to be debate on guns. There is going to be debate on health care. There is going to be debate on prescription drugs. But, in my opinion, a well founded, well orchestrated energy policy for this country is every bit

as valuable and important for us to be involved in as any one of those issues.

A veto override that this President offered and gave, in my opinion, is not an environmental vote. Voting for a sound and sane policy for nuclear waste is the No. 1 environmental vote all of us will be making. Let's not try to hide it and walk away from it. Let's deal with it up front and in a way that is right and responsible to recognize.

As I thought about what I would say here today that might convince my colleagues to vote for a Presidential override, because for some it is a tough vote and it is a partisan vote, tragically enough, good national energy policy has in this instance become an issue of politics.

There is a letter from J.V. Parrish of Energy Northwest based in Richland, WA. He writes about the importance of this legislation. I found his words compelling. I want to read them to you. He says:

Because the Federal Government has not had an effective program to receive spent fuel from this country's commercial power reactors, most of these reactors will have to spend several millions of dollars of ratepayer dollars to provide temporary storage. My own company will spend in excess of $25 million. This is money that could be better spent by the households and businesses in the region on things that would improve their futures.

What is he talking about? He is talking about utility companies having to charge their ratepayers more because this administration failed to be responsible in their energy policy.

I think as time goes on we will find a lot of other things in

which our President failed to be responsible, and history will record him differently. I hope the absence of a nuclear waste policy is one of them because that is the way it deserves to be remembered.

All I would say to President Clinton is: In vetoing this bill, you have failed, once again, to do the right thing for the country but my colleagues and I don't have to be a party to your failure.

I encourage my colleagues to vote to override the President's mistake and override this veto.

Mr. President, I yield my time.

ENERGY PRICES AND GAS TAXES -- (Senate - April 03, 2000)
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Mr. CRAIG. Mr. President, I thought I would come to the floor today to speak again about energy and the current energy cost crisis in which this Nation finds itself.

Many of us have been to the floor numerous times over the last several weeks comparing our current situation and the tremendous runup in gas prices with this administration's lack of an energy policy and how they correlate--or if they relate.

I have said, most critically, over the last several weeks, the only policy in town is the ``tin cup'' policy: Give our Secretary of Energy a tin cup, and send him to foreign oil-producing nations to beg for a little crude.

He has been begging. He wanted a lot more. He begged for 2 million barrels a day in additional production. He got considerably less than that. I think it is now a wait-and-see: How does this level out? What do the markets say? What is the consumer going to pay at the gas pump in July? My guess is, the consumer is going to be paying near $2 a gallon for regular gasoline, depending on where they are in the country.

The reason for this situation is what I would like to talk about this afternoon. Congress can respond in some ways. But we cannot increase oil production in the short term because, largely, we have had a policy of reducing oil production in this country for the last two decades, and it takes time to bring that production back on line. A great many people out there are opposed to increasing domestic production--all in the name of the environment or all in opposition to using hydrocarbons or some other issue that has helped shape the Clinton/Gore energy policy over the last 8 years.

When the Clinton-Gore administration came to town in 1993, its announced intention was to drastically alter the way the Nation used energy, especially fossil fuels. The President and the Vice President determined that a broad-based Btu tax would force us away from coal and oil and natural gas to renewable energies, such as solar and wind and biomass. That objective has remained the hallmark of this administration's energy policy--until now; that is, until the day before yesterday, when the President was blaming the Congress, saying we had failed to reauthorize the Strategic Petroleum Reserve--the salt domes in the Gulf of Mexico, where we have stored about 570 million barrels of crude oil.

The President promised his Btu tax would raise nearly $72 billion over 5 years, from 1994 to 1998, and marketed it as fair, helpful to the environment, that it would force down our dependence on foreign oil, and that it would have trivial impacts on consumers.

Congress did not pass the Btu tax because we thought it would be damaging to the consumer. And over the years we have become increasingly more dependent upon foreign oil. I doubt the President can declare a victory because he was unable to suck $72 billion out of the back pockets

of Americans while at the same time he advanced policies that slowed down crude oil production in our country.

In fact, the Btu tax would have unfairly punished energy-intensive States and industries. Estimates by the American Petroleum Institute and the National Association of Manufacturers predicted the tax would hurt exports, reduce GDP by $38 billion, and destroy 700,000 American jobs.

That is why the Congress finally refused to pass the tax, over the President's and the Vice President's objection. Vice President **GORE** and President Clinton claimed the tax was needed to balance the budget and fund large new spending programs to offset the negative impact of the tax. They also claimed that use of crude oil imports would be reduced by 400,000 barrels a day.

At that time, DOE's own projections predicted--this is the

President's own Department of Energy--that the tax would shave oil import growth by less than one-tenth in 10 years. DOE also predicted that by the year 2000, Americans would depend on foreign oil for three-fifths of their total crude oil requirements.

So quite the opposite was going on inside the administration. The President was talking politics, and his own Department of Energy was analyzing the matter and coming up with some very interesting facts.

The American Petroleum Institute, in testimony, said:

..... even if imports were to fall by the full 400,000 barrels a day claimed by the Administration, the cost of $34 billion in lost GDP is excessive relative to other alternatives for improving energy security. Using the Administration's optimistic predictions, the cost of the Btu tax works out to about $230 per barrel.

Of course, that would have been devastating to an economy that is highly dependent upon fossil fuels that not only make our cars and trucks go, but feed the whole petrochemical industry which manufactures carpeting, herbicides, pesticides, insecticides, and plastics, all of those things that make up our very large, integrated economy--therefore, the 700,000 estimated jobs lost if we were to raise the price of crude oil to $230 a barrel.

In the end, Congress did the right thing; we refused the President's and the Vice President's policy and said it would simply create havoc in our economy. Congress did agree to raise taxes on transportation fuels by 4.3 cents--the first time the Congress has actually put a tax on fuel--and then put it into the general fund of the Treasury. Of course, it was argued to be a deficit reduction tax.

A couple of years ago, we finally pulled that tax out of the general fund and put it back in the surface transportation fund, where all highway fuels taxes have gone historically, to fund the construction of roads, highways, and bridges.

The Clinton-Gore administration's obsession with fossil fuel use reduction has actually put us in the position we find ourselves today. The President, on March 7, 2000, at the White House said:

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Americans should not want them [oil prices] to drop to $12 or $10 a barrel again because that.....takes our mind off our business, which should be alternative fuels, energy conservation, reducing the impact of all this on global warming .

He is referring again to the cost of fuel. He simply said it would move us away from a desire for alternative fuels if we were to see low gasoline and fuel prices.

Isn't that terrible? The alternative fuels were synthetics, highly subsidized by as much as $25 to $30 a barrel by tax money and, of course, alternative energy and electricity by solar voltaic cells and by wind machines.

The only problem is, I have not yet seen a car, or a truck for that matter, going down the road with a solar cell on the top of it. I don't think they run very well that way. Somehow the President and the Vice President, in their hatred of fossil fuels, have forgotten that point.

That is kind of an overview of 1993 to the present. What has happened during this administration? Domestic oil production is down 17 percent, and our crude oil consumption is up 14 percent. Dependence on foreign sources of crude oil has risen to 56 percent of our total crude requirements. In 1973, during the Arab oil embargo, our dependency was only 36 percent. I can remember that time.

I am sure some listening this afternoon will remember the gas lines, the frustration and even the violence that occurred when Americans found out for the first time there wasn't an abundance of energy. There was a shortage. They couldn't get what they needed for their commuting or the running of their businesses.

Since that time, while this country has struggled to put a policy together, other policies of our Government, largely environmental policies--some for the right reason--have progressively reduced our overall ability to produce and use domestic energy sources. That, coupled with the fixation of this administration on eliminating fossil fuels, now brings us to that point where we are now over 56-percent dependent.

We all remember in the early 1990s we were fighting a war in the Middle East. Why? Well, to help some of our allies. Those allies were large producers of crude oil, Saudi Arabia and Kuwait. We were fighting Iraq because the Iraqis had crossed the border and started the war. In the end, as they retreated and we were victorious, they set fire to many oil wells in Kuwait. We remember that phenomenal picture from the Middle East of black clouds of smoke as those oil wells burned. Many of our oil field workers went in and put the fires out for our neighbors.

Now, what is the irony of that? Today, the very enemy we fought is selling over 700,000 barrels of crude oil each day to the United States. Something is wrong about that. Something is wrong about an absence of foreign policy that has allowed that to happen. That is the reality of where we are.

Americans grow angry when they understand this administration only has excuses and solar cells and windmills for an energy policy. They understand that the Clinton/Gore foreign policy, working hand in glove with its non-energy policy, now tolerates that we buy Iraqi oil.

Of course, we are not sure where that money goes and what it is used for. Is Saddam Hussein being allowed to build another war machine with the millions of dollars a day that pour out of the pockets of our consumers into the treasury of Iraq? The Clinton-Gore administration, while making much of increased appliance efficiency, greater use of renewables from biomass and other ideas, ignores a very fundamental fact. A large part of our energy use cannot be addressed by these measures.

I am not suggesting we not pursue new technologies and alternatives. Where a solar cell fits, put one up; where wind farms work, we ought to have them. We ought to be striving to build the efficiencies of the new wind turbines. At the same time, those will not fuel a nation that produces the kind of growth we produce and builds its efficiencies based on flexible transportation and the ability to send our people and our products in an integrated way around the Nation and around the world.

The administration's failure to encourage domestic oil production and production of coal and natural gas has led us to

this point of near crisis. This Congress will engage in the very near future in debating the issue to see what we can do in the short term to help solve the pressure being placed on our consumers, but we also will be looking at long-term policy to see if we can't begin to produce more of our own resources again.

For example, if we have the right tax incentives and if we were able and willing to build a floor for the small 15-barrel-or -less producer, we are not talking about the major oil companies. We are talking farmers and ranchers and private property owners spread all across the mid to lower south central part of our country and southwest that are known as stripper well producers. Their break even is about $17 a barrel. When gas oil crude prices went to $10 a barrel last year, many of those wells were shut in. If we would help encourage that production once again, we could produce well over a million barrels of oil back into our economy that is not producing today.

I think that is tremendously good policy, if the tradeoff is putting money in Saddam Hussein's hand to build a new war machine versus helping subsidize or provide incentives for the small producer across this country to bring back on line a million barrels a day of domestic crude oil.

The administration has refused to acknowledge the vast oil reserves and gas reserves we have offshore and in ANWR, the Alaska National Wildlife Refuge. We know we can explore and produce in these areas in an environmentally sound way. ANWR is an area about the size of

Dulles Airport relative to the whole State of Virginia. Those opposed to exploring ANWR would have you believe that if we drilled inside Dulles Airport that it would pollute the whole State of Virginia.

How foolish can some of these people get who make those kinds of arguments? The President listened. The Vice President listened. They have refused to promote a policy that would allow safe and sound drilling to provide the energy for our country.

The Clinton-Gore administration recently announced a ban on future exploration for most of the Federal Outer Continental Shelf through the year 2012. That is where the real big oil reserves are left in this country, offshore. I know we all remember the oil spills of 20 years ago on the coast of California. What no one is talking about is the tremendous new technology that has been applied to the gulf and other areas where drilling goes on, where wells don't leak today and blowouts don't happen. If they do occur accidentally, they are immediately shut down. All of those technologies are in existence. I think anyone who has looked at the record of drilling in the Gulf of Mexico recognizes that it is clean and it is sound. It is extracting the resource and is having almost a zero impact on the environment of the gulf area and its coast lines.

In 1996, the administration resorted to the little used 1906 Antiquities Act. The President argued it was a major emergency and he had to lock up these millions of acres in Utah. What he was really locking up, for fear that it might be mined, was 23 billion tons of low-sulfur, high-value coal that could have been used to generate electricity in our country today and well into the future.

All of these areas that would have been mined--and they were a very small part of the over 1 million acres that the President locked up in the Grand Starcase/Escalante National Monument--would have been reclaimed in a natural way because that is part of the environmental policy of our country today. If you are going to disturb the land, once you have done so, you must put it back in as near a natural way as is possible.

The Clinton-Gore administration has vetoed legislation that would have opened the Coastal Plain of the remote Alaskan national wildlife reserve. It is estimated that there are 15 billion barrels of domestic crude oil up there.

The administration also has ignored a report prepared by the National Petroleum Council, requested by the Energy Secretary, explaining how the Nation can increase production and use of domestic natural gas resources from about 22 trillion cubic feet per year to more than 30 trillion cubic feet per

year over the next 10 to 12 years. In other words, we could add nearly 10 trillion cubic feet of new domestic gas to our energy mix.

That would allow the Northeast, which is tremendously dependent upon oil for space heat, to convert to a much cleaner fuel, a much more efficient fuel, a fuel of natural gas , and bring down their dependency on oil fuel for home heat and space heat.

The Clinton-Gore administration has shown little interest in solving our domestic energy problems until now, as the foreign oil producers have forced crude up to over $30 a barrel last month. Gasoline prices, last week, were $2 a gallon in San Francisco.

Mr. President, I argue that the Clinton-Gore administration has acted in other ways designed to force us away from the use of a reliable, available, relatively inexpensive fossil fuel, and the only argument the President had this weekend during his radio address was: Congress, you are to blame.

Yet I have listed numerous vetoes or efforts to block our administrative and rulemaking processes that have actually blocked production in our country. That is why many of us have suggested to this President that he needs to step back and work with Congress to define a national energy policy that promotes increased domestic crude oil and natural gas production, while looking at all of the other alternatives we have and the new technologies, especially clean coal technology. Nothing should be done in isolation of the other. It ought to well be a total package that we would want to work on.

My distinguished friend from West Virginia, Senator **ROBERT BYRD**, spoke eloquently last week on the subject. I want to add a few thoughts to his comments. The U.S. has the world's largest demonstrated coal reserve base and more than 90 percent of our total fossil fuel energy reserves are in coal. Yet this administration has downplayed new coal-burning and clean coal technologies--the very kind of thing we ought to want to bring online as much of our electricity is generated by coal, and as we define and refine the science of global warming and attempt to understand the cause or causes and how to respond. At present rates of consumption our coal will last for up to 270 years. In other words, we blessed with huge coal reserves. Yet this administration's lack of policy has forced us into near crisis. Coal is used to generate 56 percent of our electrical supply and about 88 percent of the Midwest's electrical needs. Coal use for electrical power has risen more than 250 percent since 1970, while sulfur dioxide emissions has decreased by 21 percent due to technology and, in part, due to some of the money we put into research sponsored here that has moved that kind of technology.

Now, as my colleagues think about all of this, here is a quote I found by the President over the weekend. Remember, I was talking about coal. I was talking about our tremendous need for production of electricity. Here is what the President was saying over the weekend:

I think to a much greater degree, then, we have a commitment to the notion that we can improve the environment while we grow the economy--

None of us disagrees with that. But he goes on,

..... that is what the whole global warming issue is about. All over the world, there are people who just don't believe that you can get rich unless you put more stuff in the air that heats up the earth. They think you have got to burn more coal and oil in the digital economy. That is not true.

Mr. President, what you have said isn't true. What runs the digital economy of our country? What turns on the computer? What fires up the Internet? A solar cell? A wind mill? I don't think so, Mr. President. It is the abundance of electrical power.

Let me repeat: Coal use for electrical power has risen more than 250 percent since 1970, and the sulfur dioxide emissions during that time have actually decreased by 21 percent. Furthermore, the gas the Clinton/Gore administration blames for

global warming , carbon dioxide, isn't a poisonous gas and isn't regulated under the Clean Air Act.

The point I am making is simply this: An abundant economy--the kind we are experiencing today that has us at or near full employment--is a direct result of an abundance of relatively inexpensive energy. The history of our country has been based on the availability of energy. That is why we are the wealthy Nation we are today. Look at the rest of the countries of the world; as they strive to grow and provide an economy for their people, they develop their energy base.

My wife and I and a group of business people from Idaho were in China in December. The skies were so dark there in Beijing that you could hardly see because they don't have the clean coal technology we have. Yet they are growing very rapidly and they need an abundant source of energy. They are building dams and nuclear reactors, and they are searching for a cleaner way to burn their coal because they know if they are to grow and provide their country and their citizens with opportunity, they are going to have to use coal to generate electric energy. President Clinton, I don't think you really get it. Do you think this new hi-tech, digital economy happens out there on its own? It is, in fact, a product of a nation who has an abundant energy base. In November of 1999, the EPA sued several coal-burning utilities, claiming they had made major modifications in their facilities without applying for new resource review permits. Utilities maintained that these were modifications made during routine maintenance. They were still providing high-quality energy with less emissions. Why is EPA out there suing at this moment, at a time when there is a deficiency of energy in this country and we ought to be promoting more? Certainly, we ought to be promoting it with all of the newest technology. But you don't do that by suing; you do that with policies that encourage people to do the right thing.

Lastly--and this is the irony of this administration which likes to think it has an energy policy--this morning, Secretary of Interior Bruce Babbitt is out looking for a dam to tear down. Eight years ago, he said he would like to knock down a really big dam while he is Secretary of Interior. Really big dams produce a lot of big power, Mr. Secretary, or haven't you figured that out? Big renewable power, hydropower. It doesn't have emissions; it is very clean. Yes, our fathers and forefathers chose to dam some rivers to generate electricity. Those were efficient ways to do it then, and they are finding out they are environmentally sound ways to do it now. Yet Mr. Babbitt wants to tear down one, two, or three dams, or I guess as many as he can get his hands on, or find a policies that make it difficult to keep these dams running.

Why don't we simply work to improve those dams? Why don't we make them more efficient by adding new technology to the dams, putting new turbines in them that are friendly and more efficient. It is beginning to happen nationwide. Why should we deny our country 20 percent of

its energy base, or bad mouth that energy source, or attempt to tear it down? No, what I am trying to say this afternoon in this collection of thoughts is, Mr. President, I don't think you get away by just pointing a finger at a single action of the Congress and saying you didn't give me emergency authority over the Strategic Petroleum Reserve, so therefore our energy crisis is your fault, Congress.

I think I have named 15 or 20 issues on which this administration has taken a strong anti-energy, anti-production approach toward dealing with energy policy in this country. Mr. President, we can solve our energy problems. We are a marvelously creative Nation. But we don't do it by simply saying no. We do it by producing where we can produce, by creating less dependency on foreign sources, while at the same time building the kind of science and technology that allows us ever increasing

energy efficiency and environmental improvement. I think in the coming years we are going to debate the global climate change issue. Getting rid of hydrocarbons isn't the answer. Getting rid of fossil fuels isn't the answer. It is finding better and more efficient ways to use them, and then allowing our technology to be sold and transferred to the world at large. If our clean coal technology were at use in China today, China would be a healthier, more environmentally clean place to live.

Someday they will be able to afford that technology, and they will want it. It is our businesses and our companies that develop it that ought to be encouraged to sell it to them. That is

called leadership. It simply isn't crawling into a cave and getting a candle to light your way and heat your space. It is building an efficient system recognizing that all sources of energy ought to be at play at this moment so that we can truly develop an abundant energy package for ourselves and our Nation's future. Thank you Mr. President.

ENERGY POLICY -- (Senate - March 27, 2000)
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Mr. CRAIG. Mr. President, I come to the floor this afternoon to join my colleague from Wyoming who has so clearly outlined in the last few moments part of the problems our country faces at this time in our history relating to energy policy, or a lack thereof.

As I speak on the floor, as my colleague has just completed his comments, all eyes are turned on Vienna. That is not Vienna, NY, that is Vienna, Austria, where the OPEC nation members are meeting to decide whether they will be generous enough to turn their valves on a little more and increase crude oil production to a million or a million and a half barrels a day so that our gas prices will come down at the pump.

How can a great nation such as ours now find itself so dependent upon a group of nations, almost all of them quite small but all of them very rich in crude oil? How do we find ourselves dependent on their thinking? What is the reason we find ourselves dependent? This is part of what my colleague from Wyoming was talking about. It is the loss of production units and the drop in number of rigs out exploring, and that is all our fault, our fault collectively as a nation, for having failed over the last several decades to put in place an energy policy that had, as its first criterion, relative independence from other nations of the world as suppliers of our fundamental energy-based need for crude oil, crude oil production for our petrochemical industry.

I have been to the floor several times in the last couple of weeks to speak about this because the price at the pump today is not an aberration. It is not something that was just quick in coming. We, as a country, have known for some time this day would be at hand. Several years ago, we asked our Government to investigate whether a lack of domestic production would put us at some form of vulnerability as to our ability to defend ourselves. The answer was yes. Those studies were placed on the desk of our President, Bill Clinton. Nothing was done. A year ago similar studies were done, and they reside on the President's desk as we speak. They have been there since last November, and nothing has been done.

Only in the last month has the President sent his Secretary of Energy out and about the world, with his tin cup in hand, begging--begging producing nations to turn their valves on a little bit.

What is the consequence of turning your valve on at the pump? The consequence is a reduction in the overall world spot price of crude oil. When you do that, the cash-flow pouring out of this country to the OPEC nations of the world declines; oil production goes up, cash-flow declines. Why would they want to do that? Out of the generosity of their hearts?

For the last year-and-a-half or 2, they have been in political disarray. During that time, they were largely pumping at will into the world market. A year ago, we saw crude oil prices at $10 a barrel on the world market. Today, they are over $30. Now $10 a barrel is probably too low, but $30 is a huge and bountiful cash-flow to the treasuries of these countries--Saddam Hussein's country, the man whose country we fought against to free Kuwait and the Kuwaiti oil fields less than a decade ago.

In fact, it was Northeastern Senators who, some months ago, wrote a letter to our President asking him to become sensitive to this issue because they were aware, with the run-up in oil prices--and we knew it was coming the minute the OPEC nations got their act together--the Northeastern Senators would see their States hit by heavy home heating oil costs. Sure enough, that is what happened. It happened because of the run-up in price. It also happened because of a loss of refinery capacity that has been going on for some time.

What was going on in the Northeast, 2 and 3 months ago, is now going on across America. I come from the West, where energy prices are extremely high and the impact on goods and services, and our citizens, can be dramatic. So even if the OPEC oil countries decide to raise crude oil output, my guess is it will be just a little bit. It may sound like a lot to the average listener--a million, million-and-a-half barrels a day--and

it could bring crude oil prices down a little bit. But the OPEC nations' goal is to keep crude oil prices above $20 a barrel and therefore keep regular gas at the pumps at somewhere in the $1.40 to $1.50 range. That is still a dramatic increase, nearly doubling east coast prices. It will be even higher on the west coast.

The failure of the Clinton-Gore administration to recognize it, to understand it, and therefore to deal with it, is one of the great domestic and foreign policy tragedies of the decade. I say that from an economic point of view, but it is true also from a defense point of view--our ability to defend ourselves and stand as an independent nation in a community of nations around the world.

Here are some statistics. Probably everyone's eyes glaze over a little bit when you use statistics, but it is important for the record. U.S. crude oil production is down by 17 percent since 1992. We have actually had wells shut off and shut in. What does that mean? The price of oil got so low, they could not afford to pump them. It cost money to produce. So they turn the well off and they shut the well in, meaning it no longer has the capability of producing.

U.S. crude oil consumption during that same period of time went up 14 percent: 17 percent down in production, 14 percent up in consumption. It sounds like a ready-made situation for a crisis, and that is exactly where we find ourselves today. The United States is 55-percent dependent upon those nations that are meeting in Vienna at this moment; 55-percent dependent for so much of what we do. That is dramatically up from just a couple of decades ago when we were in the mid-30s, relating to dependency.

While all of this is going on and nothing is being done by this administration, and most of what we are trying to do here has either been denied or vetoed or blocked by this administration, the U.S. Department of Energy estimates we will have a 65-percent dependency on foreign producers by the year 2020. Some would say that is good because we will not have the environmental risks in this country; we will not be drilling and we will not be refining as much, and therefore the environmental risks will be gone.

What they did not tell you is, it puts hundreds of new supertankers out there on the open ocean on a daily basis--even if our foreign neighbors will produce and even if they will sell to us, hundreds more of those huge supertankers out there in the open ocean,

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coming into our ports, offloading. Let me tell you, there are greater environmental consequences for that than the use of today's technology on our land or out in our oceans, drilling, finding, and shipping to our refineries.

The United States is spending $300 million a day on imported crude oil. That is $100 billion a year flowing out of this country to the coffers of the OPEC nations. That is big money, huge money, in any sense of the words. We sit here and wring our hands over a balance of payments, yet we do nothing to bring that production back to our shores and to be able to control our own destiny in the production of crude oil.

As I mentioned, the world oil price reached over $30, about $34 a barrel on March 7. It is down a little bit now on speculation that the OPEC nations today will make decisions that will increase production. But, of course, we already know energy prices on the west coast are at nearly $2 a gallon at the pump and are certainly extremely high here. More than half of all crude oil we use, about 18 million barrels per day, goes directly into home heating oil, motor gasoline, diesel fuel, and other transportation fuels.

The Clinton-Gore administration has failed to do one single thing to develop more of our Nation's crude oil reserves, of which we have an abundance. In fact, I was watching CNN a few moments ago. Some people in the oil industry would suggest only about half of the crude oil capability of this Nation has been used since we first discovered crude oil.

Only about half of it has been used. The rest of it is under the ground. It is more difficult to find, more expensive to produce, but it is still there, and the great tragedy is we are not producing it. In fact, we are doing quite the opposite.

Since this administration has come to town, there has been an anti-oil attitude from a standpoint of domestic production. From the very beginning, they pushed through a 4.3 percent gas tax increase. They argued it was for deficit reduction. But when one listens to the soundings of the Vice President when he talks about crude oil and combustion engines and how negative they are to the environment and we ought to tax them out of existence--and he has said all of those things; I am paraphrasing, but it is not new; he has been replete in those expressions over the years--it is not unexpected that he cast the single vote that broke the tie between Democrats and Republicans on this floor that put the gas tax in place.

We now are looking to try to take that gas tax off in the very near future, at least roll it back a ways, and give our consumers some flexibility. We are going to balance the budget this year and have surpluses. Why not use some of that surplus money to offset the runup in expenses that consumers are now feeling at the gas pump at this moment and that certainly our transportation industry is feeling? It ought to be something we do.

I argue that we hold the highway trust fund fully offset. That is the trust fund that funds the pouring of concrete for our roads and our bridges and creates hundreds of thousands of jobs a year in the building and rebuilding of our infrastructure. Those need to be funded. I do not argue they should not be. But here we are dealing with a surplus, fighting with our Democrat colleagues over whether we should give tax relief to the taxpayers this year. What better way to give some of it back than to reduce the cost at the pumps? Most Americans today who drive cars find themselves paying increasingly higher fuel bills.

For the next few moments, I will talk about rural America. I come from a rural State. Many of us do. While runups in energy costs are dramatically impacting urban America, it is even greater in rural America. Why? It is quite simple. Many of my friends in Idaho drive 50, 60, 70 miles a day to just get their kids to school or just to shop at the local grocery store. That is not unusual in rural America.

All of the goods and services that flow to our farms and from our farms travel on the backs of 18-wheeler trucks, all consuming diesel oil.

Diesel oil is now being acquired by farmers across the Nation as they enter our fields for the spring farming season. All of that is going to drive up the overall cost of the farmers this year. In agriculture, farmers have experienced a 4-year run of very low commodity prices and have found most of their farms and ranches below break even. Now, because of an absence of a national energy policy, they find their cost of production could double, at least in the energy field. Many of the tools they use--the insecticides, the pesticides, and the herbicides that are made up of oil bases--are going to go up dramatically in cost.

In my State of Idaho, farming and ranching, logging and mining are also an important part of the rural economy. All of them very energy intensive. Those industries have found themselves nearly on their backs from the last few years at a

time when we see energy costs ready to double or triple.

We have heard it from the homeowner and the apartment dweller in the Northeast for the last several months, that their fuel costs have doubled, their heating bills have doubled. Some are having to choose food over warmth or warmth over food. Many are senior citizens on fixed incomes.

While we have tried to offset that some with help from Washington, we have not been able to do it all. And in the next month and a half, we are going to hear it from the farmers and the ranchers as their fuel bills skyrocket.

We have already heard from the truckers. They have been to town several times, and many of our independent truckers are literally driving their trucks into their driveways, shutting them down, and not turning them back on, therefore, risking bankruptcy and the loss of that income-making property because they cannot afford to pay the fuel bills.

Why? It is time we ask why, as a country, and it is time Congress dealt with at least some short-term provisions while we look at and strive for some long-term energy policy.

I do not think one can expect the Clinton-Gore administration to be very helpful, except begging at the doorsteps of the palaces of the sheiks of the OPEC nations, because that is their only energy policy.

Those are the kinds of things we are going to look at and abide by. I think this Congress will attempt to respond and respond in a positive way for the short-term provisions while we look at long-term policy to increase production of crude oil inside the 50 States of our Nation in a way that we can control it, we can shape our energy future without a group of energy nations meeting in Vienna having a choke hold around our very neck.

Secretary of the Interior Bruce Babbitt is talking about taking down valuable hydroelectric dams in the Pacific Northwest--the administration does not consider hydropower a renewable resource. Electricity from hydro meets about 10 to 12 percent of U.S. needs.

Environmental Protection Agency Administrator Carol Browner is trying to shut down coal fired electric generating plants in the midwest--which depends on those plants for 88 percent of its electricity. The U.S. depends on coal for 55 percent of its electricity needs.

While the Clinton-Gore administration tried to kill off the use of coal fired electricity it is doing nothing to increase the availability of domestic natural gas which is the fuel generators will use if they cannot use coal. To replace coal the U.S. must increase its use of natural gas by about 10 trillion cubic feet per year.

Federal land in the Rocky Mountain West could contain as much as 137 billion cubic feet of natural gas but the Clinton-Gore administration refuses to allow any oil and gas exploration on those lands.

Last week the President announced his plans for dealing with our current energy problem. Once again, his emphasis focused on conservation and renewable energy sources like solar, wind and biomass. We cannot put windmills on trucks or solar panels on trains or barges.

The Clinton-Gore administration has refused to even consider allowing exploration in the Alaska National Wildlife Refuge which could contain up to 16 billion barrels of domestic crude oil which could easily be moved to refineries in the lower 48 through the Alaska pipeline.

The Vice President has vowed to prohibit any future exploration for oil and natural gas on the Federal outer continental shelf when there are clearly

areas that have great potential for new domestic energy supplies. The President recently closed most of the Federal OCS to any exploration until 2012.

The Clinton-Gore administration embraces the Kyoto Protocol which would impose staggering economic costs on the United States. The Protocol would require the U.S. to vastly reduce its use of fossil fuels like oil, natural gas and coal to achieve reductions in emissions of carbon dioxide--which is not a pollutant under the Clean Air Act and has not yet been proven to be the cause of climate change . The U.S. Senate voted 95-0 to reject it.

Clearly, there is a pattern.

It started in 1993 when the Clinton-Gore administration proposed a $73 billion 5-year tax to force U.S. use of fossil fuels down.

It continues with misguided Federal land use policies, environmental policies designed not necessarily to protect the environment but to kill fossil fuel use, and continues with administration support for the economically punitive Kyoto Protocol. This administration hates the fossil fuel industry and apparently the economic well-being these abundant and relatively cheap fuels have helped the U.S. economy achieve. These are the words of the Vice President:

Higher taxes on fossil fuels ..... is one of the logical first steps in changing our policies in a manner consistent with a more responsible approach to the environment.

That is by Senator **AL GORE**, from ``Earth in the Balance,'' 1992, page 173.

To me it is pretty clear that this administration is unwilling to commit to a rational energy policy that will help America's families.

I yield the floor.

THE OIL CRISIS -- (Senate - March 23, 2000)
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Mr. CRAIG. Mr. President, I have come to the floor today, as has the Senator from Maine, to speak about the energy crisis our country finds itself in. Let me use those words again: energy crisis.

A week and a half ago, Senator **SNOWE** was before my subcommittee testifying on some key legislation she has introduced. The Senator from Maine recognizes the phenomenal impact high energy costs have on her State. Whether it is home heating or the transportation systems that drive her industries, she has recognized it clearly and early on announced to this administration there was a problem coming and encouraged them to change their policy. Yet they have done nothing.

As I listened to the Senator from Maine this morning, she spoke very clearly about what this country needs to do. I strongly support the words she has stated for the **RECORD**.

When the Clinton-Gore administration came to town in 1993, it announced its intent to drastically alter the way the Nation used energy, especially fossil fuels. Remember, briefly, the President and the Vice President determined that through the use of a broad-based Btu tax, they would drive us away from our most abundant and economical fuels to a renewable solar wind or biomass system. The objective has remained a hallmark of this administration's energy policy. That is all they have wanted to talk about until now.

Their policy now is to send the Secretary of Energy abroad with a tin cup, begging at the wells of foreign energy producers, asking them to please turn on their tap. We will know next Monday whether the begging of Bill Richardson and the energy policy of this administration has worked.

President Clinton promised early when he came to town that the tax he proposed, $72 billion over 5 years, was going to be fair, it was going to be healthful, it was going to force down dependency on foreign oil, and do the right things for consumers. In fact, it would have unfairly punished energy-intensive States such as mine, Western States where transportation needs and movements spread across broad expanses in agricultural States such as mine. The American Petroleum Insurance Institute and the National Association of Manufacturers predicted the tax would hurt exports, reduce GDP in this country by $38 billion, and destroy some 700,000 jobs.

Yet the administration wouldn't listen. They drove on, pushing the tax issue.

Clinton and Gore claimed the tax was needed to balance the budget and fund large new spending programs to offset the negative impact of the tax. They also claimed the use of crude oil imports would fall dramatically, by 400,000 barrels a day.

At that time, DOE's own projections predicted the tax would shave oil import growth by less than one-tenth after 10 years. DOE predicted by the year 2000, Americans would depend on foreign oil for three-fifths of their total crude oil requirements.

The American Petroleum Institute testified before the Energy Committee on which I sit. It said:

..... even if imports were to fall by the full 400,000 barrels a day claimed by the administration, the cost of $34 billion in lost GDP is excessive relative to other alternatives for improving energy security. Using the administration's optimistic predictions, the cost of the Btu tax works out to be about $230 a barrel.

That is right, $230 a barrel. In the end, Congress refused. Thank goodness we listened to the experts. We didn't listen to the politics of the Clinton-Gore administration, and we said no. Hopefully, in the next few days we will also reverse something that was largely a Clinton-Gore initiative and that was the 4.3-cent-per-gallon gas tax that our consumers are now paying.

The Clinton-Gore administration's obsession with the use of fossil fuel reduction has actually put us in the position we find ourselves today. What does our President say? On March 7 of this year, he said:

Americans should not want them [oil prices] to drop to $10 or $12 again because that ..... takes our mind off the business of ..... alternative fuels, energy conservation, reducing the impact of all of this on global warming .

Mr. President, we should not take our minds off energy conservation. That is good policy. We should not take our minds off alternative fuels, that is also good policy. But saying you are going to tax hydrocarbons out of existence and now finding this Nation pushing itself into an inflationary mode, finding our costs going up dramatically because of your policies, it was wrongheaded then and it is wrongheaded now. And we know it.

What has happened since 1993? Domestic oil production is down 17 percent. Domestic crude oil consumption is up 14 percent. Dependence on foreign oil sources of crude oil has risen to 56 percent of our total crude requirements.

In 1973, during the Arab oil embargo, our dependence on foreign crude was 36 percent of our crude oil requirement.

Iraq is our fastest growing source for U.S. crude imports, about 700,000 barrels a day. I have one thing to say to the President: Shame on you. Shame on you for the absence of policy and the clear knowledge that you had, that all of us had, that this kind of dependency would ultimately result if we did not push and we did not drive toward a more effective domestic policy to increase production and find all the other effective conservation uses we could find.

The Clinton-Gore administration, while making much of the increase in efficiency, greater use of renewables from biomass, and other things, ignores the very fundamental fact that a large part of our energy use cannot be addressed by these measures.

Sure, it is an important part of the blend but a very small percentage of what is absolutely and necessarily needed.

Of course, those of us who come from agriculture recognize the importance of crude oil feed stocks to the chemical industry and the products they produce, which results in the high quality of agriculture production in our country. The administration fails to encourage domestic oil production and the production of coal and natural gas that now leads us to this point.

The administration has refused to acknowledge the vast reserves of oil and gas offshore, in Alaska and the Rocky Mountain overthrust area. Of course, we, the consumers, are now paying the price.

The Clinton-Gore administration recently announced a ban on future exploration on most of the Federal Outer Continental Shelf until the year 2012. Can you imagine that? Here we are, increasingly dependent on foreign sources, and the President turns his back on some of the largest reserves left in this country to be explored by some of the finest technology in environmentally sensitive ways that we now know, to bring oil into production in the Outer Continental Shelf.

In 1996, the administration resorted to the use of the Antiquities Act to lock up 23 billion tons of mineable low-sulfur, high-quality coal in Utah. The story goes on and on.

I would argue the Clinton-Gore administration has acted in other ways designed to force us away from the use of all of these resources that are so abundant and so available to us and wise for us to use. At the present rate, we are now demonstrating our unwillingness to produce at the local, national level. We will be 56-percent dependent, moving into 60-percent dependent in very short order.

The U.S. Forest Service has issued road construction policies that are designed to restrict the energy industry's ability to explore for oil and gas on Forest Service lands.

The Clinton-Gore administration has vetoed legislation that would have opened the coastal plain of the remote Alaska National Wildlife Reserve denying the Nation access to an estimated 16 billion barrels of domestic crude oil.

The administration has ignored a report prepared by the National Petroleum Council, requested by the Energy Secretary, explaining how the Nation can increase production and use of domestic natural gas resources from

about 22 trillion cubic feet per year to more than 30 trillion cubic feet per year over the next 10 to 12 years.

The Clinton-Gore administration has shown little interest in solving our domestic energy problems until now as foreign oil producers have forced crude oil prices to over $30 per barrel and gasoline prices to almost $2 per gallon--double prices of only little more than a year ago.

I would argue that the Clinton-Gore administration has acted in other ways designed to force us away from the use of readily available, relatively inexpensive fossil fuels. It has chosen

especially to vilify and deny the use of our most abundant national energy resource--coal. My distinguished friend from West Virginia, Senator **ROBERT BYRD** spoke eloquently yesterday on this subject and I want to add a few thoughts to his.

The U.S. has the world's largest demonstrated coal reserve base and accounts for more than 90 percent of our total fossil energy reserves.

At present rates of recovery and use, U.S. reserves will last more than 270 years.

Coal is used to generate over 56 percent of our electricity supply--and about 88 percent of the Midwest's electricity needs.

Coal use for electric power has risen more than 250 percent since 1970 while sulfur dioxide emissions have decreased to 21 percent below 1970 levels and introduction of new cleaner coal combustion technologies will continue to push emissions of all types down.

Electricity from hydro represents about 10 to 12 percent of our electricity needs.

Nuclear powerplants meet about 20 percent of our total electricity demand.

Yet the Clinton-Gore administration takes a dim view of these sources and has taken steps to reduce their use.

In November 1999 the Environmental Protection Agency sued several coal burning utilities claiming they made major modifications to their facilities without applying for New Source Review permits. Utilities maintain that the modifications fall within the ``routine maintenance'' exception to the new source rule, and that EPA had routinely approved such actions in the past.

EPA is discussing the notion that new source review should include ``voluntary'' regulation of CO

2--which is not a poisonous gas and which is not regulated by any part of the Clear Air Act.

EPA recently changed the toxics release inventory to require electric utilities to report chemical release data. The level at which reporting is required for Mercury was lowered by an order of magnitude. In making these changes EPA presented no studies or supporting rationale for why nearby communities should suddenly be concerned about such releases. Nevertheless, the reports will be widely published thereby placing utilities at the top of the list of ``dirty'' facilities.

In 1993, EPA concluded that coal combustion wastes (fly ash, bottom ash, slag waste, and other combustion products) from electric utility generation do not warrant hazardous waste regulation. EPA appears now to be prepared to reverse an EPA staff decision that coal combustion wastes do not warrant regulation as ``hazardous.''

In 1998, EPA issued revised Nitrogen Oxides New Source Performance Standards for all new and existing utility and industrial boilers. It based its standard on a single, very expensive control system regardless of boiler and fuel type.

Interior Secretary Bruce Babbitt has talked openly about ``tearing down dams'' in the West to restore habitat for fish, ignoring the power and transportation benefits they provide. And, the administration is imposing new, often impossible criteria that must be met before federal licenses can be reissued. Many existing hydro projects will seek relicensing over the next several decades.

Finally, the Clinton-Gore administration continues to threaten veto of legislation designed to create a permanent nuclear waste storage facility and which fulfills a longstanding promise by the federal government to create such a facility. Without a federal storage facility, U.S. nuclear generating stations, which are running out of on-site storage capacity may be forced to shut down their operations.

There are too many more examples of the Clinton-Gore administration's failure to produce a coherent, balanced national energy plan. It almost seems they are trying to create crisis after crisis in the hope that a magical solution will rise from the chaos--fat chance. Solving these problems requires tough choices and I suggest that we begin now by pursuing a number of short to long term objectives.

We should work with our Western Hemisphere neighbors to help them increase their crude oil production.

We should provide relief to consumers by cutting taxes on fuels derived from crude oil, such as the 4.3-cents a gallon tax and the 24-cent a gallon tax on highway diesel fuel and taxes on fuels for air, rail and barge transportation.

We need to step away from punitive, command and control environmental regulations and move toward performance based regulatory concepts that offer the regulated community opportunities to find flexible approaches to reducing emissions of legally regulated contaminants.

Finally, we need to face up to the fact that we are part of the problem. Our unwillingness to develop our own abundant oil, gas and coal resources dooms us to greater dependence on foreign sources, especially for crude oil. We must make the conscious choice to carefully find and develop our resources while protecting our environment.

ENERGY CRISIS -- (Senate - March 23, 2000)

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Mr. CRAIG. Mr. President, earlier today I came to the floor, as did several of my colleagues, to discuss what I believe is now nearing a crisis in our country; that is, the tremendous runup in the price of energy that we have watched for well over 3 months creep up on the reader boards at the local gas station or in fuel bills for those in homes heated with fuel oil.

A lot of Americans are scratching their heads and saying: What is happening? Last year, at this time out in

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Northern Virginia, I purchased regular gasoline for 78 cents a gallon. There was a bit of a price war going on at that time that probably bid the price down 10 or 12 cents, but there is no question that America's driving public a year ago was paying at least 100 percent less, in some instances, than they are paying today.

It is right and reasonable to ask why? What has happened? What happened is obvious to many who watched the energy issue. I serve on the Energy Committee. For the last several years, we have become quite nervous about the fact that we as Americans have grown increasingly dependent on foreign sources of crude oil to fuel the economy of this country. Several speakers on the floor today, and over the past several days, have talked about a dependency that has gone up from 30-plus percent in the 1970s to over 55 percent today for oil flowing in from outside the United States.

Why is that happening? Why don't we have a policy stopping it? Why are all these things happening at a time when our economy is doing so well?

This morning I joined some of my colleagues to discuss some of the whys. This country, for at least the last 8 years, has been without an energy policy. When the current Secretary of Energy, Bill Richardson, came to that seat, I asked him in his confirmation hearing: If we don't have an energy program, can't we at least have an energy policy that looks at all aspects of the energy basket--both, of course, crude oil for the hydrocarbons and for all that it provides for our country, a recognition of electrical generation in this country, both nuclear, hydro, and certainly coal fired and oil fired? He assured me that would be the case.

Of course, today, that simply isn't the case. In the budgets this Department of Energy has presented to this Congress in the last 2 years, there has been a tremendous increase in the money the Clinton-Gore administration has wanted to allocate for solar and wind, but they have constantly dropped the research dollars on hydro production or clean coal production for the use of coal in the firing of our electrical generating facilities.

While all of that has been going on, there has been something else that I find fascinating and extremely disturbing: a progressive effort to lock up exploration and development of our public lands and public areas where the last of our oil reserves exist. The administration has not tried to

encourage domestic production. In most instances, they have openly discouraged it or they have set the environmental bar so high that no one company can afford to jump over it.

Over the course of the last 5 or 6 years, we have seen a tremendous number of our production companies leave this country. In fact, the CEO of one company sat in my office 5 years ago in a rather embarrassing way saying: Senator, after having been in this country drilling, developing, and producing oil and gas for almost 100 years, my company is being forced to leave the United States if we want to stay profitable or productive.

Of course, that company did largely go overseas. That is an American company and they will be producing oil and gas . But they are, in most instances, producing for a foreign government, and they don't control their supply. Most importantly, that supply is not a U.S. supply. It is a foreign supply being brought into this country, dramatically changing our balance of trade. Of course,

many of those nations are members of OPEC or are other oil-producing nations that are, in part, causing the problems our consumers are currently experiencing.

I have found it fascinating over the last several years as we have watched this administration refuse to acknowledge our vast reserves of oil and gas , offshore, and in Alaska. The Senator from Alaska, chairman of the Energy and Natural Resources Committee, was on the floor to speak for the last hour about one of the great remaining reserves in northern Alaska that could be tapped, and tapped in a sound and safe environmental way so the beautiful area would not be damaged. Literally, tens of thousands of barrels a day of oil could be produced from that region of our country and brought into the lower 48 to be refined and sold.

The Rocky Mountain overthrust belt in my area of the country is largely now off limits to further exploration and production. Yet in the 1970s and the early 1980s a lot of the new domestic production in our country came from the overthrust belt areas of Wyoming and Colorado.

We have seen the Clinton administration recently announced a ban on any future exploration of many areas of the Outer Continental Shelf, where some of the largest oil reserves exist today, all in the name of the environment. Even though some of the great new technologies have allowed the kind of development in the Gulf of Mexico and other areas where the chance of a spill is almost nonexistent today. In fact, the greatest concern for a spill is not drilling and development and transfer onshore of crude oil; it is the shipping in the great supertankers from all around the world. That is where the greater risk to our oceans exist, not offshore oil production. Yet this administration, all in the name of the environment, says, no, we will not develop our offshore capabilities.

In 1996, the administration resorted to the little-used Antiquities Act. I mentioned that earlier this morning. They made 23 billion tons of low-sulpher mineable coal off limits to production in southern Utah. The U.S. Forest Service issued road construction policies designed to restrict the energy industry's ability to explore for gas and oil on Forest Service lands. The Clinton-Gore administration has vetoed legislation that would have opened the coastal plain, as I mentioned, in

the remote Alaska National Wildlife Refuge, where an estimated 16 billion barrels of domestic oil may be found.

The administration has ignored a report prepared by the National Petroleum Council requested by the Energy Secretary explaining how the Nation can increase production and use of domestic natural gas resources from about 22 trillion cubic feet per year to more than 30 trillion cubic feet per year over the next 10 to 12 years.

Doable? Yes. Environmentally sound? Yes. A clean fuel source? Yes. Then why aren't we doing it? Because we have an administration that is hostile to the idea of actually producing in this country and providing for this country, and their 8 years of record clearly show that.

The Clinton-Gore administration has shown little interest in solving these kinds of domestic problems and, as a result, as I mentioned earlier, we have watched our dependence on foreign crude tick up to 56 percent of our total crude demand. The price last year of a barrel of crude was around $10 and peaked last week at somewhere near $34 a barrel.

Did we see it coming? You bet we did. Has the administration known it? Yes, they have. On two different occasions, and in two very well-developed reports over the last several years, that message has been so clearly sent to this administration.

Why would they ignore it? There are probably a lot of reasons, and I have already expressed some of those reasons why this country cannot use its energy resources.

Yesterday, my distinguished friend from West Virginia, Senator **ROBERT BYRD**, spoke eloquently on the floor on this very subject. Of course, his State of West Virginia is a great coal State, a great producing State. The United States has the world's largest demonstrated coal reserve base and accounts for more than 90 percent of our total fossil energy reserve. In other words, we have more coal than any other country. Yet we have an administration that truly wants to deny the use of it or the development of technologies that will cause it to be burned in an ever increasingly clean way.

At the present rate of recovery and use, U.S. coal reserves can last us for more than 270 years. Let me repeat that. For 270 years, we can be self-sufficient at our current level of coal consumption. Of course, we all know the technology that will develop over that period of time that might well make the use of fossil fuels unnecessary at some point in the distant future.

Coal is used to generate over 56 percent of our electrical supply and about 88 percent of the Midwest's electrical needs. Coal use for electrical power has risen more than 250 percent since 1970, while sulfur dioxide emissions has decreased to 21 percent below the 1970 level.

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While there has been a dramatic increase in the use of coal, there has been a dramatic drop in coal-fired emissions. Why? Technology, the application of technology, the kind of combustion

technology that has continued to drive down emissions and make continued use of coal economically attractive.

Why shouldn't we be putting more research dollars into even better technology? Of course, we should, but it does not show up in this administration's budget. Not at all. They want windmills and solar cells. The last I checked, to provide electricity for Los Angeles with solar energy, one has to cover the whole State of Arizona with solar panels. President Clinton, don't you understand that would be environmentally unsound? It would not make a lot of sense and would not be a very, shall we say, aesthetically valuable thing to do.

Somehow they are caught in this mythical illusion: Pop up a solar cell, put a propeller on the end of a stick, tie a generator to it, and the world is going to light up. We simply know that is not the case when it comes to the kinds of energy we need to fuel our households and drive our industries. That kind of energy has to be of large capacity. It has to have the ability to peak and

supply our needs during high-demand periods. Of course, it says little for the need of America's farmers and ranchers when they go to the pump this year to find out their energy costs have now doubled.

What about nuclear? Nuclear drives 20 percent of our electrical needs, and yet this administration is the most antinuclear administration in the history of this country. They have on every occasion attempted to block the effective storage of nuclear waste, high-level waste, the kind that comes from nuclear generation of electricity. They are basically saying to the electricity industry, the power industry, at least the generating industry: Don't build any more nuclear plants, even though there are no emissions from such plants. If you want to strive to get to the clean air standards that we want in our unattainment areas, you cannot do it any other way than to assure that we at least maintain the 20 percent of our electricity being generated by nuclear power.

What does that mean? It means we have to bring newer reactors online, safer reactors with new technology. Yet this administration will not invest in the necessary research.

In November of 1999, the Environmental Protection Agency sued several coal-burning utilities claiming they made major modifications in their facilities without applying for new source review permits. Utilities maintain that the modifications fell within the routine maintenance provisions that had been provided and grandfathered into the Clean Air Act in 1990.

What kind of a message does a central government send to the generating industries of this Nation? It tells them: We will not stick by the rules; we will not play by the rules; we are interested in politics at this moment, EPA politics, environmental politics; we are not interested in the pocketbooks of the consumer or , more important, the strength of the economy, even though the utility industries are providing ever cleaner sources of energy.

EPA is discussing the notion that new-source review should include voluntary regulation of CO2, which is not a poisonous gas and which is not regulated under the Clean Air Act. President

Clinton, don't you understand that you cannot keep beating this economy and our energy supplies over the head with these silly notions and expect the economy to remain productive?

EPA recently changed the toxic release inventory, or the TRI, to require electric utilities to report chemical release data. The level at which reporting is required for mercury was lowered by an order of magnitude. In making these changes, EPA presented no studies or supporting rationale for why nearby communities should suddenly be concerned about such releases. Nevertheless, the reports will be widely published, thereby placing utilities at the top of the ``dirty'' facilities list.

Again I say to the President: From where are you coming? What is the game? Because it appears you are attempting to game this issue.

In 1993, EPA staff concluded that coal combustion waste, or fly ash, bottom ash, slag waste, or other combustion products, from electric utility generation do not warrant hazardous waste regulation. Yet, EPA at the behest of the environmental community seems to be about to overrule the staff recommendation. The story goes on and on.

Here is the other message. Out in my area of the country, a very large portion of the electric generating capacity comes from hydropower. We dam up rivers and we put generators in the face of the dams and we generate large quantities of renewable clean electricity.

Ever since Secretary Babbitt took office, he has been running around the country trying to find a dam to blow up. On numerous occasions, he said: I would like to blow up a really big dam. That is what the Secretary of Interior wants as his legacy. What kind of a legacy is that? I think it is called a cave man

mentality legacy. Give everybody a candle and send them to a cave? Come on, Bruce Babbitt. You know the tremendous value of clean hydroelectric generation. Some 15 to 18 percent of our market blend today is hydro.

In my area, it is much larger than that. Do we need to modify our dams to save fish? Do we need to make them operate more efficiently with new technology? Absolutely we do. And we are doing that. Already we are putting in new fish-friendly turbines at Bonneville Dam at the lower end of the Columbia River. We are going to work our way up the Columbia-Snake Rivers system and that marvelous hydro facility that fuels the States of Washington, Oregon, Idaho, and Montana. No, Mr. Babbitt, we ``ain't'' going to blow up any really big dams.

It is going to be kind of refreshing when that man leaves office to leave that silly mentality by the wayside.

Technology? Yes, you bet. Bring on the new technology. But shouldn't we be encouraging clean fuel, renewable resource technology of the kind that is so abundant in the West today?

I could talk a good deal more about this, but what I hope we accomplish is a reduction in the overall fuel cost of this country by eliminating the 4.3-cent Gore tax. That is right, that is **AL**

GORE'S tax. He is the one who sat in the Chair and broke the tie and caused the tax to become law. I want him to get the credit for raising the cost of energy in this country by that vote.

Here is something else I want to close with today that is added frustration as to why this country finds itself increasingly in an energy dilemma. The Clinton-Gore administration embraces the Kyoto Protocol. What is the Kyoto Protocol? It is the misguided result of concern by scientists around the world--and by all of us--that our world may be getting warmer as a result of the generation of greenhouse gases .

We all know that we have phenomenal long-term cycles in our country of warming and cooling. Once upon a time ago, there was an ice age. Prior to that, there was a warm period. Those 5,000- to 10,000-year cycles are very evident throughout geologic time. We know, as a fact, we get warmer. We know, as a fact, we get colder. Right now we are getting warmer.

The question is, Does the presence of man on the globe and what we are doing to our climate cause us to get warmer or does it cause us to get a little warmer under a normal warming cycle? We don't know that yet. Yet this administration, in the absence of science, and in the full-blown presentation of world environmental politics, said: Let me tell you what we are going to do. We are going to put all kinds of restrictions on the United States and other developed nations. We are going to tax the use of hydrocarbons. We want those lessened in their use. To do that, we are going to drive up the cost. **AL GORE** thinks the internal combustion engine is a really bad idea. He's said so on numerous occasions.

But what they did not recognize was the double kind of impact that would result from driving up the costs through taxes and limiting production at a time when the world was not ready to shift away from conventional forms of energy.

The Kyoto Protocol would require the United States to vastly reduce the use of oil, natural gas and coal, and achieve emission reduction standards when, frankly, the rest of the world

would not have to play--or at least the rest of the newly developing world that will be the largest generators of greenhouse gases .

Thank goodness this Senate, in July of 1997, stood up, in a very bipartisan way, and said: No, Mr. President. No, Mr. Vice President. Your idea and the protocol is wrongheaded. We are going to stand together as a nation. More importantly, we are going to convince the rest of the world to go with us. If we are going to develop this kind of policy, we will all share equally.

What we ought to be doing, with our tremendous talents, is developing the technology for the rest of the world to use to clean up their air and to clean up their water. We should not ask them to sacrifice. We should not ask the people of developing nations to live with less than we have simply because we do not want them to use their resources for the purpose of advancing their economies. Yet that is exactly what this President and this Vice President have said by the proposal of and the endorsement of the Kyoto Protocol.

Our Senate said no, on a vote of 95-0. Thank goodness we did. It had a chilling effect. In fact, I have not heard **AL GORE** mention Kyoto once in the last 6 months. Why? Because he knows he has created a tremendous liability for himself politically, when the American public really understands what would have happened if the protocol had become law, and those kinds of standards and those kinds of taxes had been placed on the American consumer on the eve of a dramatic runup in the cost of crude oil that has resulted from our OPEC neighbors getting their political act together.

We will be back next week. Stay tuned.

On Monday of this coming week, on the 27th, the OPEC nations meet. Bill Richardson has been running around, all over the world, with his tin cup, begging them to turn on the oil. They turned them off 6, 8 months ago--or turned them down by several millions of barrels of production a day. They may open them a little bit.

But my guess is, their goal is to keep crude oil prices well above $20 a barrel, which means the price at the pump will remain high. It may come down some this summer--and I hope it does. I hope we can jawbone them. I hope we can convince them, through good foreign policy, that wise economic policy dictates that they ought to increase production.

Yesterday, the House spoke very clearly. It said to the OPEC nations: If we are going to provide for your defense, as we have in the past, maybe you need to help us provide for some of our energy needs. All of that is a part, in combination, of what we ought to be involved in and what we ought to be talking about. I think our consumers would expect nothing less of us because, clearly, energy policy is a Government responsibility in this country, especially if there is policy that is negative in its impact on the ability of the private sector to produce an abundant source of low-cost energy to the consuming public.

This is an issue that will not go away because every day, when the consumer goes to the gas pump, and sticks his or her credit card in it, and pulls out 10, 12, 15, 20 gallons of gas , they are going to feel the impact. If you go out to buy new carpeting, if you go out, as a farmer, to buy pesticides, herbicides, and insecticides--all with a hydrocarbon base--you are going to find out that this runup in cost is having a dramatic impact on the economy and, ultimately, could have an impact on the lifestyle of all American citizens.

We must act. I hope we act both with short-term and long-term policy that is sensible, environmentally sound, but recognizes that energy abundance in this country has been the key to our tremendous economic successes down through the decades.

With that, I yield the floor.

NUCLEAR WASTE POLICY AMENDMENTS ACT OF 1999--Continued -- (Senate - February 09, 2000)

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Mr. CRAIG. Mr. President, I am pleased to come to the floor this afternoon and support the chairman of the Energy and Natural Resources Committee in an effort he has led for a good number of years. I have participated with him in trying to bring some reasonable resolution to the issue of a permanent repository for the high-level nuclear radioactive waste of this country.

Mr. President, this debate will proceed. It is my understanding we have a vote tomorrow morning. Already we have heard a variety of opinions on the process used to deal with the issue of high-level nuclear waste. Without question, this is an issue that Congress has dealt with over the years in which the public has had to go through more misstatements, false statements, or emotional statements about what isn't

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true or what some wished might be true. All we can do is look at the scientific and engineering facts of the history of the management of nuclear waste in our country to say that this country, about 99.9 percent of the time, has done it right and not exposed their citizenry to the mismanagement of the storage of waste.

Yes, we have learned periodically of the handling of radioactive materials where mistakes were made and immediately corrected. However, our country has a positive legacy in nearly all instances of dealing with this issue.

The Senator from Alaska and I have brought different versions of this issue to the floor over the last 4 years as we have tried to force this administration to move responsibly following the enactment of a law in 1982 that was a long-term approach toward funding and establishing a permanent geologic repository. We are now at a time when the issue of radiation release standards at what may become the permanent geologic repository at Yucca Mountain has been largely the focus of what this legislation deals with.

It think it is important to put the debate in the context of what is happening under current law, not under the legislation, under the law as it stands today.

My purpose in describing the current situation is to explore with my colleagues what I believe is a problem with EPA's current path and for my colleagues to understand why I have reservations about the games that are currently being played.

My frustration with EPA is that sometimes their science is rolled up in politics.

Let me also be clear about what is at stake. I firmly believe, if Congress does nothing on this issue, what is at stake is the viability of geologic disposal. In other words, to me this issue is larger than the site at Yucca Mountain. It is about whether or not we will be able to site and license a geologic repository anywhere in our country.

It is not by accident that legislatively we picked Yucca Mountain years ago. It was not done with a crystal ball. It was done with some reasonable knowledge that the geology of the region might well hold up and would probably be a point of isolation of the kind we would want for a repository, compared with no other place in the Nation. That has still held up and remains true today.

I do not believe the current process for setting radiation standards in dealing with this is what I would hope we would have. It is not being informed by good science, and I hope that Congress will bring good science back into the process. That is why this legislation is very important.

The chairman's original bill, S. 1287, contained the remedy of giving authority to set radiation standards to the Nuclear Regulatory Commission. Why? Credibility. Honesty, no politics, in large part, and a historic standard of doing it with the kind of science and knowledge that you want to have to make these kind of decisions.

The chairman's substitute bill has a different remedy. EPA would still set the radiation standards but only in consultation with the NRC and the National Academy of Sciences.

I wish EPA were not setting those standards. I don't think they have the scientific knowledge or credibility to do so, although we have created this myth about them because it says: They are the Environmental Protection Agency. Surely their commitment is to the environment.

Sometimes their commitment is to politics. You cannot say that about the National Academy and you cannot say that for the NRC. So what we have tried to do and what the chairman, I believe, has successfully done is bring all this together. Therefore, we can maybe satisfy the political side of it and, I hope above hope, we can address the scientific and the engineering side of it in a way that is credible and, most important, safe for our public and, of course, safe for the State of Nevada. Both of these approaches are superior to the current situation which I would like to describe.

Today, the Environmental Protection Agency is responsible for setting the radiation standards at the Yucca Mountain repository. That authority was granted to EPA in the Energy Policy Act of 1992. So on August 19 of last year, 1999, the EPA finally proposed a draft radiation standard. That draft standard is lengthy and has a lot of technical detail, but it boils down to two critical items. In other words, when you sort through the chaff, here are the facts that make this issue important.

First, EPA's draft proposes an individual protection standard from all exposure pathways--food, water, air, et cetera--of no more than 15 millirems per year.

Second, EPA proposes a ground water protection standard that limits ground water contamination to levels at or below EPA's maximum contaminant levels for drinking water--drinking water, in an area where none is drank, or where there are no people to drink it.

What that means, in simple terms, is that if we are able to sink a well at the repository and draw the water up and into a glass, EPA says you have to be able to drink that water straight from the ground without treatment.

Not much water is consumed without treatment today, except maybe in an isolated farmsteads and in some rural areas. There are very few places, even in remote wilderness areas, where I would be

willing to sample drinking water in the way I have just described it. Even in some of the pristine, beautiful areas of my State of Idaho, I suggest you do not drink from a stream. My forebears were able to do that, but today you might get a bacterial contamination known as Giardia.

So we have a 15-millirem standard overall for Yucca Mountain and requirements for underground water that translates, I am told, to a limit of about 4 millirem exposure from underground water. Those are technical terms. That is why I have tried to break them down to a simple explanation as to what it might mean.

What I want my colleagues to understand is that these levels, 15 millirems and 4 millirems, are measured against a background level, a point of measurement. You have to have that to determine any increases. You go to what is known as a background level of naturally occurring radiation--from the rocks, the nature of rocks, and of course the Earth and the atmosphere itself--naturally occurring radiation of about 300 millirems per year.

Yucca Mountain is located in a very arid, desert environment. If you had to try to find a site within the entire contiguous United States where you might have some hope of meeting a 4-millirem ground water standard, Yucca Mountain is the kind of site you would want to pick. Yet even in the case of Yucca Mountain, the period of performance is so long and the radiation limit is so unrealistically stringent that there is some doubt that the Department of Energy will be able to demonstrate with absolute certainty that a 4-millirem ground water standard could be met.

If a dry, desert site cannot meet a 4-millirem ground water limit, it is reasonable to question whether any site anywhere could meet this unrealistic standard.

I could talk at length about how ridiculous I find these kinds of radiation limitations, but I think there is a body of criticism of EPA's proposal already existing in many of the comments that have been submitted by experts--not politicians but by experts on EPA's draft. Perhaps it will be more persuasive to my colleagues if I quote from the comments submitted to EPA by radiation experts regarding this draft radiation standard.

The American Nuclear Society, which is a nonprofit professional association made up of 11,000 members who are nuclear scientists, engineers, administrators, educators, physicians--you notice in that list I did not say politicians; they do not have a reason to be political, they are professionals in an area of importance to this country--they submitted comments on EPA's radiation standards. The American Nuclear Society had the following to say regarding the 15-millirem proposal:

The individual dose limit that EPA is recommending is not appropriate.

That is what they said.

EPA points out that the proposed dose limit of 15 millirem per year is far below the level of background radiation--

I have already mentioned that--

(about 300 millirem per year) and that any hypothesized effects of background radiation are not detectable against the rate of health

effects in the general public. While this is certainly true, we believe that the Nuclear Regulatory Commission has a better basis in scientific logic than EPA. The individual dose limit that the NRC has proposed (25 millirem per year) is also lower than warranted..... [W]e conclude that a dose standard of 70 millirem for the repository alone is appropriate, conservative, and adequately protective.

So the American Nuclear Society, an association of these 11 million professionals, has endorsed a radiation standard as high as 70 millirem per year.

What does the American Nuclear Society have to say about the 4-millirem groundwater standard? They say the following:

A ground water standard is unnecessary..... EPA's reasons for applying a groundwater standard appear to stem from a desire to influence the engineering design of the repository and to reduce collective dose to the general population, neither of which is appropriate. Both approaches are inconsistent with the National Academy of Sciences conclusion that an individual dose standard is adequately protective.....

In other words, you do not need to do both.

[V]ery small individual doses are not meaningful in assessing public health impacts..... In addition, the Linear, Non-Threshold theory of radiation health effects is being questioned with increasing intensity, and a body of scientific opinion exists today that holds it to be without scientific basis.....

If it is ``without scientific basis,'' then maybe the only basis left is a political basis. That is the frustration with which the chairman and I have had to deal for the last few years as we have tried to bring this issue to completion so the American people would know they had a permanent, safe repository in which to put high-level nuclear waste.

How do other nuclear experts look at this? Let me turn to the comments submitted to EPA by the Nuclear Regulatory Commission in a letter dated November 2, 1999, providing NRC's review of EPA's draft 15 and 4 millirem radiation standard.

On the ground water standard, NRC commented the following:

The NRC staff objects to the inclusion of separate groundwater protection requirements for the proposed repository at Yucca Mountain because these requirements would result in non-uniform risk levels, they misapply the Maximum Contaminant Levels ....., and they far exceed what is needed for protection of public health and safety.

If the public is listening to me or if they have listened to some of this debate, they would say: But, Senator **CRAIG**, don't you really want to make this as safe as humanly possible?

The answer, of course, is yes. The only problem with what EPA is saying is that if we make it that safe, we cannot make it. Of course, I am sure my colleagues from Nevada hope that would be the case. If that were true and if it were to become true, this Nation would still be without what the world of engineering and science says is a safe, permanent repository for nuclear waste. Why? Because we allowed politicians instead of scientists to make a determination as to what is right and how this facility ought to be constructed for the purpose of long-term safety.

What does the NRC have to say about the 15-millirem limit as compared to the NRC's proposed 25-millirem limit per year? Again I quote from the NRC's comment letter to EPA:

Although the EPA rule proposes a lower limit of 15 millirem, and the difference between 15 and 25 millirem is small, the lower value is not necessary for protection of public health and safety and would provide little, if any, reduction in health risk when compared with 25 millirem. It is also important to consider that the average American receives approximately 300 millirem per year from background radiation.

Oh, my goodness, you mean we are all being irradiated as we stand here or as we travel in our cars or live in our homes or walk in our back yards? The answer is, yes, we are. It is natural. Shame on that Sun and shame on the ground and shame on the minerals within the ground because they collectively give us 300 millirem per year in background radiation.

NRC goes on to say:

In addition to the lack of public health and safety benefits, there are regulatory concerns associated with lowering the dose limit to 15 millirem. Specifically, as the dose limit becomes smaller, limitations in the DOE's models used for estimating performance, and the associated uncertainties in supporting analysis, become more pronounced.

In other words, how you prove your case becomes more complicated.

Further, a 15 millirem dose limit is likely to cause unnecessary confusion for the public and cause the NRC to expend resources without a commensurate increase in public health and safety.

Zero risk. Is it possible in the world today, with all of our talent, all of our intelligence, and the best computers in the world, to construct a zero-risk environment? The answer is no. It cannot be done. It is humanly impossible under any circumstance for any situation; not just for radioactive

material, but automobiles and planes, walking across the street, or riding the train back to our offices in the Senate. Zero risk? No. It does not exist. It does not exist in science, and it does not exist in the environment. It never has, and it never will.

Yet I am quite sure the public believes we are so sophisticated today that we in fact could create that with the unique talents of this country. We cannot. It is important we say that. That is why we have professionals determine what is doable, right, and responsible, and that is all tied with costs and the ability to create.

What the NRC is saying by that--``the expending of resources without commensurate increase in public health''--is one can lower it to such a level of safety that there is no justification to go beyond that.

I could continue quoting from these various radiation experts for a very long while because the list is long; remember, experts not politicians. Their objections to EPA's current draft radiation standards reflect a very thorough and well-researched review of EPA's proposal, and the criticisms of these experts should inform our debate as we struggle to understand what all of these numbers mean and what they mean for the future of this country's nuclear waste disposal program.

But I think perhaps DOE said it best, in a letter to EPA transmitting DOE's comments on the draft radiation standard. And the reason that I like this quote is, I think it sets the larger context for what these radiation standards mean for our ultimate success or failure.

DOE says the following:

EPA's standards will play a pivotal role in achieving the long-standing policy of the United States to properly dispose of high-level radioactive waste and spent nuclear fuel in an underground mined geologic repository. The Nuclear Regulatory Commission must implement EPA's standards in its regulations for licensing a repository at the Yucca Mountain site, and DOE must be able to comply with those NRC regulations in order to construct a repository. If EPA were to select unrealistic, unnecessarily conservative, or non site-specific standards, the result could be the rejection of an otherwise suitable site, and the de facto rejection of the geologic disposal option without commensurate benefit to the protection of public health and safety. Such rejection would not avoid the consequences of radioactive water management, but it would require resort to a different and currently undefined approach.

I think the statement I just read describes the situation we are in now with EPA's unrealistic and unsupportable draft standard. I hope my colleagues will agree with me that this is a situation Congress must act to correct, by bringing good science back into the process of setting a radiation standard.

We need a disposal program. Congress, more than a decade ago, chose a course, a path. We began to tax the ratepayers of the utilities that have nuclear generation in this country to pay for that path.

That is where we are today. Some resist that path using all the reasons they can humanly generate, and that is why it is important we have this legislation. I hope the Congress can pass it and the President will sign it.

Those are the issues with which we have to deal in understanding this problem. It is critically important to our Nation.

At lunch today, I addressed a group of congressional staff and people in town who represent energy companies and those who do not. I said: I find it fascinating that the administration would want to take us through a climate change initiative, known as the Kyoto Protocol, in which they want to reduce carbon emissions in this country; therefore, we would have to reduce the use of fossil fuels which are currently our most abundant source of energy. In doing so, they are also not

willing to find a way to deal with nuclear waste, so that we can see an extension of the nuclear generation of our country for electricity. They are downplaying that energy source also, and, at the same time, we have a Secretary of Interior who wants to blow up hydro dams. They downplay hydro, and they will not even put hydro in the renewable resource category.

I find it fascinating, a country that exists on energy, an economy that is being driven today by artificial intelligence as a new industry, and that very industry operates on electricity itself.

I see our staff on the floor with computers in front of them. If you turned off the power of that computer, its brain would go dead, we would no longer have the tremendous expansion of this economy from which we are all benefiting. Yet we have an administration phenomenally resistant to the establishment of a permanent repository for nuclear waste but is open to the idea that if you do not handle the waste, you will ultimately kill the industry; and if you kill the industry, you will never build another nuclear reactor to generate environmentally clean electrical energy. And they want to get rid of the dams and they want to stop burning fossil fuels. Oh, my goodness.

What a reality check for our country, to have as our national policy no energy policy at all. Our wealth and our very existence, as a major economic force in the world, has always been built on the abundance of reasonably inexpensive but readily available energy.

That is a part of all of this debate. I think it is probably separate from what my colleagues from Nevada would say in opposing this legislation. Obviously, they have to reflect the politics of home, as they should.

But for a President to say, in a relatively unspoken way, as a policy for the country, we have no energy policy at all--we do not even have an energy strategy except maybe a few windmills and solar cells--it is no policy at all.

That is why we are on the floor trying to close the link between the generator of electrical power, by the use of the atom, and the necessity to have a responsible method for handling the waste that is created by that form of generation.

While the rest of the world around us builds nuclear reactors for generating power, and has responsibly handled their waste--and has used, in large part, our technology to do so--we have been bound up in the politics of it for well over a decade. I hope, finally, an opportunity exists for us to break through it.

In my opinion, this is one of the most significant environmental bills we will have before the Congress this year. While those on the other side would like to cast it as antienvironment, finding a way to collect the nuclear waste of this country, and putting it in one safe spot, far from any human being, high in the dry desert of Nevada, seems to me, and a lot of other people, to be darn good policy.

So let me thank my colleague from Alaska for his leadership. While he and I over the years have had disagreements on this issue, we have worked them out. We have asked the Senate to work with us to work out the differences. In most instances they have because this policy is too important for the normal course of politics that it has been served. This is an issue whose time has come. I hope the Senate and the House recognize that as we attempt to deal with it.

Again, I thank my chairman and yield the floor.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -- (Senate - October 25, 1999)

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By Mr. CRAIG (for himself, Mr. **HAGEL,** Mr. **ROBERTS,** Mr. **ENZI,** and Mr. **GRAMS**):

S. 1776. A bill to amend the Energy Policy Act of 1992 to revise the energy policies of the United States in order to reduce greenhouse gas emissions, advance global climate science, promote technology development, and increase citizen awareness, and for other purposes; to the Committee on Energy and Natural Resources.

THE CLIMATE CHANGE ENERGY POLICY RESPONSE ACT

S. 1777. A bill to amend the Internal Revenue Code of 1986 to provide incentives for the voluntary reduction of greenhouse gas emissions and to advance global climate science and technology development; to the Committee on Finance.

THE CLIMATE CHANGE TAX AMENDMENTS OF 1999

Mr. CRAIG. Mr. President, few issues present stakes as high for our country as global climate change . Worst case scenarios involving elevated temperatures and sea levels are disturbing to many people. On the other hand, capping energy use at levels lower than those in the growth-oriented nineties could chill our economy faster than it would cool down the climate .

Responsible governance includes environmental stewardship. However, the ultimate obligation of any government official anywhere is to win freedom for the governed who do not now have it, and to protect freedom for those who are already free.

By freedom, I mean the opportunity to achieve one's true potential, whether as an individual, a community, or a nation. And isn't it marvelous how freedom spawns discovery and innovation? And, in turn, how discovery and innovation solve problems and create opportunities?

Mr. President, we need consensus on climate change . But there is no magic dust that we can sprinkle on ourselves to make us all embrace the same scientific and economic conclusions on this issue. Our only chance lies in good, hard work toward that end.

Where should we begin? Knowledge leads to understanding, and understanding to consensus. Mr. President, at the moment we have some critical gaps in our knowledge of climate phenomena.

We know not nearly enough about the Earth's capacity to assimilate carbon dioxide. We know not nearly enough about natural variability of the climate over years, much less over centuries and millennia. Our ability to measure and predict changes is not developed. Adequate measurement and modeling machinery is not even invented yet. Scientists at the National

Research Council published a report in September, 1999, that confirm these observations. In the preface of that Report, they state:

It would be a misinterpretation of U.S. administration policy and agreements at the Kyoto conference to conclude that the causes and characteristics of global change are sufficiently clear that scientific inquiry in this area should be limited to mitigation measures.
* * * * *

A great deal more needs to be understood ..... about global environmental change before we concentrate on ``mitigation'' science. We do not understand the climate system well enough to clarify the causes and likelihoods of rapid or abrupt climate changes.

Likewise, Mr. President, we need to understand the economic implications of the leading policy alternatives. One year ago the U.S. Department of Energy published a sobering analysis of potential economic impacts of implementing the Kyoto agreement. But shouldn't we hear from other agencies as well? What would the Department of Labor have to say? How about Agriculture and Transportation? Let's look before we leap.

A third area we must explore is technology. What do we really know today about how energy will be produced in this country in 20 years? What do we know about how--and how much--it will be consumed? Can we develop policies to encourage real improvement in energy efficiency without trying to pick the market winners and losers?

Mr. President, we are now living in the Information Renaissance. But many in government behave as though we are still in the Dark Ages. If some of us in Congress have difficulty gaining access to government-controlled information in this area--and all too often we have--can you imagine the obstacles to private citizens?

Let's get all the information--science, technology, economics--together. Let's make it freely and widely available. All Americans have a right to know what their Government knows--and what their Government is doing--about climate change .

Knowledge in the science, economics, and technology of climate change will yield to understanding. We should all be open to unexpected discovery, whether in pleasant surprises or confirmation of today's predictions.

While we are waiting to close our knowledge gaps, why not go ahead with some steps that reduce greenhouse gas emissions while accomplishing other benefits along the way? Every minute wasted in traffic tie-ups is that much more carbon dioxide man releases into the atmosphere. If we apply technology to solving traffic problems and the greenhouse gas theory fizzles out, at least our efforts will have saved time for busy travelers and commuters.

Let's find ways to encourage individual citizens, farms and small businesses, communities and States, to take some no-regrets action to lower greenhouse gas emissions. But let's not offer the

false hope that their efforts will be rewarded in some kind of negotiable credits issued in an international currency of carbon caps or fuel rations.

Mr. President, the two companion bills that several colleagues and I are introducing today set out to do all these things with regard to the global climate change issue. My legislation does not pretend to answer all the questions. Rather, it lays out a framework for reaching consensus that begins by developing knowledge; and from knowledge understanding; and from understanding consensus.

Mr. President, let's get stared. I welcome my colleagues to join me as cosponsors.

I ask unanimous consent that the text and a section-by-section analysis of each measure be printed in the **RECORD**.

There being no objection, the material was ordered to be printed in the **RECORD**, as follows:

S. 1776

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) **SHORT TITLE**.--This Act may be cited as the ``Climate Change Energy Policy Response Act''.

(b) **TABLE OF CONTENTS**.--The table of contents of this Act follows:

Sec..1..Short title; table of contents.

Sec..2..Findings.

Sec..3..Definitions.

TITLE I--ENERGY POLICY COORDINATION

Sec..101..Responsibility of Department of Energy.

TITLE II--ADVANCEMENT OF CLIMATE CHANGE SCIENCE

Sec..201..Coordination, prioritization, and evaluation of climate change science research.

TITLE III--COMPREHENSIVE POLICY REVIEW AND ANALYSIS

Sec..301..Domestic and international assessment of policies for addressing the effects of greenhouse gas emissions.

TITLE IV--PUBLIC RIGHT TO KNOW

Sec..401..Annual report to public.

TITLE V--ACCELERATED DEVELOPMENT AND DEPLOYMENT OF RESPONSE TECHNOLOGY

Sec..501..Review of federally funded energy technology research and development.

Sec..502..Study of regulatory barriers to rapid deployment of emission reduction technology.

TITLE VI--INTERNATIONAL DEPLOYMENT OF ENERGY TECHNOLOGY TO MITIGATE CLIMATE CHANGE

Sec..601..International deployment of energy technology to mitigate climate change .

TITLE VII--OPTIMAL OPERATING EFFICIENCY OF TRANSPORTATION SYSTEMS

Sec..701..Traffic congestion relief research.

TITLE VIII--VOLUNTARY INITIATIVES

Sec..801..Improved and streamlined reporting and certification of voluntary measures..

Sec..802..Public awareness campaign regarding benefits of certification of voluntary emission reductions.

Sec..803..State authority to encourage voluntary energy initiatives.

SEC. 2. FINDINGS.

Congress finds that--

(1) to responsibly address climate change issues requires examination of energy policies and practices;

(2) global climate change issues have profound scientific, technological, economic, and public policy facets that must be addressed in a comprehensive, integrated fashion;

(3) current scientific research, experimentation, and data collection are not adequately focused on answering key questions within the United States or internationally;

(4)(A) the lack of a coordinated climate modeling strategy in the United States is hampering progress in high-end climate modeling activities;

(B) the United States lacks the capabilities to perform the requisite climate change modeling simulations and experiments in order to be able to apply existing United States intellectual expertise to important science and policy questions related to climate change ; and

(C) those deficiencies, among others, limit the ability of the United States to--

(i) predict future climate characteristics and assess the results of climate change ;

(ii) formulate policies that are consistent with national objectives; and

(iii) advance most effectively an understanding of the underlying scientific issues pertaining to climate change and variability;

(5) there has been a lack of progress made by Federal agencies responsible for climate observation systems, individually and collectively, in developing and maintaining a credible, integrated climate observing system, consequently limiting the ability of the United States to document and understand climate change adequately;

(6)(A) developing and deploying technologies can speed the transition to a lower level of greenhouse gas emissions in the United States and throughout the world;

(B) the pace of technological change in the marketplace is difficult to predict accurately; while breakthroughs in such developments are often incremental, capital turnover, consumer acceptance, technological compatibility, economics, and other factors can alter the pace of such change ; and

(C) such technologies need to be environmentally sound, safe, cost-effective, and consumer-friendly;

(7)(A) public access to scientific, economic, and public policy information regarding climate change is severely limited;

(B) the public's right to know and to be fully informed of all aspects of climate change is not being satisfied; and

(C) open and balanced discussion leading to public support for the best environmentally and economically sound approaches to climate change policy resolution is urgently needed;

(8) sufficient scientific questions and public interest exist to warrant tangible encouragement and acknowledgment of responsible actions by private entities to reduce, avoid, or offset greenhouse gas emissions, even though many scientific, technological, economic, and public policy questions have not yet been resolved;

(9) voluntary measures should be encouraged through incentives rather than in anticipation of future domestic or international regulatory mandates; and

(10) greenhouse gas emission improvements can be achieved through voluntary measures even as we answer yet unresolved key questions about global and regional climates.

SEC. 3. DEFINITIONS.

(a) **IN GENERAL.**--Title XVI of the Energy Policy Act of 1992 is amended by inserting before section 1601 (42 U.S.C. 13381) the following:

``**SEC. 1600. DEFINITIONS.**

``In this title:

``(1) **ADMINISTRATOR.**--The term `Administrator' means the Administrator of the Energy Information Administration.

``(2) **EMISSION REDUCTION.**--The term `emission reduction' includes--

``(A) avoidance of the emission of a greenhouse gas ;

``(B) a limitation on the emission of a greenhouse gas ;

``(C) sequestration of carbon; and

``(D) mitigation for the emission of a greenhouse gas .

``(3) **ENERGY TECHNOLOGY.**--The term `energy technology' means--

``(A) a technology to relating to--

``(i) the generation or production (including exploration and discovery) of an energy source; or

``(ii) the transmission, distribution, conservation, or use of energy that could reduce greenhouse gas emissions; and

``(B) a technology relating to carbon sequestration, including carbon sequestration through crops, soils, forests, oceans, and wetlands.

``(4) **GREENHOUSE GAS** .--The term `greenhouse gas' means a gaseous constituent of the atmosphere, natural or anthropogenic, that absorbs and re-emits infrared radiation.".

(b) **TECHNICAL AMENDMENT.**--The table of contents of the Energy Policy Act of 1992 (106 Stat. 2776) is amended by inserting before the item relating to section 1601 the following:

``Sec. 1600. Definitions.".

TITLE I--ENERGY POLICY COORDINATION

SEC. 101. RESPONSIBILITY OF DEPARTMENT OF ENERGY.

(a) **IN GENERAL**.--Section 1603 of the Energy Policy Act of 1992 (42 U.S.C. 13383) is amended--

(1) by inserting striking ``Within 6 months" and inserting the following:

``(a) **IN GENERAL**.--Within 6 months"; and

(2) by adding at the end the following:

``(b) **ROLE OF SECRETARY**.--The Secretary, consistent with other Federal law, shall--

``(1) coordinate all energy-related activities involving climate change issues, including scientific research, energy technology and development, and evaluation of effects and implications on energy use, sources, and related activities of various global climate change policies described in this title;

``(2) select policies to be assessed under this section and conduct the assessments; and

``(3) ensure that--

``(A) the collection and dissemination of all information developed and disseminated (including data and modeling results) relating to climate change issues described in this title is timely, balanced, accurate, and sound; and

``(B) the information described in subparagraph (A) is made available to the public.

``(c) **STAFF**.--

``(1) **STAFF DIRECTOR**.--The Secretary of Energy shall designate an appropriate officer of the Department of Energy to function as staff director for the Secretary for functions assigned to the Secretary under this title.

``(2) **STAFF SUPPORT**.--

``(A) **IN GENERAL**.--The Secretary of Energy may request from the Secretary of Agriculture, Secretary of Commerce, Secretary

of State, and Secretary of Transportation such additional staff support as the Secretary may require to carry out functions under this title.

``(B) **PERSONNEL ON DETAIL**.--Staff provided under subparagraph (A) shall serve on detail to the Secretary with the approval of the respective agency heads.

``(C) **NO STAFFING INCREASE**.--This subsection and the other amendments made to this title by the Climate Change Energy Policy Response Act shall not serve to authorize an increase in staffing authority for the Secretary or any such agency head.

``(e) **CONSULTATION WITH NAS, NAE, NRC, AND EPA**.--The Secretary shall consult, as appropriate, with--

``(1) the National Academy of Sciences and National Academy of Engineering;

``(2) the National Research Council; and

``(3) the Environmental Protection Agency.".

(b) **TECHNICAL AMENDMENTS**.--

(1) The section heading for section 1603 of the Energy Policy Act of 1992 is amended by striking ``

DIRECTOR OF'' and inserting ``

COORDINATION OF''.

(2) The item in the table of contents for the Energy Policy Act of 1992 (42 U.S.C. 13381 et seq.) is amended by striking ``Director of'' and inserting ``Coordination of''.

TITLE II--ADVANCEMENT OF CLIMATE CHANGE SCIENCE

SEC. 201. COORDINATION, PRIORITIZATION, AND EVALUATION OF CLIMATE CHANGE SCIENCE RESEARCH.

(a) **IN GENERAL**.--Title XVI of the Energy Policy Act of 1992 (42 U.S.C. 13381 et seq.) is amended by striking section 1604 and inserting the following:

``SEC. 1604. COORDINATION, PRIORITIZATION, AND EVALUATION OF CLIMATE CHANGE SCIENCE RESEARCH.

``(a) **IN GENERAL**.--The Secretary, with the advice and assistance of the National Academy of Sciences and the National Academy of Engineering, shall coordinate, prioritize, and evaluate the Federally funded research conducted by or through Federal agencies that, in whole or in part, involves climate change science.

``(b) **RECOMMENDATIONS TO CARRY OUT RESEARCH**.--The Secretary shall annually request from the National Research Council recommendations of measures to effectively carry out all scientific research performed under this title, including strengthening of peer review processes and grantmaking procedures.

``(c) **PLAN FOR COORDINATION**.--

``(1) **IN GENERAL**.--Not later than 180 days after the date of enactment of the Climate Change Energy Policy Response Act, the Secretary shall submit to Congress recommendations for legislative and administrative measures to effectively carry out research and public information programs under this title.

``(2) **SUBJECTS**.--Recommendations under paragraph (1) shall include recommendations to improve peer review processes and grantmaking procedures.

``(d) **OBJECTIVES OF FEDERAL CLIMATE CHANGE SCIENCE RESEARCH**.--

``(1) **IN GENERAL**.--All climate change science research performed under this title--

``(A) in the aggregate, shall adequately address the objectives stated in paragraph (2); and

``(B) individually, shall, to the extent practicable, incorporate a focus on those objectives, as appropriate.

``(2) **OBJECTIVES**.--The objectives referred to in paragraph (1) are the objectives of--

``(A) understanding the Earth's capacity to assimilate natural and manmade greenhouse gas emissions;

``(B) evaluating the natural variability of the climate , including such phenomena as El Nin 6o;

``(C)(i) developing, and assessing the capabilities of, climate models; and

``(ii) facilitating future climate assessments and our understanding and predictions of climate through formulation of a national statement of goals and objectives, followed by appropriate development of a national climate modeling strategy that--

``(I) includes the provision of adequate computational resources to enhance supercomputing capabilities and the provision of adequate human resources; and

``(II) is integrated and coordinated across the relevant agencies;

``(D) ensuring the integrity of all observational data used to validate models;

``(E) stabilizing the existing climate observational capability;

``(F) identifying critical climate variables that are inadequately measured or not measured at all;

``(G) building climate observing requirements into existing, ongoing operational programs;

``(H) revamping climate research programs and appropriate climate -critical parts of operational observing programs so as to produce truly useful long-term climate data;

``(I) establishing a funded activity for the development, implementation, and operation of climate -specific observational programs;

``(J) assessing the capability and potential of the United States and North American carbon sequestration, including carbon sequestration through crops, forests, soils, oceans, and wetlands; and

``(K) developing and deploying the technology to monitor all relevant national and global data.

``(e) **REPORTS**.--

``(1) **IN GENERAL**.--Not later than October 1 of each year, the Secretary shall submit to Congress and the President a report on the activities carried out under this section.

``(2) **CONTENTS**.--The report under paragraph (1) shall contain any scientific conclusions, interim status reports, and recommendations for subsequent research and testing that the Secretary considers appropriate.

``(3) **DRAFT REPORT**.--A report under paragraph (1) shall be made available in draft form not later than August 1 of each year to appropriate nongovernmental organizations with applicable scientific expertise for review before final publication.

``(4) **PUBLIC AVAILABILITY**.--Each report under paragraph (1) shall be made public, including through the National Resource Center on Climate Change established under section 1612.

``(f) **AUTHORIZATION OF APPROPRIATIONS FOR CERTAIN CLIMATE CHANGE RESEARCH**.--For each of fiscal years 2001 through 2004, there are authorized to be appropriated to the Secretary such sums as are necessary for--

``(1) research to assess the ability of natural carbon sinks to adjust to natural variations in climate and greenhouse gas emissions including crops, grassland, forests, soils, and oceans;

``(2) research on natural climate variability;

``(3) research to develop and assess the capabilities of climate models;

``(4) research to ensure the integrity of data used to validate climate models;

``(5) research to develop carbon sinks in the United States, primarily crop and forestry research; and

``(6) research to develop and deploy monitoring technology.".

(b) **TECHNICAL AMENDMENT**.--The table of contents of the Energy Policy Act of 1992 (106 Stat. 2776) is amended by striking the item relating to section 1604 and inserting the following:

``Sec. 1604. Coordination, prioritization, and evaluation of climate change science research.".

TITLE III--COMPREHENSIVE POLICY REVIEW AND ANALYSIS

SEC. 301. DOMESTIC AND INTERNATIONAL ASSESSMENT OF POLICIES FOR ADDRESSING THE EFFECTS OF GREENHOUSE GAS EMISSIONS.

(a) **IN GENERAL**.--Title XVI of the Energy Policy Act of 1992 (42 U.S.C. 13381 et seq.) is amended by inserting after section 1604 the following:

``SEC. 1604A. ASSESSMENT OF ALTERNATIVE ENERGY-RELATED POLICIES FOR ADDRESSING GREENHOUSE GAS EMISSIONS.

``(a) **EVALUATION AND COMPREHENSIVE REPORT**.--

``(1) **DEFINITION OF ECONOMIC INDICATOR**.--In this subsection, the term `economic indicator' means--

``(A) the rate of inflation;

``(B) the rate of change in the gross domestic product;

``(C) the unemployment rate;

``(D) interest rates; and

``(E) the price and supply availability of fossil fuels (by category and source).

``(2) **REPORTS BY SECRETARY**.--

``(A) **IN GENERAL**.--Not later than 2 years after the date of enactment of the Climate Change Energy Policy Response Act and biannually thereafter, the Secretary, after consultation with each department referred to in paragraphs (3) through (10) and the United States Trade Representative, shall submit to Congress and to the President a report containing a critical analysis and assessment of energy-related policies for responding to potential global climate change (including a comparative assessment of the policies).

``(B) **DESIGNATED POLICIES**.--The Secretary shall select at least 3 energy-related policies for assessment under subparagraph (A).

``(C) **SHORT-TERM AND LONG-TERM ASSESSMENTS**.--The assessments shall be for the short term (within 5 years following the date of the report) and the long term (within 50 years following the date of the report).

``(3) **ENERGY SUPPLY AND DEMAND**.--

``(A) **IN GENERAL**.--The Secretary shall analyze and assess the energy supply, demand, and price implications for each energy-related policy referred to in paragraph (2)(A).

``(B) **ACCOUNTING FOR VARIOUS SCENARIOS**.--Each assessment described in subparagraph (A) shall address any energy implications under various scenarios, including changes in economic indicators.

``(C) **INITIAL DRAFT**.--The Energy Information Administration shall--

``(i) prepare the initial draft of each report required under this paragraph; and

``(ii) make a copy of the initial draft available to the public.

``(4) **AGRICULTURE**.--

``(A) **IN GENERAL**.--After opportunity for consultation with the Department of Agriculture, each report by the Secretary shall analyze and assess the agricultural production cost and market implications of each energy-related policy referred to in paragraph (2)(A), including the overall impact of the policy on rural economies.

``(B) **ACCOUNTING FOR VARIOUS SCENARIOS**.--Each assessment described in subparagraph (A) shall address any agricultural implications under various scenarios, changes in economic indicators, and in livestock and commodity prices.

``(5) **HEALTH**.--

``(A) **IN GENERAL**.--After opportunity for consultation with the Department of Health

and Human Services, each report by the Secretary shall analyze and assess the health implications of each energy-related policy referred to in paragraph (2)(A).

``(B) **ACCOUNTING FOR VARIOUS SCENARIOS**.--Each assessment described in subparagraph (A) shall address any health implications under various scenarios, including changes in economic indicators.

``(6) **LABOR**.--

``(A) **IN GENERAL**.--After opportunity for consultation with the Department of Labor, each report by the Secretary shall analyze and assess the implications of each policy referred to in paragraph (2)(A) on--

``(i) workers, including wages, job opportunities, and the comparative attractiveness, if any, of locating operations of United States companies abroad; and

``(ii) consumers, in terms of projected impacts, if any, on the Consumer Price Index.

``(B) **ACCOUNTING FOR VARIOUS SCENARIOS**.--Each assessment described in subparagraph (A) shall account for implications under various scenarios, including changes in economic indicators.

``(7) **TRANSPORTATION**.--

``(A) **IN GENERAL**.--After opportunity for consultation with the Department of Transportation, each report by the Secretary shall analyze and assess the impacts, if any, of each policy described in paragraph (2)(A) on all modes of transportation, and the resulting economic effects of such cost changes on consumers, labor, agricultural enterprises, and businesses (including specifically domestic consumers and businesses that are dependent on transportation).

``(B) **ACCOUNTING FOR VARIOUS SCENARIOS**.--Each assessment described in subparagraph (A) shall address any transportation implications under various scenarios, including, in the case of motor vehicles, technological changes in vehicle design and traffic constraint mitigation.

``(C) **CONSIDERATIONS**.--Each assessment described in subparagraph (A) shall consider such factors as--

``(i) vehicle miles traveled;

``(ii) the availability of adequate and reliable public transportation within and between cities, States, and regions;

``(iii) the commercial use of trucks and other highway motor vehicles for transporting goods and passengers and delivering services;

``(iv) the geographic size and population of the United States relative to those of other developed countries;

``(v) safety;

``(vi) environmental laws;

``(vii) fuel prices;

``(viii) energy conservation; and

``(ix) changes in economic indicators.

``(8) **HOUSING AND URBAN PLANNING**.--

``(A) **IN GENERAL**.--After opportunity for consultation with the Department of Housing and Urban Development, each report by the Secretary shall analyze and assess the implications of each policy described in paragraph (2)(A) on housing costs and urban planning.

``(B) **ACCOUNTING FOR VARIOUS SCENARIOS**.--Each assessment described in subparagraph (A) shall address any housing and urban planning implications under various scenarios, including variations in mortgage and construction interest rates and changes in economic indicators.

``(9) **INTERNATIONAL COMMERCE**.--

``(A) **IN GENERAL**.--After opportunity for consultation with the Secretary of Commerce and the United States Trade Representative, each report by the Secretary shall analyze and assess the implications of each policy described in paragraph (2)(A) on United States exports and imports and trade competitiveness.

``(B) **ACCOUNTING FOR VARIOUS SCENARIOS**.--Each assessment described in subparagraph (A) shall address any international commerce implications under different scenarios, including changes in economic indicators.

``(10) **ACTIONS BY OTHER NATIONS**.--

``(A) **IN GENERAL**.--Each report by the Secretary shall analyze and assess the actions taken, or likely to be taken, and the net aggregate effect of such actions, by each United Nations member country to avoid, reduce, or adapt to potential global climate change .

``(B) **CONSULTATION**.--Each report shall be prepared in accordance with otherwise applicable laws (including regulations) after opportunity for consultation with the Central Intelligence Agency, the National Security Agency, and the Department of State.

``(C) **ANALYSIS OF POLITICAL AND ECONOMIC FACTORS**.--

``(i) **IN GENERAL**.--Each assessment described in subparagraph (A) shall analyze the political and economic factors present in each country that form the basis for the assessment.

``(ii) **MATTERS TO BE ADDRESSED**.--Each assessment shall specifically address--

``(I) the status of the commitment of each country to any international agreements, treaties, or protocols related to potential global climate change ; and

``(II) the projected ability of each country to commit to, and the likelihood of each country's committing to, specific quantifiable targets to reduce, within specified timeframes, greenhouse gas emissions under a legally binding international agreement.

``(11) **REPORTING FLEXIBILITY**.--For biannual reports under this subsection, the Secretary may--

``(A) submit individual reports with respect to each paragraph under this subsection; or

``(B) submit a combination of 1 or more biannual reports, but only if submitting a combination of reports would facilitate public understanding in a timely manner.

``(b) **COMPREHENSIVE POLICY REPORTS**.--

``(1) **IN GENERAL**.--Not later than 30 months after the date of enactment of the Climate Change Energy Policy Response Act, and biannually thereafter, the President, with the advice and assistance of the Secretary, shall submit to Congress a report analyzing and integrating the combined findings of the reports required under subsection (a).

``(2) **CONTENTS**.--Each report under paragraph (1) shall include recommendations of any changes in law, international agreements, or public policy that the President considers to be in the best interests of the United States.

``(c) **NATIONAL ACADEMY OF SCIENCES; NATIONAL ACADEMY OF ENGINEERING**.--

``(1) **IN GENERAL**.--Not later than 30 days after the date of enactment of the Climate Change Energy Policy Response Act, the Secretary shall request that, not later than 2 years after the date of enactment of that Act and biannually thereafter, the National Academy of Sciences and the National Academy of Engineering (acting through the National Research Council) submit to Congress and to the Secretary (for inclusion in the review and report under subsection (c)) a report containing a comparative assessment of each policy assessed under subsection (b), including the known scientific effect of each mechanism on global climate change and the effect of each mechanism on the technology development and selection.

``(2) **SHORT-TERM AND LONG-TERM ASSESSMENTS**.--An assessment under paragraph (1) shall be for the short term (the following 5-year period) and for the long term (the following 50-year period).

``(d) **REPORT ON ACTIONS UNDER EPA JURISDICTION.--**

``(1) **IN GENERAL.**--Not later than 2 years after the date of enactment of the Climate Change Energy Policy Response Act, and biannually thereafter, based on consultations with the Administrator of the Environmental Protection Agency, the Secretary shall submit to Congress and the President a report describing the energy supply and demand implications of all activities carried out by the Agency that have a coincidental effect on actions by the private sector that affect greenhouse gas emissions.

``(2) **PUBLIC CONSULTATION.**--In preparing a report under paragraph (1), the Secretary shall consult with--

``(A) persons in the private sector that are regulated by the Administrator; and

``(B) persons in the public sector.

``(e) **SUSPENSION OF REPORTS.**--After a second report is made under this section, the Secretary may suspend any reporting requirement under subsection (a) for a period of not more than 4 years if the Secretary determines that additional responses to that requirement would not be likely to provide information that substantially supplements the earlier reports.''.

(b) **TECHNICAL AMENDMENT.**--The table of contents of the Energy Policy Act of 1992 (106 Stat. 2776) is amended by inserting after the item relating to section 1604 the following:

``Sec. 1604A. Assessment of alternative policies for addressing greenhouse gas emissions.''.

TITLE IV--PUBLIC RIGHT TO KNOW

SEC. 401. ANNUAL REPORT TO PUBLIC.

(a) **IN GENERAL.**--Title XVI of the Energy Policy Act of 1992 (42 U.S.C. 13381 et seq.) is amended by adding at the end the following:

``SEC. 1610. ANNUAL REPORT TO PUBLIC.

``(a) **REPORT.**--The Secretary, at the time the President submits to Congress the budget of the United States Government under section 1105 of title 31, United States Code, shall publish a detailed report that includes, to the maximum extent practicable--

``(1) a description of all current fiscal year and prior fiscal year Federal spending on climate change , categorized by research, regulation, education, and other activities;

``(2) an estimate of the prior year and current amount of any Federal tax credits or other Federal tax deductions claimed by taxpayers directly attributable to emission reduction activities;

``(3) a compendium of all proposed Federal spending related to climate change categorized by research, regulation, education, and other activities;

``(4) tables detailing all spending recommendations on climate change submitted by Federal agencies to the Office of Management and Budget, compared with the final recommendations of the President;

``(5) an alphabetical index of all climate change grantees, cross-referenced by name of institution and persons carrying out the grant project;

``(6) an index of all climate change grant proposals not funded by Federal agencies; and

``(7) a list of all persons, and their institutional affiliations, participating in peer review of climate change grant proposals submitted to Federal agencies.

``(b) **AVAILABILITY OF REPORTS**.--A report under subsection (a) shall be--

``(1) printed on recycled paper;

``(2) made available to the public; and

``(3) posted on the Internet.

``SEC. 1611. PUBLIC COMMENT.

``In the case of any report under this title that is to be published, the Secretary shall--

``(1) provide to the public notice and opportunity to comment on the contents or quality of the report before it is published; and

``(2) receive, catalogue, and make readily available to the public all written public comments on reports covered by this section, except that lengthy compilations of public comments may be published in electronic format only.

``SEC. 1612. NATIONAL RESOURCE CENTER ON CLIMATE CHANGE .

``(a) **IN GENERAL**.--The Secretary, in consultation with the National Academy of Sciences, shall maintain a National Resource Center on Climate Change (referred to in this section as the `Center').

``(b) **FUNCTIONS**.--

``(1) **IN GENERAL**.--The Center shall preserve and make available to the public all reports, studies, or other information relating to climate change provided for in this title, provided for in

the Climate Change Energy Policy Response Act, or otherwise available to the Federal Government.

``(2) **REFERENCE ITEMS**.--Except as otherwise provided in this title, reference items may be made available in electronic format only.

``(c) **RELATIONSHIP TO OTHER LAW**.--Nothing in this section alters or amends otherwise applicable law restricting public access to information, including laws protecting national defense secrets, intellectual property rights, and privacy rights.".

(b) **TECHNICAL AMENDMENT**.--The table of contents of the Energy Policy Act of 1992 (106 Stat. 2776) is amended by inserting after the item relating to section 1609 the following:

``Sec. 1610. Annual report to public.

``Sec. 1611. Public comment.

``Sec. 1612. National Resource Center on Climate Change .".

TITLE V--ACCELERATED DEVELOPMENT AND DEPLOYMENT OF RESPONSE TECHNOLOGY

SEC. 501. REVIEW OF FEDERALLY FUNDED ENERGY TECHNOLOGY RESEARCH AND DEVELOPMENT.

(a) **IN GENERAL**.--Title XVI of the Energy Policy Act of 1992 (42 U.S.C. 13381 et seq.) (as amended by section 401(a)) is amended by adding at the end the following:

``SEC. 1613. REVIEW OF FEDERALLY FUNDED ENERGY TECHNOLOGY RESEARCH AND DEVELOPMENT.

``(a) **DEPARTMENT OF ENERGY REVIEW OF FEDERALLY FUNDED ENERGY TECHNOLOGY RESEARCH AND DEVELOPMENT**.--

``(1) **IN GENERAL**.--The Secretary shall--

``(A) review annually any federally funded research and development activities carried out on energy technology; and

``(B) issue a public report by October 15 of each year on the results of the review for consideration and use in the preparation of the budget of the United States Government submitted under section 1105 of title 31, United States Code, for the following fiscal year.

``(2) **ASSESSMENT OF TECHNOLOGY READINESS**.--As part of the review of an energy technology, the Secretary shall--

``(A) assess the status (including the potential commercialization) of the technology and any barriers to the deployment of the energy technology; and

``(B) consider--

``(i) the length of time it will take for deployment and use of the energy technology so as to have a meaningful impact on emission reductions;

``(ii) the cost of deploying the energy technology;

``(iii) the safety of the energy technology; and

``(iv) other relevant factors.

``(b) **ENERGY TECHNOLOGY RESEARCH AND DEVELOPMENT CLEARINGHOUSE**.--

``(1) **IN GENERAL**.--The Secretary shall establish, in the National Resource Center on Climate Change established under section 1614 or by such other means as the Secretary considers appropriate, an information clearinghouse to facilitate the transfer and dissemination of the results of federally funded research and development activities being carried out on energy technology.

``(2) **NO EFFECT ON RESTRICTIONS OR SAFEGUARDS**.--Paragraph (1) has no effect on any restrictions or safeguards established for national security or the protection of personal property rights (including trade secrets and confidential business information).

``(c) **AUTHORIZATION OF APPROPRIATIONS FOR JOINT FEDERAL/PRIVATE DEMONSTRATION PROGRAMS**.--There are authorized to be appropriated to the Secretary for each of fiscal years 2001 through 2004 such sums as are necessary for programs for the demonstration of innovative energy sequestration technologies described in section 1600(3)(B) to be conducted jointly by the Federal Government and private nonprofit or for-profit entities.''.

(b) **TECHNICAL AMENDMENT**.--The table of contents of the Energy Policy Act of 1992 (106 Stat. 2776) (as amended by section 401(b)) is amended by inserting after the item relating to section 1612 the following:

``Sec. 1613. Review of federally funded energy technology research and development.''.

SEC. 502. STUDY OF REGULATORY BARRIERS TO RAPID DEPLOYMENT OF EMISSION REDUCTION TECHNOLOGY.

Not later than 270 days after the date of enactment of this Act, the Comptroller General of the United States (in consultation with the Secretary of Commerce and the United States Trade Representative) shall--

(1) identify and evaluate regulatory barriers to the more rapid deployment of technology domestically and internationally for greenhouse gas emission reductions (within the meaning of section 1600 of the Energy Policy Act of 1992, as added by section 3);

(2) recommend to Congress changes in law that would permit more rapid deployment of such technologies; and

(3) make such other recommendations as the Comptroller General of the United States considers to be appropriate.

TITLE VI--INTERNATIONAL DEPLOYMENT OF ENERGY TECHNOLOGY TO MITIGATE CLIMATE CHANGE

SEC. 601. INTERNATIONAL DEPLOYMENT OF ENERGY TECHNOLOGY TO MITIGATE CLIMATE CHANGE .

Section 1608 of the Energy Policy Act of 1992 (42 U.S.C. 13386) is amended by striking subsection (l) and inserting the following:

``(l) **INTERNATIONAL DEPLOYMENT OF ENERGY TECHNOLOGY TO MITIGATE CLIMATE CHANGE** .--

``(1) **DEFINITIONS**.--In this subsection:

``(A) **ENERGY EFFICIENCY**.--The term `energy efficiency' means the ratio of the design average annual energy output of a unit of an energy production facility (determined without regard to any cogeneration of steam) to the design average annual heat input of the unit (based on the highest heating value of the fuel used by the unit).

``(B) **INTERNATIONAL ENERGY DEPLOYMENT PROJECT**.--The term `international energy deployment project' means a project to construct a unit of an energy production facility outside the United States--

``(i) the output of which will be consumed outside the United States; and

``(ii) the deployment of which will result in greenhouse gas reduction when compared to the technology that would otherwise be implemented through an increase in energy efficiency of--

``(I) 5 percentage points or more, in the case of a unit placed in service before January 1, 2010;

``(II) 7 percentage points or more, in the case of a unit placed in service after December 31, 2009, and before January 1, 2020; or

``(III) 10 percentage points or more, in the case of a unit placed in service after December 31, 2019, and before January 1, 2030.

``(C) **QUALIFYING INTERNATIONAL ENERGY DEPLOYMENT PROJECT**.--The term `qualifying international energy deployment project' means an international energy deployment that--

``(i) is submitted by a United States firm to the Secretary in accordance with procedures established by the Secretary by regulation;

``(ii) uses technology that has been successfully developed or deployed in the United States;

``(iii) meets the criteria of subsection (k);

``(iv) is approved by the Secretary, with notice of the approval being published in the Federal Register; and

``(v) complies with such terms and conditions as the Secretary establishes by regulation.

``(D) **UNITED STATES**.--The term `United States', when used in a geographical sense, means the 50 States, the District of Columbia, and territories and possessions of the United States.

``(2) **PILOT PROGRAM FOR FINANCIAL ASSISTANCE**.--

``(A) **IN GENERAL**.--Not later than 180 days after the date of enactment of the Climate Change Energy Policy Response Act, the Secretary shall by regulation provide for a pilot program for financial assistance for qualifying international energy deployment projects.

``(B) **LIMITATION**.--The pilot program shall provide financial assistance, subject to the availability of appropriations, for not more than 6 qualifying international energy deployment projects.

``(C) **SELECTION CRITERIA**.--After consultation with the Secretary of State, the Secretary of Commerce, and the United States Trade Representative, the Secretary shall select projects for participation in the program based solely on the criteria under this title and without regard to the country in which the project is located.

``(D) **FINANCIAL ASSISTANCE**.--

``(i) **IN GENERAL**.--A United States firm that undertakes a qualifying international energy deployment project selected to participate in the pilot program shall be eligible to receive a loan or a loan guarantee from the Secretary.

``(ii) **TIMING**.--The Secretary may enter into a commitment to make a loan or loan guarantee before the United States firm decides on a binding contract for the construction of a qualifying international energy deployment project.

``(iii) **RATE OF INTEREST**.--The rate of interest of any loan made under clause (i) shall be equal to the rate for Treasury obligations then issued for periods of comparable maturities.

``(iv) **AMOUNT**.--The amount of a loan or loan guarantee under clause (i) shall not exceed 75 percent of the total cost of the qualified international energy deployment project.

``(E) **COORDINATION WITH OTHER PROGRAMS**.--A qualifying international energy deployment project funded under this section shall not be eligible as a qualifying clean coal technology under section 415 of the Clean Air Act (42 U.S.C. 7651n).

``(F) **REPORT**.--Not later than 4 years after the date of enactment of the Climate Change Energy Policy Response Act, the Secretary shall submit to the President a report on the results of the pilot projects.

``(G) **RECOMMENDATION**.--Not later than 60 days after receiving the report under subparagraph (F), the President shall submit to Congress a recommendation, based on the results of the pilot projects as reported by the Secretary of Energy, concerning whether the financial assistance program under this section should be continued, expanded, reduced, or eliminated.

``(H) **AUTHORIZATION OF APPROPRIATIONS**.--There are authorized to be appropriated to carry out this subsection such sums as are necessary for fiscal years 2001 through 2004.".

TITLE VII--OPTIMAL OPERATING EFFICIENCY OF TRANSPORTATION SYSTEMS

SEC. 701. TRAFFIC CONGESTION RELIEF RESEARCH.

Section 502 of title 23, United States Code, is amended by adding at the end the following:

``(h) **TRAFFIC CONGESTION RELIEF RESEARCH**.--

``(1) **STUDIES**.--

``(A) **REGIONAL APPROACHES FOR REDUCING TRAFFIC CONGESTION**.--

``(i) **IN GENERAL**.--The Secretary shall enter into an arrangement with the National Academy of Sciences to conduct a study, and prepare a report comparing, the effectiveness of various regional approaches for reducing traffic congestion.

``(ii) **REQUIRED ASSESSMENTS**.--At a minimum, the study shall assess the impact on traffic congestion of--

``(I) expansion of highway capacity;

``(II) improvement of traffic operations (including improved incident management associated with traffic accidents and vehicle breakdowns); and

``(III) programs for demand management.

``(B) **HIGHWAY DESIGN CONCEPTS**.--

``(i) **IN GENERAL**.--The Secretary shall fund a study analyzing, and preparation of a report concerning, highway design concepts for projects to relieve congestion in urban areas without acquisition of additional rights-of-way.

``(ii) **ENTITY TO CARRY OUT STUDY**.--The study may be carried out and the report prepared--

``(I) by the Department of Transportation;

``(II) by another entity, through an arrangement with the Secretary; or

``(III) by a combination of the entities described in subclauses (I) and (II).

``(2) **FEDERAL SHARE**.--The Federal share of the cost of the studies required under paragraph (1) shall be 100 percent.

``(3) **FUNDING**.--

``(A) **IN GENERAL**.--Notwithstanding any other provision of law, for each of fiscal years 2000 through 2002, $1,000,000 of the sum deducted by the Secretary under section 104(a) shall be made available to carry out the studies required under paragraph (1).

``(B) **ALLOCATION OF FUNDS**.--Funds made available under subparagraph (A) shall be allocated among the 2 studies at the discretion of the Secretary, except that each study shall be allocated funds sufficient to allow for completion of the study.''.

TITLE VIII--VOLUNTARY INITIATIVES

SEC. 801. IMPROVED AND STREAMLINED REPORTING AND CERTIFICATION OF VOLUNTARY MEASURES.

(a) **REVISED GUIDELINES UNDER ENERGY POLICY ACT OF** 1992.--Section 1605(b) of the Energy Policy Act of 1992 (42 U.S.C. 13385(b)) is amended--

(1) by redesignating paragraphs (2) through (4) as paragraphs (3) through (5), respectively; and

(2) by inserting after paragraph (1) the following:

``(2) **REVISED GUIDELINES**.--

``(A) **IN GENERAL**.--Not later than 1 year after the date of enactment of the Climate Change Energy Policy Response Act, the Secretary shall revise the guidelines, after notice and opportunity for public comment, to reflect the amendments to this title made by that Act. Thereafter, the Secretary shall review and revise the guidelines every 5 years, after notice and opportunity for public comment.

``(B) **CONTENTS**.--The revised guidelines shall--

``(i) provide for a random or other verification process using the authorities available to the Secretary under other provisions of law;

``(ii) include a range of reference cases for reporting project-based activities in all appropriate sectors of the economy (including forestry and electric power generation); and

``(iii) address the issues, such as comparability, that are associated with permitting the option of reporting on an entity basis or on an activity or project basis.

``(C) **RETENTION OF VOLUNTARY REPORTING.--**Any review under this paragraph shall give appropriate weight to--

``(i) the purpose of encouraging voluntary emission reductions by the private sector; and

``(ii) the voluntary nature of reporting under this section.

``(D) **VALIDITY OF CERTIFICATION**.--Except to the extent that an emission reduction certified in a report under this subsection, not later than 1 year after the date of the report, is adjusted under the verification process under subparagraph (B) or review process under subsection (d)(2), the emission reduction shall be valid for purposes of this and any other provision of law if the report meets the guidelines as in effect on the date on which the report is made.".

(b) **ASSURANCE OF ACCURATE REPORTING**.--Section 1605(b) of the Energy Policy Act of 1992 (42 U.S.C. 13385(b)) (as amended by subsection (a)) is amended by striking paragraph (3) and inserting the following:

``(3) **REPORTING PROCEDURES**.--

``(A) **IN GENERAL**.--In accordance with paragraph (5), the Administrator shall--

``(i) develop forms for voluntary reporting under the guidelines established under paragraph (1); and

``(ii) make the forms available to entities wishing to report such information.

``(B) **CERTIFICATION OF REPORTS**.--

``(i) **IN GENERAL**.--A person reporting under this subsection shall certify the accuracy of the information reported.

``(ii) **REPORTS BY A CORPORATION**.--In the case of information reported by a corporation, the report--

``(I) shall be signed by an officer of the corporation; and

``(II) shall be subject to section 1001 of title 18, United States Code.".

(c) **AVOIDANCE OF DUPLICATE REPORTING**.--Section 1605(b) of the Energy Policy Act of 1992 (42 U.S.C. 13385(b)) (as amended by subsection (a)) is amended--

(1) by redesignating paragraphs (4) and (5) as paragraphs (5) and (6), respectively; and

(2) by inserting after paragraph (2) the following:

``(4) **AVOIDANCE OF DUPLICATE REPORTING**.--

``(A) **IN GENERAL**.--The guidelines under this subsection shall ensure against multiple certification of the same emission reductions.

``(B) **FIRST TO SEEK CERTIFICATION**.--In a case in which--

``(i) more than 1 person is directly involved in the creation or implementation of an emission reduction measure;

``(ii) there is no--

``(I) written contractual arrangement between the persons that specifies which person is entitled to report the emission reduction; or

``(II) reference case or other provision of the guidelines that addresses the question which person is entitled to report the emission reduction in the circumstance of the case; and

``(iii) the Administrator determines that 2 or more of the persons have equally valid claims to the same emission reduction;

the first of the persons to certify the emission reduction in a report under this subsection shall be the only person entitled to report the emission reduction.".

(d) **SIMPLIFICATION OF REPORTING**.--Section 1605(b) of the Energy Policy Act of 1992 (42 U.S.C. 13385(b)) (as amended by subsection (c)) is amended by inserting after paragraph (4) the following:

``(5) **SIMPLIFICATION OF REPORTING**.--Not later than 60 days after the date of enactment of the Climate Change Energy Policy Response Act, the Administrator shall by regulation, in consultation with the Secretary of Agriculture and the Administrator of the Small Business Administration, as appropriate, review and revise the reporting forms and procedures to facilitate greater participation by small businesses, farms, and other organizations that did not extensively participate in voluntary emission reductions and reporting under this subsection during the first 6 years after the date of enactment of this Act.".

(e) **BEST PRACTICES FOR ESTIMATING EMISSION REDUCTIONS**.--Section 1605 of the Energy Policy Act of 1992 (42 U.S.C. 13385) is amended by adding at the end the following:

``(d) **BEST PRACTICES FOR ESTIMATING EMISSION REDUCTIONS**.--

``(1) **ESTABLISHMENT BY THE SECRETARY**.--Not later than 180 days after the date of enactment of this subsection, after notice and opportunity for public comment, the Secretary, with the assistance of the Administrator, shall establish the most reasonably effective practices for estimating emission reductions under subsection (b).

``(2) **REVIEW OF PRIOR CERTIFICATIONS**.--Emission reductions certified before the date of enactment of this subsection shall be subject to review by the Secretary and adjustment, in appropriate cases, to account for any change in a practice under this subsection.

``(3) **CONFORMITY OF PRIOR REPORTED EMISSION REDUCTIONS WITH BEST PRACTICES**.--In any review under this subsection, the Secretary shall obtain the assistance of the Administrator in assessing whether and to what extent any prior reported emission reduction is in conformity with best practices established under paragraph (1).".

SEC. 802. PUBLIC AWARENESS CAMPAIGN REGARDING BENEFITS OF CERTIFICATION OF VOLUNTARY EMISSION REDUCTIONS.

Section 1605 of the Energy Policy Act of 1992 (42 U.S.C. 13385) (as amended by section 801(f)) is amended by adding at the end the following:

``(e) **PUBLIC AWARENESS PROGRAM**.--

``(1) **IN GENERAL**.--The Secretary shall create and implement a public awareness program to educate all appropriate persons (especially farmers and small businesses) in all regions of the United States of--

``(A) the direct benefits of engaging in voluntary emission reduction measures and having the emission reductions certified under this section and available for use under other incentive programs; and

``(B) the forms and procedures for having emission reductions certified under this section.

``(2) **SPECIAL AGRICULTURAL AND SMALL BUSINESS OUTREACH.**--The Secretary of Agriculture, with respect to farmers, and the Administrator of the Small Business Administration, with respect to small businesses,

shall assist the Secretary in creating and implementing the public awareness program under paragraph (1).''.

SEC. 803. STATE AUTHORITY TO ENCOURAGE VOLUNTARY ENERGY INITIATIVES.

(a) **IN GENERAL.**--Title XVI of the Energy Policy Act of 1992 is amended by striking section 1606 (106 Stat. 3003) and inserting the following:

``SEC. 1606. STATE AUTHORITY TO ENCOURAGE VOLUNTARY ENERGY INITIATIVES.

``(a) **IN GENERAL.**--Notwithstanding any other provision of Federal law regarding the production, transmission, distribution, sale, or use of energy or of energy services, a State is not prohibited or restricted from continuing to engage in any action, or from implementing any State law (including a regulation) in effect on the date of enactment of the Climate Change Energy Policy Response Act, if the appropriate State authority finds that the action or law is appropriate for mitigating the financial risks to producers, transmitters, distributors, sellers, buyers, or users of energy or energy services that engage in voluntary steps to reduce greenhouse gas emissions.

``(b) **COORDINATION WITH LATER ENACTED LAW.**--This section shall remain in effect notwithstanding any Federal law, including any Federal law enacted after the date of enactment of this section, unless the later law specifically refers to this section and expressly states that this section is superseded.''.

(b) **TECHNICAL AMENDMENT.**--The table of contents of the Energy Policy Act of 1992 (106 Stat. 2776) is amended by striking the item relating to section 1606 and inserting the following:

``Sec. 1606. State authority to encourage voluntary energy initiatives.''.

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The Climate Change Energy Policy Response Act of 1999--**SECTION-BY-SECTION ANALYSIS**

A bill to amend the Energy Policy Act of 1992 to revise the energy policies of the U.S. in order to reduce greenhouse gas emissions, advance global climate science, promote technology development, and increase citizen awareness, and for other purposes.

SECTION 1.--SHORT TITLE AND TABLE OF CONTENTS.

SECTION 2.--FINDINGS.

SECTION 3.--DEFINITIONS.

TITLE I--ENERGY POLICY COORDINATION

SEC. 101

Directs the Secretary of Energy to:

coordinate federal activities involving climate change issues including scientific research; energy technology and development, and economic analysis of various climate change policy alternatives;

select climate change policy alternatives for critical analysis;

ensure that collection and dissemination of all government developed or funded information relating to climate change is timely, balanced, understandable, accurate, sound, and made available to the public; and

consult with the National Academy of Sciences, the National Academy of Engineering, the National Research Council, and the Environmental Protection Agency.

The Secretary of Energy is to name staff to carry out this legislation. Consulting agencies may detail additional staff to DOE. The Act authorizes no additional staffing positions in any government agency.

TITLE II--ADVANCEMENT OF CLIMATE CHANGE SCIENCE

SEC. 201--COORDINATION, PRIORITIZATION, AND EVALUATION OF CLIMATE CHANGE SCIENCE RESEARCH

This section directs the Secretary of Energy to:

(with the National Academies of Science and Engineering) coordinate, prioritize, and evaluate federally funded scientific research on climate change conducted by or through federal agencies;

request the National Research Council to annually recommend measures to effectively carry out all scientific research covered by this legislation; and

submit to Congress legislative recommendations to more effectively carry out research and public information programs under this legislation, including recommendations to improve peer review processes and grant-making procedures

This section also provides that the objectives for federal climate change science research are to:

understand the Earth's capacity to assimilate natural and manmade greenhouse gas emissions;

evaluate the natural variability of the climate , including such phenomena as El Nin 6o;

develop, and assess the capabilities of, climate models; and develop a national climate modeling strategy with adequate computational and human resources that are integrated and coordinated across the relevant agencies;

ensure the integrity of all observational data used to validate models and stabilize the existing climate observational capability;

identify critical climate variables that are inadequately measured or not measured at all;

build climate observing requirements into existing ongoing operational programs;

revamp climate research programs and appropriate climate -critical parts of operational observing programs so as to produce useful long-term data;

establish a funded activity for the development, implementation, and operation of climate - specific observational programs;

assess the capability and potential of the United States and North American carbon sequestration, including through crops, forests, soils, oceans, and wetlands; and

development deploy the technology to monitor all relevant national and global data.

Requires DOE to submit to Congress and the President a report on all science activities carried out under this title. The reports are to contain any scientific conclusions, interim status reports, and recommendations for subsequent research and testing that DOE considers appropriate. A draft report must be made available by DOE to appropriate nongovernmental organizations for their review no later than August 1 of each year. All reports under this section must be made available to the public through the National Resource Center on Climate Change .

For each of fiscal years 2000 through 2004, such sums as are necessary are authorized to be appropriated for research:

to assess the ability of natural carbon sinks to adjust to natural variations in climate and greenhouse gas emissions including, crops, grassland, forests, soils, and oceans;

on natural climate variability;

to develop and assess the capabilities of climate models;

to ensure the integrity of data used to validate climate models;

to develop carbon sinks in the United States (primarily crop and forestry research); and

to develop and deploy monitoring technology

TITLE III--POLICY REVIEW AND COORDINATION

SEC. 301--DOMESTIC AND INTERNATIONAL ASSESSMENT OF POLICIES FOR ADDRESSING THE EFFECTS OF GREENHOUSE GAS EMISSIONS

This section provides that within two years after the bill becomes law (and biannually thereafter) DOE, after consultation with each of seven federal agencies, is to prepare an economic analysis of climate change policy alternatives. The Secretary of Energy is to select three or more such policy alternatives for critical analysis only. Each analysis is to look at short term (five years) and long-term (fifty years) implications, and account for changes in various factors, including economic indicators.

Each agency to be consulted is to contribute expertise as appropriate on each policy alternative analysis in the following areas:

energy supply and demand, and energy price implications;

agricultural production cost and market implications, including overall impact on rural economies (discrete scenarios including variations in commodity and livestock prices);

health implications, if any;

implications for (1) workers, including wages and job opportunities and potential for U.S. firms locating operations abroad; and (2) for consumers in terms of predicted changes to the Consumer Price Index;

implications on all modes of transportation and the effects of the resulting cost changes on consumers, labor, agriculture and businesses;

housing costs and urban planning (under different mortgage and construction interest rate scenarios).

implications for U.S. exports and imports and trade competitiveness.

Status of activities and commitments in other countries

In addition to the foregoing seven economic analyses, DOE is to consult with the Department of State, the Central Intelligence Agency, and the National Security Administration to assess

actions taken, or likely to be taken, by each United Nations member country to avoid, reduce, or adapt to climate change . Each such assessment is to analyze political and economic factors present in each country that may impact the assessment. The status of the country's commitment to international agreements relating to climate change , and the projected ability and likelihood of each country committing to binding international agreements with targets or timetables, are to be assessed.

Integration of policy alternative analyses

Within 30 months after enactment, and biannually thereafter, the President, with the advice and assistance of the Secretary of Energy, is to submit to Congress a report analyzing and integrating the combined findings of the report. The conclusion is to contain recommendations of any changes in law, international agreements, or public policy that the President considers to be in the best interest of the United States.

Scientific effect of policy alternatives

The Secretary of Energy is to request the National Academies of Science and Engineering to assess the known scientific effect of each policy alternative chosen for analysis under this Title and its effect on technology development and selection.

Environmental Protection Agency activities with climate change implications

DOE is to report on the activities of EPA that coincidentally affect actions by the private sector that, in turn, affect greenhouse gas emissions. DOE is to consult with the public and private sectors in preparing this report.

Reporting flexibility

The Secretary of Energy may suspend one or more of the agency reporting requirements after two reports if it finds that such

reports will not likely provide information that substantially supplements earlier reports.

Title IV--Public Rights-to-Know

SEC. 401--ANNUAL REPORT TO THE PUBLIC

DOE is to publish an annual report on U.S. investment in climate change activities that includes:

a description of current, prior year, and proposed spending on climate change categorized by research, regulation, education, and other activities;

estimate of current and prior year tax credits and deductions claimed by U.S. taxpayers attributable to greenhouse gas emissions reductions;

tables of spending proposals on climate change submitted by federal agencies to OMB, compared with President's final recommendations to Congress;

an index of all climate change grantees, cross-referenced by name of institutions and persons carrying out the projects;

an index of all grant proposals not funded by federal agencies; and

a list of all persons and their affiliations participating in peer review of climate change grant proposals.

Each such report is to be printed on recycled paper, made public, and posted on the Internet.

Public comment

DOE is to provide for notice and opportunity for public comment on the report. Such comments are to be catalogued and made readily available to the public in electronic format.

National Resource Center on Climate Change

DOE, in consultation with the National Academy of Science, is to establish a National Resource Center on Climate Change . The Center is to preserve and make publicly available all reports, information, studies or other information available to the federal government on climate change . Reference items may be made available in electronic format only. Public availability of information is subject to laws protecting national defense secrets, intellectual property rights, and privacy rights.

TITLE V--ACCELERATED DEVELOPMENT AND DEPLOYMENT OF RESPONSE TECHNOLOGY

SEC. 501--REVIEW OF FEDERALLY FUNDED ENERGY TECHNOLOGY RESEARCH AND DEVELOPMENT

Requires DOE by October 15 of each year to review any federally funded energy technology research and development activities. The review will assess the status of the energy technology, including lead-time required until deployment, cost, safety, potential barriers to deployment, and other relevant factors.

Requires DOE to establish a technology information clearinghouse to disseminate the results of federally funded energy technology research and development activities. The clearinghouse is to be set up within the National Research Center on Climate Change , but is not to affect national security secrets or personal property rights.

SEC. 502--STUDY OF REGULATORY BARRIERS TO RAPID DEPLOYMENT OF GREENHOUSE GAS EMISSION REDUCTION TECHNOLOGY

This section requires GAO, in consultation with the Secretary of Commerce and the U.S. Trade Representative, to identify and evaluate regulatory or other barriers to more rapid deployment of technology to reduce greenhouse gas emissions. The scope is both domestic and international. Requires GAO to recommend to Congress any necessary changes in law.

TITLE VI--INTERNATIONAL DEPLOYMENT OF ENERGY TECHNOLOGY TO MITIGATE CLIMATE CHANGE

SEC. 601--INTERNATIONAL DEPLOYMENT OF ENERGY TECHNOLOGY TO MITIGATE CLIMATE CHANGE

Pilot program for financial assistance

Requires the Secretary of Energy to create a pilot program to provide financial assistance, subject to available appropriations, for not more than six (6) qualifying, international, energy deployment projects. To qualify, the projects must be built, operated, and used outside the United States and must increase energy efficiency compared to the technology that would otherwise be implemented. The Secretary of Energy, after consultation with the Secretary of State, the Secretary of Commerce and the U.S. Trade Representative, may make the selection based solely on the criteria set forth in Sec. 601.

Financial assistance (for qualifying international energy deployment projects)

A U.S. firm undertaking an international energy deployment project which qualifies under the preceding section is eligible for financial assistance in the form of a loan or a loan guarantee. The loan amount would not exceed 75% of total project cost, and the interest rate would equal that for Treasury obligation then issued for periods of comparable maturities.

Equity investment insurance (for firms selected to participate in pilot project)

Under this section a U.S. firm that enters a binding contract for a qualifying international energy deployment project would, if approved by DOE to be part of the pilot project, be eligible for insurance on investment the firm has in the project.

Coordination with other programs

Provides that a qualifying international energy deployment project, funded under this title, would not be eligible as a qualifying clean coal technology under Section 415 of the Clean Air Act.

Report and recommendations

No later than four (4) years after the date of enactment, DOE must submit a report to the President on the results of the pilot projects. After reviewing the report the President is to recommend to Congress that the financial assistance program be continued, expanded, reduced or eliminated.

Authorization of appropriations

Authorizes appropriations (such sums as are necessary) to fund the programs under this title for fiscal years 2001-2004.

TITLE VII--OPTIMAL OPERATING EFFICIENCY OF TRANSPORTATION SYSTEMS

SEC. 701--TRAFFIC CONGESTION RELIEF RESEARCH

Amends Section 502 of title 23, United States Code. Requires DOE to enter into an arrangement with the National Academy of Sciences to conduct a study comparing the effectiveness of various regional approaches for reducing traffic congestion. At a minimum the study is to assess the impact on traffic of: (1) expansion of highway capacity; (2) improvement of traffic operations; and (3) programs for demand management.

Relieving urban congestion without additional right-of-way

Requires DOE to fund a study and prepare a report analyzing highway design concepts for projects to relieve congestion in urban areas without acquisition of additional rights-of-way. For fiscal years 2000 through 2002, $1,000,000 of the [sum deducted by the Secretary under Section 104(a)] would be available for these studies.

TITLE VIII--VOLUNTARY INITIATIVES:

SEC. 801--IMPROVED AND STREAMLINED REPORTING AND CERTIFICATION OF VOLUNTARY MEASURES

Amends the Energy Policy Act of 1992 to improve and streamline reporting and certification of voluntary measures to reduce greenhouse gas emissions.

Revised reporting guidelines

Requires DOE (with one year of enactment and every five years thereafter), to revise reporting guidelines to reflect changes made by this legislation. Establishes criteria for review of the reporting guidelines. Requires that any review pursuant to this section give appropriate weight to (1) the purpose of encouraging voluntary greenhouse gas emission reductions; and (2) the voluntary nature of reporting under this section. Validates reported emissions reductions so long as (1) the report meets then applicable guidelines and (2) reported reductions are not adjusted by Energy Information Administration (EIA).

Forms for accurate reporting

Requires DOE to develop forms for voluntary reporting and to make the forms available to entities wishing to report. Provides that entities reporting emissions reductions certify the accuracy of the report. Information reported by a corporation must be signed by one of its officers. Ensures against multiple certification of the same greenhouse gas emissions reductions: If more than one party has a valid claim to the same reduction, the first person to seek certification of a greenhouse gas emission reduction shall be granted the certification.

Greater participation by small businesses and farms

Requires the Administrator of EIA, in conjunction with the Secretary of Agriculture and Administrator of the SBA, to review and revise the guidelines to facilitate greater participation by small businesses, farms, and other organizations that did not previously participate in voluntary reductions and reporting.

Best practices for estimating reductions

Requires the Administrator of EIA to establish the most reasonably effective practices for estimating greenhouse gas emission reductions under §1605(b). Provides that emission reductions certified prior to the effective date of this section be reviewed, and modified if necessary, to account for any changes implemented by this section.

SEC. 802--PUBLIC AWARENESS CAMPAIGN OF VOLUNTARY EMISSION REDUCTIONS CERTIFICATION

Requires EIA to create a public awareness campaign: (1) on the benefits of engaging in voluntary greenhouse gas reduction measures and having the reductions certified and available for use under other incentive programs; and (2) explaining forms and procedures for having reductions certified. USDA and SBA are to implement comparable programs for the agricultural and small business communities.

SEC. 803--STATE AUTHORITY TO ENCOURAGE VOLUNTARY ENERGY INITIATIVES

This section provides that a state is not restricted from continuing to engage in any action, or from implementing any State law, that is in effect at the time this legislation is enacted, if the State determines that the action or law is appropriate for mitigating the financial risks to producers, transmitters, distributors, sellers, buyers, or users of energy or energy services who engage in voluntary steps to reduce greenhouse gas emissions. This provision remains in effect unless specifically and expressly superseded in subsequent legislation.

S. 1777

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ``Climate Change Tax Amendments of 1999".

SEC. 2. PERMANENT TAX CREDIT FOR RESEARCH AND DEVELOPMENT REGARDING GREENHOUSE GAS REDUCTION.

(a) **IN GENERAL**.--Section 41(h) of the Internal Revenue Code of 1986 (relating to termination) is amended by adding at the end the following:

``(3) **EXCEPTION FOR CERTAIN RESEARCH**.--Paragraph (1)(B) shall not apply in the case of any qualified research expenses if the research--

``(A) has as 1 of its purposes the reducing or sequestering of greenhouse gases, and

``(B) has been reported to the Department of Energy under section 1605(b) of the Energy Policy Act of 1992.".

(b) **EFFECTIVE DATE**.--The amendment made by subsection (a) applies with respect to amounts paid or incurred after the date of enactment of this Act, except that such amendment shall not take effect unless the Climate Change Energy Policy Response Act is enacted into law.

SEC. 3. TAX CREDIT FOR REDUCED GREENHOUSE GAS EMISSIONS FACILITIES.

(a) **ALLOWANCE OF REDUCED GREENHOUSE GAS EMISSIONS FACILITIES CREDIT**.--Section 46 of the Internal Revenue Code of 1986 (relating to amount of credit) is amended by striking ``and" at the end of paragraph (2), by striking the period at the end of paragraph (3) and inserting ``, and", and by adding at the end the following:

``(4) the reduced greenhouse gas emissions facilities credit."

(b) **AMOUNT OF CREDIT**.--Subpart E of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 (relating to rules for computing investment credit) is amended by inserting after section 48 the following:

``SEC. 48A. CREDIT FOR REDUCED GREENHOUSE GAS EMISSIONS FACILITIES.

``(a) **IN GENERAL**.--For purposes of section 46, the reduced greenhouse gas emissions facilities credit for any taxable year is the applicable percentage of the qualified investment in a reduced greenhouse gas emissions facility for such taxable year.

``(b) **REDUCED GREENHOUSE GAS EMISSIONS FACILITY**.--For purposes of subsection (a), the term `reduced greenhouse gas emissions facility' means a facility of the taxpayer--

``(1)(A) the construction, reconstruction, or erection of which is completed by the taxpayer, or< p> ``(B) which is acquired by the taxpayer if the original use of such facility commences with the taxpayer,

``(2) the operation of which--

``(A) replaces the operation of a facility of the taxpayer,

``(B) reduces greenhouse gas emissions on a per unit of output basis as compared to such emissions of the replaced facility, and

``(C) uses the same type of fuel (or combination of the same type of fuel and biomass fuel) as was used in the replaced facility,

``(3) with respect to which depreciation (or amortization in lieu of depreciation) is allowable, and

``(4) which meets the performance and quality standards (if any) which--

``(A) have been jointly prescribed by the Secretary and the Secretary of Energy by regulations,

``(B) are consistent with regulations prescribed under section 1605(b) of the Energy Policy Act of 1992, and

``(C) are in effect at the time of the acquisition of the facility.

``(c) **APPLICABLE PERCENTAGE**.--For purposes of subsection (a), the applicable percentage is one-half of the percentage reduction in greenhouse gas emissions described in subsection (b)(2) and reported and certified under section 1605(b) of the Energy Policy Act of 1992.

``(d) **QUALIFIED INVESTMENT**.--For purposes of subsection (a), the term `qualified investment' means, with respect to any taxable year, the basis of a reduced greenhouse gas emissions facility placed in service by the taxpayer during such taxable year, but only with respect to that portion of the investment attributable to providing production capacity not greater than the production capacity of the facility being replaced.

``(e) **QUALIFIED PROGRESS EXPENDITURES**.--

``(1) **INCREASE IN QUALIFIED INVESTMENT**.--In the case of a taxpayer who has made an election under paragraph (5), the amount of the qualified investment of such taxpayer for the taxable year (determined under subsection (d) without regard to this subsection) shall be increased by an amount equal to the aggregate of each qualified progress expenditure for the taxable year with respect to progress expenditure property.

``(2) **PROGRESS EXPENDITURE PROPERTY DEFINED**.--For purposes of this subsection, the term `progress expenditure property' means any property being constructed by or for the taxpayer and which it is reasonable to believe will qualify as a reduced greenhouse gas emissions facility which is being constructed by or for the taxpayer when it is placed in service.

``(3) **QUALIFIED PROGRESS EXPENDITURES DEFINED**.--For purposes of this subsection--

``(A) **SELF-CONSTRUCTED PROPERTY**.--In the case of any self-constructed property, the term `qualified progress expenditures' means the amount which, for purposes of this subpart, is properly chargeable (during such taxable year) to capital account with respect to such property.

``(B) **NON-SELF-CONSTRUCTED PROPERTY**.--In the case of non-self-constructed property, the term `qualified progress expenditures' means the amount paid during the taxable year to another person for the construction of such property.

``(4) **OTHER DEFINITIONS**.--For purposes of this subsection--

``(A) **SELF-CONSTRUCTED PROPERTY**.--The term `self-constructed property' means property for which it is reasonable to believe that more than half of the construction expenditures will be made directly by the taxpayer.

``(B) **NON-SELF-CONSTRUCTED PROPERTY**.--The term `non-self-constructed property' means property which is not self-constructed property.

``(C) **CONSTRUCTION, ETC**.--The term `construction' includes reconstruction and erection, and the term `constructed' includes reconstructed and erected.

``(D) **ONLY CONSTRUCTION OF REDUCED GREENHOUSE GAS EMISSIONS FACILITY TO BE TAKEN INTO ACCOUNT**.--Construction shall be taken into account only if, for purposes of this subpart, expenditures therefor are properly chargeable to capital account with respect to the property.

``(5) **ELECTION**.--An election under this subsection may be made at such time and in such manner as the Secretary may by regulations prescribe. Such an election shall apply to the taxable year for which made and to all subsequent taxable years. Such an election, once made, may not be revoked except with the consent of the Secretary."

(c) **RECAPTURE**.--Section 50(a) of the Internal Revenue Code of 1986 (relating to other special rules) is amended by adding at the end the following:

``(6) **SPECIAL RULES RELATING TO REDUCED GREENHOUSE GAS EMISSIONS FACILITY**.--For purposes of applying this subsection in the case of any credit allowable by reason of section 48A, the following shall apply:

``(A) **GENERAL RULE**.--In lieu of the amount of the increase in tax under paragraph (1), the increase in tax shall be an amount equal to the investment tax credit allowed under section 38 for all prior taxable years with respect to a reduced greenhouse gas emissions facility (as defined by section 48A(b)) multiplied by a fraction whose numerator is the number of years remaining to fully depreciate under this title the reduced greenhouse gas emissions facility disposed of, and whose denominator is the total number of years over which such facility would otherwise have been subject to depreciation. For purposes of the preceding sentence, the year of disposition of the reduced greenhouse gas emissions facility property shall be treated as a year of remaining depreciation.

``(B) **PROPERTY CEASES TO QUALIFY FOR PROGRESS EXPENDITURES**.--Rules similar to the rules of paragraph (2) shall apply in the case of qualified progress expenditures for a reduced greenhouse gas emissions facility under section 48A, except that the amount of the increase in tax under subparagraph (A) of this paragraph shall be substituted in lieu of the amount described in such paragraph (2).

``(C) **APPLICATION OF PARAGRAPH**.--This paragraph shall be applied separately with respect to the credit allowed under section 38 regarding a reduced greenhouse gas emissions facility."

(d) **TECHNICAL AMENDMENTS**.--

(1) Section 49(a)(1)(C) of the Internal Revenue Code of 1986 is amended by striking ``and" at the end of clause (ii), by striking the period at the end of clause (iii) and inserting ``, and", and by adding at the end the following:

``(iv) the portion of the basis of any reduced greenhouse gas emissions facility attributable to any qualified investment (as defined by section 48A(d))."

(2) Section 50(a)(4) of such Code is amended by striking ``and (5)" and inserting ``, (5), and (6)".

(3) The table of sections for subpart E of part IV of subchapter A of chapter 1 of such Code is amended by inserting after the item relating to section 48 the following:

``Sec. 48A. Credit for reduced greenhouse gas emissions facilities."

(e) **EFFECTIVE DATE**.--The amendments made by this section shall apply to property placed in service after the date of the enactment of this Act, under rules similar to the rules of section 48(m) of the Internal Revenue Code of 1986 (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990).

(f) **STUDY OF ADDITIONAL INCENTIVES FOR VOLUNTARY REDUCTION OF GREENHOUSE GAS EMISSIONS**.--

(1) **IN GENERAL.**--The Secretary of the Treasury and the Secretary of Energy shall jointly study possible additional incentives for, and removal of barriers to, voluntary, non recoupable expenditures for the reduction of greenhouse gas emissions. For purposes of this subsection, an expenditure shall be considered voluntary and non recoupable if the expenditure is not recoupable--

(A) from revenues generated from the investment, determined under generally accepted accounting standards (or under the applicable rate-of-return regulation, in the case of a taxpayer subject to such regulation),

(B) from any tax or other financial incentive program established under Federal, State, or local law, or

(C) pursuant to any credit-trading or other mechanism established under any international agreement or protocol that is in force.

(2) **REPORT.**--Within 6 months of the date of enactment of this Act, the Secretary of the Treasury and the Secretary of Energy shall jointly report to Congress on the results of the study described in paragraph (1), along with any recommendations for legislative action.

(g) **SCOPE AND IMPACT.**--

(1) **POLICY.**--In order to achieve the broadest response for reduction of greenhouse gas emissions and to ensure that the incentives established by or pursuant to this Act do not advantage one segment of an industry to the disadvantage of another, it is the sense of Congress that incentives for greenhouse gas reductions should be available for individuals, organizations, and entities, including both for-profit and non-profit institutions.

(2) **LEVEL PLAYING FIELD STUDY AND REPORT.**--

(A) **IN GENERAL.**--The Secretary of the Treasury and the Secretary of Energy shall jointly study possible additional measures that would provide non-profit entities (such as municipal utilities and energy cooperatives) with economic incentives for greenhouse gas emission reductions comparable to those incentives provided to taxpayers under the amendments made to the Internal Revenue Code of 1986 by this Act.

(B) **REPORT.**--Within 6 months after the date of enactment of this Act, the Secretary of the Treasury and the Secretary of Energy shall jointly report to Congress on the results of the study described in subparagraph (A), along with any recommendations for legislative action.

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A bill to amend the Internal Revenue Code of 1986 to provide incentives for the voluntary reduction of greenhouse gas emissions and to advance global climate science and technology development.

Section 1 designates the short title as the ``Climate Change Tax Amendments of 1999."

Section 2 extends on a permanent basis the tax credit for research and development in the case of R & D involving climate change.

In order for a research expense to qualify for the credit, it must: have as one of its purposes the reducing or sequestering of greenhouse gases; and have been reported to DOE under Sec. 1605(b) of the Energy Policy Act of 1992.

This tax credit applies with respect to amounts incurred after this Act becomes law, and only if the Climate Change Energy Policy Response Act also becomes law.

Section 3 provides for investment tax credits for greenhouse- gas- emission reduction facilities.

GREENHOUSE GAS EMISSIONS FACILITY CREDIT

The amount of the credit would be calculated based upon the amount of greenhouse gas emission reductions reported and certified under section 1605(b) of the Energy Policy Act. The credit would be equal to one-half of the applicable percentage of the qualified investment in a ``reduced greenhouse gas emissions facility."

For example, if a taxpayer replaces a coal-fired generator with a more efficient one that reduced greenhouse gas emissions by 18 percent, compared to the retired unit, the taxpayer would be entitled to a tax credit of 9 percent of qualified investment in that ``reduced greenhouse gas emissions facility". Such facility is defined as a facility of the taxpayer: the construction, reconstruction, or erection of which is completed by the taxpayer; or the facility my be acquired by the taxpayer if the original use of the facility commences with the taxpayer; which replaces an existing facility of the taxpayer; which reduces greenhouse gas emissions (on a per unit of output basis) as compared to the facility it replaces; which uses the same type of fuel as the facility it replaces; the depreciation (or amortization in lieu of depreciation) of which is allowable; which meets performance and quality standards (if any) jointly prescribed by the Secretaries of Treasury and Energy; and are consistent with regulations prescribed under Sec. 1605(b) of the Energy Policy Act (relating to voluntary reporting of greenhouse gas emission reductions).

Only that portion of the investment attributable to providing production capacity not greater than the production capacity of the facility being replaced qualifies for the credit.

While unit efficiencies could be achieved if the credit were allowed for replacing a unit with another that burned a different fuel, such incentive for fuel shifting does not directly stimulate efficiency technology development for each fuel type. The objective is to improve efficiencies ``within a fuel"; not to encourage fuel shifting ``between fuels."

QUALIFIED PROGRESS EXPENDITURE CREDIT

With respect to qualified progress expenditures, the amount of the qualified investment for the taxable year shall be increased by the aggregate of each qualified progress expenditure for the taxable year with respect to progress expenditure property. Progress expenditure property is defined as any property being constructed by or for the taxpayer and which it is reasonable to believe will qualify as a reduced greenhouse gas emission facility.

ELECTION

A taxpayer may elect to take the tax credit in such a manner (i.e. as an investment credit, or as qualified progress expenditure) as the Secretary may by regulations prescribe. The election will apply to the taxable year for which it was made and to all subsequent taxable years. Such an election, once made, may not be revoked except with the consent of the Secretary.

RECAPTURE WHERE FACILITY IS PREMATURELY DISPOSED OF

If the facility is disposed of before the end of the facility's depreciation period (or ``useful life" for tax purposes) the taxpayer will be assessed an increase in tax equal to the greenhouse gas emissions facility investment tax credit allowed for all prior taxable years multiplied by a fraction whose numerator is the number of years remaining to fully depreciate the facility to be disposed of, and whose denominator is the total number of years over which the facility would otherwise have been subject to depreciation.

Similar rules apply in the case in which the taxpayer elected credit for progress expenditures and the property thereafter ceases to qualify for such credit.

EFFECTIVE DATE

Amendments made to the Internal Revenue Code apply to property placed in service after the date of enactment of this Act.

STUDY OF ADDITIONAL INCENTIVES FOR VOLUNTARY REDUCTION OF GREENHOUSE GAS EMISSIONS

The Secretary of Energy and the Secretary of Transportation are directed to study, and report upon to Congress along with any recommendations for legislative action, possible additional incentives for and removal of barriers to voluntary non-recoupable expenditures on the reduction of greenhouse gas emissions. An expenditure qualifies if it is voluntary and not recoupable--from revenues generated from the investment; determined under generally accepted accounting standards; under the applicable rate-of-return regulation (in the case of a taxpayer subject to such regulation); from any tax or other financial incentive program established under federal, State, or local law; and pursuant to any credit-trading or other mechanism established under any international agreement or protocol that is in force.

DEPARTMENT OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT, AND INDEPENDENT AGENCIES APPROPRIATIONS ACT, 2000--CONFERENCE REPORT -- (Senate - October 14, 1999)

[Page: S12620] GPO's PDF

Mr. CRAIG. Mr. President, I want to express my appreciation to the chairman of the Appropriations Subcommittee on VA, HUD, and Independent Agencies for his leadership in steering this bill and its many, diverse provisions successfully through the Senate and conference.

One item is noteworthy both for its importance and its ready acceptance on both sides of the aisle and in both Houses. This is the language prohibiting EPA from spending funds to implement the Kyoto Protocol on global climate change , prior to ratification and Senate consent. The bill language on this subject is the same as last year's reiterating a strong congressional position.

Also important is this year's Senate report language requiring greater accountability in the Administration's climate change proposals and initiatives. This language renews and reiterates directives in the managers' statement in last year's conference report. It also expresses disappointment in the late filing, earlier this year, of agency reports explaining the administration's programs, objectives, and performance measures.

I would ask the Chairman if it is fair to say the committee's intent is to put the administration on notice that we fully expect such reports to be included, on a timely basis, as part of the President's fiscal year 2001 budget submission next year?

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -- (Senate - July 29, 1999)

[Page: S9744] GPO's PDF

By Mr. WYDEN (for himself and Mr. **CRAIG**):

S. 1457. A bill to amend the Energy Policy Act of 1992 to assess opportunities to increase carbon storage on national forests derived from the public domain and to facilitate voluntary and accurate reporting of forest projects that reduce atmospheric carbon dioxide concentrations, and for other purposes; to the Committee on Energy and Natural Resources.

THE FOREST RESOURCES FOR THE ENVIRONMENT AND THE ECONOMY ACT

Mr. WYDEN. Mr. President, today Senator **CRAIG** and I are introducing a bill that will help protect the global climate system by improving local natural resource management and strengthening the economy in rural communities. The Forest Resources for the Environment and the Economy Act of 1999 will expand the nation's forested lands and provide effective tools for including forests in our national efforts to fight global warming . The bill focuses on forests because they are the lungs of our planet. Investing in healthy forests is an investment in the health of our environment today and the well-being of our planet for decades to come.

In the Pacific Northwest, forests are more than critical environmental resources--they are also a cornerstone of our economy. In debates about forest policies, there are those who have advocated an exclusively environmental pathway, and others who have stressed an exclusively economic pathway. This bill is part of what I believe is a third pathway through the woods--a path to both stronger rural economies and healthier forests. It will reduce the buildup of greenhouse gases in the atmosphere and help protect our global climate for ourselves, our children and our grandchildren. It will provide improved wildlife and fish habitats and protect our waterways. It will enhance our national forests by reducing water pollution within their watersheds. It will provide jobs in the forestry sector in areas that have been hard hit by declining timber harvests. And it will grow additional timber resources on underproductive private lands.

The legislation does all of this through an entirely voluntary, incentive-based approach. The bill makes new resources available to private landowners through state-operated revolving loan programs that provide assistance for tree planting and other forest management actions. By quantifying forests' contribution to climate protection, the bill puts the free market to work at turning the initial Federal investment into a long-term source of non-federal funding for forestry projects. And the bill takes an important first step toward reducing greenhouse gases on Federal lands by directing the Forest Service to report to Congress on options to increase carbon storage in our national forests.

I am deeply concerned about the risks that we are taking with our unprecedented experiment with the global climate system. Global climate change may jeopardize critical forest and other natural resources that are closely tied with Oregon's economy and our citizens' quality of life. Water managers in the Northwest may be faced with daunting challenges if the predicted climate

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changes, such as drier, hotter summers, complicate protection and management of water supplies. Over the last Century, the average temperature in Corvallis, Oregon has increased 2.5 degrees Fahrenheit, and average temperatures across Oregon could increase by 5 degrees or more over the next century, putting the elderly in Oregon especially at risk from more intense heat waves. And sea level rise resulting from global warming could eliminate the salt marshes along Tillamook and Coos Bay regions. Given these potential hazards of global warming , the challenge is to find strategies to protect our quality of life that won't cause an economic meltdown.

One of the key strategies for meeting this challenge is something this planet has been doing for more than 300 million years--growing abundant and healthy forests. Forests are a critical part of our global climate system. The total amount of greenhouse gases in our atmosphere depends in part on the efficiency of forests and other natural ``sinks'' that absorb carbon dioxide--the most significant greenhouse gas --from the atmosphere. In fact, the world's forests contain 200 times as much carbon as is emitted to the atmosphere each year from burning fossil fuels. The implications are as simple as they are scientifically sound--if we grow more trees, bigger trees, and healthier trees, we will remove more greenhouse gases from the atmosphere and help protect the global climate . According to the Pacific Forest Trust, our forest lands in the United States are only storing one-quarter of the carbon they can ultimately store. Just tapping a portion of this potential by expanding and increasing the productivity of the nation's 737 million acres of forests is an important part of a win-win strategy to slow global warming .

And here's the good news--an ounce of investment in our forests is worth not only a pound of global warming cure, but also two pounds of jobs and three pounds of protection for our waterways and wildlife. The bill that I am introducing today will not only protect our global environment, but also will

provide immediate dividends in terms of watershed and habitat protection. It will provide jobs today for tree planting and forest management, and jobs tomorrow in carbon accounting and monitoring to ensure that greenhouse gas reductions are real and verifiable.

I recognize that global warming is a large problem that cannot be solved by forestry actions alone. We need a portfolio of approaches, and I continue to strongly support research, development and deployment of energy efficient and renewable technologies that reduce greenhouse gas emissions. But increasing our nation's forest lands is a key part of the solution and something we can do immediately. Forests may not be a silver bullet that will solve the entire global warming problem, but they are a silver lining to the problem that can provide jobs around the country while taking a big step to reverse the buildup of greenhouse gas in the atmosphere.

It is sometimes hard to believe that seven years ago Senators from both parties proclaimed their universal support for taking action to protect the climate system and reducing the buildup of greenhouse gases in the atmosphere. When the 1992 United Nations Framework Convention on Climate Change was ratified by the Senate, Senators from both parties came to the floor to applaud this commitment to begin reducing greenhouse gas emissions. We cannot afford to let the current debates about international treaties paralyze this Congress into inaction when there

are opportunities here at home to protect our environment in ways that also provide jobs and economic growth.

Forests are one of those opportunities. This bill will take the money that polluters pay when they are caught violating the Clean Air Act and Clean Water Act and use it to expand our forests, protect streams and rivers and help remove greenhouse gases from the air. In fiscal year 1998, $45 million of these environmental penalties were assessed against polluters. There are currently

no guarantees that these penalties, which revert to the General Fund, are used to improve our environment. This bill would make this money available as loans to small and medium landowners to cover the upfront costs of tree planting and other projects that grow healthy, productive forests and provide better wildlife habitats.

This bill is supported by the National Association of State Foresters and the Society of American Foresters. It responds to recent recommendations of the National Academy of Sciences by providing assistance to overcome the capital constraints that prevent non-industrial, private forest land owners from growing healthy forests. Almost 10 million landowners in the United States own 42 percent of non-industrial, private forest land in parcels of less than 100 acres. Access to these low-interest loans can empower these landowners to improve their lands while providing global environmental protection.

Under the bill, State Foresters will be able to give loans for forest projects that remove greenhouse gases from the atmosphere while improving habitats and protecting waterways. For example, loans will be available for planting trees as buffer zones along salmon streams and rivers in areas that are currently being used by livestock or for crop production. Loans will be available to turn thin and poorly stocked forest lands into healthier and more productive lands that remove greater amounts of greenhouse gases from the atmosphere and provide additional timber resources on private lands. And loans will be available to grow trees for use in bioenergy facilities that can provide energy without increasing the greenhouse gases in our atmosphere.

These loans must be repaid with interest--money that will be reinvested in additional loans to double and triple the impact of every federal dollar over time. Loans may not be provided for reforestation activities already required under any state or local laws. And the bill ensures that people aren't paid to cut their existing trees in order to receive funding for replanting afterwards.

A critical element of the bill is that it harnesses the power of the free market to allow responsible businesses to invest in the nation's forests. Across the nation, companies are voluntarily seeking ways to reduce greenhouse gases . Some companies are going as far as sending money oversees to protect forests in other countries. Forests in Brazil are important, but forests in Bend, Oregon, can do just as good a job at fighting off global warming . In fact, our Northwest forests are some of the best carbon ``sinks'' in the world. This bill provides a way for companies to invest in American forests and know with accuracy the amount of greenhouse gases that are removed from the atmosphere due to their investments. Once businesses recognize that the nation's forests are an opportunity for environmental investment, their entrepreneurial ingenuity will generate new opportunities for consumers and other businesses to tap into this win-win opportunity.

We know that this approach works because of the leadership of my home State of Oregon. The loan program is modeled after the innovative Forest Resource Trust, which was established in Oregon in 1993, and is just one of the many ways Oregon continues to lead the nation in state actions to reduce greenhouse gas emissions. I am pleased to say that PacifiCorp announced last month that it is contributing $1.5 million to the Forest Resource Trust to support tree planting and reduce greenhouse gases in the atmosphere. This leadership by PacifiCorp will create forestry jobs in Oregon, protect salmon and fish habitat, create new wildlife habitats, and remove greenhouse gases from the atmosphere. I am introducing this bill to make sure that we take advantage of these opportunities across the country and encourage more businesses to invest in the nation's forests.

In addition to establishing the state revolving loan programs, the bill makes important changes to the Energy Policy Act of 1992 to strengthen the voluntary accounting and verification of greenhouse gas reductions from forestry activities. The bill directs the Secretary of Agriculture to develop new guidelines on accurate and cost-effective methods to account for and report real and credible greenhouse gas reductions. These guidelines will be developed with the input of a new advisory board representing industry, foresters, states, and environmental groups.

This bill is about taking advantage of a clear win-win opportunity. It's a win for the global environment. It's a win for sustainable forestry. It's a win for local water protection. And it's a win for rural communities.

For these reasons, the bill is already supported by timber companies and environmental organizations alike. I have already received supportive letters from: American Forest and Paper Association, American Forests, Environmental Defense Fund, Governor John A. Kitzhaber of Oregon, National Association of State Foresters, PacifiCorp, Society of American Foresters, The Nature Conservancy, and The Pacific Forest Trust.

I look forward to working with my colleagues to make sure that we pursue this common-sense good step toward protecting the environment and supporting our forest workers.

I ask unanimous consent that the Section-by-Section Analysis of the Forest Resources for the Environment and the Economy Act be printed in the **RECORD**.

There being no objection, the item was ordered to be printed in the **RECORD** as follows:

The Forest Resources For The Environment And The Economy Act--Section-by-Section Analysis

SUMMARY

The purpose of the bill is to promote sustainable forestry in the United States by increasing forest carbon sequestration, improving forest health, enhancing wildlife and fish habitats, improving water quality, providing employment and income to rural communities, providing new sources of forest products and increasing use of renewable biomass energy that improves the energy security of the United States. The bill achieves these purposes through four major actions:

(1) State Revolving Loan Programs. The bill provides assistance to nonindustrial private forest landowners and Indian tribes to grow new forests and increase the productivity of existing forests in order to increase carbon sequestration, protect watersheds and fish habitats and improve wildlife diversity. Assistance to landowners will be provided through State-based loan

programs. The Federal share of funding for these State loan programs will come from penalties that are being assessed against violators of the Clean Air Act and the Clean Water Act (civil penalties assessed in FY 1998 totaled $45 million).

(2) Guidelines for Accurate Carbon Accounting for Forests. The bill directs the Secretary of Agriculture to establish scientifically-based guidelines for accurate reporting, monitoring and verification of carbon storage from forest management actions. The bill establishes a multi-stakeholder Carbon and Forestry Advisory Council to assist USDA in developing the guidelines.

(3) Report on Options to Increase Carbon Storage on Federal Lands. The bill directs the Secretary of Agriculture to report to Congress on forestry options to increase carbon storage in National Forests.

(4) National Forest Watershed Restoration Cooperative Agreements. The bill allows the Secretary of Agriculture to enter into cooperative agreements with willing State and local governments, Indian tribes, private and nonprofit entities, and landowners for protection, restoration and enhancement of fish and wildlife habitat and other resources on public land, Indian land or private land in a national forest watershed.

SECTION 1. SHORT TITLE

The title of the bill is the ``Forest Resources for the Environment and the Economy Act".

SECTION 2. FINDINGS AND PURPOSES

This section states the purpose of the bill, which is to promote sustainable forestry in the United States by increasing forest carbon sequestration, improving forest health, enhancing wildlife and fish habitats, improving water quality, providing employment and income to rural communities, providing new sources of forest products and increasing use of renewable biomass energy that improves the energy security of the United States.

This section also states the findings of the bill, including:

The Federal Government should increase the forest carbon storage on public land while pursuing existing statutory objectives, but insufficient information exists on the opportunities to increase carbon storage on public land through improvements in forest land management;

Important environmental benefits to national forests can be achieved through cooperative forest projects that enhance fish and wildlife habitats, water and other resources on public or private land located in national forest watersheds;

Forest projects also provide economic benefits, including employment and income that contribute to the sustainability of rural communities and future supplies of forest products;

Monitoring and verification of forest carbon storage provides an important opportunity to create employment in rural communities and substantiate improvements in natural habitats or watersheds due to forestry activities; and

Sustainable production of biomass energy feedstocks provides a renewable source of energy that can reduce carbon dioxide emissions and improve the energy security of the United States by diversifying energy fuels.

SECTION 3. DEFINITIONS

This section defines terms used in the bill, including the following:

``Forestry carbon activity'' is defined as a forest management action that increases long-term carbon storage and has a positive impact on watersheds, fish habitats and wildlife diversity.

``Forest carbon reservoir'' is defined as trees, roots, soils or other biomass associated with forest ecosystems or products from the biomass that store carbon.

``Forest carbon storage'' is defined as the quantity of carbon sequestered from the atmosphere and stored in forest carbon reservoirs, including forest products.

``Forest land'' is defined as land that is, or has been, at least 10 percent stocked by forest trees of any size, including land that had such forest cover and that will be naturally or artificially regenerated, and including a transition zone between a forested and nonforested area that is capable of sustaining forest cover.

``Forest management action'' is defined as the practical application of forestry principles to the regeneration, management, utilization and conservation of forests to meet specific goals and objectives, while maintaining the productivity of the forests. ``Forest management action'' includes management of forests for aesthetics, fish, recreation, urban values, water, wilderness, wildlife, wood products and other forest values.

``National forest watershed'' is defined as a watershed that contains national forest land, that consequently has unique interest to Federal land managers, and in which all landowners, including the Federal Government, share interest and influence in the management and health of the watershed.

``Reforestation'' is defined as the reestablishment of forest cover naturally or artificially, including planned replanting, reseeding and managed natural regeneration.

SECTION 4. CARBON MANAGEMENT ON FEDERAL LAND; CARBON MONITORING AND VERIFICATION GUIDELINES.

This section directs the Secretary of Agriculture to report to Congress on carbon management on Federal land, and directs the Secretary of Agriculture to develop guidelines for the voluntary reporting, monitoring and verification of carbon storage resulting from forest management actions. This section is accomplished through amendment of Title XVI (``Global Climate Change'') of the Energy Policy Act of 1992.

(a) Definitions. This subsection amends the Energy Policy Act to add the definitions for ``forest carbon storage,'' ``carbon storage program,'' ``forest carbon reservoir,'' ``forest management action'' and ``sequestration'' that were specified in Section 3.

(b) Carbon Management on Federal Land. This subsection directs the Secretary of Agriculture to report to Congress within one year on the quantity of carbon contained in the forest carbon reservoir on Western national forests (i.e., ``national forests derived from the public domain''). The report will include an assessment of forest management actions that can increase carbon storage on these national forest lands while providing positive impacts on watersheds and fish and wildlife habitats. Finally, the report will include an assessment of the role of forests in the carbon cycle and the contributions of forestry to the global carbon budget. This subsection is accomplished by amendment to section 1604 of the Energy Policy Act (``Assessment of Alternative Policy Mechanisms for Addressing Greenhouse Gas Emissions'').

(c) Monitoring and Verification of Carbon Storage. This subsection amends section 1605(b) of the Energy Policy Act (``Voluntary Reporting'') by directing the Secretary of Agriculture to review the existing Federal guidelines on reporting, monitoring, and verification of carbon storage from forest management actions. Within 18 months of enactment and following an opportunity for public comment on the existing guidelines, the Secretary of Agriculture will make recommendations to the Secretary of Energy for amendment of the guidelines.

Carbon and Forestry Advisory Council: This subsection also directs the Secretary of Agriculture to establish an 18-member, multi-stakeholder Carbon and Forestry Advisory Council for the purpose of advising the Department of Agriculture on: the development of the guidelines for accurate voluntary reporting of greenhouse gas sequestration from forest management actions; evaluating the potential implementation of the guidelines; estimating the effect of proposed implementation on atmospheric carbon mitigation; reviewing and updating the guidelines; reporting to Congress on the results of the carbon storage program established in Section 5 of this bill; and assessing the vulnerability of forests to climate change . The Advisory Council includes experts on carbon sequestration representing Federal agencies, the forestry industries, forestry workers and professionals, States, environmental organizations and landowners, as well as independent scientists. Terms of the Advisory Council are staggered to ensure continuity from year to year.

Criteria: The guidelines developed by the Secretary of Agriculture must be based on: (1) measuring increases in carbon storage in excess of that which would have occurred in the absence of the forest management actions; and (2) comprehensive carbon accounting that reflects net increases in the carbon reservoir and takes into account any carbon emissions resulting from disturbance of carbon reservoirs existing at the start of forest management actions. The guidelines must include options for estimating possible leakage of carbon emissions to other

lands, and for quantifying the expected carbon storage over various time periods, taking into account the likely duration of carbon stored in the carbon reservoir.

Recommended practices: The guidelines must also include recommended practices for monitoring, measurement and verification of carbon storage from forest management actions that, to the maximum extent practicable: are based on statistically sound sampling strategies, are cost-effective and allow pooled assessments across lands with multiple owners.

Guidance to States: The guidelines will include guidance to States for reporting, monitoring and verifying carbon storage achieved under the carbon storage program established in Section 5 of the bill.

Biomass energy projects: The guidelines will include guidance on calculating net greenhouse gas reductions from biomass energy projects, including net changes in carbon storage resulting from changes in land use, and the effect that using biomass to generate electricity (including cofiring of biomass with fossil fuels) has on the displacement of greenhouse gas emissions from fossil fuels.

Adoption of recommendations by DOE: The subsection directs the Secretary of Energy,

acting through the Administrator of the Energy Information Administration, to revise the existing voluntary reporting guidelines to include the recommendations provided by the Secretary of Agriculture.

Periodic review of guidelines: At least every 24 months, the Secretary of Agriculture must convene the Advisory Council, review the guidelines and revise the guidelines as necessary, including to ensure consistency with any future Federal laws that provide recognition, credit or reward for reductions of atmospheric greenhouse gas concentrations resulting from forest management actions.

Monitoring of State revolving loan programs: States participating in the revolving loan program established in Section 5 of the bill must report annually to the Secretary of Agriculture on the results of the program. If a company or non-governmental organization provides funding to the State for specific projects, then the State shall report the carbon achieved by those projects. The Secretary of Agriculture shall review each of these reports, certify reports that are in compliance with the guidelines established by USDA and submit the certified report to the EIA Administrator for inclusion in the 1605(b) voluntary reporting data base.

SECTION 5. CARBON STORAGE AND WATERSHED RESTORATION PROGRAM

This section directs the Secretary of Agriculture to establish a program to provide assistance through State revolving loan funds to Indian tribes and owners of nonindustrial private forest land to undertake forestry carbon activities. This section also allows the Secretary of Agriculture to enter into cooperative agreements to protect and enhance fish and wildlife habitat and other resources.

(a) National Forest Watershed Restoration Cooperative Agreements. This subsection allows the Secretary of Agriculture to enter into cooperative agreements with willing State and local governments, Indian tribes, private and nonprofit entities and landowners for protection, restoration and enhancement of fish and wildlife habitat and other resources on public land, Indian land or private land in a national forest watershed. Projects under such a cooperative agreement are eligible for loans discussed in the next subsection. This subsection extends appropriations authorities that were first provided under Section 334 of the Interior and Related Appropriation Act for FY 1998 (``the **WYDEN** Amendment'').

(b) State Revolving Loan Funds. This subsection establishes a program to provide assistance through State revolving loan funds to Indian tribes and owners of not more than 5,000 acres of nonindustrial private forest land. The assistance is in the form of loans to support forestry carbon activities that increase long-term carbon storage or provide new sources of biomass feedstocks for renewable energy generation, and that have a positive impact on watersheds, fish habitats and wildlife diversity. The program will be administered by the Secretary of Agriculture.

Guidance: USDA, in collaboration with States, will provide guidance on eligible forestry carbon activities based on the criteria of the bill, recognizing that States should have maximum flexibility to achieve the purposes of the bill in ways most appropriate for each State.

Prohibitions: Loans will not be issued for activities required under other applicable Federal, State or local laws, nor for costs incurred before entering into a loan agreement with the State.

Limitation on land considered for funding: States shall not enter into new loan agreements under the bill to fund reforestation of land that has been harvested after enactment if the landowner receives revenues from the harvest sufficient to reforest the land.

Native species: Funding of reforestation activities shall be provided only for a species that is native to a region, with preference given to species that formerly occupied the land.

Sustainable forest management plan: States must give priority to projects on land under a sustainable forestry management program or forest stewardship plan, if the projects are consistent with the program or plan.

Loan amount: Loans can cover up to 100 percent of total project costs, not to exceed $100,000 during any 2-year period.

Repayment: Loans must be repaid to the State with interest at a rate of at least 5 percent per annum. Loans are to be repaid when the land is harvested, or in accordance with any other repayment schedule determined by the State (for example, a portion of proceeds from each timber sale to be paid over more than one rotation).

Risk: Landowners do not have to repay loans for timber that is lost to natural catastrophes or that cannot be harvested because of government-imposed restrictions on timber harvesting.

Lien: The loan terms will include a lien on all timber, forest products and biomass grown on land covered by the loan, with an assurance that the terms of the lien shall transfer with the land on sale, lease or transfer of the land.

Buyout option: The loan terms will specify financial terms allowing the owner to pay off the loan with interest prior to harvesting the timber specified in the loan.

Greenhouse gas reductions: A loan agreement must include recognition that, until the loan is paid off or otherwise terminated, all reductions in atmospheric greenhouse gases achieved by projects funded by the loan are attributable to the State that provides funding for the loan, or to any company or NGO that provides funding for the loan via the State program.

Permanent conservation easements: Loan recipients can cancel the loan by donating to the State or another appropriate entity a permanent conservation easement that permanently protects the land and resources at a level above what is required under applicable Federal, State and local law and furthers the purposes of the bill, including managing the land in a manner that maximizes the forest carbon reservoir of the land.

Reinvestment of funds: All repayments collected by a State must be reinvested in the program and used by the State to make additional loans.

Records: The State Forester shall maintain all loan records and make them available to the public.

Matching funds: A State must match Federal funding by at least 25% beginning in the second year of participating in the program.

Funding Distribution: Not later than 180 days after enactment, the Secretary will report to Congress on a formula under which Federal funds will be distributed among eligible States. The formula will be based on maximizing the potential for meeting the objectives of the bill, and give appropriate consideration to:

The acreage of unstocked or underproducing private forest land in each State within national forest watersheds; the potential productivity of such land; the potential long-term carbon storage of such land; the potential to achieve other environmental benefits, such as restoration of native forest communities in riparian areas; the number of owners eligible for loans in each State; and the need for reforestation, timber stand improvement, or other forestry investments consistent with the objectives of the bill.

The formula will give priority to States that have experienced or are expected to experience significant declines in employment levels in the forestry industries due to declining timber harvests on Federal land.

Private funding: A revolving loan fund may accept and distribute as loans any funds provided by nongovernmental organizations, businesses or persons in support of the purposes of this Act.

Bonneville Power Administration (BPA): States served by BPA (Washington, Oregon, Idaho and Montana) may apply for funding from BPA for purposes of funding loans that meet both the objectives of this Act and the fish and wildlife objectives of BPA under current law. Any such application will be subject to the same rules and procedures as any other application.

Authorization of Appropriations: For the state revolving loan program, this subsection authorizes funding from FY 2001 to FY 2010 at amounts equal to civil penalties collected under the Clean Water Act and the Clean Air Act, which currently revert to the Treasury as General Revenues. In fiscal year 1998, $45 million in penalties were assessed. Because penalty assessments can not be accurately predicted in advance, authorization in any given year would be based on the penalties assessed two years preceding.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -- (Senate - May 18, 1999)

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BY Mr. ROBERTS (for himself, Mr. **MURKOWSKI,** Mr. **GRAMS,** Mr. **HAGEL,** and Mr. **CRAIG**):

S. 1066. A bill to amend the National Agricultural Research, Extension, and Teaching Policy Act to 1977 to encourage the use of and research into agricultural best practices to improve the environment, and for other purposes; to the Committee on Agriculture, Nutrition, and Forestry.

CARBON CYCLE AND AGRICUTURAL BEST PRACTICES RESEARCH ACT

Mr. ROBERTS. Mr. President I rise today to introduce an important component to further the scientific understanding of the earth's role as it relates to the environment, specifically the carbon cycle. What sparked my interest in introducing a carbon cycle research bill was a 1998 finding by academic and federal researchers that the North American continent from 1988 to 1992 absorbed an equivalent amount of the carbon dioxide emitted from fossil fuel emissions during the same time. Scientists know it happened, but cannot pinpoint the mechanisms of the process. Although you cannot watch carbon dioxide move into soil, you can see soil with high levels of carbon like river bottomland that has rich dark soil. Naturally, the question arises of how agriculture supplements this natural process.

By introducing this bill, it is my intention to follow through on the advice of climate scientists that there is a need for more research because the carbon cycle issue is complex. The bill makes sure that USDA is researching voluntary agricultural best practices such as conservation tillage, buffer strips, the Conservation Reserve Program, and new technology like precision sprayers that have multiple environmental benefits.

These voluntary agricultural best practices increase soil carbon levels also tend to reduce soil erosion, reduce fuel costs for producers, improve soil fertility, and increase production. It's a win win win. Nonetheless, there are agencies and individuals with agendas that believe agriculture is a source of greenhouse gas emissions and do not care about the multitude of benefits accruing from production agriculture. Therefore, we must arm agriculture with sound science on the carbon cycle.

This bill is intended to give producers and policymakers better understanding of the link between the carbon cycle and voluntary best practices. It authorizes USDA to conduct basic research on the mechanics of carbon being stored in soil and applied research to fine tune voluntary agricultural practices to increase the storage of carbon in soils. Furthermore, research will be helpful in finding out if agriculture can be a tool to solve the challenge of climate change .

I also want to make clear that this is a research bill. It has nothing to do with trading carbon credits or setting up a scheme for early action rewards if the Protocol becomes effective. The

whole point of this bill is that there needs to be an understanding of the science and examining methods to meet the challenge of climate change without an international treaty. This bill compliments other legislation, such as Mr. **MURKOWSKI'S** bill, that calls for increased energy efficiency research.

The bill taps into USDA's broad research capabilities as it relates to production techniques and soil databases, but I have also incorporated state-of-the-art research tools including satellite-based technology. Satellite based

remote sensing is becoming more useful as an agricultural production component. Right now, satellites measure the greening up of wheat during spring months, making more precise estimates of wheat harvests. In discussions with remote sensing leaders at the University of Kansas, remote sensing has a role in providing the ``big picture'' as it relates to what agriculture is doing as it relates to the carbon cycle, such as mapping vegetation and estimating the amount of carbon it can store in soil.

Because of the National Oceanic and Atmospheric Administration's initial research that shows the North American Continent is a net carbon sink, I have included bill language to use air monitors to study the regional interaction of carbon dioxide. For instance, measure the movement of air from Denver to Kansas City. If the carbon dioxide level is lower in Kansas City than Denver, Kansas agriculture and land is absorbing carbon. With this data, scientists can start looking at specific ag practices.

It is my hope that the Senate can enact this legislation to be proactive in meeting the climate challenge, encouraging voluntary agricultural best practices and technology that have multiple benefits. This is a strategy that is based on commonsense, not suggestions made by the International Panel on Climate Change that would halt production agriculture as we know it. Producers can use technology to feed a troubled and hungry world, plus absorb carbon dioxide.

Mr. President, I ask unanimous consent that the text of the bill be printed in the **RECORD**.

There being no objection, the legislation was ordered to be printed in the **RECORD,** as follows:

S. 1066

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ``Carbon Cycle and Agricultural Best Practices Research Act''.

SEC. 2. FINDINGS.

Congress finds that--

(1) agricultural producers in the United States--

(A) have, in good faith, participated in mandatory and voluntary conservation programs, the successes of which are unseen by the general public, to preserve natural resources; and

(B) have a personal stake in ensuring that the air, water, and soil of the United States are productive since agricultural productivity directly affects--

(i) the economic success of agricultural producers; and

(ii) the production of food and fiber for developing and developed nations;

(2) in addition to providing food and fiber, agriculture serves an environmental role by providing benefits to air, soil, and water through agricultural best practices;

(3) those conservation programs and Federal land provide the United States with an enormous potential to increase the quantity of carbon stored in agricultural land and commodities through the carbon cycle;

(4) according to the Climate Modeling and Diagnostics Laboratory of the National Oceanic and Atmospheric Administration, North American soils, crops, rangelands, and forests absorbed an equivalent quantity of carbon dioxide emitted from fossil fuel combustion as part of the natural carbon cycle from 1988 through 1992;

(5) the estimated quantity of carbon stored in world soils is more than twice the carbon in living vegetation or in the atmosphere;

(6) agricultural best practices can increase the quantity of carbon stored in farm soils, crops, and rangeland;

(7) although there is a tremendous quantity of carbon stored in soil that supports agricultural operations in the United States, the quantity of carbon stored in soil may be increased by using a strategy that would benefit the environment without implementing a United Nations-sponsored climate change protocol or treaty;

(8) Federal research is needed to identify--

(A) the agricultural best practices that supplement the natural carbon cycle; and

(B) Federal conservation programs that can be altered to increase the environmental benefits provided by the natural carbon cycle;

(9) increasing soil organic carbon is widely recognized as a means of increasing agricultural production and meeting the growing domestic and international food consumption needs with a positive environmental benefit;

(10) agricultural best practices include the more efficient use of agriculture inputs and equipment; and

(11) tax credits should be offered in order to facilitate the widespread use of more efficient agriculture inputs and equipment and to increase environmental benefits.

SEC. 3. AGRICULTURAL BEST PRACTICES.

Title XIV of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3101 et seq.) is amended by adding at the end the following:

``Subtitle N--Carbon Cycle and Agricultural Best Practices

``SEC. 1490. DEFINITIONS.

``In this subtitle:

``(1) **AGRICULTURAL BEST PRACTICE**.--The term `agricultural best practice' means a voluntary practice used by 1 or more agricultural producers to manage a farm or ranch that has a beneficial or minimal impact on the environment, including--

``(A) crop residue management;

``(B) soil erosion management;

``(C) nutrient management;

``(D) remote sensing;

``(E) precision agriculture;

``(F) integrated pest management;

``(G) animal waste management;

``(H) cover crop management;

``(I) water quality and utilization management;

``(J) grazing and range management;

``(K) wetland management;

``(L) buffer strip use; and

``(M) tree planting.

``(2) **CONSERVATION PROGRAM**.--The term `conservation program' means a program established under--

``(A) subtitle D of title XII of the Food Security Act of 1985 (16 U.S.C. 3830 et seq.);

``(B) section 401 or 402 of the Agricultural Credit Act of 1978 (16 U.S.C. 2201, 2202);

``(C) section 3 or 8 of the Watershed Protection and Flood Prevention Act (16 U.S.C. 1003, 1006a); or

``(D) any other provision of law that authorizes the Secretary to make payments or provide other assistance to agricultural producers to promote conservation.

``SEC. 1491. CARBON CYCLE AND AGRICULTURAL BEST PRACTICES RESEARCH.

``(a) **IN GENERAL**.--The Department of Agriculture shall be the lead agency with respect to any agricultural soil carbon research conducted by the Federal Government.

``(b) **RESEARCH SERVICES**.--

``(1) **AGRICULTURAL RESEARCH SERVICE**.--The Secretary, acting through the Agricultural Research Service, shall collaborate with other Federal agencies to develop data and conduct research addressing soil carbon balance and storage, making special efforts to--

``(A) determine the effects of management and conservation on carbon storage in cropland and grazing land;

``(B) evaluate the long-term impact of tillage and residue management systems on the accumulation of organic carbon;

``(C) study the transfer of organic carbon to soil; and

``(D) study carbon storage of commodities.

``(2) **NATURAL RESOURCES CONSERVATION SERVICE**.--

``(A) **RESEARCH MISSIONS**.--The research missions of the Secretary, acting through the Natural Resources Conservation Service, include--

``(i) the development of a soil carbon database to--

``(I) provide online access to information about soil carbon potential in a format that facilitates the use of the database in making land management decisions; and

``(II) allow additional and more refined data to be linked to similar databases containing information on forests and rangeland;

``(ii) the conversion to an electronic format and linkage to the national soil database described in clause (i) of county-level soil surveys and State-level soil maps;

``(iii) updating of State-level soil maps;

``(iv) the linkage, for information purposes only, of soil information to other soil and land use databases; and

``(v) the completion of evaluations, such as field validation and calibration, of modeling, remote sensing, and statistical inventory approaches to carbon stock assessments related to land management practices and agronomic systems at the field, regional, and national levels.

``(B) **UNIT OF INFORMATION**.--The Secretary, acting through the Natural Resources Conservation Service, shall disseminate a national basic unit of information for an assessment of the carbon storage potential of soils in the United States.

``(3) **ECONOMIC RESEARCH SERVICE REPORT**.--Not later than 1 year after the date of enactment of this section, the Secretary, acting through the Economic Research Service, shall submit to the Committee on Agriculture of the House of Representatives and the Committee on Agriculture, Nutrition, and Forestry of the Senate a report that analyzes the impact of the financial health of the farm economy of the United States under the Kyoto Protocol and other international agreements under the Framework Convention on Climate Change --

``(A) with and without market mechanisms (including whether the mechanisms are permits for emissions and whether the permits are issued by allocation, auction, or otherwise);

``(B) with and without the participation of developing countries;

``(C) with and without carbon sinks; and

``(D) with respect to the imposition of traditional command and control measures.

``(c) **CONSORTIA**.--

``(1) **IN GENERAL**.--The Secretary may designate not more than 2 carbon cycle and agricultural best practices research consortia.

``(2) **SELECTION**.--The consortia designated by the Secretary shall be selected in a competitive manner by the Cooperative State Research, Education, and Extension Service.

``(3) **DUTIES**.--The consortia shall--

``(A) identify, develop, and evaluate agricultural best practices using partnerships composed of Federal, State, or private entities and the Department of Agriculture, including the Agricultural Research Service;

``(B) develop necessary computer models to predict and assess the carbon cycle, as well as other priorities requested by the Secretary and the heads of other Federal agencies;

``(C) estimate and develop mechanisms to measure carbon levels made available as a result of voluntary Federal conservation programs, private and Federal forests, and other land uses; and

``(D) develop outreach programs, in coordination with extension services, to share information on carbon cycle and agricultural best practices that is useful to agricultural producers.

``(4) **CONSORTIA PARTICIPANTS**.--The participants in the consortia may include--

``(A) land-grant colleges and universities;

``(B) State geological surveys;

``(C) research centers of the National Aeronautics and Space Administration;

``(D) other Federal agencies;

``(E) representatives of agricultural businesses and organizations; and

``(F) representatives of the private sector.

``(5) **AUTHORIZATION OF APPROPRIATIONS**.--There are authorized to be appropriated to carry out this subsection $5,000,000 for each of fiscal years 2000 through 2002.

``(d) **PROMOTION OF AGRICULTURAL BEST PRACTICES**.--The Secretary shall promote voluntary agricultural best practices that take into account soil organic matter dynamics, carbon cycle, ecology, and soil organisms that will lead to the more effective use of soil resources to--

``(1) enhance the carbon cycle;

``(2) improve soil quality;

``(3) increase the use of renewable resources; and

``(4) overcome unfavorable physical soil properties.

``(e) **ANNUAL REPORT**.--The Secretary shall submit to the Committee on Agriculture of the House of Representatives and the Committee on Agriculture, Nutrition, and Forestry of the Senate an annual report that describes programs that are or will be conducted by the Secretary, through land-grant colleges and universities, to provide to agricultural producers the results of research conducted on agricultural best practices, including the results of--

``(1) research;

``(2) future research plans;

``(3) consultations with appropriate scientific organizations;

``(4) proposed extension outreach activities; and

``(5) findings of scientific peer review under section 103(d)(1) of the Agricultural Research, Extension, and Education Reform Act of 1998 (7 U.S.C. 7613(d)(1)).

``SEC. 1492. CARBON CYCLE REMOTE SENSING TECHNOLOGY.

``(a) **CARBON CYCLE REMOTE SENSING TECHNOLOGY PROGRAM**.--

``(1) **IN GENERAL**.--The Secretary, in cooperation with the Administrator of the National Aeronautics and Space Administration, shall develop a carbon cycle remote sensing technology program--

``(A) to provide, on a near-continual basis, a real-time and comprehensive view of vegetation conditions; and

``(B) to assess and model agricultural carbon sequestration.

``(2) **USE OF CENTERS**.--The Administrator of the National Aeronautics and Space Administration shall use regional earth science application centers to conduct research under this section.

``(3) **RESEARCHED AREAS**.--The areas that shall be the subjects of research conducted under this section include--

``(A) the mapping of carbon-sequestering land use and land cover;

``(B) the monitoring of changes in land cover and management

``(C) new systems for the remote sensing of soil carbon; and

``(D) regional-scale carbon sequestration estimation.

``(b) **REGIONAL EARTH SCIENCE APPLICATION CENTER**.--

``(1) **IN GENERAL**.--The Secretary, in cooperation with the Administrator of the National Aeronautics and Space Administration, shall carry out this section through the Regional Earth Science Application Center located at the University of Kansas (referred to in this section as the `Center'), if the Center enters into a partnership with a land-grant college or university.

``(2) **DUTIES OF CENTER**.--The Center shall serve as a research facility and clearinghouse for satellite data, software, research, and related information with respect to remote sensing research conducted under this section.

``(3) **USE OF CENTER**.--The Secretary, in cooperation with the Administrator of the National Aeronautics and Space Administration, shall use the Center for carrying out remote sensing research relating to agricultural best practices.

``(c) **AUTHORIZATION OF APPROPRIATIONS**.--There is authorized to be appropriated to carry out this section $5,000,000 for fiscal years 2000 through 2002.

``SEC. 1493. CONSERVATION PREMIUM PAYMENTS.

``In addition to payments that are made by the Secretary to producers under conservation programs, the Secretary may offer conservation premium payments to producers that are participating in the conservation programs to compensate the producers for allowing researchers to scientifically analyze, and collect information with respect to, agricultural best practices that are carried out by the producers as part of conservation projects and activities that are funded, in whole or in part, by the Federal Government.

``SEC. 1494. ASSISTANCE FOR AGRICULTURAL BEST PRACTICES AND NATURAL RESOURCE MANAGEMENT PLANS UNDER CONSERVATION PROGRAMS.

``(a) **IN GENERAL**.--In addition to assistance that is provided by the Secretary to producers under conservation programs, the Secretary, on request of the producers, shall provide education through extension activities and technical and financial assistance to producers that are participating in the conservation programs to assist the producers in planning, designing, and installing agricultural best practices and natural resource management plans established under the conservation programs.

``(b) **INFORMATION TO DEVELOPING NATIONS**.--The Secretary shall disseminate to developing nations information on agricultural best practices and natural resource management plans that--

``(1) provide crucial agricultural benefits for soil and water quality; and

``(2) increase production.

``SEC. 1495. CARBON CYCLE RESEARCH MONITORING SYSTEM.

``(a) **ESTABLISHMENT**.--The Secretary, in conjunction with the Administrator of the National Oceanic and Atmospheric Administration and the United States Global Change Research Program, may establish a nationwide carbon cycle monitoring system (referred to in this section as the `monitoring system') to research the flux of carbon between soil, air, and water.

``(b) **PURPOSE OF SYSTEM**.--The monitoring system shall focus on locating network monitors on or near agricultural best practices that are--

``(1) undertaken voluntarily;

``(2) undertaken through a conservation program of the Department of Agriculture;

``(3) implemented as part of a program or activity of the Department of Agriculture; or

``(4) identified by the Administrator of the National Oceanic and Atmospheric Administration.

``(c) **MEMORANDUM OF UNDERSTANDING**.--The Secretary may enter into a memorandum of understanding with the Administrator of the National Oceanic and Atmospheric Administration to ensure that research goals of programs established by the Federal Government related to carbon monitoring are met through the monitoring system.

``(d) **AUTHORIZATION OF APPROPRIATIONS**.--There is authorized to be appropriated to carry out this subtitle $10,000,000.".

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -- (Senate - April 27, 1999)

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Mr. CRAIG. Mr. President, I rise today to join with my distinguished colleagues, Senators **MURKOWSKI, HAGEL, BYRD,** and others, in introducing the Energy and Climate Policy Act of 1999. I commend Chairman **MURKOWSKI** and Senators **HAGEL** and **BYRD** for their leadership on this very important legislation.

Sufficient scientific information and public interest exist to justify the encouragement and acknowledgment of responsible actions by private entities to reduce greenhouse gas emissions, even though all scientific, technological, economic, and public policy questions have not yet been resolved.

The global climate issue presents profound questions in these areas that require comprehensive, integrated resolution. Current scientific research, experimentation, and data collection are not adequately coordinated or focused on answering key questions within the United States, as well as internationally.

Moreover, public access to scientific, economic, and public policy information is severely limited. The public's right to know is not being satisfied. Open and balanced discussion leading to public support for best approaches to climate policy resolution is urgently needed.

This measure does not depend on future regulatory mandates, an approach preferred by the current Administration to reduce greenhouse gas emissions. It also provides a valid alternative to S. 547, the Credit for Voluntary Reductions Act, introduced recently by my friends and colleague Senator **JOHN CHAFEE.** The key difference between Senator **CHAFEE**'s bill and our bill is that our bill is not dependent on the Kyoto protocol or any other regulatory mandate.

It is my belief, Mr. President, that voluntary measures should be encouraged through incentives rather than in anticipation of future domestic or international regulatory mandates.

Mr. President, I am also very concerned about the Administration's strong desire to drastically cut carbon and its seeming willingness to do so by whatever regulatory measure available. Demonstrative evidence of the Administration's thinking on this issue is contained in the April 10, 1998, EPA General Counsel memo to Carol Browner, describing EPA's authority to regulate carbon dioxide under the Clean Air Act.

This memo, in my opinion, clearly overstates EPA's authority to regulate pollutants under the Clean Air Act. Moreover, this memo is indicative of the Administration's penchant

for finding regulatory fixes for problems. Its allies in this campaign are those in the international community who are either indifferent to, or against our economic interests. we all know, or should know, that at this moment in history, when you cap carbon you cap economic growth.

We need a whole new paradigm for handling this serious political issue. People care about it on all sides, and now Congress will be involved in this issue during this session. Let's get serious about the science and fully inform the American people so that whatever the outcome, they'll know that their government was working for them and not against their important economic interests.

Let's force the current Administration to stop politicizing science and get to the point where the issue is confidently understood. There is simply no compelling reason for our government at this time to force Americans to take preventive measures of uncertain competence against a problem that may or may not lie in the earth's future.

It is for these reasons that I, along with Senators **MURKOWSKI, HAGEL,** and others, are continuing to work on the next step in this very important response to the climate change issue--a more comprehensive proposal that will include provisions that address:

(1) Policy mechanisms for assessing the effects of greenhouse gas emissions;

(2) Accelerated development and deployment of climate response technology;

(3) International deployment of technology to mitigate climate change ;

(4) The advancement of climate science; and

(5) Improving public access to government information on the broad spectrum of scientific opinion on the causes and effects of climate change .

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Mr. President, significant green-house gas emission reductions can be achieved through voluntary measures that are warranted even as we answer yet unresolved key questions about the global and regional climates.

What is required now is an approach that will encourage public support for appropriate action. I believe this bill paves the way for such public support, and, by reasonably addressing the important economic and political issues associated with the current climate change debate, sets the proper tone for future discourse that will ultimately lead to a safe and economically prudent resolution of this highly charged issue.

FOOD AND MEDICINE SANCTION RELIEF ACT OF 1999 -- (Senate - January 28, 1999)

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By Mr. AKAKA (for himself, Mr. **LOTT,** Ms. **LANDRIEU,** Mr. **CRAIG,** and Mr. **GRAHAM**):

S. 330. A bill to promote the research, identification, assessment, exploration, and development of methane hydrate resources, and for other purposes; to the Committee on Energy and Natural Resources.

METHANE HYDRATE RESEARCH AND DEVELOPMENT ACT OF 1999

- [Begin Insert]

Mr. AKAKA. Mr. President, on behalf of Senators **LOTT, LANDRIEU, CRAIG,** and **GRAHAM** I am introducing the Methane Hydrate Research and Development Act of 1999.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -- (Senate - January 22, 2001)

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Mr. CRAIG:

S. 71. A bill to amend the Federal Power Act to improve the hydroelectric licensing process by granting the Federal Energy Regulatory Commission statutory authority to better coordinate participation by other agencies and entities, and for other purposes; to the Committee on Energy and Natural Resources.

HYDROELECTRIC LICENSING PROCESS IMPROVEMENT ACT OF 2001

Mr. CRAIG. Mr. President, I rise to introduce a bill, and I send it to the desk.

Mr. President, the bill I introduce is the Hydroelectric Licensing Process Improvement Act of 2001. As its title suggests, the purpose of the bill is to improve the process by which non-federal hydroelectric projects are licensed by the Federal Energy Regulatory Commission.

I introduced an identical bill early in the 106th Congress. Several hearings were held on the bill in both the Senate and House. I introduce this bill today with the full understanding that the bill may undergo some changes as a result of collaboration with my colleague Senator **BINGAMAN** and others on the Senate Energy and Natural Resources Committee. At the end of the last Congress, Senator **BINGAMAN** offered to work with me in a bipartisan fashion to successfully report this bill out of Committee in the 107th Congress. I enthusiastically look forward to working with him to ensure that this bill gets the necessary attention to move smoothly and with appropriate speed through the Committee process.

Mr. President, hydropower represents ten percent of the energy produced in the United States, and approximately 85% of all renewable energy generation. This is a significant portion of our nation's electricity, produced without air pollution or greenhouse gas emissions, and it is accomplished at relatively low cost.

The Commission for many years since its creation in 1920, controlled our nation's water power potential with uncompromising authority. However, over the years, a number of environmental statutes, amendments to the Federal Power Act, Commission regulations, licensing and policy decisions, and several critical court decisions, has made the Commission's licensing process extremely costly, time consuming, and, at times, arbitrary. Indeed, the current Commission licensing program is burdened with mixed mandates and redundant bureaucracy and prone to gridlock and litigation.

Under current law, several federal agencies are required to set conditions for licenses without regard to the effects those conditions have on project economics, energy benefits, impacts on greenhouse gas emissions and values protected by other statutes and regulations. Far too often we have agencies fighting agencies and issuing inconsistent demands.

The consequent delays in processing hydropower applications result in significant business costs and lost capacity. For example, according to a September 1997 study of the U.S. Department of Energy, since 1987, of 52 peaking projects relicensed by the Commission, four projects increased capacity, and 48 decreased capacity. In simple terms, those 48 projects became less productive as a result of the relicensing process at the Commission than they were prior to relicensing. Ninety-two percent of the peaking projects since 1987 lost capacity.

In addition, faced with the uncertainties currently plaguing the relicensing process, some existing licensees are contemplating abandonment of their projects. This is of concern to the nation because two-thirds of all non-federal hydropower capacity is up for relicensing in the next fifteen years. This concern has been exacerbated in the last several months by the catastrophic energy supply crisis experienced by California and the rest of the West. By the year 2010, 220 projects will be subject to the relicensing process.

Publicly owned hydropower projects constitute nearly 50% of the total capacity that will be up for renewal. The problems resulting in lost capacity, coupled with the momentous changes occurring in the electricity industry and the increasing need for emission free sources of power, all underscore

the need for Congressional action to reform hydroelectric licensing.

Moreover, the loss of a hydropower project means more than the loss of clean, efficient, renewable electric power. Hydropower projects provide drinking water, flood control, fish and wildlife habitat, irrigation, transportation, environmental enhancement funding and recreation benefits. Also, due to its unique load-following capability, peaking capacity and voltage stability attributes, hydropower plays a critical role in maintaining our nation's reliable electric service.

My bill will help remedy the inefficient and complex Commission licensing process by ensuring that federal agencies involved in the process act in a timely and accountable manner.

My bill does not change or modify any existing environmental laws, nor remove regulatory authority from various agencies. It does not call for the repeal of mandatory conditioning authority of appropriate federal agencies. Rather, it requires participating agencies to consider, and be accountable for, the full effects of their actions before imposing mandatory conditions on a Commission issued license.

It is clear to me and many of my colleagues here in the Senate that hydropower is at risk. Clearly, one of the most important tasks for energy policymakers in the 21st Century is to develop an energy strategy that will ensure an adequate supply of reasonably priced, reliable energy to all American consumers in an environmentally responsible manner. The relicensing of non-federal hydropower can and should continue be an important and viable element in this strategy.

Mr. President, I ask unanimous consent that the bill and a section-by-section analysis appear in the **RECORD**.

There being no objection, the material was ordered to be printed in the **RECORD,** as follows:

S. 71

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ``Hydroelectric Licensing Process Improvement Act of 2001".

SEC. 2. FINDINGS.

Congress finds that--

(1) hydroelectric power is an irreplaceable source of clean, economic, renewable energy with the unique capability of supporting reliable electric service while maintaining environmental quality;

(2) hydroelectric power is the leading renewable energy resource of the United States;

(3) hydroelectric power projects provide multiple benefits to the United States, including recreation, irrigation, flood control, water supply, and fish and wildlife benefits;

(4) in the next 15 years, the bulk of all non-Federal hydroelectric power capacity in the United States is due to be relicensed by the Federal Energy Regulatory Commission;

(5) the process of licensing hydroelectric projects by the Commission--

(A) does not produce optimal decisions, because the agencies that participate in the process are not required to consider the full effects of their mandatory and recommended conditions on a license;

(B) is inefficient, in part because agencies do not always submit their mandatory and recommended conditions by a time certain;

(C) is burdened by uncoordinated environmental reviews and duplicative permitting authority; and

(D) is burdensome for all participants and too often results in litigation; and

(6) while the alternative licensing procedures available to applicants for hydroelectric project licenses provide important opportunities for the collaborative resolution of many of the issues in hydroelectric project licensing, those procedures are not appropriate in every case and cannot substitute for statutory reforms of the hydroelectric licensing process.

SEC. 3. PURPOSE.

The purpose of this Act is to achieve the objective of relicensing hydroelectric power projects to maintain high environmental standards while preserving low cost power by--

(1) requiring agencies to consider the full effects of their mandatory and recommended conditions on a hydroelectric power license and to document the consideration of a broad range of factors;

(2) requiring the Federal Energy Regulatory Commission to impose deadlines by which Federal agencies must submit proposed mandatory and recommended conditions to a license; and

(3) making other improvements in the licensing process.

SEC. 4. PROCESS FOR CONSIDERATION BY FEDERAL AGENCIES OF CONDITIONS TO LICENSES.

(a) **IN GENERAL**.--Part I of the Federal Power Act (16 U.S.C. 791a et seq.) is amended by adding at the end the following:

``SEC. 32. PROCESS FOR CONSIDERATION BY FEDERAL AGENCIES OF CONDITIONS TO LICENSES.

``(a) **DEFINITIONS**.--In this section:

``(1) **CONDITION**.--The term `condition' means--

``(A) a condition to a license for a project on a Federal reservation determined by a consulting agency for the purpose of the first proviso of section 4(e); and

``(B) a prescription relating to the construction, maintenance, or operation of a fishway determined by a consulting agency for the purpose of the first sentence of section 18.

``(2) **CONSULTING AGENCY**.--The term `consulting agency' means--

``(A) in relation to a condition described in paragraph (1)(A), the Federal agency with responsibility for supervising the reservation; and

``(B) in relation to a condition described in paragraph (1)(B), the Secretary of the Interior or the Secretary of Commerce, as appropriate.

``(b) **FACTORS TO BE CONSIDERED**.--

``(1) **IN GENERAL**.--In determining a condition, a consulting agency shall take into consideration--

``(A) the impacts of the condition on--

``(i) economic and power values;

``(ii) electric generation capacity and system reliability;

``(iii) air quality (including consideration of the impacts on greenhouse gas emissions); and

``(iv) drinking, flood control, irrigation, navigation, or recreation water supply;

``(B) compatibility with other conditions to be included in the license, including mandatory conditions of other agencies, when available; and

``(C) means to ensure that the condition addresses only direct project environmental impacts, and does so at the lowest project cost.

``(2) **DOCUMENTATION**.--

``(A) **IN GENERAL**.--In the course of the consideration of factors under paragraph (1) and before any review under subsection (e), a consulting agency shall create written documentation detailing, among other pertinent matters, all proposals made, comments received, facts considered, and analyses made regarding each of those factors sufficient to demonstrate that each of the factors was given full consideration in determining the condition to be submitted to the Commission.

``(B) **SUBMISSION TO THE COMMISSION**.--A consulting agency shall include the documentation under subparagraph (A) in its submission of a condition to the Commission.

``(c) **SCIENTIFIC REVIEW**.--

``(1) **IN GENERAL**.--Each condition determined by a consulting agency shall be subjected to appropriately substantiated scientific review.

``(2) **DATA**.--For the purpose of paragraph (1), a condition shall be considered to have been subjected to appropriately substantiated scientific review if the review--

``(A) was based on current empirical data or field-tested data; and

``(B) was subjected to peer review.

``(d) **RELATIONSHIP TO IMPACTS ON FEDERAL RESERVATION**.--In the case of a condition for the purpose of the first proviso of section 4(e), each condition determined by a consulting agency shall be directly and reasonably related to the impacts of the project within the Federal reservation.

``(e) **ADMINISTRATIVE REVIEW**.--

``(1) **OPPORTUNITY FOR REVIEW**.--Before submitting to the Commission a proposed condition, and at least 90 days before a license applicant is required to file a license application with the Commission, a consulting agency shall provide the proposed condition to the license applicant and offer the license applicant an opportunity to obtain expedited review before an administrative law judge or other independent reviewing body of--

``(A) the reasonableness of the proposed condition in light of the effect that implementation of the condition will have on the energy and economic values of a project; and

``(B) compliance by the consulting agency with the requirements of this section, including the requirement to consider the factors described in subsection (b)(1).

``(2) **COMPLETION OF REVIEW**.--

``(A) **IN GENERAL**.--A review under paragraph (1) shall be completed not more than 180 days after the license applicant notifies the consulting agency of the request for review.

``(B) **FAILURE TO MAKE TIMELY COMPLETION OF REVIEW**.--If review of a proposed condition is not completed within the time specified by subparagraph (A), the Commission may treat a condition submitted by the consulting agency as a recommendation is treated under section 10(j).

``(3) **REMAND**.--If the administrative law judge or reviewing body finds that a proposed condition is unreasonable or that the consulting agency failed to comply with any of the requirements of this section, the administrative law judge or reviewing body shall--

``(A) render a decision that--

``(i) explains the reasons for a finding that the condition is unreasonable and may make recommendations that the administrative law judge or reviewing body may have for the formulation of a condition that would not be found unreasonable; or

``(ii) explains the reasons for a finding that a requirement was not met and may describe any action that the consulting agency should take to meet the requirement; and

``(B) remand the matter to the consulting agency for further action.

``(4) **SUBMISSION TO THE COMMISSION**.--Following administrative review under this subsection, a consulting agency shall--

``(A) take such action as is necessary to--

``(i) withdraw the condition;

``(ii) formulate a condition that follows the recommendation of the administrative law judge or reviewing body; or

``(iii) otherwise comply with this section; and

``(B) include with its submission to the Commission of a proposed condition--

``(i) the record on administrative review; and

``(ii) documentation of any action taken following administrative review.

``(f) **SUBMISSION OF FINAL CONDITION**.--

``(1) **IN GENERAL**.--After an applicant files with the Commission an application for a license, the Commission shall set a date by which a consulting agency shall submit to the Commission a final condition.

``(2) **LIMITATION**.--Except as provided in paragraph (3), the date for submission of a final condition shall be not later than 1 year after the date on which the Commission gives the consulting agency notice that a license application is ready for environmental review.

``(3) **DEFAULT**.--If a consulting agency does not submit a final condition to a license by the date set under paragraph (1)--

``(A) the consulting agency shall not thereafter have authority to recommend or establish a condition to the license; and

``(B) the Commission may, but shall not be required to, recommend or establish an appropriate condition to the license that--

``(i) furthers the interest sought to be protected by the provision of law that authorizes the consulting agency to propose or establish a condition to the license; and

``(ii) conforms to the requirements of this Act.

``(4) **EXTENSION**.--The Commission may make 1 extension, of not more than 30 days, of a deadline set under paragraph (1).

``(g) **ANALYSIS BY THE COMMISSION**.--

``(1) **ECONOMIC ANALYSIS**.--The Commission shall conduct an economic analysis of each condition submitted by a consulting agency to determine whether the condition would render the project uneconomic.

``(2) **CONSISTENCY WITH THIS SECTION**.--In exercising authority under section 10(j)(2), the Commission shall consider whether any recommendation submitted under section

10(j)(1) is consistent with the purposes and requirements of subsections (b) and (c) of this section.

``(h) **COMMISSION DETERMINATION ON EFFECT OF CONDITIONS**.--When requested by a license applicant in a request for rehearing, the Commission shall make a written determination on whether a condition submitted by a consulting agency--

``(1) is in the public interest, as measured by the impact of the condition on the factors described in subsection (b)(1);

``(2) was subjected to scientific review in accordance with subsection (c);

``(3) relates to direct project impacts within the reservation, in the case of a condition for the first proviso of section 4(e);

``(4) is reasonable;

``(5) is supported by substantial evidence; and

``(6) is consistent with this Act and other terms and conditions to be included in the license.".

(b) **CONFORMING AND TECHNICAL AMENDMENTS**.--

(1) **SECTION 4**.--Section 4(e) of the Federal Power Act (16 U.S.C. 797(e)) is amended--

(A) in the first proviso of the first sentence by inserting after ``conditions" the following: ``, determined in accordance with section 32,"; and

(B) in the last sentence, by striking the period and inserting ``(including consideration of the impacts on greenhouse gas emissions)".

(2) **SECTION 18**.--Section 18 of the Federal Power Act (16 U.S.C. 811) is amended in the first sentence by striking ``prescribed by the Secretary of Commerce" and inserting ``prescribed, in accordance with section 32, by the Secretary of the Interior or the Secretary of Commerce, as appropriate".

SEC. 5. COORDINATED ENVIRONMENTAL REVIEW PROCESS.

Part I of the Federal Power Act (16 U.S.C. 791a et seq.) (as amended by section 4) is amended by adding at the end the following:

``SEC. 33. COORDINATED ENVIRONMENTAL REVIEW PROCESS.

``(a) **LEAD AGENCY RESPONSIBILITY**.--The Commission, as the lead agency for environmental reviews under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et

seq.) for projects licensed under this part, shall conduct a single consolidated environmental review--

``(1) for each such project; or

``(2) if appropriate, for multiple projects located in the same area

``(b) **CONSULTING AGENCIES**.--In connection with the formulation of a condition in accordance with section 32, a consulting agency shall not perform any environmental review in addition to any environmental review performed by the Commission in connection with the action to which the condition relates.

``(c) **DEADLINES**.--

``(1) **IN GENERAL**.--The Commission shall set a deadline for the submission of comments by Federal, State, and local government agencies in connection with the preparation of any environmental impact statement or environmental assessment required for a project.

``(2) **CONSIDERATIONS**.--In setting a deadline under paragraph (1), the Commission shall take into consideration--

``(A) the need of the license applicant for a prompt and reasonable decision;

``(B) the resources of interested Federal, State, and local government agencies; and

``(C) applicable statutory requirements.".

SEC. 6. STUDY OF SMALL HYDROELECTRIC PROJECTS.

(a) **IN GENERAL**.--Not later than 18 months after the date of enactment of this Act, the Federal Energy Regulatory Commission shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Commerce of the House of Representatives a study of the feasibility of establishing a separate licensing procedure for small hydroelectric projects.

(b) **DEFINITION OF SMALL HYDROELECTRIC PROJECT**.--The Commission may by regulation define the term ``small hydroelectric project'' for the purpose of subsection (a), except that the term shall include at a minimum a hydroelectric project that has a generating capacity of 5 megawatts or less.

Section-by-Section Analysis of the Hydroelectric Licensing Process Improvement Act of 2001

Section 1: Short Title. The legislation may be referred to as the Hydroelectric Licensing Process Improvement Act of 2001.

Section 2: Findings. Hydropower is a vital renewable energy resource, providing clean, economic and reliable electricity. Hydropower projects also provide recreation, irrigation, flood control, water supply and fish and wildlife benefits. The bulk of all non-Federal hydro projects are coming up for relicensing by the Federal Energy Regulatory Commission (FERC) in the next 15 years. The hydroelectric licensing process does not produce optimal decisions, because agencies participating in the process fail to consider the full effects of mandatory and recommended license conditions. The process is inefficient, in part because of delays in the submission of mandatory and recommended conditions, and environmental reviews are uncoordinated. As a result, the process is burdensome for all participants, and prone to litigation. While alternative licensing procedures are available and can lead to the collaborative resolution of issues in some relicensings, they are not appropriate in all circumstances, and are not a substitute for needed statutory reform.

Section 3: Purpose. The purpose of the legislation is to achieve the objective of relicensing hydroelectric power projects to maintain high environmental standards while preserving low cost power. This purpose will be achieved through statutory reforms to improve the licensing process by (1) requiring agencies to consider key factors, and document their consideration of those factors, when developing mandatory and recommended license conditions; (2) requiring FERC to set deadlines for the submission of agency conditions; and (3) making other process improvements.

Section 4(a): Process for Consideration by Federal Agencies of Conditions to Licenses. The legislation would create a new section 32 of the Federal Power Act (FPA), specifying the process for consideration by Federal agencies of conditions to hydroelectric project licenses.

Definitions: New FPA section 32(a) would define ``condition'' and ``consulting agency'' as used in section 32. ``Condition'' refers to conditions for projects on Federal reservations determined under FPA section 4(e) and fishway prescriptions determined under FPA section 18. ``Consulting agencies'' are the agencies with authority to determine conditions under sections 4(e) and 18.

Factors to be Considered: New FPA section 32(b) would require consulting agencies to consider the impact of conditions on: economic and power values; electric generating capacity and system reliability; air quality, including impacts on greenhouse gas emissions; and drinking, flood control, irrigation, navigation or recreation water supply. In addition, agencies would be required to consider the compatibility of their conditions with other conditions that will be included in the license, including, if available, mandatory conditions of other agencies. Further, agencies would be required to consider means to ensure that conditions address only direct project environmental impacts, and do so at the lowest cost to the project. Agencies must create written documentation of their consideration of these issues, and submit the documentation to FERC along with the condition.

Scientific Review: New FPA section 32(c) would require that each condition be subjected to appropriately substantiated scientific review based on current empirical data or field-tested data and subjected to peer review.

Relationship to Impacts on Federal Reservation: New FPA section 32(d) would require that conditions determined under FPA section 4(e) be directly and reasonably related to the impacts of the project within the Federal reservation.

Administrative Review: New FPA section 32(e) would require that proposed conditions be provided to applicants at least 90 days prior to the deadline for filing a license application. Prior to submitting proposed conditions to the Commission, consulting agencies must offer the license applicant an opportunity to obtain administrative review of the condition before an administrative law

judge or other independent reviewing body. The administrative review would consider the reasonableness of the proposed condition, in light of its effects on the energy and economic values of the project, and the agency's compliance with the requirements imposed in section 32. Administrative review must be completed within 180 days of a request for review from the applicant. If it is not, the Commission is authorized to treat the condition as a recommendation is treated under FPA section 10(j). If an agency reviewing body decides that a proposed condition is unreasonable or that the requirements of the new FPA section 32 are not met, it must explain its decision and remand the matter to the agency for further action. The reviewing body may recommend curative actions. Finally, the consulting agency, following administrative review, would be required to either withdraw the condition, formulate a condition that follows the recommendations of the administrative review body, or otherwise comply with section 32. When the condition is submitted to the Commission, the consulting agency would be required to include any record on administrative review and documentation of any action taken after administrative review.

Submission of Final Condition: After a license application is filed, new FPA section 32(f) would require FERC to establish a deadline for the submission to the Commission of final conditions. The deadline would be no later than one year after the date on which the Commission gives notice that the license application is ready for environmental review (subject to one 30 day extension by FERC). If the consulting agency fails to comply with the deadline, the agency would not have authority to recommend or establish a condition. The legislative language restates FERC's current authority under its regulations to propose or establish license conditions in place of the defaulting agency in such a situation.

Analysis by the Commission: New section 32(g) would require FERC to conduct an economic analysis of conditions to determine whether a condition would render the project uneconomic. In addition, in exercising its authority under section 10(j) to reject a recommendation that is inconsistent with the Federal Power Act, the Commission would be required to consider whether 10(j) recommendations are consistent with the provisions of sections 32 (b) and (c) (consideration of factors and scientific review).

Commission Determination on Effect of Conditions: New section 32(h) would require the Commission, if requested on rehearing by a license applicant, to make a written determination on whether a condition (1) is in the public interest (measured by the impact of the condition on the energy, economic and resource considerations enumerated in section 32(b); (2) was subject to scientific review as required in section 32(c); (3) relates to direct project impacts within the

reservation (if applicable); (4) is reasonable; (5) is supported by substantial evidence; and (6) is consistent with the Federal Power Act and other license terms and conditions.

Section 4(b): Conforming and Technical Amendments: This section makes certain technical changes in FPA sections 4(e) and 18 to reflect the new requirements of section 32.

Section 5: Coordinated Environmental Review Process: A new section 33 would be added to the Federal Power Act to confirm the FERC's responsibilities as the lead agency for environmental reviews of hydroelectric projects under the National Environmental Policy Act.

Lead Agency Responsibility: New FPA section 33(a) would confirm FERC's responsibility to conduct a single, consolidated environmental review for each project or , if appropriate, for multiple projects located in the same area. This language assures that the legislation does not preclude a single environmental review being done for multiple projects.

Consulting Agencies: New FPA section 33(b) would impose a limitation on consulting agencies seeking to perform a separate environmental review for conditions submitted in accordance with new FPA section 32. This language is designed to avert agency reviews that would duplicate the consolidated environmental review conducted by FERC.

Deadlines: New FPA section 33(c) would require the Commission to set deadlines that provide opportunity for input on environmental reviews by federal, state and local agencies.

Section 6: Study of Small Hydroelectric Projects. Within 18 months of the date of enactment, FERC must complete a study of the feasibility of establishing a separate licensing procedure for small hydroelectric projects. The study would be submitted to the Senate Energy and Natural Resources and House Commerce Committees. The term ``small hydroelectric project'' would be defined by FERC, and shall include projects with generating capacity of 5 megawatts or less.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -- (Senate - January 29, 2001)

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By Mr. BINGAMAN (for himself, Mr. **CRAIG**, Mr. **SCHUMER**, and Mrs. **MURRAY**):

S. 193. A bill to authorize funding for Advanced Scientific Research Computing Programs at the Department of Energy for fiscal years 2002 through 2006, and for other purposes; to the Committee on Energy and Natural Resources.

Mr. BINGAMAN. Mr. President, I rise today to introduce a bill authorizing the Secretary of Energy to provide for the Office of Science to develop a robust scientific computing infrastructure to solve a number of grand challenges in scientific computing. This bi-partisan bill, which is referred to as the ``Department of Energy Advanced Scientific Computing Act'' is co-sponsored by Senators **CRAIG**, **SCHUMER**, and **MURRAY**. Before discussing this program in detail, let me briefly frame the proposed effort. First, I will outline the tremendous advances made in the last decade for scientific computing. Second, I will give a few examples of the ``grand challenges'' in scientific computing. Third, I will discuss how the proposed program at the Office of Science will give our nation's scientists the tools to meet these grand challenges. I will conclude by demonstrating how this program integrates with defense related computing programs at the DOE and across the interagency.

Experts agree that scientific computing R&D is at a critical juncture. If the breakthroughs proceed as predicted, the information age could affect our everyday lives far beyond what we nonexperts currently grasp. It is terribly important that we, as a nation, ensure that the U.S. maintains a leadership role in scientific computing R&D. If we fall beyond in this rapidly changing field, our nation could lose its ability to control the national security, economic and social consequences from these new information technologies.

What are the possible breakthroughs in scientific computing that merit such strong programmatic attention? Within the next five years we expect that advanced scientific computing machines will achieve peak performance speeds of 100 teraflops or 100 trillion

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arithmetic operations per second; that is 100 times faster than today's most advanced civilian computers. To put things in perspective, the fastest Pentium III available today can perform about 2 gigaflops (2 billion operations per second), so a 100 teraflops machine is about 50,000 times faster than today's fastest Pentium III. We call this new wave of computing ``terascale computing''. This new level of computing will allow scientists and engineers to explore problems at a level of accuracy and detail that was unimaginable ten years ago. I will discuss the scientific and engineering opportunities in more detail later. First, let me discuss some of the challenges in terascale computing.

The major advance that led to terascale computing is the use of highly parallel computer architectures. Parallel computers send out mathematical instructions to thousands of processors

at once rather than waiting for each instruction to be sequentially completed on a single processor. The problem we face in moving to terascale computers is writing the computer software that utilizes their full performance capabilities. When we say ``peak''

speeds we mean the ability to use the full capability of the computer. This happens very rarely in parallel computers. For example, in 1990 on state-of-the-art Cray supercomputers with about eight processors, we could obtain, on the average, about 40-50 percent of the computer's ``peak'' speed. Today, with massively parallel machines using thousands of processors, we often obtain only 5-10 percent of the machine's ``peak'' speed. The issue is how to tailor our traditional scientific codes to run efficiently on these terascale parallel computers. This is the foremost challenge that must be overcome to realize the full potential of terascale computing.

Another problem we face as we move to terascale computing is the amount of data we generate. Consider the following. Your PC, if it is one of the latest models, has a hard drive that will hold about 10 gigabytes of data. If we successfully begin to implement terascale computing, we will be generating ``petabytes'' of data for each calculation. A petabyte of data is one million gigabytes or the equivalent of 100,000 hard drives like the one on your PC. A teraflop machine user will make many runs on these machines. But raw data isn't knowledge. To turn data into knowledge, we must be able to analyze it--to determine what it is telling us about the phenomena that we are studying. None of the data management methods that we have today can handle petabytes data sets. This is the second challenge that must be overcome.

And, many more challenges exist.

To make effective use of today's and the future's computing capability we need to establish a scientific program that is radically different from what researchers are used to today. Future scientific computing initiatives must be broad multi-disciplinary efforts. Tomorrow's scientific computing effort will employ not only the physicist who wishes to probe the minute details of solid matter in order to say, built a better magnet, it will include a computer scientist to help ensure that the physicist's software makes efficient use of the terascale computer. Terascale computing will also require mathematicians to develop specialized routines to adapt the solution of the physicist's mathematical equations to these parallel architectures. Finally, terascale computers will require specialists in data networking and visualization who understand how to manage and analyze the massive amounts of data.

I note these problems to highlight the complexities of tomorrow's scientific computing environment from the common information technologies that we employ today. However, because computing technology moves at such a rapid rate, elements of the issues that I have described will surely impact us in the near future. Given the impact information technologies have had only in ten years, it is important that we, as a nation, lead the initiative in these breakthroughs so that we can positively control the impact that the these revolutionary technologies will have on our economy and the social fabric of our Nation.

What are the important problems that we expect terascale computing to address? We call these problems ``Grand Challenges''. Terascle computing will enable climate researchers to predict with greater certainty how our planet's climate will change in the future, allowing us to develop

the best possible strategies and policy for addressing climate change . Terascale computing will help chemists understand the chemical processes involved in combustion, which will translate into more efficient, less polluting engines. Terascale computing will allow material scientists to design nanomaterials atom by atom, which will lead to stronger, yet lighter and hence more energy efficient materials. Terascale computing will assist nanoscience researchers by simulating atom manipulation before undertaking complex and expensive experiments. Nanotechnology will lead to whole new generations of computer chips, information systems, and stronger, yet lighter materials. Finally, terascale computing will enable biologists to understand the structure of the proteins encoded in the human genome, which will lead to better medicines and health for our citizens. These fundamental grand challenge problems are now addressable with the recent advances in scientific computing. Due to the impact the grand challenge problems will have on our lives, we as a nation, must take the lead in their investigation.

What are the elements of the proposed effort? The program I propose will build on the Department of Energy's decades of leadership in high performance computing and networks to ensure that terascale computing and petabyte data visualization becomes a positive force for the U.S. The proposed program has four parts. The first part is the establishment of core teams of researchers who specialize in the grand challenge problem itself. An example of a core team is one made up of geologists and geochemists allied with computer scientists and applied mathematicians to write large software programs associated with oil exploration or the diffusion of waste in the subsurface. The scientific simulation software created by these core teams will be the ``engines'' that drive the scientific discovery process. The second element of the program enhances the research efforts in computer science and computational mathematics that underlie this software development effort. These specialists will ensure that the core teams effectively use massively parallel computers--not at the current 5-10 percent but at 50 percent of the computer's peak running speed. These specialists will also develop the software to manage and visualize the petabytes of data that the core teams, as well as the next generation of experimental facilities, generate. Third, this program will fund specialists to develop the networking and electronic collaboration software that will allow researchers all across the U.S.--in national laboratories, universities, and industry to routinely use petabyte data sets. This new networking capability will translate quickly to the private sector in the areas of medicine, business transactions, and education over the internet. Fourth, this program will fund the unique computer hardware required for scientific investigations of the ``Grand Challenges'' on a continuing basis. Many of the grand challenge problems will benefit from specialized computers. This program will fund such specialized computers. For instance, IBM will build in the year 2004 or 2005 a unique 1000 teraflops (1000 trillion operations per second) computer called ``Blue Gene''. Blue Gene will be

500,000 times faster than your desk PC. This machine will be used by DNA researchers to predict the structure of proteins and in doing so allow drugs and medicines to be optimized before they are commercially produced. We propose to place these one-of-a-kind computers at national user facilities and make them available to U.S. researchers in national and government laboratories, universities, and industry.

In summary, we are proposing a program that will substantially advance our understanding of complex scientific phenomena that affect our daily lives. At the present we cannot fully

understand these phenomena; it is critical that we master it in our national interest so to benefit our nation and its people.

Overall, this program will integrate into other DOE advanced computing efforts and into our national strategy for advanced scientific computing. In FY01, the DOE National Nuclear Security Agency, NNSA, funded the Accelerated Strategic Computing Initiative or ASCI at $477 million dollars. ASCI's mission--to develop the capability to simulate the safety and surety of the nuclear weapons in our stockpile--is critical to the security of our nation. The ASCI program is a focused and classified program with one primary user--the nuclear weapons community. Its problems revolve around materials and plasmas undergoing rapid changes from a nuclear explosion. The Advanced Scientific Computing Program I am proposing is unclassified and covers many other areas of science critical to the long term well being of the nation. This program will involve interaction between researchers at the nation's national and federal laboratories, universities, and industry. That is not to say that there will be no integration between these two worthy and important efforts. Both efforts involve terascale computers, so clearly we expect that many of the central tools common to both in terms of hardware design and underlying software for networks and visualization will be shared. Both programs will benefit by the two diverse communities working towards the common goal of terascale computing. And, the NNSA will be able to infuse fresh ideas from the universities and industry on parallel architectures and data visualization into their efforts in ensuring the surety of our nation's nuclear weapons stockpile.

Within the U.S. Government, this effort will fall under the purview of the National Coordinating Office for Computing, Information and Communications, ``NCO/CIC''. This Office is charged with coordinating government-sponsored information technology research programs across all of the government agencies. The NCO/CIC provides a forum for DOE to coordinate its scientific computing program with information technology programs in NSF, DOD, NASA, NIH, NOAA, and other government agencies interested in high-performance computing. Although the DOE program is focused on its energy, environmental, and scientific missions, many benefits will be derived by coordinating its activities with related computing activities in other agencies. Finally, I note that in our national implementation plan for ``Information for the Twenty First Century'', the NSF and the DOE were given the leadership for ``Advanced Scientific Computing for Science, Engineering and the Nation''. The program I have outlined supports that role.

In summary, I have outlined a scientific computing program that will advance our ability to understand complex but important physical, chemical, and biological phenomena. Advancing our understanding of global climate change will lead to a better understanding on the relationship between our energy consumption and the climate on our planet. Mastering materials and chemical processes at an atomic level will enhance U.S. industrial competitiveness in many areas such as energy efficient materials manufacturing and develop new computer chip technologies. Understanding the flow of contaminants in the groundwater will help develop better strategies for cleaning up DOE's sites and help commercial oil and gas extraction. Predicting the structure of proteins will lead to more effective drugs with minimal side effects. Beyond solution of the ``Grand Challenges'' are the advancements that will be made in advanced computing and

networking technologies which will benefit users in areas as diverse as medicine and business. These problems are of national significance to the health of our citizens and our future economy in the 21st century.

NATIONAL ENERGY SECURITY -- (Senate - February 26, 2001)
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Mr. CRAIG. Thank you, Mr. President.

Before I speak to the two pieces of legislation that Senator **FRANK MURKOWSKI** has introduced today, let me thank the chairman of the Energy and Natural Resources Committee for the leadership that he is demonstrating with the introduction of S. 388 and S. 389.

This country cries out for a clear, well developed policy for both the production and the transmission and/or shipment of energy that we clearly have found ourselves now lacking and in need of.

Every American is finally beginning to feel the pinch of energy; in this case, the lack thereof--whether it is at the gas pump, or whether it is in the power bill they receive monthly, or their space heating bill, or the cost of the goods that have a major component of energy in them.

The Senator has just concluded speaking about the potential of producing upwards of 16-plus billion barrels of oil domestically in our country in addition to what we already have. I will say--and I am sure I will say it more than once over the course of the next several months of debate--the ANWR issue is not an environmental issue. It never has been, and it never will be. It is a political issue.

The technology of today will protect that environment. When the oil is extracted and the wellheads are gone, it will hardly be noticeable that man, in the form of his modern technology, was there. This is a political issue by interest groups who need a cause. The Senator from Alaska has spelled that out well in the last few moments.

But I rise today in support of national energy and a National Energy Policy Act of the kind that the Senator has introduced today and of which I am a cosponsor. Clearly, this is the year when I hope Americans will insist and that we will respond with the development of a comprehensive energy policy.

We began to look at this anew in 1999. Back then, OPEC cut crude oil production to force up oil prices. We then had the luxury of very inexpensive crude oil. It worked. As you know, we saw our Secretary of Energy rushing off to the Middle East to

beg them to turn their valves back on. While they did a little bit, they were destined to move crude oil from $12 a barrel to, at one point, a high of $32 a barrel last spring.

Our motorists--all of us--were worried about the increasing cost of gasoline, and truckers were concerned about rising fuel oil costs. Also, residential consumers in the Northeast watched as their home heating oil bills skyrocketed last year and remained extremely high through this winter.

In the past dozen months, the situation has worsened. Gasoline, fuel oil, and home heating oil have remained at a high premium. Natural gas prices have tripled to $6 per million Btu's from under $2 only a year ago. That is a tremendous increase in price. Natural gas production has remained static, even though the number of drilling rigs looking for gas has now tripled in the last year, as finally these unbelievable but very market-driven prices have resulted.

Further, natural gas in storage is just about a billion cubic feet--about half of what is usually in storage for this time of year. In other words, in that arena we are only half prepared. We simply cannot build the balance of the storage.

Further, natural gas is clearly costing the residential consumer an astronomical price--but beyond where the gas line goes, where you have to use bottled gas out in rural America for cooking, heat, and some space heat, there, once again, it has tripled; and even for the poorest of Americans, it is a cost they are finding very difficult to bear. Wholesale electric prices too have risen significantly.

Of course, we have all watched and been a part of--at least by action or by debate--the episode in California and the experimental, but very flawed, electricity deregulation effort that has produced an unbelievable high of nearly $300 for a megawatt hour in the spot market--$300 for a megawatt hour in the spot market--compared with just a few dollars at some points in an Idaho market a few years ago. That is a tremendous drive-up in cost. That is about 30 cents per kilowatt hour, or five times what the investor-owned utilities in California are allowed to charge their consumers.

To bring it into perspective, my consumers in Idaho, right now, are paying about 3.6 cents per kilowatt hour against a California market that has peaked at 30 cents per kilowatt. Some folks would say Idahoans are not paying enough. Let me tell you, Californians are not paying what the market would teach them to pay if their policies were different. Then they would dramatically change the politics of their State because, once again, ANWR is a political issue and the energy crisis in California is a political issue--and a political crisis.

Southern California Edison and Pacific Gas and Electric Company are struggling with a $10 billion unpaid bill for power. They were simply not able to go out and collect the money because California law would not let them collect the money for the very energy they bought to supply Californians. Californians have already consumed the electricity, but they have not paid the full price for it.

California, due to a shortage in the State of power-generating facilities, has been forced to import electricity from as far away as Texas. And up in my State of Idaho, we now produce power for California. Power supplies in the Northwest--my region of the country--have grown increasingly scarce. Competition for supplies and the fear that California utilities will be unable to pay their bills have forced up retail prices in Oregon, Washington, and my State of Idaho.

When the previous administration arrived in 1993, it

announced its intent to drastically alter the way the Nation used energy, especially fossil fuels--gas and oil and coal. President Clinton argued that a broad-based Btu tax would force us away from coal and oil and natural gas to renewable energy forms, such as solar, wind, and biomass. That objective has remained a hallmark of that administration's energy policy.

Oh, yes, some of us have argued that the Clinton administration had no policy. Well, they came to town with one. And that one was rapidly rejected by

the American consumer when the President said that the taxes he wanted to raise--nearly $72 billion out of the consuming public over a 5-year period--would help the market and help the environment. What it ultimately did--because it was rejected--was it caused even greater dependence on foreign oil and, of course, had phenomenal impacts, as we now see, on the consuming public. In fact, it would have unfairly punished energy-intensive States and industries.

Estimates by the American Petroleum Institute and the National Association of Manufacturers, at that time, predicted that the Btu tax, which was the hallmark of the Clinton policy, would reduce the gross domestic product of this country by $38 billion and that it would destroy nearly 700,000 jobs.

Just in the last 2 quarters, this runup in energy price--which would have been equivalent to raising that kind of a tax, only it is now greater--has cost the gross domestic product almost a half a percentage point. Studies now show at least four-tenths of a percent loss, or nearly half a percentage point, and several hundreds of thousands of jobs. So those estimates way back in 1994 were not very far off.

The administration claimed that the tax was needed to balance the budget and fund large new spending programs to offset the negative impacts of the tax. They also claimed that crude oil imports would decline by 400,000 barrels a day.

At the same time, DOE's own projections predicted the tax would shave oil import growth by less than one-tenth a percent after nearly 10 years under that program. DOE predicted by the year 2000 Americans still would depend on foreign oil for three-fifths of their total crude oil requirements.

DOE was not far off. With or without the tax, obviously with growth in the American economy and the tremendous wealth and advantages to the American consumer that the economy of the last decade has produced, we have grown dramatically more dependent upon foreign oil because we failed to produce our own. The American Petroleum Institute testified at that time that even if imports were to fall by the full 400,000 barrels a day claimed by the administration, the cost of a $34 billion in lost GDP is excessive relative to the alternatives of improving energy security. The story went on and on, and no energy policy got developed. In fact, quite the opposite occurred. A more restrictive approach to the production of domestic energy began to fill in behind the inability of our past President to force a huge tax increase on the American consumer.

In the end, Congress refused to accept the Clinton administration's efforts to tax our relatively inexpensive energy sources to finance their grandiose tax-and-spend social agenda that Congress rejected. Congress did agree to raise taxes on transportation fuels. We did that by 4.3 cents per gallon, a move I opposed and believed was wrong at the time. It is wrong now.

The past administration's obsession to reduce fossil fuel use as much as possible has put us in the position we find ourselves today. President Clinton said, on March 7, 2000, at the White House:

..... Americans should not want them [oil prices] to drop to $12 or $10 a barrel because that ..... takes our minds off our business, which should be alternative fuels, energy conservation, reducing the impact of all this on global warming .

Here are the facts: Since 1993, domestic oil production has dropped by 17 percent. Domestic crude oil consumption, though, has gone up by 14 percent. Dependence on foreign sources of crude oil has risen to 56 percent in total crude oil requirements.

The PRESIDING OFFICER. The time allotted to the Senator has expired.

Mr. CRAIG. I ask unanimous consent to continue for no more than 10 minutes.

The PRESIDING OFFICER. Is there objection?

Mr. KYL. Mr. President, might I ask the Senator, did he ask for 1 minute or 10 minutes?

Mr. CRAIG. I asked for 10.

Mr. KYL. Mr. President, I will certainly not object, although that will wipe out my opportunity to speak, as I understand it.

Mr. CRAIG. Reclaiming my time, let me ask for no more than 3 minutes. Would that accommodate the Senator from Arizona?

Mr. KYL. I am sure it would. I know there are other Senators who are to follow beginning at a particular time. That would be very helpful. I certainly don't want to interrupt the Senator from Idaho because I know he has very important comments to make.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. CRAIG. As I said, I am pleased to rise today to support introduction of the National Energy Security Act of 2001. At the request of the Majority Leader during the last Congress, Senator **MURKOWSKI** and other Senators began the process of developing a solution to the energy ``fix'' in which we found ourselves in beginning in late 1999.

Back then, OPEC cut crude oil production to force up world oil prices. It worked--oil prices rose quickly from about $12 per barrel and hit a high of about $32 per barrel last spring.

Our motorists were worried about the increasing cost of gasoline and truckers were concerned about rising fuel oil prices. Also, residential customers in the Northeast watched as their home heating oil bills skyrocketed.

In the past dozen months the situation has worsened. Gasoline, fuel oil, and home heating oil prices remain high. Natural gas prices have tripled to about $6.00 per million Btu's (British Thermal Units). Natural gas production has remained static even though the number of drilling rigs looking for gas has tripled over the last year. Further, natural gas in storage is just above 1 billion cubic feet, about half of what is usually in storage this time of year. Residential gas customers in some parts of the Nation have seen their winter heating bills triple.

Wholesale electricity prices have risen significantly. In California, which is experimenting with a flawed electricity deregulation effort, electricity prices have been as high as $300 per megawatt hour (MwH) on the spot market.

That's about 30 cents per kilowatt hour or about 5 times what investor owned utilities in California are allowed to charge their customers.

Southern California Edison and Pacific Gas and Electric Company are staggering under more than $10 billion in unpaid bills for power.

California, due to a shortage of in-state power generating facilities has been forced to import power from as far away as Texas and the Pacific Northwest. Power supplies in the Northwest are scarce and competition for supplies and fear that the California Utilities will be unable to pay their bills has forced up retail electricity prices in Oregon, Washington and my home state of Idaho.

When the previous administration arrived in 1993 it announced its intent to drastically alter the way the Nation used energy, especially fossil fuels.

President Clinton argued that a broad based Btu tax would force us away from coal, oil and natural gas to renewable energy from solar, wind and biomass--that objective has remained a hallmark of that administration's ``energy policy.''

The President promised the tax would raise nearly $72 billion over five years (1994-1998) and marketed it as fair, helpful to the environment, that it would force down our dependence on foreign oil, and would have trivial impacts on consumers.

In fact, it would have unfairly punished energy intensive states and industries. Estimates by the American Petroleum Institute and National Association of Manufacturers at the time predicted the tax would hurt exports, reduce GDP by $38 billion, and destroy as many as 700,000 American jobs.

The administration claimed the tax was needed to balance the budget and fund large new spending programs to offset the negative impacts of the tax.

They also claimed that crude oil imports would decline by 400,000 barrels per day.

At the same time, DOE's own projections predicted the tax would shave oil import growth by less than one-tenth after 10 years. DOE predicted that by the year 2000, Americans still would depend on foreign oil for three-fifths of their total crude oil requirements.

API testified: ``..... even if imports were to fall by the full 400,000 barrels a day claimed by the administration, the cost of $34 billion in lost GDP is excessive relative to other alternatives for

improving energy security. Using the administration's optimistic predictions, the cost of the Btu tax works out to about $230 per barrel."

In the end, Congress refused to accept the Clinton administration's efforts to tax our relatively inexpensive energy sources to finance their grandiose tax and spend social agenda.

Congress did agree to raise taxes on transportation fuels by 4.3 cents per gallon, a move Republicans tried to reverse during the 106th Congress.

The past administration's obsession to reduce fossil fuel use as much as possible has put us in the position we find ourselves today. President Clinton said on March 7, 2000 at the White House:

Americans should not want them [oil prices] to drop to $12 or $10 a barrel again because that ..... takes our mind off our business, which should be alternative fuels, energy conservation, reducing the impact of all this on global warming .

Since they came to office in 1993: Domestic oil production is down 17 percent; domestic crude oil consumption is up 14 percent; and dependence on foreign sources of crude oil has risen to 56 percent of total crude requirements.

By comparison, in 1973, during the Arab oil embargo, our dependence on foreign crude was 36 percent of our total crude oil requirements.

The past administration's failure to encourage domestic oil production and production of coal and natural gas has lead us to this point. That administration refused to acknowledge that vast reserves of oil and gas offshore, in Alaska and in the Rocky Mountain overthrust area should play a role in reducing our dependence on imported oil.

The Clinton administration in 2000 announced a ban on future exploration on most of the federal outer continental shelf until 2012.

In 1996 the Administration resorted used the Antiquities Act to create the Grant Staircase/Escalante Monument thereby dening access to about 23 billion tons of mineable coal reserves in Utah.

The U.S. Forest Service has issued road construction policies that are designed to restrict the energy industry's ability to explore for oil and gas on Forest Service lands.

Former President Clinton vetoed legislation in 1995 that would have opened the Coastal Plain of the remote Alaska National Wildlife Reserve denying the nation access to an estimated 16 billion barrels of domestic crude oil--which could amount to production of 1.5 million barrels per day over the next 20 years--about 10 percent of daily U.S. consumption.

The Clinton administration ignored a report prepared by the National Petroleum Council, requested by the Energy Secretary, explaining how the nation can increase production and use of domestic natural gas resources from about 22 trillion cubic feet per year to more than 30 trillion cubic feet per year over the next 10 to 12 years.

The past administration showed little interest in solving our domestic energy problems even as foreign oil producers have forced crude oil prices to over $30 per barrel and gasoline prices to almost $2.00 per gallon--double prices of only little more than a year ago.

Mr. President, the past administration has acted in other ways designed to force us away from the use of readily available, relatively inexpensive fossil fuels, nuclear energy and hydropower. It chose especially to vilify and deny the use of our most abundant national energy resource--coal.

The U.S. has the world's largest demonstrated coal reserve base and accounts for more than 90 percent of our total fossil energy reserves.

At present rates of recovery and use, U.S. reserves will last more than 270 years.

Coal is used to generate over 56 percent of our electricity supply--and about 88 percent of the Midwest's electricity needs.

Electricity from hydro represents about 10 to 12 percent of our electricity needs.

Nuclear powerplants meet about 20 percent of our total electricity demand.

Yet the past administration had a dim view of these sources and took steps to reduce their use.

For example, former Interior Secretary Bruce Babbitt talked openly about ``tearing down dams'' in the West to restore habitat for fish, ignoring the power and transportation benefits they provide. And, the past administration imposed new, often impossible criteria that must be met before federal licenses can be reissued. Many existing hydro projects will seek relicensing over the next several decades.

The past administration also vetoed legislation designed to create a permanent nuclear waste storage facility and which fulfills a longstanding promise by the federal government to create such a facility. Without a federal storage facility, U.S. nuclear generating stations, which are running out of on-site storage capacity may be forced to begin shutting down some operations.

There are too many more examples of the past administration's failure to produce a coherent, balanced national energy plan. The result of this failure is tight energy supplies and high prices.

Solving these problems requires tough choices and I suggest that we begin now by pursuing a number of short and long term objectives. I think the bill we are introducing today addresses these challenges.

Mr. President, I want to touch briefly on two aspects that are of great concern to me and my fellow Idahoans. Chairman **MURKOWSKI** has already gone through it in some detail.

The bill contains provisions of great importance to the future of nuclear energy, which currently accounts for about twenty percent of U.S. electricity demand. Nuclear energy is a clean, safe, reliable technology which provides baseload power at low cost. The increase in natural gas prices has shown us the danger of relying on natural gas for all of our new electricity generation.

Other countries have adopted the advanced nuclear technologies developed in this country and are putting them to use. In fact there is much excitement in the energy industry over plans to build a new type of nuclear plant--called ``pebble bed reactor"--in South Africa. I believe at some point in the future we will once again appreciate the value of non-emitting energy such as nuclear, and choose to construct additional nuclear generating facilities in the U.S. For this reason, I am working with my colleague, Senator **DOMENICI,** to develop other proposals regarding the nuclear energy option and we hope to have additional legislation soon for the Senate to consider.

The legislation also provides important tax incentives to encourage the use of geothermal energy. I have personal experience with what a wonderful role geothermal can play in our energy mix because the Idaho Statehouse in Boise and other buildings in the downtown area are heated with geothermal energy.

In the right applications, geothermal is a clean, efficient energy source available for our use and because there are no ongoing fuel costs and relatively inexpensive maintenance costs, after the initial capital investment, it is a very low cost energy option.

Finally, Mr. President, I want to address the matter of power from hydroelectric facilities, upon which the Pacific Northwest is highly dependent. The relicensing process for hydroelectric facilities is becoming increasingly costly and time-consuming. It now takes more than five years to relicense a facility--up from only 9 months in 1980 according to the Federal Energy Regulatory Commission.

Hydropower currently accounts for about 12 percent of the electricity generated in the United States and it produces that power without air pollution or the greenhouse gas emissions.

Under current law, several federal agencies are required to set conditions for licenses without regard to the effects those conditions have on project economics, energy benefits, impacts on

greenhouse gas emissions and values protected by other statutes and regulations. Far too often the relicensing process is plagued with agency disagreements and inconsistent demands.

A very large number of public and privately owned hydro facilities will be up for relicensing over the next ten years. Some may be abandoned if the relicensing process becomes prohibitively expensive and time-consuming. The legislation being introduced today will help streamline the process and make the involved agencies more fully accountable for their decisions.

The legislation does not change or modify any existing environmental

laws, nor does it remove regulatory authority from various agencies. It does not call for the repeal of mandatory conditions on a FERC issued license.

It is clear to me and many of my colleagues that hydropower is at risk and one of our most important tasks here in the Senate is to develop policies that lead to an energy strategy that will ensure an adequate supply of reasonably priced, reliable energy to all Americans in an environmentally responsible manner. The relicensing of non-federal hydropower can and should continue to be an important strategy.

In addition, we should work with our Western Hemisphere neighbors to help them increase their crude oil and natural gas production.

We should provide relief to consumers by eliminating the 4.3 cents a gallon tax on motor gasoline enacted in 1993.

We need to step away from punitive, command and control environmental regulations and move toward performance based regulatory concepts that offer the regulated community opportunities to find flexible approaches to reducing emissions of legally regulated contaminants.

We must carefully assess the capabilities of our energy production and delivery systems to find opportunities to improve system productivity, efficiency and reliability.

We must ensure that sufficient funds are available to help those with lower incomes to weatherize their homes and pay their energy bills.

While renewable energy sources provide only about 3 percent of total U.S. demand for energy, we should continue to provide incentives for our citizens to use wind, solar, and other renewables.

We should encourage motor vehicle manufacturers to ensure that consumers have access to safe and highly efficient cars and trucks.

We must realize that we are part of the problem. Our unwillingness to develop our own abundant oil, gas and coal resources dooms us to greater dependence on foreign sources,

especially for crude oil. We must make the conscious choice to carefully find and develop our resources while protecting our environment.

I conclude by drawing attention to a portion of this bill that is increasingly valuable; that is the area of new technology. Some who will argue against this bill would suggest that it is merely a reason to fall back to our habits of old. That is not true. We want to and will continue to fund the new technology, much of it started in the decade of the 1990s. It is clearly important. We are not always going to have hydrocarbons around, and we should not be that dependent upon them. But in the short term, in the next several decades, as we are using our resources and fueling our economy, we need to look at nuclear technology and new clean coal technology so we can use the abundance of these resources and in an environmentally sound way.

In my State of Idaho, we are dependent on hydropower. There are many, including the past administration and many of their devotees, who would suggest the dams on those rivers that produce that clean source of energy, nonpolluting, nongreenhouse gas -emitting, that those dams ought to be breached. They insist that if the dams are not removed then they ought to be regulated in a much more stringent way. In fact, the licensing process the Federal Energy Regulatory Commission has as a part of its responsibility to renew these hydro facilities is one that I am working on. And within this legislation is a reform of the licensing process, not to change it and take stakeholders or interested parties away from it, but to ask them to perform their responsibilities in a timely fashion and in a responsible fashion.

Why should it take 10 years to relicense a hydro facility and cost millions upon millions of dollars that ultimately the consumer has to pay? If it needs retrofitting, if it needs improvement of technology for environmental reasons, those are conclusions that can be drawn in a reasonably quick way, and managed responsibly, so that we can balance out our energy needs.

The legislation the Senate now has before us will be coupled with the work the Bush administration is doing now through their Cabinet level working group. This administration wants an energy policy, too, and it is their goal to produce one for the American people.

Our economy depends on an abundant supply of environmentally sound, relatively low-cost energy. It is the wealth of our country. It is what drives this marvelous economic engine of ours. And it does something very simple--it puts money in the pocketbook of the worker. It turns the lights on in his or her home. It helps educate our children. It does all of the wonderful things we in America have grown to expect.

Why should we suggest that we ought to have anything less if we can do it with the environment in mind and at a relatively low cost. That can be accomplished in a policy in which the Federal Government promotes the concept of energy production instead of setting up one trip wire after another to disallow it from happening.

I look forward to the coming debate. I think it is critical that all of us get ourselves involved and educated in the issues at hand.

These two pieces of legislation go a long way toward allowing that to happen.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -- (Senate - May 03, 2001)

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By Mr. WYDEN (for himself and Mr. **CRAIG):**

S. 820. A bill to amend the Energy Policy Act of 1992 to assess opportunities to increase carbon storage on national forests derived from the public domain and to facilitate voluntary and accurate reporting of forest projects that reduce atmospheric carbon dioxide concentrations, and for other purposes; to the Committee on Energy and Natural Resources.

Mr. WYDEN. Mr. President, today Senator **CRAIG** and I are introducing legislation that uses a simple, scientifically sound and entirely voluntary approach to combat global warming . It's not revolutionary, and it's not regulatory. We believe growing more trees, bigger trees and healthier trees is one of the most effective ways to remove greenhouse gases from the atmosphere and help protect the earth's climate . The Forest Resources for the environment and the Economy Act of 2001 will expand the nation's forested lands and put our forests on the frontlines in the battle against global warming .

Investing in healthy forests today is an investment in the well-being of our planet for decades to come. In the Pacific Northwest, forests are more than critical environmental resources--they are also a cornerstone of our economy. In debates about forest policies, there are those who have advocated an exclusively environmental pathway, and others who have stressed an exclusively economic pathway. This bill is part of what I believe is a third pathway through the woods, a path to both stronger rural economies and healthier forests.

I introduced this bill with Senator **CRAIG** in the 106th Congress. Though there have been numerous changes to the bill to address specific concerns, the underlying functions of the bill remain the same: this bill will reduce the buildup of greenhouse gases in the atmosphere and help protect our global climate for ourselves, our children and our grandchildren. It will provide improved wildlife and fish habitats and protect our waterways. It will enhance our national forests by reducing water pollution within their watersheds. It will provide jobs in the forestry sector in areas that have been hard hit by declining timber harvests. And it will grow additional timber resources on underproductive private lands.

The legislation does all of this through entirely voluntary, incentive-based approach. The bill makes new resources available to private landowners through state-operated revolving loan programs that provide assistance for tree planting and other forest management actions. I know that this approach works because of the leadership of my home state, Oregon. The loan

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program is modeled after the innovative Forest Resource Trust, which was established in Oregon in 1993, and is just one of the many ways Oregon continues to lead the nation in state actions to reduce greenhouse gas emissions. I am introducing this bill to make sure that we take advantage

of these opportunities across the country and encourage more businesses to invest in the nation's forests.

The bill is based on recommendations of the National Academy of Sciences to overcome the capital constraints that prevent non-industrial, private forest land owners from growing healthy forests. Almost 10 million landowners in the United States own 42 percent of the non-industrial, private forest land in parcels of less than 100 acres. Access to the low-interest loans provided by

this bill can empower these landowners to improve their lands while providing global environmental protection.

In addition to establishing the state revolving loan programs, the bill makes important changes to the Energy Policy Act of 1992 to strengthen the voluntary accounting and verification of greenhouse gas reductions from forestry activities. The bill directs the Secretary of Agriculture to develop new guidelines on accurate and cost-effective methods to account for and report real and credible greenhouse gas reductions. These guidelines will be developed with the input of a new Advisory Council representing industry, foresters, states, and environment groups.

As I said above, numerous changes have been made to the bill since its introduction in the 106th Congress. By a process of intellectual give and take between various Congressional offices, stakeholder groups and environmental organizations, this bill has been improved to offer greater environmental protection opportunities and better science. The bill now requires that all funded projects have ``a positive impact on watersheds, fish habitats, and wildlife diversity.'' It promotes reforestion activities for species that are native to a region. Also, the bill now allows flexibility in the loan repayment requirements that encourage the longer rotation, and permanent protection, of lands reforested under this program. In addition, the new Advisory Council will have three independent scientists instead of one and the members must have an expertise in forest management; carbon storage reporting will include monitoring requirements to assure the net increase of carbon storage; and the bill allows for the incorporation of the latest scientific and observational information. Overall, this bill is a solid step forward in the long journey towards addressing global climate change .

As in the last Congress, this bill will pay for itself by taking the money that polluters pay when they are caught violating the Clean Air Act and Clean Water Act and use it to expand our forests, protect streams and rivers and help remove greenhouse gases from the air. In fiscal year 1998, $45 million of these environmental penalties were assessed against polluters. There are currently no guarantees that these penalties, which revert to the General Fund, are used to improve our environment. This bill would make this money available as loans to small and medium landowners to cover the upfront costs of tree planting and other activities that aid in the growth of healthy, productive forests and provide better wildlife habitats.

We cannot afford to play Russian roulette with our global climate . The total amount of greenhouse gases in our atmosphere depends, in part, on the efficiency of forests and other natural ``sinks'' that absorb carbon dioxide--the most significant greenhouse gas --from the atmosphere. The implications are as simple as they are scientifically sound--if we grow more trees, bigger trees, and healthier trees, we will remove more greenhouse gases from the

atmosphere and help protect the global climate . According to the Pacific Forest Trust, our forest lands in the United States are only storing one-quarter of the carbon they can ultimately store. Just tapping a portion of this potential by expanding and increasing the productivity of the nation's 737 million acres of forests is an important part of a win-win strategy to slow global warming . This bill takes an important first step toward sequestering greenhouse gases on Federal

lands: it directs the Forest Service to report to Congress on options to increase carbon storage in our national forests.

It is hard to believe that nine years ago, during the first Bush Administration, both Democrat and Republican Senators proclaimed their support for taking action to protect the climate system and reducing the buildup of greenhouse gases in the atmosphere. When the 1992 United Nations Framework Convention on Climate Change was ratified by the Senate, Senators from both parties came to the floor to applaud this commitment to begin reducing greenhouse gas emissions. And then-President Bush supported that position as well. We cannot afford to let the current debates about international treaties paralyze this Congress when their are opportunities here at home to protect our environment in ways that also provide jobs and economic growth.

This bill is about taking advantage of a clear win-win opportunity. It's a win for the global environment. It's a win for sustainable forestry. It's a win for local water protection. And it's a win for rural communities. For these reasons, the bill has already received positive reactions from timber companies and environmental organizations alike, including the National Association of State Foresters and the Society of American Foresters, American Forest and Paper Association, American Forests, Environmental Defense Fund, Governor John A. Kitzhaber of Oregon, PacificCorp, The Nature Conservancy, and The Pacific Forest Trust.

I look forward to pursuing this common-sense step toward protecting the environment and supporting our forest workers. This bill will have a sequential referral to both the Senate Energy and Natural Resources Committee and the Senate Agriculture Committee. These Committees share jurisdiction over all our nations forests, public and private. They represent the interests of the people who use our forests from the National Forest visitor, to the large industrial land owner, to the small woodlot owner. Through the combined efforts of both of these Committees, I am sure that the bill will receive a thorough hearing. I look forward to starting this process with a hearing in early May in the Energy and Natural Resources Committee.

I ask unanimous consent that the text of the bill and the section-by-section analysis of the Forest Resources for the Environment and the Economy Act be printed in the **RECORD.**

There being no objection, the material was ordered to be printed in the **RECORD**, as follows:

S. 820

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ``Forest Resources for the Environment and the Economy Act''.

SEC. 2. FINDINGS AND PURPOSES.

(a) **FINDINGS.**--Congress finds that--

(1) the Federal Government should increase the long-term forest carbon storage on public land while pursuing existing statutory objectives;

(2) insufficient information exists on the opportunities to increase carbon storage on public land through improvements in forest land management;

(3) important environmental benefits to national forests can be achieved through cooperative forest projects that enhance fish and wildlife habitats, water, and other resources on public or private land located in national forest watersheds;

(4) forest projects also provide economic benefits, including--

(A) employment and income that contribute to the sustainability of rural communities; and

(B) ensuring future supplies of forest products;

(5) monitoring and verification of forest carbon storage provides an important opportunity to create employment in rural communities and substantiate improvements in natural habitats or watersheds due to forestry activities; and

(6) sustainable production of biomass energy feedstocks provides a renewable source of energy that can reduce carbon dioxide emissions and improve the energy security of the United States by diversifying energy fuels.

(b) **PURPOSE.**--The purpose of this Act is to promote sustainable forestry in the United States by--

(1) increasing forest carbon sequestration in the United States;

(2) encouraging long term carbon storage in forests of the United States;

(3) improving water quality;

(4) enhancing fish and wildlife habitats;

(5) providing employment and income to rural communities;

(6) providing new sources of forest products;

(7) providing opportunities for use of renewable biomass energy; and

(8) improving the energy security of the United States.

SEC. 3. DEFINITIONS.

In this Act:

(1) **CARBON SEQUESTRATION.**--The term ``carbon sequestration'' means the action of vegetable matter in--

(A) extracting carbon dioxide from the atmosphere through photosynthesis;

(B) converting the carbon dioxide to carbon; and

(C) storing the carbon in the form of roots, stems, soil, or foliage.

(2) **FORESTRY CARBON ACTIVITY.**--The term ``forestry carbon activity'' means a forest management action that--

(A) increases carbon sequestration and/or maintains carbon sinks,

(B) encourages long-term carbon storage, and

(C) has no net negative impact on watersheds and fish and wildlife habitats.

(a) **FOREST CARBON PROGRAM**.--The term ``forest carbon program'' means the program established by the Secretary of Agriculture under section 5 of the Forest Resources for the Environment and the Economy Act, to provide assistance through cooperative agreements and State revolving loan funds.

(4) **FOREST CARBON RESERVOIR**.--The term ``forest carbon reservoir'' means trees, roots, soils, or other biomass associated with forest ecosystems or products from the biomass that store carbon.

(5) **FOREST CARBON STORAGE**.--The term ``forest carbon storage'' means the quantity of carbon sequestered from the atmosphere and stored in forest carbon reservoirs, including forest products.

(6) **FOREST LAND**--

(A) **IN GENERAL**.--The term ``forest land'' means land that is, or has been, at least 10 percent stocked by forest trees of any size.

(B) **INCLUSIONS**.--The term ``forest land'' includes--

(i) land that had such forest cover and that will be naturally or artificially regenerated; and

(ii) a transition zone between a forested and nonforested area that is capable of sustaining forest cover.

(7) **FOREST MANAGEMENT ACTION**.--The term ``forest management action'' means the practical application of forestry principles to the regeneration, management, utilization, and conservation of forests to meet specific goals and objectives, while maintaining the productivity of the forests, including management of forests for aesthetics, fish, recreation, urban values, water, wilderness, wildlife, wood products, and other forest values.

(8) **INVASIVE SPECIES**.--The term ``invasive species'' means any species that is not native to an ecosystem and whose introduction does or is likely to cause economic or environmental harm or harm to human health.

(9) **NONINDUSTRIAL PRIVATE FOREST**.--The term ``nonindustrial private forest'' means forest land that is privately owned by an individual or corporation that does not control a forest products manufacturing facility and where management may include objectives other than timber production.

(10) **REFORESTATION**.--

(A) **IN GENERAL**.--The term ``reforestation'' means the reestablishment of forest cover naturally or artificially.

(B) **INCLUSIONS**.--The term ``reforestation'' includes--

(i) planned replanting;

(ii) re-seeding; and

(iii) natural regeneration.

(11) **REVOLVING LOAN PROGRAM**.--The term ``revolving loan program'' means a State revolving loan program established under section 5.

SEC. 4. CARBON MANAGEMENT ON FEDERAL LAND; CARBON MONITORING AND VERIFICATION GUIDELINES.

(a) **DEFINITIONS**.--Title XVI of the Energy Policy Act of 1992 is amended by inserting before section 1601 (42 U.S.C. 13381) the following:

``SEC. 1600. DEFINITIONS.

``In this title:

``(1) **CARBON SEQUESTRATION.**--The term `carbon sequestration' means the action of vegetable matter in--

``(A) extracting carbon dioxide from the atmosphere through photosynthesis;

``(B) converting the carbon dioxide to carbon; and

``(C) storing the carbon in the form of roots, stems, soil, or foliage.'

``(2) **FOREST CARBON STORAGE.**--The term `forest carbon storage' means the quantity of carbon sequestered from the atmosphere and stored in forest carbon reservoirs, including forest products.

``(3) **FOREST CARBON PROGRAM.**--The term `forest carbon program' means the program established by the Secretary of Agriculture under section 5 of the Forest Resources for the environment and the Economy Act, to provide financial assistance through cooperative agreements and State revolving loan funds for forest carbon activities.

``(4) **FOREST CARBON RESERVOIR.**--The term `forest carbon reservoir' means trees, roots, soils, or other biomass associated with forest ecosystems or products from the biomass that store carbon.

``(5) **FOREST MANAGEMENT ACTION.**--The term `forest management action' means the practical application of forestry principles to the regeneration, management, utilization, and conservation of forests to meet specific goals and objectives, while maintaining the productivity of the forests, including management of forests for aesthetics, fish, recreation, urban values, water, wilderness, wildlife, wood products, and other forest values."

(b) **CARBON MANAGEMENT ON FEDERAL LAND.**--Section 1604 of the Energy Policy Act of 1992 (42 U.S.C. 13384) is amended--

(1) by inserting ``(a) **REPORT.--"** before ``**NOT**"; and

(2) by adding at the end the following:

``(b) **CARBON MANAGEMENT ON FEDERAL LAND.--**

``(1) **IN GENERAL.**--Not later than 1 year after the date of enactment of this subsection, after consultation with appropriate Federal agencies, the Secretary of Agriculture, acting through the Chief of the Forest Service, shall report to Congress on--

``(A) the quantity of carbon contained in the forest carbon reservoir of the National Forest System and the methodology and assumptions used to ascertain that quantity;

``(B) the potential to increase the quantity of carbon in the National Forest System and provide positive impacts on watersheds and fish and wildlife habitats through forest management actions; and

``(C) the role of forests in the carbon cycle and the contributions of U.S. forestry to the global carbon budget.

``(2) **CONTENTS.**--The report shall also include an assessment of any impacts of the forest management actions identified under paragraph (1)(B) on timber harvests, wildlife habitat, recreation, forest health, and other statutory objectives of national forest system management."

(c) **MONITORING AND VERIFICATION OF CARBON STORAGE.**--Section 1605(b) of the Energy Policy Act of 1992 (42 U.S.C. 13385(b)) is amended by adding at the end the following:

(5) **GUIDELINES ON REPORTING, MONITORING, AND VERIFICATION OF CARBON STORAGE FROM FOREST MANAGEMENT ACTIONS.--**

``(A) **IN GENERAL.**--Not later than 18 months after the date of enactment of this paragraph, the Secretary of Agriculture, acting through the Chief of the Forest Service, shall--

``(i) review the guidelines established under paragraph (1) that address procedures for the accurate voluntary reporting of greenhouse gas sequestration from tree planting and forest management actions;

``(ii) make recommendations to the Secretary of Energy for amendment of the guidelines; and

``(iii) provide an opportunity for public comment on the guidelines established under subparagraph (A) prior to their submission to the Secretary of Energy.

``(B) **CARBON AND FORESTRY ADVISORY COUNCIL.--**

``(i) **ESTABLISHMENT.**--The Secretary of Agriculture, acting through the Chief of the Forest Service, shall establish a Carbon and Forestry Advisory Council for the purpose of--

``(I) advising the Secretary of Agriculture in the development and updating of guidelines for accurate voluntary reporting of greenhouse gas sequestration from forest management actions;

(II) evaluating the potential effectiveness of the guidelines in verifying carbon inputs and outputs from various forest management strategies;

``(III) estimating the effect of proposed implementation on carbon sequestration and storage;

``(IV) assisting the Secretary of Agriculture in reporting annually to Congress on the results of the carbon storage program; and

``(V) assisting the Secretary of Agriculture in assessing the vulnerability of forests to adverse effects of climate change .

``(ii) **MEMBERSHIP.**--The Advisory Council shall be composed of the following 16 members with interest and expertise in carbon sequestration and forestry management, appointed by the Secretaries of Agriculture and Energy:

``(I) 1 member representing national professional forestry organizations;

``(II) 2 members representing environmental or conservation organizations;

``(III) 1 member representing nonindustrial, private landowners;

``(IV) 1 member representing forest industry;

``(V) 1 member representing American Indian Tribes;

``(VI) 1 member representing forest laborers;

``(VII) 3 members representing the academic scientific community;

``(VII) 2 members representing State forestry organizations;

``(IX) 1 member representing the Department of Energy;

``(X) 1 member representing the Environmental Protection Agency;

``(XI) 1 member representing the Department of Agriculture;

``(XII) 1 member representing the Department of the Interior

``(iii) **TERMS.**--

``(I) **IN GENERAL.**--Except as provided in subclause (III), a member of the Advisory Council shall be appointed for a term of 3 years.

``(II) **CONSECUTIVE TERMS.**--No individual may serve on the Advisory Council for more than 2 consecutive terms.

``(III) **INITIAL TERMS.**--Of the members first appointed to the Advisory Council--

``(aa) 1 member appointed under each of subclauses (II), (VI), (VII), (X), and (XIII) of

clause (ii) shall serve an initial term of 1 year; and

``(bb) 1 member appointed under each of subclauses (I), (IV), (VII), (IX), (XI), and (XIV) shall serve an initial term of 2 years.

``(iv) **VACANCY.**--A vacancy on the Advisory Council shall be filled in the manner in which the original appointment was made.

``(v) **CONTINUATION.**--Any member appointed to fill a vacancy occurring before the expiration of the term shall be appointed only for the remainder of the term.

``(vi) **COMPENSATION.**--

``(I) **IN GENERAL.**--Except as provided in subclause (II), a member of the Advisory Council shall serve without compensation, but may be reimbursed for reasonable costs incurred while in the actual performance of duties vested in the Advisory Council.

``(II) **FEDERAL OFFICERS AND EMPLOYEES.**--A member of the Advisory Council who is a full-time officer or employee of the United States shall receive no additional compensation or allowances because of the service of the member on the Advisory Council.

``(III) **SUPPORT.**--The Secretary shall provide financial and administrative support for the Advisory Council.

``(vii) **USE OF EXISTING COUNCIL.**--The Secretary of Agriculture may use an existing council to perform the tasks of the Carbon and Forestry Advisory Council providing--

``(I) Council representation, membership terms and background, and Council responsibilities reflect those stated in subparagraph (B), and

``(II) The responsibilities of the Council, as described in subparagraph (A), are a priority for the Council.

``(C) **CRITERIA.**--

``(i) **IN GENERAL.**--The recommendations described in subparagraph (A)(ii) shall include reporting guidelines that--

``(I) are based on--

``(aa) measuring increases in carbon storage in excess of the carbon storage that would have occurred in the absence of the reforestation, forest management, forest protection, or other forest management actions; and

``(bb) comprehensive carbon accounting that reflects net increases in the carbon reservoir and takes into account any carbon emissions resulting from disturbance of carbon reservoirs existing at the start of a forest management action;

``(II) include options for--

``(aa) estimating the indirect effects of forest management actions on carbon storage, including possible emissions of carbon that may result elsewhere as a result of the project's impact on timber supplies or possible displacement of carbon emissions to other lands owned by the reporting party;

``(bb) quantifying the expected carbon storage over various time periods, taking into account the likely duration of carbon stored in the carbon reservoir; and

``(cc) considering the economic and social affects of management alternatives.

``(ii) **ACCURATE MONITORING, MEASUREMENT, AND VERIFICATION.--**

``(I) **IN GENERAL.--**The recommendations described in subparagraph (A)(ii) shall include recommended practices for monitoring, measurement, and verification of carbon storage from forest management actions.

``(II) **REQUIREMENTS.--**The recommended practices shall, to the maximum extent practicable--

``(aa) be based on statistically sound sampling strategies that build on knowledge of the carbon dynamics of forests and agricultural land;

``(bb) include cost-effective combinations of field conditions measurements with modeling to compute carbon stocks and changes in stocks;

``(cc) include guidance on how to sample and calculate carbon sequestration across multiple participating ownerships; and

``(dd) do not prevent use of more precise measurements, if desired by a reporting entity.

``(D) **STATE FOREST CARBON PROGRAMS.--**The recommendations described in subparagraph (A)(ii) shall include guidelines to States for reporting, monitoring, and verifying carbon storage under the forest carbon program.

``(E) **BIOMASS ENERGY PROJECTS.--**The recommendations described in subparagraph (A)(ii) shall include guidelines for calculating net greenhouse gas reductions from biomass energy projects, including--

``(i) net changes in carbon storage resulting from changes in land use; and

``(ii) the effect that using biomass to generate electricity (including co-firing of biomass with fossil fuels) has on the displacement of greenhouse gas emissions from fossil fuels.

``(F) **AMENDMENT OF GUIDELINES.**--Not later than 180 days after receiving the recommendations from the Secretary of Agriculture, the Secretary of Energy, acting through the Administrator of the Energy Information Administration, shall revise the guidelines established under paragraph (1) to include the recommendations.

``(G) **REVIEW OF GUIDELINES BY THE ADVISORY COUNCIL.**--

``(i) **PERIODIC REVIEW.**--At least every 24 months, the Secretary of Agriculture shall--

``(I) convene the Advisory Council to evaluate the latest scientific and observational information on reporting, monitoring, and verification of carbon storage from forest management actions; and

``(II) issue revised guidelines for reporting, monitoring, and verification of carbon storage from forest management actions as necessary.

``(ii) **CONSISTENCY WITH FUTURE LAWS.**--The Secretary of Agriculture shall convene the Advisory Council as necessary to ensure that the guidelines for reporting, monitoring, and verification of carbon storage from forest management actions are revised to be consistent with any Federal laws enacted after the date of enactment of this Act.

``(6) **MONITORING OF FOREST CARBON PROGRAMS.**--

``(A) **IN GENERAL.**--Forest Carbon Program reports shall--

``(i) be developed in accordance with the guidelines issued under paragraph (1),

``(ii) state the quantity of carbon storage realized;

``(iii) include the data used to monitor and verify the carbon storage,

``(iv) be consistent with reporting requirements of the Energy Information Administration, and

``(v) ensure the avoidance of double counting of forest carbon activities.

``(B) **STATES AND COOPERATIVE AGREEMENT PARTICIPANTS.**--States receiving assistance to establish revolving loans and entities participating in cooperative agreements for forest carbon programs shall--

``(i) monitor and verify carbon storage achieved under the program in accordance with guidelines issued under subparagraph (5)(E),

``(ii) report annually to the Secretary of Agriculture on the results of the carbon storage program, and

``(iii) report annually to any non-governmental organization, business, or other entity that provides funding for the carbon storage program.

``(C) **SECRETARY OF AGRICULTURE.**--

``(i) **IN GENERAL.**--The Secretaries shall report annually to Congress on the results of the carbon storage program.

``(ii) **INCLUSIONS.**--The report shall include--

``(I) specifications consistent with subparagraph (A),

``(II) an assessment of the effectiveness of monitoring and verification,

``(III) a report on carbon activities associated with cooperative agreements for the forest carbon program, and

``(IV) a State Forest Carbon Program compliance report established by--

``(aa) reviewing reports submitted by states under clause (B)(ii),

``(bb) verifying compliance with the guidelines under subparagraph (A),

``(cc) notifying the State of compliance status,

``(dd) notifying the State of any corrections that are needed to attain compliance, and

``(ee) establishing an opportunity for re-submission by the State."

SEC. 5. FOREST CARBON COOPERATIVE AGREEMENTS AND LOAN PROGRAM.

(a) **FOREST CARBON COOPERATIVE AGREEMENT.**--The Secretary may enter into cooperative agreements with willing landowners from State or local governments, American Indian tribes, Alaska Natives, native Hawaiians and private, nonprofit entities for forest carbon activities on private land, state land, American Indian land, Alaska Native land, or native Hawaiian land.

(b) **FOREST CARBON REVOLVING LOAN PROGRAM.**--

(1) **IN GENERAL.**--In collaboration with State Foresters and non-governmental organizations, the Secretary shall provide assistance to States so that States may establish a revolving loan program for forest carbon activities on non-industrial private forest (NIPF) land.

(2) **ELIGIBILITY.**--An owner of non-industrial private forest land shall be eligible for assistance from a revolving loan fund for forest carbon activity on not more than a total of 5,000 acres of their NIPF land holdings.

(3) **LOAN TERMS.**--A loan agreement under the program shall--

(A) have loan interest rates that are established by the State--

(i) as necessary to encourage participation of NIPF landowners in the loan program,

(ii) not to exceed a real rate of return in excess of 3%, and

(iii) that will further the forest carbon program objectives;

(B) require that all loan obligations be repaid to the State--

(i) at the time of harvest of land covered by the program; or

(ii) in accordance with any other repayment schedule determined by the State;

(iii) proportional to the percentage decrease of carbon stock;

(C) include provisions that provide for private insurance or that otherwise release the owner from the financial obligation for any portion of the timber, forest products, or other biomass that--

(i) is lost to insects, disease, fire, storm, flood, or other natural destruction through no fault of the owner; or

(ii) cannot be harvested because of restrictions on tree harvesting imposed by the Federal State, or local government after the date of the agreement;

(D) impose a lien on all timber, forest products, and biomass grown on land covered by the loan, with an assurance that the terms of the lien shall transfer with the land on sale, lease, or transfer of the land;

(E) include a buyout option that--

(i) specifies financial terms allowing the owner to terminate the agreement before harvesting timber from the stand established with loan funds; and

(ii) repays the loan with interest;

(F) recognize that, until the loan is paid in full by the participating landowner or otherwise terminated in accordance with this Act, all reductions in atmospheric greenhouse gases achieved by the project funded by the loan are attributable to the non-Federal entities that provide funding for a loan (including the State or any other person, company, or non-governmental organization that provides funding to the State for purposes of issuing the loan); and

(G) include provisions for the monitoring and verification of carbon storage.

(4) **CANCELLATION OF LOAN TERMS FOR PERMANENT CONSERVATION.--**

(A) **IN GENERAL.--**The State shall cancel the loan agreement under paragraph (3) and any liens on the timber, forest products, and biomass under paragraph (3)(C) if the borrower donates to the State or may cancel the loan agreement under paragraph (3) and any liens on the timber, forest products, and biomass under paragraph (3)(C) if the borrower donates to another appropriate entity a permanent conservation easement that--

(i) furthers the purposes of this Act, including managing the land in a manner that maximizes the forest carbon reservoir of the land; and

(ii) permanently protects the covered private forest land and resources at a level above what is required under applicable Federal, State, and local law.

(B) **CONTINUATION OF FOREST MANAGEMENT ACTIONS.--**The conservation easement may allow the continuation of forest management actions that increase carbon storage on the land and forest or otherwise further the purposes of this Act.

(5) **REINVESTMENT OF FUNDS.--**All funds collected under a loan issued under this subsection (including loan repayments, loan buyouts, and any interest payments) shall be reinvested by the State in the program and used by the State to make additional loans under the program in accordance with this subsection.

(6) **RECORDS.--**The State Forester shall--

(A) maintain all records related to any loan agreement funded from a revolving loan fund; and

(B) make the records available to the public.

(7) **MATCHING FUNDS.--**

(A) **IN GENERAL.--**In order to be eligible to continue participating in the program, any State in the program under this section shall provide matching funds equal to at least 25 percent of the Federal funds made available to the State for the program, beginning the second year of program participation.

(B) **FORM.**--The State may provide the matching funds in the form of in-kind administrative services, technical assistance, and procedures to ensure accountability for the use of Federal funds.

(8) **LOAN FUNDING DISTRIBUTION.**--

(A) **IN GENERAL.**--Not later than 180 days after the date of enactment of this Act, in consultation with State Foresters, the Secretary shall--

(i) establish a formula under which Federal funds shall be distributed under this subsection among eligible States; and

(ii) report the formula and methodology to Congress.

(B) **BASIS.**--The formula shall--

(i) be based on maximizing the potential for meeting the objectives of this Act;

(ii) give appropriate consideration to--

(I) the acreage of un-stocked or under-producing private forest land in each State;

(II) the potential productivity of such land;

(III) the potential long-term carbon storage of such land;

(IV) the potential to achieve other environmental benefits;

(V) the number of owners eligible for loans under this section in each State; and

(VI) the need for reforestation, timber stand improvement, or other forestry investments consistent with the objectives of this Act; and

(iii) give priority to States that have experienced or are expected to experience significant declines in employment levels in the forestry industries due to declining timber harvests on Federal land.

(9) **PRIVATE FUNDING.**--A revolving loan fund may accept and distribute as loans any funds provided by non-governmental organizations, businesses, or persons in support of the purposes of this Act.

(10) **BONNEVILLE POWER ADMINISTRATION.**--

(A) **IN GENERAL.**--The States of Washington, Oregon, Idaho, and Montana may apply for funding from the Bonneville Power Administration for purposes of funding loans that meet both the objectives of this Act and the fish and wildlife objectives of the Bonneville Power

Administration under the Pacific Northwest Electric Power and Conservation Act (16 U.S.C. 839 et seq.).

(B) **APPLICATION OF REQUIREMENTS UNDER OTHER LAW.**--An application under subparagraph (A) shall be subject to all rules and procedures established by the Pacific Northwest Electric Power and Conservation Planning Council and the Bonneville Power Administration under the Pacific Northwest Electric Power and Conservation Act (16 U.S.C. 839 et seq.).

(c) **REQUIREMENTS.**--

(1) **ELIGIBLE FORESTRY CARBON ACTIVITIES.**--Eligible forestry carbon activities that--

(A) help restore under-producing or understocked forest lands,

(B) provide for protection of forests from non-forest use,

(C) allow a variety of sustainable management alternatives, and

(D) have no net negative impact on watersheds and fish and wildlife habitats.

(2) **GUIDANCE.**--The Secretary, working through the US Forest Service and in collaboration with States, shall provide guidance on eligible forestry carbon activities based on the criteria of this section.

(3) **ACTIVITIES REQUIRED UNDER OTHER LAW.**--Funding shall not be provided under this section for activities required under other applicable Federal, State, or local laws.

(4) **PRE-AGREEMENT ACTIVITIES.**--Funding shall not be provided for costs incurred before entering into a cooperative or loan agreement under this Act.

(5) **LIMITATION ON LAND CONSIDERED FOR FUNDING.**--No new loan agreements shall be entered into under this section to fund reforestation of land harvested after the date of enactment of this Act if the landowner received revenues from the harvest sufficient to reforest the land.

(6) **ELIGIBLE TREE SPECIES.**--

(A) **IN GENERAL.**--Selection of tree species for loan projects shall be consistent with Executive Order No. 13112, ``Invasive Species".

(B) **PROGRAM FUNDING.**--Funding for reforestation activities shall be provided for--

(i) tree species native to a region,

(ii) tree species that formerly occupied the site, or

(iii) non-native tree species or hybrids that are non-invasive.

(7) **FOREST-MANAGEMENT PLAN.**--Priority shall be given to projects on land under a forestry management plan or forest stewardship plan, if the plan is consistent with the objectives of the carbon storage program.

(8) **USE OF FUNDS.--**

(A) funds will be used to pay--

(i) the cost of purchasing and planting tree seedings; and

(ii) other costs associated with the planted trees, including planning, site preparation, forest management, monitoring, measurement and verification, and consultant and contractor fees.

(B) funds will not be used to--

(i) pay the owner for the owner's own labor; or

(ii) purchase capital items or expendable items, such as vehicles, tools, and other equipment.

(9) **FINANCIAL ASSISTANCE AMOUNT.**--The amount of financial assistance provided under this section shall not exceed--

(A) 100 percent of total project costs, whether they constitute the only funding source or are used in combination with funds received from any other source; or

(B) $100,000 during any 2-year period.

(10) **FEDERAL FUNDING.**--During fiscal years 2001 through 2010, civil penalties collected under section 113 of the Clean Air Act (42 U.S.C. 7413) and under section 309(d) of the Federal Water Pollution Control Act (33 U.S.C. 1319(d)) shall be available, without further appropriation, to fund cooperative agreements and revolving loan funds authorized in this section.

(11) **ALLOCATION OF FUNDS.--**

(A) **IN GENERAL.**--The Secretary shall--

(i) allocate 15 percent of available funds for Cooperative agreements as specified under subsection (a), and

(ii) allocate 85 percent of available funds for State revolving loan programs as specified under subsection (b), after determining that States have implemented a system to administer the loans in accordance with this Act.

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The Forest Resources for the Environment and the Economy Act--Section-by-Section Analysis

The purposes of the bill are to develop monitoring and verification systems for carbon reporting in forestry, to increase carbon sequestration in forests by encouraging private sector investment in forestry, and to promote employment in forestry in the United States. The bill achieves these purposes through three major actions: (1) Guidelines for Accurate Carbon Accounting for Forests.--The bill directs the Secretary of Agriculture, through the Forest Service, to establish scientifically-based guidelines for accurate reporting, monitoring, and verification of carbon storage from forest management actions. The bill establishes a multi-stakeholder Carbon and Forestry Advisory Council to assist USDA in developing the guidelines.

(2) Report on Options to Increase Carbon Storage on Federal Lands--The bill directs the Secretary of Agriculture, through the Forest Service, to report to Congress on forestry options to increase carbon storage in the National Forest System.

(3) State Revolving Loan Programs/Cooperative Agreements--The bill provides assistance to plant and manage underproducing or understocked forests to increase carbon sequestration. Assistance is provided through Cooperative Agreements with State or local governments, American Indian Tribes, Alaska natives, native Hawaiians, and private-nonprofit entities; or through loans to nonindustrial private forest landowners. The Federal share of funding for Cooperative Agreements and the loan program will come from penalties that are being assessed against violators of the Clean Air Act and the Clean Water Act (civil penalties assessed in FY 1998 totaled $45 million).

SECTION 1. SHORT TITLE

The title of the bill is the ``Forest Resources for the Environment and the Economy Act''.

SECTION 2. FINDINGS AND PURPOSES

This section states the findings of the bill, including: there is a need or additional information opportunities to increase carbon

storage on public land through improvements in forest land management; monitoring and verification of forest carbon storage can provide employment opportunities for rural communities; and the sustainable production of biomass energy feedstocks provides a renewable source of energy that can improve the energy security of the United States.

This section also states the purposes of the bill: to increase carbon sequestration in forests; to provide employment and income to rural communities; and to improve the energy security of the United States by providing opportunities for development of renewable biomass energy

SECTION 3. DEFINITIONS

This section defines terms used in the bill, including the following: ``Carbon sequestration''; ``Forestry carbon activity''; ``Forest carbon program''; ``Forest carbon reservoir''; ``Forest carbon storage''; ``Forest land''; ``Forest management action''; ``Invasive species''; ``Nonindustrial private forest''; ``Reforestation''; and ``Revolving loan program''.

SECTION 4. CARBON MANAGEMENT ON FEDERAL LAND; CARBON MONITORING AND VERIFICATION GUIDELINES

This section amends Title XVI (``Global Climate Change'') of the Energy Policy Act of 1992.

(a) Definitions: This subsection amends the Energy Policy ACt to add the definitions for ``carbon sequestration''``forest carbon storage,'' ``forest carbon program,'' ``forest carbon reservoir,'' and ``forest management action'' that were specified in Section 3.

(b) Carbon Management on Federal Land: This subsection directs the Secretary of Agriculture to report to Congress on the quantity of carbon contained in the forest carbon reservoir in the national forest system. The report will include an assessment of forest management actions that can increase carbon storage on these national forest system lands. Finally, the report will include an assessment of the role of forests in the carbon cycle and the contributions of forestry to the global carbon budget. This subsection is accomplished by amendment to section 1604 of the Energy Policy Act (``Assessment of Alternative Policy Mechanisms for Addressing Greenhouse Gas Emissions'').

(c) Monitoring and Verification of Carbon Storage. This subsection amends section 1605(b) of the Energy Policy Act (``Voluntary Reporting''). It directs the Secretary of Agriculture to review the existing Federal guidelines on reporting, monitoring, and verification of carbon storage from forest management actions and to make recommendations to the Secretary of Energy for amendment of the guidelines.

Carbon and Forestry Advisory Council: This subsection also directs the Secretary of Agriculture to establish a 16-member, multi-stakeholder Carbon and Forestry Advisory Council for the purpose of advising the Department of Agriculture on: the development of the guidelines for accurate voluntary reporting of greenhouse gas sequestration from forest management actions, and for other purposes.

Criteria: The guidelines developed by the Secretary of Agriculture must take account of additionality and leakage. The guidelines must include recommended practices for monitoring, measurement and verification of carbon storage that are scientifically sound and cost-effective.

State Forest Carbon Programs: The guidelines will include guidance to States for reporting, monitoring and verifying carbon storage achieved under the carbon storage program established in Section 5 of the bill.

Biomass energy projects: The guidelines will include guidance on calculating net greenhouse gas reductions from biomass energy projects.

Amendment of guidelines: The subsection directs the Secretary of Energy to revise the existing voluntary reporting guidelines to include the recommendations provided by the Secretary of Agriculture.

Review of guidelines: Guidelines must be reviewed at least every 24 months, and as necessary for consistency with any future Federal laws that credit for reductions of atmospheric greenhouse gas concentrations resulting from forest management actions.

Monitoring of Forest Carbon Programs: Participants in the Forest Carbon Program established in Section 5 of the bill must report annually to the Secretary of Agriculture on the results of the program. Reports that are certified to comply with the guidelines in this section will be submitted to the Department of Energy for inclusion in the 1605(b) voluntary reporting data base.

SECTION 5. FOREST CARBON COOPERATIVE AGREEMENTS AND LOAN PROGRAM

This section authorizes the Secretary of Agriculture to enter into cooperative agreements and directs the Secretary to provide assistance to States to establish revolving loan funds to undertake forestry carbon activities.

(a) *Forest Carbon Activity Cooperative Agreements.* This subsection authorizes the Secretary of Agriculture to enter into cooperative agreements with willing State or local governments, American Indian tribes, Alaska natives, native Hawaiians, and private-nonprofit landowners for forest carbon activities.

(b) *Forest Carbon Activity Revolving Loan Program.* This subsection establishes a program to provide assistance through State established revolving loan funds to nonindustrial private forest land owners (NIPF) for eligible forest carbon activities. Requirements include:

Eligibility: Funds may be used to support eligible forest carbon activities on not more than 5,000 acres of an NIPF landowners' holdings.

Loan terms: Loans must be repaid with interest at a rate not to exceed a 3 percent real rate of return. They must be repaid when the land is harvested, although the owner may pay off the loan prior to harvesting. Loans must include a transferable lien on all timber, forest products and biomass. The State assumes the risk of loss of timber due to natural disaster. A loan agreement must include recognition that, until the loan is paid off, all reductions in atmospheric greenhouse gases achieved by projects funded by the loan are attributable to the entity that provides funding for the loan.

Permanent conservation easements: Loan recipients can cancel the loan by donating a permanent conservation easement.

Reinvestment of funds: All repayments collected by a State must be reinvested in the program and used by the State to make additional loans.

Records: The State Forester shall maintain all loan records and make them available to the public.

Matching funds: A State must match Federal funding by at least 25% beginning in the second year of participating in the program.

Loan Funding Distribution: The Secretary will report to Congress on a formula under which Federal funds will be distributed among eligible States. The distribution formula will give priority to States that have experienced or are expected to experience significant declines in employment levels in the forestry industries due to declining timber harvests on Federal land.

Private funding: A revolving loan fund may accept any funds provided by nongovernmental organizations, businesses or persons for the purpose of this Act.

Bonneville Power Administration (BPA): States served by BPA (Washington, Oregon, Idaho and Montana) may apply for funding from BPA for purposes of funding loans that meet both the objectives of this Act and the fish and wildlife objectives of BPA under current law.

(c) Requirements: This subsection specifies requirements of any financial assistance arrangement for forest carbon activities.

Eligibility: This gives a general definition of eligible forestry carbon activities.

Guidance: The Forest Service, in collaboration with the States, will provide guidance on eligible forestry carbon activities.

Activities require under law: Funding shall not be provided for activities required under existing laws.

Pre-agreements: Funding shall not be provided for costs already incurred.

Limitation on land considered for funding: No funding shall be provided for reforestation of land that has been harvested, if the landowner received revenues from the harvest sufficient to reforest the land.

Eligible tree species: Planted tress must be native or non-invasive species.

Forest management plan: Priority shall be given to projects on land under a forest management plan or forest stewardship plan.

Use of funds: Funds shall be used for planting of trees and their management.

Financial assistance amount: Cooperative agreements or loans may cover up to 100 percent of total project costs, not to exceed $100,000 during any 2-year period.

Authorization of appropriations: Authorizes funding from FY 2001 to FY 2010 at amounts equal to civil penalties collected under the Clean Water Act and the Clean Air Act, which currently revert to the Treasury as General Revenues. In fiscal year 1998, $45 million in penalties were assessed.

Allocation of funds: The Secretary shall allocate 15 percent of available funds for cooperative agreements and the remaining 85 percent for the State revolving loan fund.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -- (Senate - June 07, 2001)

By Ms. SNOWE (for herself, Mrs. **LINCOLN,** Mr. **MURKOWSKI,** Mr. **BREAUX,** Mr. **HUTCHINSON,** Mr. **MILLER,** Mr. **CRAIG,** Ms. **LANDRIEU,** Mr. **SMITH** of Oregon, and Ms. **COLLINS**):

S. 1002. A bill to amend the Internal Revenue Code of 1986 to modify certain provisions relating to the treatment of forestry activities; to the Committee on Finance.

Ms. SNOWE. Mr. President, I rise today to introduce the Reforestation Tax Credit Incentives Act of 2001, and I am pleased to be joined by Senators **LINCOLN, MURKOWSKI, BREAUX, HUTCHINSON, MILLER, CRAIG, LANDRIEU, GORDON SMITH,** and **COLLINS.**

The U.S. forest products industry is essential to the health of the U.S. economy. It employs approximately 1.5 million people, supports an annual payroll of $40.8 billion, and ranks among the top ten manufacturing employers in 46 States. This includes the State of Maine where 89.2 percent of the land is forested. Without fair tax laws, future

growth in the industry will occur overseas and more and more landowners will be forced to sell their land for some other higher economic value such as development. The loss of a healthy and strong forest products industry will have a long-term negative impact on both the economy and the environment.

The legislation I am introducing today partially restores the balance between corporate and private landowners in terms of capital gains tax treatment, reducing the capital gains paid on timber for individuals and corporations. The bill is also intended to encourage the reforestation of timberland, whether it has been harvested or previously cleared for other uses, such as agriculture.

Trees take a long time to grow, anywhere from 15 years to, more typically in Maine, 40 to 50 years. During these years, the grower faces huge risks from fire, pests, weather and inflation, all of which are uninsurable. This legislation helps to mitigate these risks by providing a sliding scale reduction in the amount of taxable gain based on the number of years the asset is held.

The bill would change the way that capital gains are calculated for timber by taking the amount of the gain and subtracting three percent for each year the timber was held. The reduction would be capped at 50 percent bringing the effective capital gains tax rate to 10 percent for non-corporate holdings and 17.5 percent for corporations.

Since 1944, the tax code has treated timber as a capital asset, making it eligible for the capital gains tax rate rather than the ordinary income tax rate. This recognized the long-term risk and inflationary gain in timber. In 1986, the capital gains tax was repealed for all taxpayers. The 1997 tax bill reinstituted the lower capital gains rate for individuals, but not for businesses. As a result, individuals face a maximum capital gains rate of 20 percent, while businesses face a maximum rate of 35 percent for the identical asset.

As this difference in rates implies, private timberland owners receive far more favorable capital gains tax treatment than corporate owners. In addition, pension funds and other tax-exempt entities are also investing in timberland, which only further highlights the disparity that companies face.

Secondly, reforestation expenses are currently taxed at a higher rate in the U.S. than in any other major competitor country. The U.S. domestic forest products industry is already struggling to survive intense competition from the Southern Hemisphere where labor and fiber costs are extremely low, and recent investments from wealthier nations who have built state of the art pulp and papermaking facilities. While there is little Congress can do to change labor and fiber costs, Congress does have the ability to level the playing field when it comes to taxation.

This legislation encourages both individuals and companies to engage in increased reforestation by allowing all growers of timber to receive a tax credit. The legislation removes the current dollar limitation of the $10,000 amount of reforestation expenses that are eligible for the ten percent tax credit and that are allowed to be deducted, and decreases from 7 to 5 years the amortization period over which these expenses can be deducted.

Eligible reforestation expenses would be the initial expenses to establish a new stand of trees, such as site preparation, the cost of the seedlings, the labor costs required to plant the seedlings and to care for the trees in the first few years, as well as the cost of equipment used in reforestation.

The planting of trees should be encouraged rather than discouraged by our tax system as trees provide a tremendous benefit to the environment, preventing soil erosion, cleansing streams and waterways, providing habitat for numerous species, and absorbing carbon dioxide from the atmosphere, the major greenhouse gas causing climate change according to the majority of renowned international scientists.

Tax incentives for planting on private lands will also decrease pressure to obtain timber from ecologically sensitive public lands, allowing these public lands to be protected.

I ask my colleagues for their support for private landowners and for the U.S. forest products industry that is so important to the health of our economy.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -- (Senate - June 12, 2001)

By Mr. LUGAR (for himself, Mr. **BIDEN,** Mr. **CHAFEE,** Mr. **CRAIG,** Mr. **KERRY,** Mr. **LEAHY,** Mr. **LIEBERMAN,** Mr. **MURKOWSKI,** Mr. **REED,** and Mr. **ROBERTS**):

S. 1021. A bill to reauthorize the Tropical Forest Conservation Act of 1998 through fiscal year 2004; to the Committee on Foreign Relations.

Mr. LUGAR. Mr. President, Senator *Biden* and I are today introducing a bill to reauthorize appropriations for the Tropical Forest Conservation Act of 1998 for the Fiscal Years 2002, 2003 and 2004. We are joined in this effort by Senators **CHAFEE, CRAIG, KERRY, LEAHY, LIEBERMAN, MURKOWSKI, REED** and **ROBERTS.**

The United States has a significant national interest in protecting tropical forests in developing countries. Tropical forests regulate the hydrological cycle on which world agriculture depends. The genetic diversity contained in tropical forests is important for plant breeding. Twenty-five percent of prescription drugs come from tropical forests. Tropical forests also serve as carbon sinks, storing carbon to mitigate the potential effects of the increase in greenhouse gases on the world's climate . Avoiding tropical deforestation is essential to mitigating the threat of climate change .

Worldwide, there is a net loss of thirty million acres of forests every year. The heavy debt burden of many developing countries encourages them to engage in unsustainable exploitation of natural resources in order to generate revenue to service external debt. At the same time, these poor governments tend to have few resources available to set aside and protect key areas.

The Tropical Forest Conservation Act addresses the economic pressures on developing countries through ``debt for nature'' mechanisms that reduce foreign debt while leveraging scarce funds available for international conservation. Specifically, the Act authorizes the President to reduce certain bilateral government debt owed to the United States through three distinct mechanisms: debt buybacks; debt restructuring and reduction; or debt swaps. In return, eligible developing countries with significant tropical forests must establish and place local currencies in tropical forest funds. These funds are managed primarily by local, non-governmental organizations and make grants for projects that are designed to protect or restore tropical forests or to promote their sustainable economic use.

The debt for nature mechanisms in the Act effectively leverage the limited funds available for international conservation. Under the Tropical Forest Conservation Act, the host country places currencies in its tropical forest fund, the value of which typically exceeds the cost to the U.S. Treasury of the debt reduction agreement. Furthermore, because these tropical forest funds have integrity and are broadly supported within the host country, conservation organizations are interested in contributing their own money to them, producing an additional leverage of federal conservation dollars.

Our bill would reauthorize appropriations for the Act for three years, with funding levels of $50 million in Fiscal Year 2002, $75 million in Fiscal year 2003 and $100 million in Fiscal Year 2002.

President Bush has indicated his strong support for the Tropical Forest Conservation Act, which is modeled upon President George Herbert Walker Bush's Enterprise for the Americas program as well as upon the Biden-Lugar Global Environmental Protection Assistance Act of 1989. These programs have helped to foster the development of responsible, community-based conservation organizations that are capable of addressing environmental problems at the local level and ensuring successful program implementation.

The Tropical Forest Conservation Act encourages the repayment of debt owed to the United States government, addresses the cash flow problems of poorer nations, promotes cooperation

between governmental and local conservation organizations and helps to save the world's outstanding tropical forests, which are disappearing at an alarming rate.

It is my understanding that Congressmen **ROB PORTMAN** and **TOM LANTOS** are introducing identical legislation in the House of Representatives. Senator *Biden* and I plan to work with our colleagues in the House and Senate toward speedy passage of this three year reauthorization bill.

I ask unanimous consent that the text of the bill and a summary be printed in the **RECORD**.

There being no objection, the material was ordered to be printed in the **RECORD**, as follows:

S. 1021

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. AUTHORIZATION OF APPROPRIATIONS TO SUPPORT REDUCTION OF DEBT UNDER THE FOREIGN ASSISTANCE ACT OF 1961 AND TITLE I OF THE AGRICULTURAL TRADE DEVELOPMENT AND ASSISTANCE ACT OF 1954.

(a) **REAUTHORIZATION**.--Section 806 of the Tropical Forest Conservation Act of 1998 (22 U.S.C. 2431d) is amended by adding at the end the following new subsection:

``(d) *Authorization of Appropriations for Fiscal Years After Fiscal Year 2001*.--For the cost (as defined in section 502(5) of the Federal Credit Reform Act of 1990) for the reduction of any debt pursuant to this section or section 807, there are authorized to be appropriated to the President the following:

``(1) $50,000,000 for fiscal year 2002.

``(2) $75,000,000 for fiscal year 2003.

``(3) $100,000,000 for fiscal year 2004.".

(b) **CONFORMING AMENDMENT**.--Section 808(a)(1)(D) of the Tropical Forest Conservation Act of 1998 (22 U.S.C. 2431f(a)(1)(D)) is amended by striking ``to appropriated under sections 806(a)(2) and 807(a)(2)" and inserting ``to be appropriated under sections 806(a)(2), 807(a)(2), and 806(d)".

Summary of the Tropical Forest Conservation Act

The Tropical Forest Conservation Act of 1998 (Public Law 105-214) helps to protect the world's dwindling tropical forests through ``debt for nature swaps."

The TFCA focuses on tropical forest conservation, using the same principles as the 1989 Global Environmental Protection Act, Biden-Lugar, and former President Bush's Enterprise for the Americas Initiative (EAI). The bill extends eligibility for ``Debt for Nature" swaps under the EAI to lower and middle income countries in Africa and Asia with globally or regionally outstanding tropical forests. It authorizes appropriations to compensate the Treasury Department for revenues foregone when debts with poorer developing nations are restructured at less than their asset value.

The Tropical Forest Conservation Act of 1998 authorizes the President to reduce certain bilateral government debt owed to the United States under the Foreign Assistance Act of 1981 or Title 1 of the Agricultural Trade Development and Assistance Act of 1954. In exchange, the eligible developing country would place local currencies in a tropical forest fund, which would be used for projects to preserve, restore or maintain its tropical forests. In some instances, debt swaps would occur at no cost to the Federal Treasury since sovereign debt would simply be reduced to its asset value under the Federal Credit Reform Act of 1990. In other instances, poorer nations will be allowed to restructure their debt at an amount somewhat lower than its asset value and Federal appropriations would have to be used to compensate the Treasury for reductions in its anticipated revenue stream. The law also allows private organizations to contribute their funds to help facilitate a debt swap under the terms of the bill.

To qualify for assistance, eligible countries must meet the criteria established by Congress under EAI: the government must be democratically elected, must not support acts of international terrorism, must cooperate on international narcotics control matters, must not violate internationally recognized human rights, and must institute any needed investment reforms.

To ensure accountability, an administrative body is established in the beneficiary country. This body will consist of one or more U.S. Government officials, one or more individuals appointed by the recipient country's government, and representatives of environmental, community development, scientific, academic and forestry organizations of the beneficiary country. It is authorized to make grants for projects which would conserve its outstanding tropical forests.

Additionally, the existing Enterprise for Americas Initiative Board is expanded by four new members and oversees both the EAI and the Tropical Forest Conservation Act.

The authorization of appropriations for the 1998 Tropical Forest Conservation Act expires at the end of fiscal year 2002. Legislation will be introduced to extend the authorization of appropriations through fiscal years 2002 at a level of $50,000,000 in FY 2002, $75,000,000 in FY 2003 and $100,000,000 in FY 2004.

EXECUTIVE SESSION -- (Senate - July 27, 2001)
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NOMINATION OF JOHN THOMAS SCHIEFFER, OF TEXAS, TO BE AMBASSADOR EXTRAORDINARY AND PLENIPOTENTIARY OF THE UNITED STATES OF AMERICA TO AUSTRALIA

Mr. REID. Mr. President, I ask unanimous consent that the Senate proceed to executive session to consider the nomination of John Schieffer to be Ambassador to Australia, reported earlier today by the Foreign Relations Committee, the nomination be confirmed, the motion to reconsider be laid on the table, that any statements be printed in the appropriate place in the **RECORD**, the President be immediately notified of the Senate's action, and the Senate return to legislative session.

The PRESIDING OFFICER. Is there objection? The Senator from Idaho.

Mr. CRAIG. Mr. President, reserving the right to object, and I will not object, I would like to engage the assistant majority leader. I am extremely pleased to see that one of our nominees is moving this evening, Mr. Schieffer, to become Ambassador to Australia. I do know that the assistant Republican leader and the assistant majority leader have been working for the last several days to get us to a point of a definable number of nominees that might be considered before we go out today and before we go out for the August recess and some time line as it relates to the consideration of others that are before us.

The Senator from Nevada understands some of our frustration. I am looking at a gentleman now before the Judiciary Committee who has not been

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given a time for hearing and consideration. He has been there since May 22, Assistant Attorney General for Natural Resources of the Environment. Yet

I am told that he has been told that maybe sometime in November or December the Judiciary Committee might find time to get to his nomination.

Clearly the Senator from Nevada, as I understand, is working on this issue. Although he and the assistant Republican leader have attempted to refine it and define it, that is not a way to treat our President and the people he needs to run the executive branch of Government.

My question to the assistant majority leader is, To his knowledge, where are we now in the possibility of numbers as it relates to what we would finish before the August recess and some time line as to others that we could expect to deal with, let's say when we got back in early September, following the Labor Day period and on into October?

Mr. REID. I say to the Senator from Idaho, I have had a number of long discussions with my counterpart, Senator *Nickles*. I think progress is being made. We have exchanged lists. We are

exchanging scores of nominees. I think we are making good progress. There has been a little slowdown because of what has been going on on the floor the last few days. Not only have Senator *Nickles* and I met on several occasions, but the majority and minority leaders have also met and discussed this. We have done very well. We certainly try not to do anything other than let the chairmen move as they believe their committee should move. We have had tremendous movement in most every committee--in fact, all committees.

As I said, we have exchanged with Senator *Nickles* scores of nominees. And at the appropriate time, we are happy to sit down and discuss further with him, as the two leaders have indicated. Once we decide we have something to present to them, we will do that.

Mr. CRAIG. I thank the assistant majority leader.

Mr. President, as I have said, I will not object. It is important that we move these nominees along. I understand that the new Ambassador headed to Australia must get there for the ASEAN conference that is about to convene in the Asian, sub-Asian area which is critical to us and to our country as it relates to climate change and that whole debate, along with the trade debate and the relationships we have with Australia and New Zealand and other nations within that area.

I must also say to the assistant majority leader, clearly the debate on Mexican trucks and the Transportation bill, in my opinion, are an issue separate from the nominees.

Mr. REID. I agree with the Senator.

Mr. CRAIG. I know you had referenced some slowing down of the process. This process must not slow down. We have decisions that need to be made in the field. We have citizens waiting for decisions to be made by agencies of our Government who now are not making them or are making them not with Bush appointees but with former Clinton appointees. I don't think that is the way either of us want that to happen.

I hope that clearly we can confirm a substantial number before the August recess. We are going to pursue this and work certainly with you, and I and my colleague from Arizona will work with our leadership and with the assistant Republican leader. Time lines are critical.

I must tell the Senator that if what I am told is true, that when a nominee engages the staff of one of the committees to ask when he might be scheduled--and he has been there since May 22--and he is told, in essence, when we get around to it in November or December, that sounds to me like something other than timely scheduling. That sounds to me like a great

deal of foot dragging on the part of the Judiciary Committee, its chairman, and its staff. If that is the case, and that can be determined, my guess is, there will be less work done here than might otherwise be done in the course of the next number of weeks, if we can't determine to move these folks ahead with some reasonable timeframe both for hearing and for an understanding of when they can come to the floor for a vote.

With that, I do not object.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -- (Senate - August 01, 2001)

By Mr. CRAIG (for himself and Mr. **HAGEL**):

S. 1293. A bill to amend the Internal Revenue Code of 1986 to provide incentives for the voluntary reduction, avoidance, and sequestration of greenhouse gas emissions and to advance global climate science and technology development and deployment; to the Committee on Finance.

By Mr. MURKOWSKI (for himself, Mr. **CRAIG**, Mr. **HAGEL**, Mr. **DOMENICI**, Mr. **ROBERTS**, and Mr. **BOND**):

S. 1294. A bill to establish a new national policy designed to manage the risk of potential climate change , ensure long-term energy security, and to strengthen provisions in the Energy Policy Act of 1992 and the Federal Nonnuclear Energy Research and Development Act of 1974 with respect to potential climate change ; to the Committee on Energy and Natural Resources.

Mr. CRAIG. Madam President, let me first thank my colleagues, Senators **MURKOWSKI, HAGEL,** and **DOMENICI,** for their work on this very important legislation. I enjoyed working with them and their staffs on this analytically complex issue. The results of our patience and hard work are two companion pieces of legislation that will provide the underpinning for a path forward on the climate change issue that will meet the nation's and global needs for economic progress, while ensuring our nation's energy and national security. In addition, it will provide a sound basis for productive engagement with our friends and allies that share the same needs.

The first bill is the Climate Change Tax Amendments of 2001 which is essentially the same as S. 1777 that I introduced in the 106th Congress. This bill is an important element of the approach we should take as a nation because current U.S. tax policy treats capital formation--including investments that can increase energy efficiency and reduce emissions--harshly compared with other industrialized countries and our own recent past. Slower capital cost recovery means that facilities deploying new advanced technology will not be put in place as quickly, if at all.

Based on our current understanding of the science available on climate change , I remain convinced that it is still premature for our government to mandate stringent controls on carbon dioxide emissions and pick winners and losers in technology. This bill assures that there will be a true partnership between tax policy and technology innovation in both research and deployment.

Although the science of climate change has progressed rather dramatically over the last five years, many trenchant questions remain about what is happening to our climate system. However, the climate change issue is at a crossroads. We can and must make decisions on how to proceed. The bills introduced today ensure a more focused and coordinated effort to understand the outstanding and formidable scientific issues associated with climate change . While pursuing answers to those questions, the bills also create a comprehensive and systematic program to achieve the goals of reducing, avoiding, or sequesting greenhouse gas emissions. That program is manifest in both the technological research and development effort authorized in

the Risk Management bill and a comprehensive and systematic approach that aggressively encourages voluntary actions to reduce, avoid, or sequester greenhouse gas emissions.

To bolster and strengthen the voluntary action program we have proposed tax incentives in the companion Tax Amendment bill that should also stimulate the creative ways to reduce, avoid, or sequester greenhouse gas emissions without creating drag on future economic growth. Although some special interest groups have criticized voluntary programs as ineffective, my colleagues and I do not believe that past efforts were as clearly designed and planned or aggressively promoted as we have proposed in this legislation.

The companion bill is the Climate Change Risk Management Act of 2001. This bill has as its roots in S. 1776 and S. 882, two bills that were introduced in the 106th Congress with the expressed intent to forge consensus on this issue. The principal objectives of the current legislation are to encourage the research, development, and deployment of the technologies that can meet our needs and the needs of developing nations. A key focus are the technologies that can help us reduce, avoid or sequester emissions of greenhouse gases .

In addition the bill also encourages deployment of technologies that can sequester greenhouse gases in the atmosphere. This approach is essential to assure that we can fully use all of our domestic resources to their fullest. This must include coal and nuclear power.

An essential element in this legislation is the active engagement of developing countries. Our policy must recognize the legitimate needs of our bilateral trading partners to use their resources and meet the needs of their people. For too long the climate policy debate has been fixated on assigning blame and inflicting pain. This is harmful and counterproductive. Our best technology must be made available and our research activities must focus on developing country needs as well as our own.

Moreover, we believe that the President has chosen the right path forward on this issue and we are committed to working with his Cabinet level task force on finding effective, technologically based approaches to attacking this important environmental and economic issue.

Although these bills are comprehensive, there are still more steps Congress can and will take in the immediate future to ensure we are doing all that is reasonably and responsibly possible. For example, a key piece of this puzzle is better government-wide coordination of scientific efforts to solve the remaining mysteries of climate change . A strong and consistent recommendation from the National Academy of Sciences has been for us to solve this problem.

Because that issue includes Federal agency ``turf battles,'' legislative committee jurisdictional constraints prevented us from fully addressing that issue in these bills. However, we will have this, and other key pieces (such as traffic congestion, agricultural, forest management, and ocean sequestration) not currently getting sufficient attention, ready to complete a comprehensive package on climate change before the end of the 107th Congress.

But for now, the bills we introduce today are an important and aggressive attempt to shape and implement policy on climate change . It is a responsible effort to work with our friends and allies to:

1. Develop better policy mechanisms for assessing the effects of greenhouse gas emissions; 2. accelerate development and deployment of climate response technology; 3. facilities international deployment of U.S. technology to mitigate climate change to the developing world; 4. advance climate science to reduce uncertainties in key areas; and 5. improve public access to government information on climate science.

All involved in this debate must stop politicizing science and help us get to the point where the issue is confidently understood. The American people have a right to know the whole truth on this issue. The success of any future government response to climate change depends on that more than anything else.

I ask unanimous consent that the bill texts along with section-by-section analyses be printed in the **RECORD.**

There being no objection, the material was ordered to be printed in the **RECORD** as follows:

S. 1293

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ``Climate Change Tax Amendments of 2001".

SEC. 2. PERMANENT TAX CREDIT FOR RESEARCH AND DEVELOPMENT REGARDING GREENHOUSE GAS EMISSIONS REDUCTION, AVOIDANCE, OR SEQUESTRATION.

(a) **IN GENERAL**.--Section 41(h) of the Internal Revenue Code of 1986 (relating to termination) is amended by adding at the end the following:

``(3) **EXCEPTION FOR CERTAIN RESEARCH**.--Paragraph (1)(B) shall not apply in the case of any qualified research expenses if the research--

``(A) has as one of its purposes the reducing, avoiding, or sequestering of greenhouse gas emissions, and

``(B) has been reported to the Department of Energy under section 1605(b) of the Energy Policy Act of 1992.".

(b) **EFFECTIVE DATE**.--The amendment made by subsection (a) applies with respect to amounts paid or incurred after the date of enactment of this Act, except that such amendment shall not take effect unless the Climate Change Risk Management Act of 2001 is enacted into law.

SEC. 3. TAX CREDIT FOR GREENHOUSE GAS EMISSIONS FACILITIES.

(a) **ALLOWANCE OF GREENHOUSE GAS EMISSIONS FACILITIES CREDIT**.--Section 46 of the Internal Revenue Code of 1986 (relating to amount of credit) is amended by striking ``and'' at the end of paragraph (2), by striking the period at the end of paragraph (3) and inserting ``, and'', and by adding at the end the following:

``(4) the greenhouse gas emissions facilities credit.''.

(b) **AMOUNT OF CREDIT**.--Subpart E of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 (relating to rules for computing investment credit) is amended by inserting after section 48 the following:

``SEC. 48A. CREDIT FOR GREENHOUSE GAS EMISSIONS FACILITIES.

``(a) **IN GENERAL**.--For purposes of section 46, the greenhouse gas emissions facilities credit for any taxable year is the applicable percentage of the qualified investment in a greenhouse gas emissions facility for such taxable year.

``(b) **GREENHOUSE GAS EMISSIONS FACILITY**.--For purposes of subsection (a), the term `greenhouse gas emissions facility' means a facility of the taxpayer--

``(1)(A) the construction, reconstruction, or erection of which is completed by the taxpayer, or

``(B) which is acquired by the taxpayer if the original use of such facility commences with the taxpayer,

``(2) the operation of which--

``(A) replaces the operation of a facility of the taxpayer,

``(B) reduces, avoids, or sequesters greenhouse gas emissions on a per unit of output basis as compared to such emissions of the replaced facility, and

``(C) uses the same type of fuel (or combination of the same type of fuel and biomass fuel) as was used in the replaced facility,

``(3) with respect to which depreciation (or amortization in lieu of depreciation) is allowable, and

``(4) which meets the performance and quality standards (if any) which--

``(A) have been jointly prescribed by the Secretary and the Secretary of Energy by regulations,

``(B) are consistent with regulations prescribed under section 1605(b) of the Energy Policy Act of 1992, and

``(C) are in effect at the time of the acquisition of the facility.

``(c) **APPLICABLE PERCENTAGE**.--For purposes of subsection (a), the applicable percentage is one-half of the percentage reduction, avoidance, or sequestration of greenhouse gas emissions described in subsection (b)(2) and reported and certified under section 1605(b) of the Energy Policy Act of 1992.

``(d) **QUALIFIED INVESTMENT**.--For purposes of subsection (a), the term `qualified investment' means, with respect to any taxable year, the basis of a greenhouse gas emissions facility placed in service by the taxpayer during such taxable year, but only with respect to that portion of the investment attributable to providing production capacity not greater than the production capacity of the facility being replaced.

``(e) **QUALIFIED PROGRESS EXPENDITURES**.--

``(1) **INCREASE IN QUALIFIED INVESTMENT**.--In the case of a taxpayer who has made an election under paragraph (5), the amount of the qualified investment of such taxpayer for the taxable year (determined under subsection (d) without regard to this subsection) shall be increased by an amount equal to the aggregate of each qualified progress expenditure for the taxable year with respect to progress expenditure property.

``(2) **PROGRESS EXPENDITURE PROPERTY DEFINED**.--For purposes of this subsection, the term `progress expenditure property' means any property being constructed by or for the taxpayer and which it is reasonable to believe will qualify as a greenhouse gas emissions facility which is being constructed by or for the taxpayer when it is placed in service.

``(3) **QUALIFIED PROGRESS EXPENDITURES DEFINED**.--For purposes of this subsection--

``(A) **SELF-CONSTRUCTED PROPERTY**.--In the case of any self-constructed property, the term `qualified progress expenditures' means the amount which, for purposes of this subpart, is properly chargeable (during such taxable year) to capital account with respect to such property.

``(B) **NON-SELF-CONSTRUCTED PROPERTY**.--In the case of non-self-constructed property, the term `qualified progress expenditures' means the amount paid during the taxable year to another person for the construction of such property.

``(4) **OTHER DEFINITIONS**.--For purposes of this subsection--

``(A) **SELF-CONSTRUCTED PROPERTY**.--The term `self-constructed property' means property for which it is reasonable to believe that more than half of the construction expenditures will be made directly by the taxpayer.

``(B) **NON-SELF-CONSTRUCTED PROPERTY**.--The term `non-self-constructed property' means property which is not self-constructed property.

``(C) **CONSTRUCTION, ETC.**--The term `construction' includes reconstruction and erection, and the term `constructed' includes reconstructed and erected.

``(D) **ONLY CONSTRUCTION OF GREENHOUSE GAS EMISSIONS FACILITY TO BE TAKEN INTO ACCOUNT**.--Construction shall be taken into account only if, for purposes of this subpart,

expenditures therefor are properly chargeable to capital account with respect to the property.

``(5) **ELECTION**.--An election under this subsection may be made at such time and in such manner as the Secretary may by regulations prescribe. Such an election shall apply to the taxable year for which made and to all subsequent taxable years. Such an election, once made, may not be revoked except with the consent of the Secretary."

(c) **RECAPTURE**.--Section 50(a) of the Internal Revenue Code of 1986 (relating to other special rules) is amended by adding at the end the following:

``(6) **SPECIAL RULES RELATING TO GREENHOUSE GAS EMISSIONS FACILITY**.--For purposes of applying this subsection in the case of any credit allowable by reason of section 48A, the following shall apply:

``(A) **GENERAL RULE**.--In lieu of the amount of the increase in tax under paragraph (1), the increase in tax shall be an amount equal to the investment tax credit allowed under section 38 for all prior taxable years with respect to a greenhouse gas emissions facility (as defined by section 48A(b)) multiplied by a fraction whose numerator is the number of years remaining to fully depreciate under this title the greenhouse gas emissions facility disposed of, and whose denominator is the total number of years over which such facility would otherwise have been subject to depreciation. For purposes of the preceding sentence, the year of disposition of the greenhouse gas emissions facility property shall be treated as a year of remaining depreciation.

``(B) **PROPERTY CEASES TO QUALIFY FOR PROGRESS EXPENDITURES**.--Rules similar to the rules of paragraph (2) shall apply in the case of qualified progress expenditures for a greenhouse gas emissions facility under section 48A, except that the amount of the increase in tax under subparagraph (A) of this paragraph shall be substituted in lieu of the amount described in such paragraph (2).

``(C) **APPLICATION OF PARAGRAPH**.--This paragraph shall be applied separately with respect to the credit allowed under section 38 regarding a greenhouse gas emissions facility."

(d) **TECHNICAL AMENDMENTS.--**

(1) Section 49(a)(1)(C) of the Internal Revenue Code of 1986 is amended by striking ``and'' at the end of clause (ii), by striking the period at the end of clause (iii) and inserting ``, and'', and by adding at the end the following:

``(iv) the portion of the basis of any greenhouse gas emissions facility attributable to any qualified investment (as defined by section 48A(d)).''

(2) Section 50(a)(4) of such Code is amended by striking ``and (2)'' and inserting ``, (2), and (6)''.

(3) The table of sections for subpart E of part IV of subchapter A of chapter 1 of such Code is amended by inserting after the item relating to section 48 the following:

``Sec. 48A. Credit for greenhouse gas emissions facilities.''

(e) **EFFECTIVE DATE.**--The amendments made by this section shall apply to property placed in service after the date of the enactment of this Act, under rules similar to the rules of section 48(m) of the Internal Revenue Code of 1986 (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990).

(f) **STUDY OF ADDITIONAL INCENTIVES FOR VOLUNTARY REDUCTION, AVOIDANCE, OR SEQUESTRATION OF GREENHOUSE GAS EMISSIONS.--**

(1) **IN GENERAL.**--The Secretary of the Treasury and the Secretary of Energy shall jointly study possible additional incentives for, and removal of barriers to, voluntary, non recoupable expenditures for the reduction, avoidance, or sequestration of greenhouse gas emissions. For purposes of this subsection, an expenditure shall be considered voluntary and non recoupable if the expenditure is not recoupable--

(A) from revenues generated from the investment, determined under generally accepted accounting standards (or under the applicable rate-of-return regulation, in the case of a taxpayer subject to such regulation), or

(B) from any tax or other financial incentive program established under Federal, State, or local law.

(2) **REPORT.**--Within 6 months of the date of enactment of this Act, the Secretary of the Treasury and the Secretary of Energy shall jointly report to Congress on the results of the study described in paragraph (1), along with any recommendations for legislative action.

(g) **SCOPE AND IMPACT.--**

(1) **POLICY.**--In order to achieve the broadest response for reduction, avoidance, or sequestration of greenhouse gas emissions and to ensure that the incentives established by or

pursuant to this Act do not advantage one segment of an industry to the disadvantage of another, it is the sense of Congress that such incentives should be available for individuals, organizations, and entities, including both for-profit and non-profit institutions.

(2) **LEVEL PLAYING FIELD STUDY AND REPORT.--**

(A) **IN GENERAL.**--The Secretary of the Treasury and the Secretary of Energy shall jointly study possible additional measures that would provide non-profit entities (such as municipal utilities and energy cooperatives) with economic incentives for greenhouse gas emissions facilities comparable to those incentives provided to taxpayers under the amendments made to the Internal Revenue Code of 1986 by this Act.

(B) **REPORT.**--Within 6 months after the date of enactment of this Act, the Secretary of the Treasury and the Secretary of Energy shall jointly report to Congress on the results of the study described in subparagraph (A), along with any recommendations for legislative action.

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The Climate Change Tax Amendments of 2001--Section-by-Section Analysis

A bill to amend the Internal Revenue Code of 1986 to provide incentives for the voluntary reduction avoidance, and sequestration of greenhouse gas emissions and to advance global climate science and technology development.

Section 1 designates the short title as the ``Climate Change Tax Amendments."

Section 2 extends on a permanent basis the tax credit for research and development in the case of R & D involving climate change .

In order for a research expense to qualify for the credit, it must; have as one of its purposes the reducing or sequestering of greenhouse gases ; and have been reported to DOE under Sec. 1605(b) of the Energy Policy Act of 1992.

This tax credit applies with respect to amounts incurred after the Act becomes law, and only if the Climate Change Risk Management Act of 2001 also becomes law.

Section 3 provides for investment tax credits for greenhouse -gas -emission reduction facilities.

Greenhouse Gas Emissions Facility Credit

The amount of the credit would be calculated based upon the amount of greenhouse gas emission reductions reported and certified under section 1605(b) of the Energy Policy Act. The credit would be equal to one-half of the applicable percentage of the qualified investment in a ``reduced greenhouse gas emissions facility."

For example, if a taxpayer replaces a coal-fired generator with a more efficient one that reduced greenhouse gas emissions by 18 percent, compared to the retired unit, the taxpayer would be entitled to a tax credit of 9 percent of qualified investment in that ``reduced greenhouse gas emissions facility". Such facility is defined as a facility of the taxpayer: the construction, reconstruction; or erection of which is completed by the taxpayer; or the facility may be acquired by the taxpayer if the original use of the facility commences with the taxpayer; which replaces an existing facility of the taxpayer; which reduces greenhouse gas emissions (on a per unit of output basis) as compared to the facility it replaces; which uses the same type of fuel as the facility it replaces; the depreciation (or amortization in lieu of depreciation) of which is allowable; which meets performance and quality standards (if any) jointly prescribed by the Secretaries of Treasury and Energy; and are consistent with regulations prescribed under Sec. 1605 (b) of the Energy Policy Act (relating to voluntary reporting of greenhouse gas emission reductions).

Only that portion of the investment attributable to providing production capacity not greater than the production capacity of the facility being replaced qualifies for the credit.

While unit efficiencies could be achieved if the credit were allowed for replacing a unit with another that burned a different fuel, such incentive for fuel shifting does not directly stimulate efficiency technology development for each fuel type. The objective is to improve efficiencies ``within a fuel;" not to encourage fuel shifting ``between fuels."

Qualified Progress Expenditure Credit

With respect to qualified progress expenditures, the amount of the qualified investment for the taxable year shall be increased by the aggregate of each qualified progress expenditure for the taxable year with respect to progress expenditure property. Progress expenditure property is defined as any property being constructed by or for the taxpayer and which it is reasonable to believe will qualify as a reduced greenhouse gas emission facility.

Election

A taxpayer may elect to take the tax credit in such a manner (i.e. as an investment credit, or as qualified progress expenditures) as the Secretary may be regulations prescribe. The election will apply to the taxable year for which it was made and to all subsequent taxable years. Such an election, once made, may not be revoked except with the consent of the Secretary.

Recapture Where Facility is Prematurely Disposed of

If the facility is disposed of before the end of the facility's depreciation period (or ``useful life" for tax purposes) the taxpayer will be assessed an increase in tax equal to the greenhouse gas emissions facility investment tax credit allowed for all prior taxable years multiplied by a fraction whose numerator is the number of years remaining to fully depreciate the facility to be disposed of, and whose denominator is the total number of years over which the facility would otherwise have been subject to depreciation.

Similar rules apply in the case in which the taxpayer elected credit for progress expenditures and the property thereafter ceases to qualify for such credit.

Effective Date

Amendments made to the Internal Revenue Code apply to property placed in service after the date of enactment of this Act.

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Study of Additional Incentives for Voluntary Reduction of Greenhouse Gas Emissions

The Secretary of Energy and the Secretary of Transportation are directed to study, and report upon to Congress along with any recommendations for legislative action, possible additional incentives for and removal of barriers to voluntary non-recoupable expenditures on the reduction of greenhouse gas emissions. An expenditure qualifies if it is voluntary and not recoupable: from revenues generated from the investment; determined under generally accepted accounting standards; under the applicable rate-of-return regulation (in the case of a taxpayer subject to such regulations); from any tax or other financial incentive program established under federal, State, or local law; and pursuant to any credit-trading or other mechanism established under any international agreement or protocol that is in force.

Incentives for Non-profit Institutions

The Secretary of the Treasury and the Secretary of Energy are directed to jointly study possible additional measures that would provide non-profit entities, such as municipal utilities and energy co-operatives, with economic incentives for greenhouse gas emission reductions comparable to the incentives provided to taxpayers under the amendments made to the Internal Revenue Code by this Act. Within six months of the date of enactment, the Secretary of the Treasury and the Secretary of Energy shall jointly report to Congress on the results of the study along with any recommendations for legislative action.

--

S. 1294

Be it enacted by the Senate and the House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ``Climate Change Risk Management Act of 2001".

SEC. 2. FINDINGS.

Congress finds that--

(1) human activities, namely energy production and use, contribute to increasing concentrations of greenhouse gases in the atmosphere, which may ultimately contribute to global climate change beyond that resulting from natural variability;

(2) although the science of global climate change has been advanced in the past ten years, the timing and magnitude of climate change -related impacts on the United States cannot currently be predicted with any reasonable certainty;

(3) furthermore, a recent National Research Council review of climate change science suggests that without an understanding of the sources and degree of uncertainty regarding climate change and its impacts, decision-makers could fail to define the best ways to manage the risk of climate change ;

(4) despite this uncertainty, the potential impacts from human-induced climate change pose a substantial risk that should be managed in a responsible manner;

(5) given that the bulk of greenhouse gas emissions from human activities result from energy production and use, national and international energy policy decisions made now and in the longer-term future will influence the extent and timing of any climate change and resultant impacts from climate change later this century;

(6) the characteristics of greenhouse gases and the physical nature of the climate system require that stabilization of atmospheric greenhouse gas concentrations at any future level must be a long-term effort undertaken on a global basis;

(7) the characteristics of existing energy-related infrastructure and capital suggest that effective greenhouse gas management efforts will depend on the development of long-term, cost-effective technologies and practices that can be demonstrated and deployed commercially in the United States and around the world;

(8) environmental progress, energy security, economic prosperity, and satisfaction of basic human needs are interrelated, particularly in developing countries;

(9) developing countries will constitute the major source of greenhouse gas emissions in the 21st century and the minor source of increases in such emissions;

(10) any program to address the risks of climate change that does not fully include developing nations as integral participants will be ineffective; and

(11) a new long-term, technology-based, cost-effective, flexible, and global strategy to ensure long-term energy security and manage the risk of climate change is needed, and should be promoted by the United States in its domestic and international activities in this regard.

SEC. 3. DEFINITIONS.

Title XVI of the Energy Policy Act of 1992 (42 U.S.C. 13381, et seq.) is amended by inserting before section 1601 the following:

``**SEC. 1600 DEFINITIONS.**

``(a) **AGRICULTURAL ACTIVITY**.--The term `agricultural activity' means livestock production, cropland cultivation, biogas and other waste material recovery and nutrient management.

``(b) **CLIMATE SYSTEM**.--The term ``climate system' means the totality of the atmosphere, hydrosphere, biosphere and geosphere and their interactions.

``(c) **CLIMATE CHANGE** .--The term `climate change' means a change in the state of the climate system attributed directly or indirectly to human activity which is in addition to natural climate variability observed over comparable time periods.

``(d) **EMISSIONS**.--The term `emissions' means the net release of greenhouse gases and/or their precursors into the atmosphere over a specified area and period of time, after taking into account any reductions due to greenhouse gas sequestration.

``(e) **GREEHOUSE GASES** .--The term `greenhouse gases' means those gaseous and aerosol constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation.

``(f) **SEQUESTRATION**.--The term `sequestration' means any process, activity or mechanism which removes a greenhouse gas or its precursor from the atmosphere or from emissions streams.

``(g) **FOREST PRODUCTS**.--The term `forest products' means all products or goods manufactured from trees.

``(h) **FORESTRY ACTIVITY.--**

``(1) **IN GENERAL**.--The term `forestry activity' means any ownership or management action that has a discernible impact on the use and productivity of forests.

``(2) **INCLUSIONS**.--Forestry activities include, but are not limited to, the establishment of trees on an area not previously forested, the establishment of trees on an area previously forested if a net carbon benefit can be demonstrated, enhanced forest management (including thinning, stand improvement, fire protection, weed control, nutrient application, pest management, and other silvicultural practices), forest protection or conservation if a net carbon benefit can be demonstrated, and production or use of biomass energy (including the use of wood, grass or other biomass in lieu of fossil fuel).

``(3) **EXCLUSIONS.**--The term `forestry activity' does not include a land use change associated with--

``(A) an act of war; or

``(B) an act of nature, including floods, storms, earthquakes, fires, hurricanes, and tornadoes.".

SEC. 4. NATIONAL CLIMATE CHANGE STRATEGY.

``(a) **IN GENERAL.**--Section 1601 of the Energy Policy Act of 1992 (42 U.S.C. 13381) is amended to read as follows:

``SEC. 1601. NATIONAL CLIMATE CHANGE STRATEGY.

``(a) **IN GENERAL.**--The President, in consultation with appropriate Federal agencies and the Congress, shall develop and implement a national strategy to manage the risks posed by potential climate change .

``(b) **GOAL.**--The strategy shall be consistent with the United Nations Framework Convention on Climate Change , done at New York on May 9, 1992, in a manner that--

``(1) does not result in serious harm to the U.S. economy;

``(2) adequately provides for the energy security of the U.S.;

``(3) establishes and maintains U.S. leadership with respect to climate change -related scientific research, development and deployment of advanced energy technology; and

``(4) will result in a reduction in the ratio that the net U.S. greenhouse gas emissions bears to the U.S. gross domestic production.

``(c) **ELEMENTS.**--The strategy shall include short-term and long-term strategies, programs and policies that--

``(1) enhance the scientific knowledge base for understanding and evaluation of natural and human-induced climate change , including the role of climate feedbacks and all climate forcing agents;

``(2) improve scientific observation, modeling, analysis and prediction of climate change and its impacts, and the economic, social and environmental risks posed by such impacts;

``(3) assess the economic, social, and environmental costs and benefits of current and potential options to reduce, avoid, or sequester greenhouse gas emissions;

``(4) develop and implement market-directed policies that reduce, avoid or sequester greenhouse gas emissions, including--

``(i) cost-effective Federal, State, tribal, and local policies, programs, standards and incentives;

``(ii) policies and incentives to speed development, deployment and consumer adoption of advanced energy technologies in the U.S. and throughout the world; and

``(iii) removal of regulatory barriers that impede the development, deployment and consumer adoption of advanced energy technologies into the U.S. and throughout the world; and

``(iv) participation in international institutions, or the support of international activities, that are established or conducted to facilitate effective measures to implement the United Nations Framework Convention on Climate Change ;

``(5) advance areas where bilateral or multilateral cooperation and investment would lead to adoption of advanced technologies for use within developing countries to reduce, avoid or sequester greenhouse gas emissions;

``(6) identify activities and policies that provide for adaptation to natural and human-induced climate change ;

``(7) recommend specific legislative or administrative activities giving preference to cost-effective and technologically feasible measures that will--

``(A) result in a reduction in the ratio that the net U.S. greenhouse gas emissions bears to the U.S. gross domestic product;

``(B) avoid adverse short-term and long-term economic and social impacts on the United States; and

``(C) foster such changes in institutional and technology systems as are necessary to

mitigate or adapt to climate change and its impacts in the short-term and the long-term;

``(8) designate federal, state, tribal or local agencies responsible for carrying out recommended activities and programs, and identify interagency entities or activities that may be needed to coordinate actions carried out consistent with this strategy.

``(d) **CONSULTATION.**--This strategy shall be developed in a manner that provides for meaningful participation by, and consultation among, Federal, State, tribal, and local government agencies, non-governmental organizations, academia, scientific bodies, industry, the public, and other interested parties.

``(e) **BIANNUAL REPORT.**--No later than one year after the date of enactment of this section, and at the end of each second year thereafter, the President shall submit to Congress a report that includes--

``(1) a description of the national climate change strategy and its goals and Federal programs and activities intended to carry out this strategy through mitigation, adaption, and scientific research activities;

``(2) an evaluation of Federal programs and activities implemented as part of this strategy against the goals and implementation dates outlined in the strategy;

``(3) a description of changes to Federal programs or activities implemented to carry out this strategy, in light of new knowledge of climate change and its impacts and costs or benefits, or technological capacity to improve mitigation or adaption activities;

``(4) a description of all Federal spending on climate change for the current fiscal year and each of the five years previous, categorized by Federal agency and program function (including scientific research, energy research and development, regulation, education and other activities);

``(5) an estimate of the budgetary impact for the current fiscal year and each of the five years previous of any Federal tax credits, tax deductions or other incentives claimed by taxpayers that are directly or indirectly attributable to greenhouse gas emissions reduction activities; and

``(6) an estimate of the amount, in metric tons, of greenhouse gas emissions reduced, avoided or sequestered directly or indirectly as a result of each spending program or tax credit, deduction, or other incentive for the current fiscal year and each of the five years previous.

``(f) **REVIEW BY NATIONAL ACADEMIES.**--

``(1) **IN GENERAL.**--Not later than 90 days after the date of publication of each biannual report as directed by this section, the President shall commission the National Academies to conduct a review of the national climate change strategy and implementation plan required by this section.

``(2) **CRITERIA.**--The National Academies' review shall evaluate the goals and recommendations contained in the national climate change strategy report in light of--

``(A) new or improved scientific knowledge regarding climate change and its impacts;

``(B) new understanding of human social and economic responses to climate change , and responses of natural ecosystems to climate change ;

``(C) advancements in energy technologies that reduce, avoid, or sequester greenhouse gases or otherwise mitigate the risks of climate change ;

``(D) new or revised understanding of economic costs and benefits of mitigation or adaption activities; and

``(E) the existence of alternative policy options that could achieve the strategy goals at lower economic, environmental, or social cost.

``(3) **REPORT.**--The National Academies shall prepare and submit to Congress and the President a report concerning the results of such review, along with any recommendations as appropriate. Such report shall also be made available to the public.

``(4) **DEFINITION.**--For the purposes of this section, the term `National Academies' means the National Research Council, the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.".

(b) **CONFORMNG AMENDMENT.**--Section 1103(b) of the Global Climate Protection Act of 1987 (15 U.S.C. 2901) is amended by inserting ``, the Department of Energy, and other Federal agencies as appropriate" after ``Environmental Protection Agency".

SEC. 5. CLIMATE TECHNOLOGY RESEARCH, DEVELOPMENT, DEMONSTRATION AND DEPLOYMENT PROGRAM.

(a) **IN GENERAL.**--Section 1604 of the Energy Policy Act of 1992 (42 U.S.C. 13384) is amended to read as follows:

``SEC. 1604. CLIMATE TECHNOLOGY RESEARCH, DEVELOPMENT, DEMONSTRATION AND DEPLOYMENT PROGRAM.

``(a) **IN GENERAL.**--The Secretary, in consultation with the Advisory Board established under section 2302, shall establish a long-term Climate Technology Research, Development, Demonstration, and Deployment Program, in accordance with sections 3001 and 3002.

``(b) **PROGRAM OBJECTIVES.**--The program shall conduct a long-term research, development, demonstration and deployment program to foster technologies and practices that--

``(1) reduce or avoid anthropogenic emissions of greenhouse gases ;

``(2) remove and sequester greenhouse gases from emissions streams; and

``(3) remove and sequester greenhouse gases from the atmosphere.

``(c) **PROGRAM PLAN.**--Not later than 1 year after the date of enactment of this Act, the Secretary shall prepare and submit to the Congress a 10-year program plan to guide activities under this section. Thereafter, the Secretary shall biennially update and resubmit the program plan to the Congress. In preparing the program plan, the Secretary shall--

``(1) include quantitative technology performance and carbon emissions reduction goals, schedule milestones, technology approaches, Federal funding requirements, and non-Federal cost sharing requirements;

``(2) consult with appropriate representatives of industry, institutions of higher education, Department of Energy national laboratories, and professional, scientific and technical societies;

``(3) take into consideration how the Federal Government, acting through the Secretary, can be effective in ensuring the availability of such technologies when they are needed and how the Federal Government can most effectively cooperate with the private sector in the accomplishment of the goals set forth in subsection (b); and

``(4) consider how activities funded under the program can be complementary to, and not duplicative of, existing research and development activities within the Department.

``(d) **SOLICITATION**--Not later than 1 year after the date of submission of the 10-year program plan, the Secretary shall solicit proposals for conducting activities consistent with the 10-year program plan and select one or more proposals not later than 180 days after such solicitations.

``(e) **PROPOSALS**--Proposals may be submitted by applicants or consortia from industry, institutions of higher education, or Department of Energy national laboratories. At minimum, each proposal shall also include the following;

``(1) a multi-year management plan that outlines how the proposed research, development, demonstration and deployment activities will be carried out;

``(2) quantitative technology goals and greenhouse gas emission reduction targets that can be used to measure performance against program objectives;

``(3) the total cost of the proposal for each year in which funding is requested, and a breakdown of those costs by category;

``(4) evidence that the applicant has in existence or has access to--

``(i) the technical capability to enable it to make use of existing research support and facilities in carrying out the research objectives of the proposal;

``(ii) a multi-disciplinary research staff experienced in technologies or practices able to sequester, avoid, or capture greenhouse gas emissions;

``(iii) access to facilities and equipment to enable the conduct of laboratory-scale testing or demonstration of technologies or related processes undertaken through the program; and

``(iv) commitment for matching funds and other resources from non-Federal sources, including cash, equipment, services, materials, appropriate technology transfer activities, and other assets directly related to the cost of the proposal;

``(5) evidence that the proposed activities are supplemental to, and not duplicative of, existing research and development activities carried out, funded, or otherwise supported by the Department;

``(6) a description of the technology transfer mechanisms and industry partnerships that the applicant will use to make available research results to industry and to other researchers;

``(7) a statement whether the unique capabilities of Department of Energy national laboratories warrant collaboration with those laboratories, and the extent of any such collaboration proposed; and

``(8) demonstrated evidence of the ability of the applicant to undertake and complete the proposed project, including the successful introduction of the technology into commerce.

``(f) **SELECTION OF PROPOSALS.**--From the proposals submitted, the Secretary shall select for funding one or more proposals that will best accomplish the program objectives outlined in this section.

``(g) **ANNUAL REPORT.**--The Secretary shall prepare and submit an annual report to Congress that--

``(1) demonstrates that the program objectives are adequately focused, peer-reviewed for merit, and not unnecessarily duplicative of the science and technology research being conducted by other Federal agencies and programs,

``(2) states whether the program as conducted in the prior year addresses an adequate breadth and range of technologies and solutions to address anthropogenic climate change ; and

``(3) evaluates the quantitative progress of funded proposals toward the program objectives outlined in this section, and the technology and greenhouse gas emission reduction, avoidance or sequestration goals as described in their respective proposals.

``(h) **AUTHORIZATION OF APPROPRIATIONS.**--There are authorized to be appropriated to carry out this subtitle $200,000,000 for each of fiscal years 2002 through 2011, to remain available until expended.".

(b) **CONFORMING AMENDMENTS.**--Section 6 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5905) is amended--

(1) in subsection (a)--

(A) in paragraph (2), by striking ``and" at the end;

(B) in paragraph (3) by striking the period at the end and inserting ``, and"; and

(C) by adding at the end the following:

``(4) solutions to the effective management of greenhouse gas emissions in the long term by the development of technologies and practices designed to--

``(A) reduce or avoid anthropogenic emissions of greenhouse gases ;

``(B) remove and sequester greenhouse gases from emissions streams; and

``(C) remove and sequester greenhouse gases from the atmosphere."; and

(2) in subsection (b)--

(A) in paragraph (2), by striking ``subsection (a)(1) through (3)" and inserting ``paragraphs (1) through (4) of subsection (a)"; and

(B) in paragraph (3)--

(i) in subparagraph (R), by striking ``and" at the end;

(ii) in subparagraph (S), by striking the period at the end and inserting ``; and"; and

(iii) by adding at the end the following:

``(T) to pursue a long-term climate technology strategy designed to demonstrate a variety of technologies by which stabilization of greenhouse gases might be best achieved, including accelerated research, development, demonstration and deployment of--

``(i) renewable energy systems;

``(ii) advanced fossil energy technology;

``(iii) advanced nuclear power plant design;

``(iv) fuel cell technology for residential, industrial and transportation applications;

``(v) carbon sequestration practices and technologies, including agricultural and forestry practices that store and sequester carbon;

``(vi) efficient electrical generation, transmission and distribution technologies; and

``(vii) efficient end use energy technologies.".

SEC. 6. INTERNATIONAL ENERGY TECHNOLOGY DEPLOYMENT PROGRAM.

Section 1608 of the Energy Policy Act of 1992 (42 U.S.C. 13387) is amended by striking subsection (l) and inserting the following:

``(l) **INTERNATIONAL ENERGY TECHNOLOGY DEPLOYMENT PROGRAM.--**

``(1) **DEFINITIONS**--In this subsection:

``(A) **INTERNATIONAL ENERGY DEPLOYMENT PROJECT.**--The term `international energy deployment project' means a project to construct an energy production facility outside the United States--

``(i) the output of which will be consumed outside the United States; and

``(ii) the deployment of which will result in a greenhouse gas reduction per unit of energy produced when compared to the technology that would otherwise be implemented of--

``(I) 10 percentage points or more, in the case of a unit placed in service before January 1, 2010;

``(II) 20 percentage points or more, in the case of a unit placed in service after December 31, 2009, and before January 1, 2020; or

``(III) 30 percentage points or more, in the case of a unit placed in service after December 31, 2019, and before January 1, 2030.

``(C) **QUALIFYING INTERNATIONAL ENERGY DEPLOYMENT PROJECT.**--The term `qualifying international energy deployment project' means an international energy deployment project that--

``(i) is submitted by a United States firm to the Secretary in accordance with procedures established by the Secretary by regulation;

``(ii) uses technology that has been successfully developed or deployed in the United States, or in another country as a result of a partnership with a company based in the United States;

``(iii) meets the criteria of subsection (k);

``(iv) is approved by the Secretary, with notice of the approval being published in the Federal Register; and

``(v) complies with such terms and conditions as the Secretary establishes by regulation.

``(D) **UNITED STATES.**--The term `United States', when used in a geographical sense, means the 50 States, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

``(2) **PILOT PROGRAM FOR FINANCIAL ASSISTANCE.--**

``(A) **IN GENERAL.**--Not later than 180 days after the date of enactment of this Act, the Secretary shall, by regulation, provide for a pilot program for financial assistance for qualifying international energy deployment projects.

``(B) **SELECTION CRITERIA.**--After consultation with the Secretary of State, the Secretary of Commerce, and the United States Trade Representative, the Secretary shall select projects for participation in the program based solely on the criteria under this title and without regard to the country in which the project is located.

``(C) **FINANCIAL ASSISTANCE.--**

``(i) In general.--A United States firm that undertakes a qualifying international energy deployment project that is selected to participate in the pilot program shall be eligible to receive a loan or a loan guarantee from the Secretary.

``(ii) **RATE OF INTEREST.**--The rate of interest of any loan made under clause (i) shall be equal to the rate for Treasury obligations then issued for periods of comparable maturities.

``(iii) **AMOUNT.**--The amount of a loan or a loan guarantee under clause (i) shall not exceed 50 percent of the total cost of the qualified international energy deployment project.

``(iv) **DEVELOPED COUNTRIES.**--Loans or loan guarantees made for projects to be located in a developed country, as listed in Annex I of the United Nations Framework Convention on Climate Change , shall require at least a 50-percent contribution toward the total cost of the loan or loan guarantee by the host country.

``(v) **DEVELOPING COUNTIES.**--Loans or loan guarantees made for projects to be located in a developing country (those countries not listed in Annex I of the United Nations Framework Convention on Climate Change) shall require at least a 10-percent contribution toward the total cost of the loan or loan guarantee by the host country.

``(vi) **CAPACITY BUILDING RESEARCH**.--Proposals made for projects to be located in a developing country may include a research component intended to build technological capacity within the host country. Such research must be related to the technologies being deployed and must involve both an institution in the host country and an industry, university or national laboratory participant from the United States. The host institution must contribute at least 50 percent of funds provided for the capacity building research.

``(D) **COORDINATION WITH OTHER PROGRAMS**.--A qualifying international energy deployment project funded under this section shall not be eligible as a qualifying clean coal technology under section 415 of the Clean Air Act (42 U.S.C. 7651n).

``(E) **REPORT**.--Not later than 5 years after the date of enactment of this section, the Secretary shall submit to the President and the Congress a report on the results of the pilot projects.

``(F) **RECOMMENDATION**.--Not later than 60 days after receiving the report under subparagraph (E), the Secretary shall submit to Congress a recommendation concerning whether the financial assistance program under this section should be continued, expanded, reduced, or eliminated.

``(G) **AUTHORIZATION OF APPROPRIATIONS**.--There are authorized to be appropriated to carry out this section $100,000,000 for each of fiscal years 2002 through 2011, to remain available until expended.".

SEC. 7. NATIONAL GREENHOUSE GAS EMISSIONS REGISTRY.

Section 1605 of the Energy Policy Act of 1992 (42 U.S.C. 13385) is amended--

(1) by amending the second sentence of subsection (a) to read as follows: ``The Secretary shall annually update and analyze such inventory using available data, including, beginning in calendar year 2001, information collected as a result of voluntary reporting under subsection (b). The inventory shall identify for calendar year 2001 and thereafter the amount of emissions reductions attributed to those reported under subsection (b)";

(2) by amending subsection (b)(1) (B) and (C) to read as follows--

``(B) annual reductions or avoidance of greenhouse gas emissions and carbon sequestration achieved through any measures, including agricultural activities, co-generation, appliance efficiency, energy efficiency, forestry activities that increase carbon sequestration stocks (including the use of forest products), fuel switching, management of crop lands, grazing lands, grasslands, drylands, manufacture or use of vehicles with reduced greenhouse gas emissions, methane recovery, ocean seeding, use of renewable energy, chlorofluorocarbon capture and replacement, and power plant heat rate improvement; and

``(C) reductions in, or avoidance of, greenhouse gas emissions achieved as a result of voluntary activities domestically, or internationally, plant or facility closings, and State or Federal requirements.".

(3) by striking in the first sentence of subsection (b)(2) the word ``entities" and inserting ``persons or entities" and in the second sentence of such subsection, by inserting after ``Persons" the words ``or entities";

(4) by inserting in the second sentence of subsection (b)(4) the words ``persons or" before ``entity";

(5) by adding after subsection (b)(4) the following new paragraphs--

``(5) **RECOGNITION OF VOLUNTARY GREENHOUSE GAS EMISSIONS REDUCTION, AVOIDANCE, OR SEQUESTRATION**.--To encourage new and increased voluntary efforts to reduce, avoid, or sequester emissions of greenhouse gases , the Secretary shall develop and establish a program of giving annual public recognition to all reporting persons

and entities demonstrating voluntarily achieved greenhouse gases reduction, avoidance, or sequestration, pursuant to the voluntary collections and reporting guidelines issued under this section. Such recognition shall be based on the information certified, subject to section 1001 of title 18, United States Code, by such persons or entities for accuracy as provided in paragraph 2 of this subsection, and shall include such information reported prior to the enactment of this paragraph. At a minimum such recognition shall annually be published in the Federal Register.

``(6) **REVIEW AND REVISION OF GUIDELINES.--**

``(A) **IN GENERAL.--**Not later than 1 year after the date of enactment of this subparagraph, the Secretary of Energy, acting through the Administrator of the Energy Information Administration, shall conduct a review of guidelines established under this section regarding the accuracy and reliability of reports of greenhouse gas reductions and related information.

``(B) **CONTENTS.--**The review shall include the consideration of the need for any amendments to such guidelines, including--

``(i) a random or other verification process using the authorities available to the Secretary under other provisions of law;

``(ii) a range of reference cases for reporting of project-based activities in sectors, including the measures specified in subparagraph (1)(B) of this subsection, and the inclusion of benchmark and default methodologies and best practices for use as reference cases for eligible projects;

``(iii) issues, such as comparability, that are associated with the option of reporting on an entity-wide basis or on an activity or project basis; and

``(iv) safeguards to address the possibility of reporting, inadvertently or otherwise, of some or all of the same greenhouse gas emissions reductions by more than one reporting entity or person and to make corrections where necessary;

``(v) provisions that encourage entities or persons to register their certified, by appropriate and credible means, baseline emissions levels on an annual basis, taking into consideration all of their reports made under this section prior to the enactment of this paragraph;

``(vi) procedures and criteria for the review and registration of ownership of all or part of any reported and verified emissions reductions relative to a reported baseline emissions level under this section; and

``(vii) accounting provisions needed to allow for changes in registration of ownership of emissions reductions resulting from a voluntary private transaction between reporting entities or persons.

For the purposes of this paragraph, the term ``reductions'' means any and all activities taken by a reporting entity or person that reduce, avoid or sequester greenhouse gas emissions, or sequester greenhouse gases from the atmosphere.

``(C) **ECONOMIC ANALYSIS.**--The review should consider the costs and benefits of any such amendments, the effect of such amendments on participation in this program, including by farmers and small businesses, and the need to avoid creating undue economic advantages or disadvantages for persons or entities in the private sector. The review should provide, where appropriate, a range of reasonable options that are consistent with the voluntary nature of this section and that will help further the purposes of this section.

``(D) **PUBLIC COMMENT AND SUBMISSION OF REPORT.**--The findings of the review shall be made available in draft form for public comment for at least 45 days, and a report containing the findings of the review shall be submitted to Congress and the President no later than one year after date of enactment of this section.

``(E) **REVISION OF GUIDELINES.**--If the Secretary, after consultation with the Administrator, finds, based on the study results, that changes to the program are likely to be beneficial and cost effective in improving the accuracy and reliability of reported greenhouse gas reductions and related information, are consistent with the voluntary nature of this section, and further the purposes of this section, the Secretary shall propose and promulgate changes to program guidelines based with such findings. In carrying out the provisions of this paragraph, the Secretary shall consult with the Secretary of Agriculture and the Administrator of the Small Business Administration to encourage greater participation by small business and farmers in addressing greenhouse gas emission reductions and reporting such reductions.

``(F) **PERIODIC REVIEW AND REVISION OF GUIDELINES.**--The Secretary shall thereafter review and revise these guidelines at least once every 5 years, following the provisions for economic analysis, public review, and revision set forth in subsections (C) through (E) of this section.''.

(6) in subsection (c), by inserting ``the Secretary of the Department of Agriculture, the Secretary of the Department of Commerce, the Administrator of the Energy Information Administration, and'' before ``the Administrator''; and

(7) by adding at the end the following:

``(d) **PUBLIC AWARENESS PROGRAM.**--

``(1) **IN GENERAL.**--The Secretary shall create and implement a public awareness program to educate all persons in the United States of--

``(A) the direct benefits of engaging in voluntary greenhouse gas emissions reduction measures and having the emissions reductions certified under this section and available for use therein; and

``(B) the ease of use of the forms and procedures for having emissions reductions certified under this section.

``(2) **AGRICULTURAL AND SMALL BUSINESS OUTREACH.**--The Secretary of Agriculture and the Administrator of the Small Business Administration shall assist the Secretary in creating and implementing a targeted public awareness program to encourage voluntary participation by small businesses and farmers.".

SEC. 8. REVIEW OF FEDERALLY FUNDED ENERGY TECHNOLOGY RESEARCH AND DEVELOPMENT.

(a) **IN GENERAL.**--Title XVI of the Energy Policy Act of 1992 (42 U.S.C. 13381 et seq.) is amended by adding the following new section:

``SEC. 1610. REVIEW OF FEDERALLY FUNDED ENERGY TECHNOLOGY RESEARCH AND DEVELOPMENT.

``(a) **DEPARTMENT OF ENERGY REVIEW.--**

``(1) **IN GENERAL.**--The Secretary shall review annually all federally funded research and development activities carried out with respect to energy technology; and submit to a report to Congress by October 15 of each year.

``(2) **ASSESSMENT OF TECHNOLOGY READINESS AND BARRIERS TO DEPLOYMENT.**--As part of this review, the Secretary shall--

``(A) assess the status and readiness (including the potential commercialization) of each energy technology and any regulatory or market barriers to deployment;

``(B) consider--

``(i) the length of time it will take for deployment and use of the energy technology and for the technology to have a meaningful impact on emission reductions;

``(ii) the cost of deploying the energy technology; and

``(iii) the safety of the energy technology;

``(C) assess the available resource base for any energy resources used by the energy technology, and the potential for expanded sustainable use of the resource base; and

``(D) recommend to Congress any changes in law or regulation deemed appropriate by the Secretary to hasten deployment and use of the energy technology.

(b) **ENERGY TECHNOLOGY RESEARCH AND DEVELOPMENT CLEARINGHOUSE.**--The Secretary shall establish an information clearinghouse to facilitate

the transfer and dissemination of the results of federally funded research and development activities being carried out on energy technology subject to any restrictions or safeguards established for national security or the protection of intellectual property rights (including trade secrets and confidential business information protected under section 552(b)(4) of title 5, United States Code).".

(c) **TECHNICAL AMENDMENT.**--The table of contents of the Energy Policy Act of 1992 (106 Stat. 2776) is amended by inserting after the item relating to section 1609 the following:

``Sec. 1610. Review of federally funded energy technology research and development.".

SEC. 9. OFFICE OF APPLIED ENERGY TECHNOLOGY AND GREENHOUSE GAS - MANAGEMENT.

Section 1603 of the Energy Policy Act of 1992 (42 U.S.C. 13383) is amended to read as follows:

``SEC. 1603. OFFICE OF APPLIED ENERGY TECHNOLOGY AND GREENHOUSE GAS MANAGEMENT.

``(a) **ESTABLISHMENT.**--There is established by this section in the Department of Energy an Office of Applied Energy Technology and Greenhouse Gas Management.

``(b) **FUNCTION.**--The Office shall--

``(1) establish appropriate quantitative performance and deployment goals for energy technologies that reduce, avoid, or sequester emissions of greenhouse gases , provided that such goals are consistent with any national climate change strategy;

``(2) manage domestic and international energy technology demonstration and deployment programs for energy technologies that reduce, avoid or sequester emissions of greenhouse gases , including those authorized under this title; provided that such programs supplement and do not replace existing energy research and development activities within the Department;

``(3) facilitate the development of domestic and international cooperative research and development agreements (as that term is defined in section 12(d)(1) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a(d)(1))), or similar cooperative, cost-shared partnerships with non-Federal organizations to accelerate the rate of domestic and international demonstration and deployment of energy technologies that reduce, avoid or sequester emissions of greenhouse gases ;

``(4) conduct necessary programs of monitoring, experimentation, and analysis of the technological, scientific, and economic viability of energy technologies that reduce, avoid, or sequester greenhouse gas emissions; and

``(5) coordinate issues, policies, and activities for the Department regarding climate change and related energy matters pursuant to this title, and coordinate the issuance of such reports as may be required under this title.

``(c) **DIRECTOR**.--The Secretary shall appoint a director of the Office, who--

``(1) shall report to the Secretary;

``(2) shall be compensated at no less than level IV of the Executive Schedule; and

``(3) at the request of the Committees of the Senate and House of Representatives with appropriation and legislative jurisdiction over programs and activities of the Department of Energy, shall report to Congress on the activities of the Office.

``(d) **DUTIES**.--The Director shall, in addition to performing all functions necessary to carry out the functions of the Office--

``(1) in the absence of the Secretary's representative for interagency and multilateral policy discussions of global climate change , including the activities of the Committee on Earth and Environmental Sciences as established by the Global Change Research Act of 1990 (15 U.S.C. 2921 et seq.);

``(2) participate, in cooperation with other federal agencies, in the development and monitoring of domestic and international policies for their effects on any kind of climate change globally and domestically and on the generation, reduction, avoidance, and sequestration of greenhouse gases ;

``(3) develop and implement a balanced, scientific, non-advocacy educational and informational public awareness program on--

``(A) potential climate change , including any known adverse and beneficial effects on the United States and the economy of the United States and the world economy, taking into consideration whether those effects

are known or expected to be temporary, long-term, or permanent;

``(B) the role of national energy policy in the determination of current and future emissions of greenhouse gases , particularly measures that develop advanced energy technologies, improve energy efficiency, or expand the use of renewable energy or alternative fuels; and

``(C) the development of voluntary means and measures to mitigate or minimize significant adverse effects of climate change and, where appropriate, to adapt, to the greatest extent practicable, to climate change ;

``(4) provide, consistent with applicable provisions of law, public access to all information on climate change , effects of climate change , and adaptation to climate change ; and

``(5) in accordance with all law administered by the Secretary and other applicable Federal law and contracts, including patent and intellectual property laws, and in furtherance of the United Nations Framework Convention on Climate Change --

``(i) identify for, and transfer, deploy, diffuse, and apply to, Parties to such Convention, including the United States, any technologies, practices, or processes which reduce, avoid, or sequester emissions of greenhouse gases if such technologies, practices or processes have been developed with funding from the Department of Energy or any of its facilities or laboratories; and

``(ii) support reasonable efforts by the Parties to such convention, including the United States, to identify and remove legal, trade, financial, and other barriers to the use and application of any technologies, practices, or processes which reduce, avoid, or sequester emissions of greenhouse gases .".

SEC. 10. COORDINATION OF GLOBAL CHANGE RESEARCH.

(a) **DEFINITIONS**.--As used in this section, the term--

(1) ``Committee" means the Committee on Earth and Environmental Sciences established under Section 102 of the Global Change Research Act of 1990 (15 U.S.C. 2933).

(2) ``Program" means the United States Global Change Research Program established under Section 103 of the Global Change Research Act of 1990 (15 U.S.C. 2933).

(b) **COORDINATION OF CLIMATE OBSERVATION ACTIVITIES**.--At the direction of the Committee, the Director of the Program shall develop and implement activities within the Program that--

(1) coordinate system design and implementation and operation of a multi-user, multi-purpose long-term climate observing system for the measurement and monitoring of relevant climatic variables;

(2) carry out basic research, development and deployment of innovative scientific techniques and instruments (both in-situ and space-based) for measurement and monitoring of relevant climatic variables;

(3) coordinate Program activities to ensure the integrity and continuity of data records; including--

(i) calibration and inter-comparison of multiple instruments that measure the same climatic variable or set of variables;

(ii) backup instruments to ensure data record continuity; and

(iii) documentation of changes in instruments, observing practices, observing locations, sampling rates, processing algorithms and other changes;

(4) establish ongoing activities for the development, implementation, operation and management of climate -specific observational programs, with special emphasis on activities that seek the most efficient and reliable means of observing the climate system;

(5) coordinate activities of the Program that contribute to the design, implementation, operation, and data management activities of international climate system observation networks; and

(6) establish and maintain a free and openly accessible national data management system for the storage, maintenance, and archival of climate observation data, with an emphasis on facilitating access to, use of and interpretation of such data by the scientific research community and the public.

(c) **COORDINATION OF CLIMATE MODELING ACTIVITIES.**--At the direction of the Committee, the Director of the Program shall develop and implement activities within the Program that--

(1) establish and periodically revise a national climate system modeling strategy designed to position the United States as a world leader in all aspects of climate system modeling;

(2) coordinate Program activities designed to carry out such a national climate system modeling strategy;

(3) carry out basic research, development and deployment of innovative computational techniques for climate system modeling;

(4) develop the intellectual and computational capacity to carry out climate system modeling activities to assess the potential consequences of climate change on the United States;

(5) carry out the continued development and inter-comparison of United States climate models with special emphasis on activities that--

(i) establish the ability of United States climate models so successfully reproduce the historical climate observational record;

(ii) incorporate new climate system processes or improve spatial or temporal resolution of climate model simulations;

(iii) develop standardized tools and structures for climate model output, evaluation and programming design;

(iv) improve the accuracy and completeness of supporting data sets used to drive climate models; and

(v) reduce uncertainty in assessments of climate change and its impacts on the United States;

(6) coordinate activities of the Program that contribute to the design, implementation, operation, and data analysis activities of international climate system modeling inter-comparisons and assessments; and

(7) establish and maintain a free and openly accessible national data management system for the storage, maintenance, and archival of climate model code, auxiliary data, and results, with an emphasis on facilitating access to, use of and interpretation of such data by the scientific research community and the public.

(d) **AUTHORIZATION OF APPROPRIATIONS.**--There are authorized to be appropriated to carry out this section $50,000,000 for each of fiscal years 2002 through 2004, to remain available until expended, and thereafter such sums as are necessary.

(e) **USE OF EXISTING INFRASTRUCTURE.**--In carrying out new activities under subsections (b) and (c) of this section, the Program shall, where possible, use and incorporate existing Program activities and resources, such as Program Working Groups.

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Climate Change Risk Management Act of 2001 Section-by-Section Analysis

Section 1--Short Title

Section 2--Findings

Section 3--Definitions

Section 4--National Climate Change Strategy

Amends Section 1601 of the Energy Policy Act of 1992 to require the President, in consultation with Federal agencies and the Congress, to develop a national strategy to manage the risks posed by potential climate change . The goal of such strategy would be to implement the UN Framework Convention on Climate Change in a manner that 1. does not cause serious harm to the U.S. economy; 2. establishes and maintains U.S. leadership in scientific research and technology development; and 3. results in annual net reductions of U.S. greenhouse gas emissions as measured against the U.S. gross domestic production. Requires a biannual report to Congress on the strategy and programs to implement the strategy, following review and evaluation of the strategy by the National Academies in light of new information on the science, technology, or economics of climate change .

Section 5--Climate Technology Research, Development, and Demonstration Program

Amends Section 1604 of the Energy Policy Act of 1992 to establish a new energy technology program within the Department of Energy to further development and deployment of technologies to reduce, avoid or sequester greenhouse gas emissions. Authorizes $2 billion over ten years for competitive multi-year grant awards that foster development and deployment of existing and new energy efficient, fossil, nuclear, renewable and sequestration technologies.

Section 6--International Energy Technology Deployment Program

Establishes a new international energy technology deployment pilot program under Section 1608 of the Energy Policy Act of 1992 to assist developing countries in meeting development goals with fewer greenhouse gas emissions. Authorizes $1 billion over ten years for loans or loan guarantees to be made to firms or consortia that construct energy production facilities outside the United States, provided such facilities result in gains in energy efficiency and reductions in greenhouse gas emissions relative to existing technologies.

Section 7--National Greenhouse Gas Emissions Registry

Amends Section 1605 of the Energy Policy Act of 1992 to provide for development of national registry of greenhouse gas emissions baselines and actions to voluntarily reduce emissions. Modeled after several state initiatives already under way, this section provides for the Secretary of Energy to initiate a stakeholder-led process to develop new guidelines for the existing voluntary emissions reduction reporting system (``1605(b)'') that improve the accuracy and reliability of voluntary reports made to this program, establish consistent reporting procedures and independent verification, and allow for registration of emissions baselines and emissions reductions made against such baselines. Includes provisions to encourage participation by small businesses and farmers. Upon completion of review of guidelines, provides for public comment and revision of guidelines if cost-effective.

Section 8--Review of Federally Funded Energy Technology Research and Development

Adds a new Section 1610 to the Energy Policy Act of 1992 to provide for a regular review of federally funded energy technology research and development, including the programs authorized in this bill. The review will consider cost, safety, resource availability, technology readiness, including potential for commercial application, and barriers to deployment in widespread use. Also establishes an ``Energy Technology R&D Clearinghouse'' to disseminate to the private sector and the public information on energy technology research and development activities within the Department of Energy, as well as technologies available for deployment through public-private partnerships.

Section 9--Office of Applied Energy Technology and Greenhouse Gas Management

Amends Section 1603 of the Energy Policy Act of 1992 to create a new office within the Department of Energy to manage applied energy technology activities, public-private partnerships, and activities to reduce, avoid, or sequester greenhouse gases . In addition to administering the programs authorized by this bill, the Office will supplement existing activities

of the Department by working to increase the rate at which new energy technologies are applied, developed and deployed for widespread use. The Office will also function to coordinate domestic and international cooperative energy research, development, demonstration and deployment activities within the Department and participate in interagency activities with respect to climate change research and technology programs.

Section 10--Coordination of Global Change Research

Provides the Director of the U.S. Global Change Research Program (USGCRP) with new authority for the purposes of coordinating and strengthening scientific research with respect to climate observation systems and climate modeling, as suggested by recent National Academy reports on the state of U.S. climate change research. Authorizes $50 million in new funding for each of fiscal years 2002 through 2004, and such sums as are necessary thereafter. Requires that the Program utilize where possible existing Working Groups and other resources in laboratory activities.

DEPARTMENTS OF COMMERCE, JUSTICE, AND STATE, THE JUDICIARY, AND RELATED AGENCIES APPROPRIATIONS ACT, 2002 -- (Senate - September 10, 2001)

Mr. CRAIG. Madam President, last December, President Clinton deposited his signature to the Rome treaty, thereby making the United States party to the creation of a permanent International Criminal Court with unlimited jurisdiction. Once created, this court will have the right to prosecute U.S. citizens without any of the guarantees or protections provided by the Constitution. This will also affect our ability to protect men and women of our uniformed services and meet our military commitments to our allies.

President Clinton even acknowledged as he deposited his signature that the Rome treaty had, in his own words, ``significant flaws'' and would not send it to the Senate for ratification.

In his confirmation hearing testimony, Secretary Powell made it clear that the administration would not send this treaty to the Senate for ratification. However, in my opinion and the opinion of others, this is not enough. Once the 60th country ratifies the treaty, the United States and her citizens will become subject to the jurisdiction of the ICC, regardless of Senate approval under the treaty's own terms. This is precisely why we cannot simply allow the treaty to just be confirmed and collect dust. I believe it is incumbent upon all of us to try to bring, in essence, the treaty down.

U.S. Armed Forces operating overseas in peacekeeping operations could conceivably be prosecuted by the ICC for protecting the vital interests of the United States. In other words, the Senate of the United States could support our men and women going to war in a foreign nation only to have an international court rule them as criminals against the state or , in essence, criminals against the world.

Furthermore, Americans prosecuted by the ICC will not be guaranteed any of the procedural protections to which all Americans are entitled under the Bill of Rights. I can recite those for us. We have heard them all of our lives: The rights such as the right to a trial by jury or the right to a jury of one's own peers and the right to question one's accusers--that is just to name a few of the very rights that we now walk away from for our citizens if we do not stand up boldly and say the International Criminal Court should, in fact, not become an arm of the United Nations.

Currently, the Rome treaty already has 139 signatories, and over half of the necessary countries have already ratified it. In short, the ICC will soon become a reality unless we act now. The question is whether the United States will oppose it--and we have already opposed Kyoto, Biodiversity, CTBT, and other bad treaties--or whether we will simply acquiesce to it. The answer to that question is not only one of protecting our service personnel; it is also one of principle. Are we fundamentally committed to the sovereign rule of the domestic law of our country under the U.S. Constitution as opposed to global justice under the U.N. auspices? I think that is a question on which this amendment comes right to the point. And are we fundamentally committed to helping other countries establish and maintain their own constitutions and their own rule of law?

The consequence of allowing this court to come to fruition stretches far beyond the threat of prosecution of American military personnel. It will also put some of our closest allies in direct jeopardy, as we have seen in the example of the World Conference on Racism that we have heard about over the last good many months. We have seen that action taken by the United Nations and its institutions are not always impartial in their findings. In fact, at the World Conference Against Racism, language was adopted hostile to Israel, and it is not limited to the text regarding Zionism. Reference to it has attracted much attention in light of the 1975 U.N. General Assembly Resolution 3379, which passed in November of 1975, which condemned Zionism in similar though not identical terms, as ``a threat to world peace and security,'' a ``racist and imperialist ideology,'' and as ``a form of racism and racial discrimination.''

Largely due to American efforts, the General Assembly finally revoked Resolution 3379 in 1991 with a substantial vote.

Ironically, some nations that took part in the World Conference Against Racism, and who were supporters of language denouncing Zionism as racism, are currently still practicing slavery and the trafficking of human beings. As a result of this controversy over Zionism, one could easily see the International Criminal Court become nothing more than another U.N. forum for anti-Semitism where the same players that caused the United States and Israel to walk out on the World Conference on Racism would reappear. The result could be the extradition and prosecution of Prime Minister Ariel Sharon on charges of crimes against humanity for taking actions to protect the citizens of Israel against terrorism within the sovereign boundaries of his own nation. Another document connected to the Durban conference charges Israel with ``genocide'' and ``crimes against humanity''--judicial terms that directly setting the stage for a future prosecution in an international criminal court.

I will be the first to admit that atrocities are being committed in some parts of the world, and that the perpetrators of such atrocities must be brought to justice. And whenever possible the United States should serve as a facilitator for that justice to take place, and always be a shining city on a hill, a supreme example for all nations, particularly those with fledgling democracies and judicial systems. But the answer to that problem is not to create a permanent International Criminal Court with supra-national jurisdiction capable of undermining democratic governments, Constitutions, and judicial systems, just because the court is not satisfied with the outcome of a domestic ruling. Rather we should work hard to strengthen the rule of law within foreign countries, by helping them to establish their own impartial courts capable of ensuring justice for all.

When the United Nations was founded in 1945, its primary mission, as stated in the preamble of the U.N. Charter, was ``to save succeeding generations from the scourge of war, which twice in our lifetime has brought untold sorrow to mankind.'' Initially composed only

of countries that had been allied against the Axis, it soon became seen as a dispute resolution forum for all countries.

In principle at least, the United Nations initially made no claim to supersede the sovereignty of its member states. Even its own Charter, Article 2, says that the U.N. ``is based on the principle

of the sovereign equality of all its Members," and it may not ``intervene in matters which are essentially within the domestic jurisdiction of any state."

That is what its charter says. Let's remember what it has done in the last few years.

Even in the U.N.'s premiere judicial body, the International Court of Justice, the principle of state sovereignty was maintained, with the Court only having limited jurisdiction in disputes between nations. It had no authority over individual citizens of those nations.

Unfortunately, in recent years the U.N. has turned the principle of national sovereignty on its head. Through a proliferating host of conventions, treaties, conferences, commissions, and initiatives, the U.N. has intruded into virtually every aspect of human life once thought to be the exclusive preserve of national governments, not to mention private citizens. These include efforts to regulate resources and the economy, for example treaties on ``biological diversity," the use of marine resources, and climate change . They include claims over family life, such as conventions on parent-child relations and the role of women in society. They include, under the guise of anti-racism, demands that countries institute quotas and hate crimes and hate speech laws.

While all of these on the surface appear to be good, and in many instances many of us would support them, we must stop short in saying that the U.N. has the right to bring them down on any nation and tread on that nation's sovereignty.

Recently, under the pretext of fighting illicit trafficking in weapons, the U.N. has even set its sight on undermining American's constitutional right to keep and bear arms under the second amendment.

Thankfully, many of these initiatives have been dead-on-arrival in the Senate, and successive Presidents have refused to endorse others. Moreover, despite the U.N.'s evolution toward governmental authority it had little to enforce its will. Ideas for global taxation and a standing U.N. army have so far gained little ground.

But one key mechanism of global government began to be realized in 1998 with the adoption of the so-called ``Rome Statute" establishing a permanent International Criminal Court (ICC). Once this dangerous treaty is ratified by 60 countries, the ICC will come into existence. For the first time, the U.N. will wield a judicial power not just over nations, but directly over every individual human being. It will even claim authority over citizens of countries whose governments have refused to join the ICC. While the ICC's stated mission is dealing with war crimes and crimes against humanity--which, since there is no appeal from its decisions, only the ICC will have the right to define--nothing prevents the U.N. from broadening its mandate later. Defendants will have none of the due process rights afforded by the U.S. Constitution, a speedy and public trial, protection against double jeopardy, or protection against self-incrimination, and others previously mentioned. As with other U.N. panels, it can be expected that it will include ``justices" from countries notorious for their human rights abuses.

It is tempting for many to suppose the ICC will only target the likes of a Slobodan Milosevic or the perpetrators of massacres in Rwanda, or maybe rogue state dictators like Iraq's Saddan

Hussein, Libya's Muammar Qadhafi, or Cuba's Fidel Castro. But who can be sure that will be their only target? To some people, former Chilean Dictator Augusto Pinochet is a patriot who saved his country from a communist coup.

Again, in the eyes of the beholder, what is he? There are different opinions and different attitudes. Who has responsibility? I would suggest that the U.N. should not be allowed to be the judge, or that the U.N. should not be allowed to be the court. Ultimately, the people of Chile; in this case, Pinochet. They were the people who made the decisions. They were the judges.

In dozens of countries governments enjoy brutal force to suppress violent insurgencies. Should we empower the U.N. to decide whether the military authorities in Algeria, Turkey, Macedonia, Sri Lanka, China, and India should be put in the defendants' dock, and then commit the United States to employ sanctions or even military force to bring them there? How about Russia's Vladimir Putin for his war in Chechnya? Or Israel's Ariel Sharon for his war against the Palestinian intifada? Are we ready to trust the U.N. to tell us who should be prosecuted and who shouldn't?

Critics of the ICC rightfully cite the danger it presents to the safety of U.S. military personnel. What will be the consequences for U.S. national defense and our alliance obligations? Since the death of even one person can qualify as a war crime or even genocide in the ICC, how can we be sure a U.S. soldier serving abroad will not be indicted for what we see as just doing their duty?

The ICC applies not just to soldiers, and not just to acts committed abroad; it also would apply to acts ``committed'' by any American here at home.

Let me suggest, Is this a stretch of my imagination? It is not. Statements are broad. The argument of authority within the Rome treaty is broad.

Even today, our friends in the European Union join domestic critics in branding the death penalty in the United States as ``discriminatory'' and ``inhumane.'' My guess is some of our colleagues would agree with that, while others would not.

Who can guarantee that an American Governor might not face an indictment by the ICC for ``crimes against humanity'' for signing a death warrant, or that someday, under some foreign judge's idea of ``arms trafficking,'' a U.N. court will not demand the extradition of a private American citizen for selling a gun to his neighbor?

It has been suggested that Milosevic's extradition does not set an ICC precedent threatening U.S. citizens because they will be protected by the U.S. Constitution. But why? In the Milosevic case, we demanded that the newly established Yugoslav Constitution be trashed for the authority of the United Nations. We are not defending a constitutional right at that point; we are simply saying that an international body has a higher authority. Once the ICC is up and running, why should we assume that our Constitution would not be thrown in the trash as well as that of Yugoslavia? Nothing in the treaty requires them to respect us and to respect our Constitution and our citizens' rights.

Trying to ``fix'' the Rome treaty's flaws so we can live with it is like zipping a silk purse out of a sow's ear or putting lipstick on that little piggy. Instead of mistakenly trying to fix the Rome treaty's flaws, the United States must recognize that the ICC is a fundamental threat to American sovereignty and civil liberty, and that no deal, nor any compromise, is possible. We need to make it clear that we consider the ICC an illegitimate body, that the United States will never become part of it, and that we will never accept its jurisdiction over any U.S. citizen or help to impose it on other countries. President Bush has flatly rejected the Kyoto global warming convention. It is no less urgent that we act as forthrightly on the ICC.

According to the administration, the State Department is already engaging in what we call low-level participation in the ICC Preparatory Commission. Why are we helping to establish an institution that is created by a treaty that the administration has stated they will not send to the Senate for ratification? Any kind of participation that would lend legitimacy to the Rome treaty would be a mistake and would send a wrong message to our friends in the international community.

That is why during my recent meeting with Secretary Powell, and in my own op-ed that was published on August 22 in the Washington Post, I have encouraged the administration to remove our signature from the Rome treaty and to discontinue assistance to

the International Criminal Court's Preparatory Commission. Such a statement of policy would send a clear

signal to those countries that are currently wrestling with the issue of ratification that the United States does not support the creation of the Court. This clear signal has already been sent by the House of Representatives earlier this year when they passed an amendment, with overwhelming bipartisan support, to the State authorization bill that prohibits cooperation with the International Criminal Court.

To complement the administration's efforts, and the efforts of the House of Representatives, I am offering this first- and second-degree amendment to Commerce-State-Justice, and the Judiciary appropriations bill that would prohibit funding to the International Criminal Court and its Preparatory Commission. I have discussed this issue with Senator *Helms*. He and many others have indicated their strong support for the proposal.

When we stand to cast a vote on these amendments, we literally are voting about American sovereignty. My guess is, when the dust settles and the stories are written and this amendment is analyzed, that is exactly how it will be viewed. It is a vote to protect the men and women of our Armed Forces--without question--and a vote to protect our allies that have become subject to the Court.

I will be darned if American sovereignty and the U.S. Constitution become subject to an International Criminal Court on my watch. And I would hope all of my colleagues would agree.

The creation of an international court is not a foregone conclusion. We can intervene. We can state a position. We can ask that we step back and withdraw our signatures from this critical

action and say to all the world that we will not support an International Criminal Court's ratification, and we would ask other nations in the world to act accordingly.

Madam President, at this time I know of no others in this Chamber who wish to debate this issue, so I ask unanimous consent to temporarily set aside my amendment.

The PRESIDING OFFICER. Is there objection?

Without objection, it is so ordered.

Mr. CRAIG. I yield the floor.

PRESIDENT BUSH'S NEW APPROACH TO CLIMATE CHANGE -- (Senate - February 14, 2002)

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Mr. CRAIG. Mr. President, this afternoon President Bush outlined a new approach to climate change for this Nation, and I believe for the world.

The President has thoughtfully tackled the emotionally charged issue of climate change and focused us in a pragmatic way. I believe this is a demonstration of leadership.

He has thoroughly considered the existing scientific evidence, which remains inconclusive, and determined that a slow and cautious approach to stabilizing greenhouse gas emissions is the most prudent policy.

I and many of my colleagues in the Senate have worked hard for years on this challenging issue and wholeheartedly concur with the President's decision.

The President's determination to aggressively pursue answers to many critical scientific questions and his concern about the effects of action on American jobs and our economy are well balanced.

The proposed actions in the President's plan will be effective in giving us the change we need. The voluntary nature of these proposals provides needed flexibility to achieve substantial reductions in emissions.

The President has outlined a strategy that incorporates incentives and opportunity for creative ways to achieve those reductions.

The President's plan also thoughtfully addresses the critical need to actively engage developing countries.

I have stated in the past that American policy should recognize the legitimate needs of our bilateral trading partners to use their resources and meet the needs of their people.

For too long the climate policy debate has been fixated on assigning blame and inflicting pain. The President clearly recognizes that this is harmful and counterproductive.

His plan will make our best technology available to developing countries and will refocus American research activities on developing country needs as well as our own.

During this Congress and the last I, along with many of my colleagues, worked diligently to construct a framework for national consensus on this issue. The legislation that I and several of my colleagues introduced was organized around the central notion of ``risk management.''

The President's approach is fully consistent with that notion.

It develops a ``long-term'' strategy;

It quantifies risk by improving scientific research programs;

It develops tools to improve energy efficiency and find ways to sequester carbon by funding a comprehensive R&D program;

It removes disincentives by removing barriers to deployment of energy technology; and

It encourages a global solution by aggressively pursuing international technology transfer programs.

The benefits of the President's approach are broad-based, as they must always be.

It employs a least-cost path to emissions goals by using energy technology and incentives;

It yields real emissions reductions by improving the emission reduction registry currently monitored by the DOE;

It strengthens the hands of U.S. negotiators by implementing significant domestic action;

It is more than just CO2--it encourages reductions of emissions of methane and other more powerful greenhouse gases ;

It focuses on more than just the electric power sector by including the agriculture, forestry, transportation industries;

It sends the right market signals by focusing on innovation, investment in new technology--not prescriptive regulation; and

It maintains policy flexibility--our future policy response can respond to changing knowledge on technology, understanding of climate impacts and risk.

President Bush, I believe, has offered us leadership, and I thank him for it, by setting for our Nation a safe, prudent, and responsible path toward resolving this issue.

I hope all of my colleagues in the Senate, especially those who have shown great concern about climate change , join with me and seize the opportunity that our President has given us to move constructively, without rancor, to offer up the best technology, the best science, and to bring our country together--not to divide our country--and to continue to progressively achieve, in a recognizable and measurable way, reduction in greenhouse gases as we have done over the last decade, and to do so without damaging our economy.

I believe that is what President Bush has laid before this Nation today, and the world: A pragmatic and realistic challenge of leadership as it relates to addressing the question of climate change in an understandable fashion and a manageable approach.

I yield the floor.

NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001--Continued -- (Senate - March 05, 2002)

Mr. CRAIG. Madam President, let me first and foremost associate myself with the words of the Senator from Louisiana. I think he has made such a very clear and profound case that with the technologies of today, with what we now know and what we have learned in the wetlands of Louisiana or Texas and on the northern edge of Alaska, without a doubt we can now explore and develop oil reserves with little to no environmental damage to the surrounding areas;

that when those oil reserves have been finalized or produced out, we can close out and leave, and Mother Nature begins the healing process in a way that within a reasonable, if not short, period of time our presence there is hardly known.

I guess I would be remiss today if I didn't say I have looked forward to this time in the Senate for a long while. I had hoped that years ago we could have debated and developed a national energy policy. I am quite confident that the chairman of the committee, who is here on the floor, feels the same way as the ranking member. The Energy Committee, on which I have served for 12 years, has literally held hundreds of hearings and maybe thousands of hours in the taking of testimony as to the character of the national energy supply of our country--where it comes from, what it means, how it is used--everything from current supplies of hydrocarbons to electrical production, coal-fired, hydro, nuclear, on the thermal side of the electrical production, and certainly oil production.

We have done really, I believe, a phenomenally thorough job of looking at the overall perspective of energy for this country, both under Republican leadership and Democrat leadership. I think it would be fair to say that the staff of this committee and Members such as ourselves have developed a level of knowledge and expertise that is really substantial.

I say that in this context: That we are capable and should have been allowed to let that committee work, under the chairmanship of Senator *Bingaman*, to craft an energy bill to bring to the floor. But because of the unique politics of today and the unique politics of the energy debate that was denied, on October 9 the majority leader of the Senate communicated to the chairman of the Energy Committee, who is now here in the Chamber, that that committee was not to send forth an energy bill.

We can all speculate as to that conversation, but I think it has been relatively open as to what was said. Certainly the Senator from New Mexico was quoted roundly in the newspapers. I will not in any way attempt to interpret what he said or what he meant. But I know the Senator well enough to know that prior to October 9, prior to the August recess of last year, after we came back in September, and after September 11, in the conversations I had with the Senator I believed he was sincere and that it was his intent to produce an energy bill.

It has certainly been the intent of the ranking member, the Senator from Alaska, to do so, and to build a comprehensive bill that this Senate could look at, debate, and amend, but most importantly that would be assembled inside the expertise of that Energy Committee with both staff, Democrat and Republicans, and Members working on it, fine-tuning through the

amendment process, and ultimately coming to do the floor for another bite of the energy apple, if you will, by other colleagues who are not on that committee.

We now know that didn't happen. I must tell you I believe it is historic in the fact that it didn't happen.

I have here in my hand the bill that was not written in committee and that was not written through the normal process--some 539 pages. As I came to the floor this morning to get a copy, I was told that portions of it were still being written or rewritten because somehow they had not quite gotten it right yet, or someone had made a change , or maybe it was believed if they made a little change they might pick up another vote or two in a given title of the bill. I don't know the reason.

But I do know that on the day when we began a historic debate on national energy policy for this Nation, I had not had

a chance to read the bill in detail and it was still being written.

The 539-page bill we have before us S. 517. I am told it will have another 40 or 50 pages added. OK; 579 pages. The Democrat whip is on the floor. If he allows us to debate this for a couple or 3 weeks, we might get it read, understood, and possibly crafted now in the process which is legitimately a committee of the whole instead of a committee of the authorizing to deal with national energy policy.

Am I angered by that? Well, I would like to be. I guess I am more frustrated that in a representative republic and a democratic form of government in which we craft expertise and talent in the committees of authorization, it is simply and politically wiped away. The stroke of the hand of the majority leader of the Senate says you shall not because you cannot do it the way I want it done politically.

Before the August recess, if we had crafted a bill and worked on it and passed it out of the Energy Committee, it would have had ANWR in it. The votes were there. It would have been a bipartisan energy bill. The House acted before the August recess. They narrowed what we now call the footprint in the Arctic National Wildlife Refuge on which exploration can take place to meet the political and maybe the appropriate exploration needs for that area. They got their work done. We knew we could. I don't think anybody would dispute the fact that Democrats and Republicans were working to do so. The majority leader was phenomenally fearful that his political will could not be addressed.

Others on the other side of the aisle I think were quite confident that they would have the political opportunity of a lifetime to filibuster a bill with ANWR in it and to strut their environmental stuff.

But something happened after September 11. A debate that in the minds

of many Americans on national energy policy was somewhat esoteric, a future and generational economic exercise, had all of a sudden been refocused. Our Nation was at war, we had been attacked, and the American people asked: Are we so dependent upon a very unstable area of the world that overnight those sheiks could turn down their valves and up would go energy prices? Oh, my goodness, what would this country do? It was no longer this esoteric and generational economic debate. It was a debate over national energy policy in relation to national security as a policy. Somehow they came together. As the World Trade Center fell, energy policy and national security policy got melded together in the minds of most Americans.

For those who wanted to filibuster over here on the floor, I am quite sure they scurried over to the majority leader's office and said: Don't throw us in that political briar patch, because we have to honor our commitments, and we will somehow look anti-American if we stand up and deny the right to explore and develop an abundant energy supply for our country that may somehow make us less dependent upon the sheiks of the Middle East.

I do not know if that conversation happened. But I will bet it did.

As a result, on October 9 the lights went out in this Nation's Senate Energy Committee. No more were we to authorize a bill.

The lights went on in the back office of **TOM DASCHLE** because he was being charged. He charged himself and the chairman of the committee to send forth a bill. We have that bill on the floor at this moment. I haven't read it because I haven't had it. It is still being written. I can't read it. We will work to read it as soon as it is available. I understand a new copy is under print. This is the first book I have ever known of 539 pages in its second print in popularity and nobody has read it.

That is strange. The New York Times Best Sellers List ought to try that one: You go to second print before the first one is read. That is the reality of what we are faced with. We are here now on the floor of the Senate, I would trust, in good will, to bring forth a national energy policy for this country, if we can, in a way that we can take to a conference between the House and the Senate, and then place that bill on the President's desk for him to sign and for this country and its economy to mobilize around.

One of first opportunities I had to engage with President George Bush was when he was President-elect George Bush, right after the issue in Florida had been solved. He was here on Capitol Hill to visit with all of us. We met in then-Majority Leader **TRENT LOTT**'s office. He talked about his campaign promises: A promise to bring forth a comprehensive education bill for our country; a promise to reform and cut taxes to stimulate our economy and to affect all segments of it in a positive and beneficial way. He talked about national security and a variety of other issues. But he stopped midway through that conversation. He said: Do you know what is really important for our country right now? It is a national energy policy. The lights have gone out in California, we are buying oil from a very unstable region of the world, and gas prices are high. I believe a national energy policy is critical for this country.

That was President George Bush speaking, and I paraphrase.

He said: I am going to assign the Vice President that responsibility. We will assemble a governmental task force, and we will craft a policy and get it to the Hill as quickly as we can, and see if we can't work with you here in the Senate and in the House to develop an overall comprehensive policy.

It was one of this President's priorities, and he acted accordingly. It should have been a priority in the Senate. It was a high priority in the House. But here, months later than it should be, after the authorizing committee had been turned away and its lights turned out, we are now debating a bill that was a priority for the President, that was our Nation's high priority, and a bill that many of us have not yet read or understand all of the nuances or policy proclamations within it. That is the reality of what we are dealing with.

I hope that as we debate this issue, and as we amend it over the course of the next several weeks, we will deal with natural gas exploration and development on public lands across this country, and that we open up Federal lands to do that and put more of our own gas into the pipeline as we talk about bringing gas down from Alaska where it is currently being turned under, so that as we move toward other forms of electrical generation with gas turbines that meet the clean air standards of our country, we will have an abundance of natural gas to do that at reasonable prices.

I hope this legislation will have that. If it does not, there will be amendments to assure that the pipeline infrastructure that is necessary to deliver that resource to the Nation will be there, be available, or the incentives to do so will be allowed.

I hope that when we deal with infrastructure issues, we are able to talk about electrical transmission and RTOs and regional ways of transporting electrons from point A to point B, from New Mexico to Idaho, if that is the wish of the generator and the user.

As the chairman knows, and as the ranking member knows, some months ago we had a transmission expert before us. I think

his words were something like this: The electrical transmission lines of this country today are like a bunch of country roads that every so often meet.

That was part of the problem in California when we, from Idaho, were helping supply California to keep its lights on. You just simply could not get energy there, or if you got it to California, then it plugged up along the way as it headed from north to south or south to north. So pipelines, transmission lines, infrastructure become an important part of all of that issue.

For a good number of years I have worked on the issue of hydro relicensing. In the Pacific Northwest, we are very fortunate to have a dominant amount of our electrical generation by hydroelectric, or water, dams. We know much of that has to be relicensed over the next several decades, and that licensing process is broken or cumbersome or unpredictable and very costly.

While we are trying to incorporate all of the concerns and issues of many different groups in retrofitting and modernizing 40- and 50-year-old structures, because the world around them and

the wishes of that world have changed dramatically, it should not take 5 to 10 years and millions and millions of dollars and a reduction of capacity or productivity of that unit to get it relicensed.

We want to answer and adjust to the environmental concerns. At the same time, it ought to be our desire to make that unit more efficient, not less so, with new turbines and retrofits. Yet we struggle under that relicensing.

I have worked very closely with the chairman. We are awfully close to getting something, but I am not going to add more problems to the current problem. If we cannot get there, and the answer is to make it more difficult or more complicated, I am simply going to step back and say what we have got is what we are going to have to have.

If the country wants to keep on down this track of relicensing under phenomenally expensive and cumbersome processes, tragically enough, so be it. I hope, though, we can find a way out of this, to streamline it, improve it, make it more predictable, balanced, and hopefully, less costly.

Nuclear energy is 20 percent of our current electrical production in this country. If we believe in climate change , if we believe there is an environmental problem out there and somehow the gases that are produced by the energy sources today are helping complicate or exacerbate that problem of climate change , then we ought to be for the cleanest source of energy possible to fill up that energy basket that is now in deficit and growing more empty.

I believe one way of doing that is through nuclear energy and creating new prototype reactors that by public perception and reality are safer, more productive, less costly to build, and less costly to operate. We ought to be about doing that. I think we are going to reauthorize the Price-Anderson Act that deals with the liability of the development and the operation of those facilities. That is something we ought to do.

We ought to be encouraging all forms because my guess is a pretty safe one:

That if we want an increasingly cleaner environment, probably over the next decade or two nuclear energy, as a percentage of the total supply, should not be 20 percent, it ought to be 25 or 30 percent. It most assuredly ought not drop below where it is. It ought to advance well beyond where it is.

I think most realistic thinkers would recognize the importance of energy as it relates to nuclear and the cleanness of that form of generation. We ought to apply the greatest technology we have to that.

I mentioned, in the context of nuclear energy, climate change . Senator *Hagel* and I have worked for the last 4 or 5 years on that. So has the Senator from New Mexico. So has the Senator from Alaska. Many have become involved in that debate. The two Senators from Oklahoma have been involved in it. Why? Because we do not want a hysterical policy that shuts the world down in panic. We want a policy that would allow us to grow and produce and prosper while making our world cleaner.

The legislation the Senator from Nebraska and I have crafted, that now in part has been accepted by the President as some of his forward thinking national climate change policy, ought to be incorporated in this bill, ought to be a full part of it. We are working to get there. Frankly, it is possible to get there.

In conclusion, I began to debate energy issues well over a decade ago. I have been involved on energy issues in the Senate for 12 years. I am embarrassed to say that during that period of time we have not built a comprehensive energy policy. I used to select different forms of energy and suggest that this one ought not go forward, but maybe this one should. I must say, I am no longer there, not at all. I believe we ought to be investing in all forms of energy and all forms of conservation.

We ought to give the public a choice between green power or other power. Let them decide in the marketplace if that is the prudent selection for their use. Clearly we ought to have as much power as we can produce, recognizing that by definition, hydrocarbon use is on the decline. I do believe, most sincerely, my grandchildren will be driving electric cars. And they will be highly efficient and very capable of traveling long distances. I also know they will have to have a place to plug them in to put storage of electricity in the battery, or the hydrogen fuel cell that will be built within the car that will drive the electric motors that propel the car. That in itself is a hydrocarbon.

The cycle is not yet complete because we have not used all of our resources to produce those kinds of energies. Yes, I voted for a lot of money in the last decade for new technology. I will vote for more. I will vote for tax credits and incentives for wind and ethanol and biomass because our energy basket ought to be full and running over instead of sitting here and nit-picking and playing the political game of a little of this but not this; we can't do this, but we ought to do this; not in my backyard but in somebody else's backyard. Shame on us for that attitude.

It is the consumer, it is the taxpayer, it is the economy itself, it is the very jobs that drive the workforce of this country that are at stake.

We ought not be so selective. We want an abundant energy supply, and we ought to be prudent in the development of the policy that drives it and produces it.

What I am telling my colleagues is, I am prepared to vote for it all: Lots of conservation, LIHEAP, lots of new technology, the tax credits necessary to drive it, exploring ANWR in Alaska, exploring other public lands in our Nation. I don't want to go home and say that the Congress got bogged down in politics and failed, and your gas bill is going to double over the decade or triple or quadruple, and your energy costs are going to become an ever-increasing part of your household or business budget because politically we didn't get the job done.

Shame on us if that is the case.

Our job is to be responsible in producing a quality, energy policy for the Nation, not the political, environmental nit-picking that is going on at this moment.

I hope the real job that is done here is to offer the amendments to craft a bill that will produce something that is phenomenally clean, abundant and allows our technology to lead the rest of the world into a clean energy environment that is abundant for all and inexpensive for everyone along with it.

I yield the floor.

NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001 -- (Senate - March 07, 2002)

The Senator from Ohio [Mr. **VOINOVICH**], for himself, Mr. *Bingaman*, Mr. *Smith* of New Hampshire, Mr. *Domenici*, Ms. **LANDRIEU**, Mr. *Murkowski*, Mr. *Hagel*, Mr. *Crapo*, Mr. *Thomas*, Mr. **INHOFE**, Mr. *Thompson*, Mr. *Bond*, Mr. *Campbell*, Mr. *Frist*, Mr. *Kyl*, and Mr. *Craig*, proposes an amendment numbered 2983 to amendment No. 2917.

Mr. VOINOVICH. Madam President, I ask unanimous consent reading of the amendment be dispensed with.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

The amendment is as follows:

(Purpose: To reauthorize the Price-Anderson Act)

On page 115, strike line 5 and all that follows through page 119, line 10 and insert the following:

Subtitle A--Price-Anderson Act Reauthorization

SEC. 501. SHORT TITLE.

This subtitle may be cited as the ``Price-Anderson Amendments Act of 2002".

SEC. 502. EXTENSION OF INDEMNIFICATION AUTHORITY.

(a) **INDEMNIFICATION OF NUCLEAR REGULATORY COMMISSION LICENSEES.**--Section 170 c. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(c)) is amended--

(1) in the subsection heading, by striking ``LICENSES" and inserting ``LICENSEES"; and

(2) by striking ``August 1, 2002" each place it appears and inserting ``August 1, 2012".

(b) **INDEMNIFICATION OF DEPARTMENT OF ENERGY CONTRACTORS.**--Section 170 d.(1)(A) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(1)(A)) is amended by striking ``, until August 1, 2002,".

(c) **INDEMNIFICATION OF NONPROFIT EDUCATIONAL INSTITUTIONS.**--Section 170 k. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(k)) is amended by striking ``August 1, 2002" each place it appears and inserting ``August 1, 2012".

SEC. 503. DEPARTMENT OF ENERGY LIABILITY LIMIT.

(a) **INDEMNIFICATION OF DEPARTMENT OF ENERGY CONTRACTORS.**--Seciton 170 d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is amended by striking paragraph (2) and inserting the following:

``(2) In agreements of indemnification entered into under paragraph (1), the Secretary--

``(A) may require the contractor to provide and maintain financial protection of such a type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with the contractual activity; and

``(B) shall indemnify the persons indemnified against such liability above the amount of the financial protection required, in the amount of $10,000,000,000 (subject to adjustment for inflation under subsection t.), in the aggregate, for all persons indemnified in connection with such contract and for each nuclear incident, including such legal costs of the contractor as are approved by the Secretary.".

(b) **CONTRACT AMENDMENTS.**--Section 170 d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is further amended by striking paragraph (3) and inserting the following:

``(3) All agreements of indemnification under which the Department of Energy (or its predecessor agencies) may be required to indemnify any person under this section shall be deemed to be amended, on the date of the enactment of the Price-Anderson Amendments Act of 2002, to reflect the amount of indemnity for public liability and any applicable financial protection required of the contractor under this subsection.".

(c) **LIABILITY LIMIT.**--Section 170 e.(1)(B) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(1)(B)) is amended

(1) by striking ``the maximum amount of financial protection required under subsection b. or" ; and

(2) by striking ``paragraph (3) of subsection d., whichever amount is more" and inserting ``paragraph (2) of subsection d.".

SEC. 504. INCIDENTS OUTSIDE THE UNITED STATES.

(a) **AMOUNT OF INDEMNIFICATION.**--Section 170 d.(5) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(5)) is amended by striking ``$100,000,000" and inserting ``$500,000,000".

(b) **LIABILITY LIMIT.**--Seciton 170 e.(4) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(4)) is amended by striking ``$100,000,000" and inserting ``$500,000,000".

SEC. 505. REPORTS.

Section 170 p. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(p)) is amended by striking ``August 1, 1998'' and inserting ``August 1, 2008''.

SEC. 506. INFLATION ADJUSTMENT.

Section 170 t. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(t)) is amended--

(1) by redesignating paragraph (2) as paragraph (3); and

(2) by adding after paragraph (1) the following:

``(2) The Secretary shall adjust the amount of indemnification provided under an agreement of indemnification under subsection d. not less than once during each 5-year period following July 1, 2002, in accordance with the aggregate percentage change in the Consumer Price Index since--

``(A) that date, in the case of the first adjustment under this paragraph; or

``(B) the previous adjustment under this paragraph.''.

SEC. 507. CIVIL PENALTIES.

(a) **REPEAL OF AUTOMATIC REMISSION.**--Section 234A b.(2) of the Atomic Energy Act of 1954 (42 U.S.C. 2282a (b)(2)) is amended by striking the last sentence.

(b) **LIMITATION FOR NOT-FOR-PROFIT INSTITUTIONS.**--Subsection d. of section 234A of the Atomic Energy Act of 1954 (42 U.S.C. 2282a(d)) is amended to read as follows:

``d. (1) Notwithstanding subsection a., in the case of any not-for-profit contractor, subcontractor, or supplier, the total amount of civil penalties assessed under subsection a. may not exceed the total amount of fees paid within any one-year period (as determined by the Secretary) under the contract under which the violation occurs.

``(2) For purposes of this section, the term `not-for-profit' means that no part of the net earnings of the contractor, subcontractor, or supplier inures, or may lawfully inure, to the benefit of any natural person or for-profit artificial person.''.

(c) **EFFECTIVE DATE.**--The amendments made by this section shall not apply to any violation of the Atomic Energy Act of 1954 occurring under a contract entered into before the date of enactment of this section.

SEC. 508. TREATMENT OF MODULAR REACTORS.

Section 170 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)) is amended by adding at the end the following:

``(5)(A) For purposes of this section only, the Commission shall consider a combination of facilities described in subparagraph (B) to be a single facility having a rated capacity of 100,000 electrical kilowatts or more.

``(B) A combination of facilities referred to in subparagraph (A) is 2 or more facilities located at a single site, each of which has a rated capacity of 100,000 electrical kilowatts or more but not more than 300,000 electrical kilowatts, with a combined rated capacity of not more than 1,300,000 electrical kilowatts.''.

SEC. 509. EFFECTIVE DATE.

The amendments made by sections 503(a) and 504 do not apply to any nuclear incident that occurs before the date of the enactment of this subtitle.

Mr. CRAIG. Madam President, I join my colleague from New Hampshire in thanking Senator *Voinovich*, Senator *Inhofe*, a good number of folks on our side of the aisle, and certainly a good number on the Democratic side of the aisle for crafting what I think is truly a bipartisan amendment to a necessary and important mix of our energy portfolio in this country.

As you know, the Price-Anderson Act provides a substantial amount of the necessary insurance protection for the commercial sector to deal with nuclear energy in our country.

The Price-Anderson Act removed the deterrent to private sector participation in nuclear activities when there was a substantial threat of liability.

As we know, the historic management of our nuclear facilities on the private side, the commercial side of the equation has proven to be very successful and very safe throughout their operation.

The kind of protection we have offered in no way has ever deterred or lessened the desire or the responsibility of good management. In fact, the Nuclear Regulatory Commission has not only ensured that by its constant and vigilant oversight--and certainly the private sector in operating these reactors for the benefit of the country has known that--but has demonstrated that very clearly. It is truly one of the great success stories of energy generation in our country that is not often told.

Why? Because when we talk nuclear, there are automatic reactions and some risks are argued even though those risks have never effectively played out in an area of effective regulation, quality management of the kind we have seen historically within the nuclear industry of this country.

Price-Anderson is an act that has been working well since its origination in 1957. We will need nuclear energy as we meet the growing energy needs of our country. My colleague from New Hampshire was just talking about clean energy and its importance. There is no cleaner energy

than that which is produced by a nuclear reactor and electrical generator. That has clearly demonstrated itself historically.

All I can say today is, thank goodness that 20 percent of our energy basket in this country is nuclear. I wish it were more. If it were more, I think we would have less concern today about the climate change issue and other issues such as greenhouse gases released into the environment. That is going to push us, as it should, toward ever-increasing higher levels of technology and the application of that technology to make cleaner fuels.

While doing that, many of us in this body and the other body have recognized the value of advancing nuclear reactor design. Over the last several years, Senator *Domenici* from New Mexico, chairing the Appropriations Energy Subcommittee, and I have worked to increase budgets to allow for that kind of experimentation and development.

The administration in its new budget has come forth with a proposal called 2010 to invest money in the new technologies of nuclear reactors, to get that technology to the marketplace and to the private sector and to allow an ever-increasing amount of our energy portfolio to become nuclear generated.

As a result, reauthorization of the Price-Anderson Act is absolutely critical because without it, and without that kind of protection, the reality of expanding that energy base simply

would not happen.

As we know, just in the last 3 weeks the President has proposed a new and dramatic direction for climate change in our country with the bringing together of science, the application of new computer models, and the idea of not picking winners and losers but allowing the great technology and the human mind in this country to lead the world to a cleaner environment.

We cannot get there and have an abundance of energy that will drive this wonderful economy of ours and create the jobs that it can and has created without nuclear energy as a part of it. There is no technology today that builds at those levels of commercial power production without nuclear energy being a part of it and an increasing part of that overall energy basket.

That is why we are here today. I think that is why we have arrived at a bipartisan approach to this issue. Some of my colleagues on the other side of the aisle who a decade ago were archcritics of nuclear energy are quietly saying today: We recognize that new technology in this area, new reactor design, has to come about if we are going to lead the world and have safer and more abundant forms of energy. That is why this overall energy bill is critical, with all of the new approaches that we bring, along with assuring current levels of hydrocarbon production and new levels of hydrocarbon production, and, at the same time, clearly technology and the application of that brings us to a cleaner environment that can be and must be abundant in energy.

I do appreciate the opportunity to speak briefly on the reauthorization of the Price-Anderson Act. It is an important part of any national energy policy for our country. I am confident it can pass because it has been brought before this body in a bipartisan effort.

Madam President, I yield the floor.

NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001--Resumed -- (Senate - March 12, 2002)

Mr. CRAIG. Mr. President, I send an amendment to the desk.

The PRESIDING OFFICER. Without objection, the pending amendment is set aside, and the clerk will report.

The assistant legislative clerk read as follows:

The Senator from Idaho [Mr. **CRAIG**] proposes an amendment numbered 2995 to amendment No. 2917.

Mr. CRAIG. Mr. President, I ask unanimous consent that reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

(Purpose: To direct the Secretary of Energy to carry out a program within the Department of Energy to develop advanced reactor technologies and demonstrate new regulatory processes for next generation nuclear power plants)

At the appropriate place in the amendment, insert the following:

SEC. . NUCLEAR POWER 2010.

(a) **DEFINITIONS.**--In this section:

(1) **SECRETARY.**--The term ``Secretary'' means the Secretary of Energy.

(2) **OFFICE.**--The term ``Office'' means the Office of Nuclear Energy Science and Technology of the Department of Energy.

(3) **DIRECTOR.**--The term ``Director'' means the Director of the Office of Nuclear Energy Science and Technology of the Department of Energy.

(4) **PROGRAM.**--The term ``Program'' means the Nuclear Power 2010 Program.

(b) **ESTABLISHMENT.**--The Secretary shall carry out a program, to be managed by the Director.

(c) **PURPOSE.**--The program shall aggressively pursue those activities that will result in regulatory approvals and design completion in a phased approach, with joint

government/industry cost sharing, which would allow for the construction and startup of new nuclear plants in the United States by 2010.

(d) **ACTIVITIES.**--In carrying out the program, the Director shall--

(1) issue a solicitation to industry seeking proposals from joint venture project teams comprised of reactor vendors and power generation companies to participate in the Nuclear Power 2010 program;

(2) seek innovative business arrangements, such as consortia among designers, constructors, nuclear steam supply systems and major equipment suppliers, and plant owner/operators, with strong and common incentives to build and operate new plants in the United States;

(3) conduct the Nuclear Power 2010 program consistent with the findings of A Roadmap to Deploy New Nuclear Power Plants in the United States by 2010 issued by the Near-Term Deployment Working Group of the Nuclear Energy Research Advisory Committee of the Department of Energy;

(4) rely upon the expertise and capabilities of the Department of Energy national laboratories and sites in the areas of advanced nuclear fuel cycles and fuels testing, giving consideration to existing lead laboratory designations and the unique capabilities and facilities available at each national laboratory and site;

(5) pursue deployment of both water-cooled and gas -cooled reactor designs on a dual track basis that will provide maximum potential for the success of both;

(6) include participation of international collaborators in research and design efforts where beneficial; and

(7) seek to accomplish the essential regulatory and technical work, both generic and design-specific, to make possible new nuclear plants within this decade.

(e) **AUTHORIZATION OF APPROPRIATIONS.**--There are authorized to be appropriated to the Secretary to carry out the purposes of this section such sums as are necessary for fiscal year 2003 and for each fiscal year thereafter.

Mr. CRAIG. Mr. President, the amendment authorizes a new program within the Department of Energy called Nuclear Power 2010. The new program was proposed in the administration's fiscal year 2003 budget. Senator *Murkowski*, Senator *Landrieu*, Senator **DOMENICI**, and Senator *Thurmond* are supporters of this effort. We think it is the appropriate direction to go in the development of a new energy package.

The goal of Nuclear Power 2010 is to aggressively pursue activities that will result in the completion of designs for the next generation of nuclear reactors.

This program will also look for ways to reduce the regulatory uncertainties which have been obstacles to the building of new nuclear plants. This program would incorporate cost sharing between government and industry to ensure that the outcome of this program will be not only beneficial but useful to both sides as new designs are developed.

This program will also garner the tremendous creativity of the technical minds within the Department of Energy and our National Laboratories--some great minds that have been sitting somewhat idle in the area of new design and reactor development over the last number of years.

In my home State of Idaho, for example, Argon West was the first ever nuclear effort that lit the first lightbulb. Strangely enough, a lot of folks don't

know that about Idaho. But the reactor that generated that was an experimental breeder reactor. That was well over 50 years ago.

Our National Laboratories have been extensively involved. This reinvolves them. We hope it reinvigorates them.

I think all of us recognize that clean sources of abundant energy are critical for the future of this country. The cleanest is nuclear.

The 2010 amendment is the kind of program that I think sends us in the direction that we want to see our energy base going as an integral part of energy's diverse mix in our country. We believe the 20 percent now made up of current operating reactors will have to go higher in future years as we look at issues of climate change , weather, and, of course, the unpredictable fluctuation in a variety of other energy sources.

That is the purpose and the intent of the amendment. It has been accepted.

I hope this amendment can be voice voted.

NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001--Continued -- (Senate - April 17, 2002)

Mr. CRAIG. Mr. President, many of us who have come to this Chamber over the last 24 hours to speak on this most important issue have approached it from a variety of points of view, all of them with some degree of logic that points out a frustration, if not a legitimate concern, about the energy supply of our country.

A few moments ago, the Senator from Michigan was speaking about ANWR, that it was only a moment in time that would pass quickly and that we ought to be much more interested in other sources of energy.

While she was speaking, I was thinking of a trip I recently made to her State, to Dearborn, MI, to the laboratories of Ford Motor Company, and there, for a period of time, I had the opportunity to visit with their engineers and scientists and look at what clearly is some of the latest technology that the laboratories of Ford Motor Company are employing toward future transportation.

One of those is a much touted, much talked about hydrogen fuel cell. Someday in the future, many of our cars might well be fueled by that fuel cell, generating the electricity that would drive the electric motors in the hubs of the wheels of that car.

I drove that car. I had the privilege to take it out on the track at Dearborn and drive it around the track. It was an exciting experience, to think that this vehicle could be my future, my children's and my grandchildren's future, as a form of transportation. Very clean; a drop of water now and then emitting from the tailpipe of that car.

So it is an exciting concept, to think we have invested, taxpayers have invested in future technologies that someday may be available to the consuming public as a form of transportation.

Let me talk about the rest of the story, about which the engineers and the scientists huddled around the hydrogen fuel cell at Ford Motor Company talked. They talked about the tens of billions of dollars it would take to build the infrastructure to fuel the hydrogen fuel cell that would have to be spread across the country, comparable to the gas station on every corner of America today that fuels the gasoline-powered cars.

Had we thought about that? Well, I had not thought about it to that extent, that it would take decades to build that kind of infrastructure so that driving a hydrogen fuel cell car would be as convenient as the gas -powered car we drive today.

Certainly, whether it be Seattle, WA, or Boise, ID, I am not confident we would want to drive to one spot, one location only, to fuel our hydrogen car. I am sure we would want it at least as nearly convenient as fueling our gas -powered car of the day. That was one issue.

The other issue is a very real problem in the minds of American drivers today as to the acceptability of hydrogen cars. It is a little thing called ``boom,'' a fear that it might blow up. It is

a false fear. The hydrogen fuel cell car would not blow up because it is a very safe form of energy. But the reality and the public perception is there. A decade of information, hundreds of millions of dollars invested in experiments and public relations and education and experience is all going to be part of that equation.

What happened the day I drove that $6 million prototype hydrogen-fueled cell car at Dearborn, MI, taught me something. It taught me we do not instantly do new things around here; we don't instantly have a new hydrogen-fueled cell car. Its day will come, and I do believe it might. It clearly is environmentally clean, and it would be important for our economy.

Yes, the economy will create hundreds of thousands of jobs and invest billions of dollars to get us into new forms of transportation. However, they predicted at Ford Motor Company that we were literally decades away, if not double decades, from a hydrogen-fueled cell car.

I say to the Senator from Michigan whose economy depends on the employment of the auto industry to make her State go, what do you do in the meantime, if you don't have the fuel to drive the engines of the cars that the workers in Dearborn, MI, produce today? That is part of what the Senator from the State of Michigan represents.

I guess you let them be unemployed. If gas goes up to $3 or $4 a gallon, certainly the kind of vehicle, if not the quantity of vehicles that are produced in Michigan today and by the auto industry around the country, is going to dramatically change . Some would say that is perfectly fine, that is the way the marketplace ought to work, and, therefore, who cares? I think the Senator from Michigan cares. I know the Senator from Idaho cares because in Idaho, driving from Boise, ID, to Twin Falls, ID, is not around the corner. A few minutes down the road is 2 1/2 hours. It is 250 miles. To go anywhere in my State means driving a couple hundred miles. My State is 600-plus-miles long. By the way, that is from here to Boston. And it is about 550 miles wide at the widest.

My State is a mile-intensive State. People travel long distances. Transportation is critically important. Large, safe automobiles that consume a certain amount of energy are necessary and important.

Important to my State, which is now becoming a manufacturing State and a processing State, are the products we produce which have to get to places like Chicago, to the Detroit, the New York, and the Minneapolis-St. Paul because we feed a world economy. If we cannot get the product we produce to that economy at a reasonably priced way, then either we go out of production or it gets produced closer to that marketplace.

The point I am making and the point that has been made by many today is we are an energy-dependent economy; we are an energy-dependent society. We use a great deal of it. We are wealthy because of it. We are free because of it. We have great flexibility as a country because of it. We are powerful

because of it. And we can help other freedom-loving people around the world because of our capacity to not only use energy but produce energy.

Yet today we have heard many coming to the floor opining the fact that production was somehow bad in the name of the environment, in the name of the critter, in the name of the pretty little plant, in the name of life after, in the name of generational concerns, in the name of something. Someone has found a reason not to produce additional energy for this country. Yet their very presence on the floor, the very wealth that has created this country was, in part, a direct result of the abundance of reasonably priced, reliable energy.

When I listen to some of my colleagues, a fundamental thought goes through my mind. Don't they get it? Don't they understand the jobs that are created in their State are based on a certain economic equation and that if you adjust that equation arbitrarily or you deny its right to be in place, you run the risk of destroying that job and dramatically changing the economy of the country? Don't they get it?

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What happens if we get $3-a-gallon gas in this country? What happens to the cost of doing business in this country? What happens to the thousands and thousands of people who no longer have a job because of that in this country? Don't they get it? Or is praying at the altar of a creature, a plant, a concept, an idea so much more important that somehow we stand back and deny the right of this country to produce the energy it needs reasonably, presently, and in an environmentally sound way?

Don't they get it? Yeah, they get it. We all get it. My wife told me last night: Don't you get emotional over this issue; you really shouldn't; keep your cool. I am trying to, but it is very frustrating for me to suggest to my grandchildren that because of a public policy they are going to be denied certain rights, certain freedoms, certain flexibilities within their lifetime that I had within my lifetime because my forefathers recognized the importance of producing, recognized the importance of abundance, and recognized the importance of wealth generation for this country.

That is the bottom line of the debate we are involved in tonight. It is the fundamental debate that has gone on for the last 4 weeks on the floor of the Senate about a national energy policy.

The first opportunity I had to visit with President-elect George W. Bush, the first opportunity our assistant leader, who has just come to the Chamber, had a chance to visit with President-elect George W. Bush was in **TRENT LOTT**'s office. The issue in Florida had just been solved. The President-elect was in town. He was beginning to put together his Cabinet. He came to the Hill to visit with us. I will never forget that. We were all so very proud and excited about his Presidency. He said: I campaigned on education. I campaigned on tax cuts. I campaigned on the general well-being and the economy of this country and that I would lead these issues before the Congress and before the American people. But let me tell you what is important now. What is important is a national energy policy for this country that gets us back into the business of producing energy. He said: The first thing I am going to do is ask Vice President-elect **DICK CHENEY** to head up an energy task force. We will make recommendations to you in Congress, and we hope you will move a national energy policy as quickly as possible for the country. We all agreed it was a high priority for our Nation to get back in the business of producing energy.

That was a priority of this President then. It is now. It is a priority of Republicans in the Senate. It is a priority of many of my colleagues on the other side of the aisle.

In establishing national energy priorities, I have changed over the years. I used to think that maybe this was the right way to go and this wasn't and you could do this but you couldn't do that. I don't agree with that anymore. The policy ought to create the incentives and the opportunities to drive all forms of energy.

Conservation ought to be a part, and it is now a part of this legislation. New technologies clearly ought to be a part, and we ought to provide the kind of tax incentives that create the investment that brings the capital that drives new technologies. We have put several billion dollars into new technologies in the last several years: in photovoltaics and wind and the hydrogen fuel cell car that I talked about that I have had the opportunity to drive, all of that is moving forward. All of it is out there in somebody's future. But probably not in my lifetime, at least not all of it, and certainly not some of it. But we ought to be doing all of that. We ought to be utilizing our coal with new clean coal technology. It drives 60 percent of electrical generation today.

My hydro dams in Idaho and in the Columbia and Snake River systems ought not be threatened. They ought to be retrofitted and managed in a way that they are fish friendly, but they ought to be allowed to produce megawatts--10 percent of the national base.

What about nuclear? We have included nuclear in this bill, and we are enhancing it--we are reauthorizing Price-Anderson--another 20 percent of the base. If we believe in climate change and global warming , we are probably going to want nuclear to be a greater portion of that mix in time.

So why on the floor of the Senate tonight are we picking and choosing and saying this but not this? Do we know better? No, we do not know better. But we do know that as we have grown increasingly energy dependent on someone else's production, we have lost our flexibility as a country, we have lost our ability to shape domestic and foreign policy, and in the end, we will lose a little bit of our freedom because our sovereignty, our ability as a country to make those kinds of decisions that drive our economy and shape our attitude and our relationships with our foreign neighbors is, in fact, freedom.

``Oh, it is a freedom argument tonight?'' You're darned right it is. Somebody is saying you don't need to produce the 15 or 20 billion barrels of oil in the ANWR, or the 7 or the 8 or the 10--we don't know how much is there, but we know there is a lot there. But if we did, one example about the freedom I am talking about, or the flexibility in foreign policy, if we did produce ANWR--bring it into the pipeline, make it available to our refineries, allow it to go to the pump for you and me to put in our gas tanks--we could turn to Saddam Hussein, who just turned his pumps off last Tuesday, and say: Keep them off. We don't need your oil anymore. We don't need to buy 720,000 barrels a day from you for $4.2 billion a year so you can use that money to pay Palestinian families to allow their kids to be human bombs. We don't need to let you do that anymore. Most importantly, we are not going to pay for it.

Our policy today, or the absence of striving toward the form of relative energy independence is, in fact, allowing that policy. Shame on us. Bad policy. But, somehow, over the years, in this state of ambivalence toward production, toward self-sufficiency, we have wandered off toward Saddam Hussein. On any given day it can be anywhere from 55 to 60 percent dependency.

``My goodness, Alaska is just a drop in the bucket.'' Some say it will drop our dependency on foreign sources 14 percent for the next 20 years. I'll bet Colin Powell, in the last week, wished he had 14-percent greater capacity to bring off a peace settlement or a cease-fire between Palestine and Israel.

That would have been a phenomenally larger advantage.

``Oh, it is only 14 percent.'' Since when did that not count? I think it counts. You cannot be cavalier about this issue.

Now let's talk environment. I do not make little of the environment. I live in a beautiful State. We have very strict environmental standards in my State, and we adhere to them and we believe in them. But we also believe in production. In the 1970s, when we drilled the North Slope of Alaska under the most strict environmental conditions ever imposed on an oilfield, we did it and we did not hurt the environment.

You have heard speeches in this Chamber today and yesterday about the abundance of the caribou herd and all the successes there. A cousin of mine was a foreman for Peter DeWitt. He helped build the pipeline. We were visiting the other night about the phenomenal technicalities involved in building that pipeline, but they got it done.

It was the first time; it was never done before. But Congress said do it cleanly, do it sound environmentally, and they did and that pipeline is 55, 60 miles away from the field we are talking about now.

We are not going to hurt the environment. The technologies of today, slant drilling and all of those new employments of technology within the energy field, weren't there in the 1970s, and we did it well then. We will do it better today.

It is not a matter of hurting the environment; it is a matter of not doing anything. That is the debate here. Do it or do not do it. Take the environmental equation out of it.

If you do not do it, why then are they arguing? Why would anyone take that point of view? I suggest because there are some esoteric attitudes, if you do that you slow down economic growth, you discourage this, and the world changes. It is kind of a cave and a candle syndrome: Find everybody a cave to live in and have candlelight for their reading. You will not have to have all these other goodies that we call the

marketplace, and somehow the world is going to be a better place.

I think not. I think we ought to talk about the differences and the tradeoffs. We ought to talk about the jobs.

My colleagues from Alaska and those who have analyzed this matter would suggest anywhere from 250,000 to 700,000 jobs could be created. Since when did jobs become a dirty environmental idea? I think it is a clean idea. I think it puts food on the tables of a lot of folks. It allows them to buy houses and cars and a college education for their kids. That sounds like a clean idea to me, and somehow someone is suggesting that is a bad idea.

The point here is simple. It ought not be that frustrating. None of us should struggle that mightily about it. It is producing energy for this economy, doing it in a wise and responsible way, doing it in an environmentally sound way, and, oh yes, doing it where it is. You have to go to the oil to get the oil.

We know there is oil under the ANWR in Alaska. The work has already been done. The EIS is already in place. The seismograph estimates a substantial volume. It is the natural and responsible next step in the development of the oil reserves of the State of Alaska and for this country.

We are going to choose to buy from outside the country, if we do not develop. We will continue to buy even if we do develop, but we will buy less. We will be a little more

independent. We will create a lot of jobs. We will put $70 billion in the U.S. Treasury, and hundreds of billions of dollars will remain in the U.S. economy. To me, that just makes a heck of a lot of good sense.

I hope the amendments to this energy bill dealing with ANWR that are on the floor are agreed to. I hope we can vote for them. I hope at least nobody will hide behind a procedural effort. It ought to be up or down, yes or no, are you for it or are you against it? If you are against it and you can justify it--and, obviously, those who speak against it can--then so be it. That is the way we shape public policy in the Senate: honestly, fairly, and hopefully aboveboard for all the American citizens of our great country to see.

I believe we ought to explore ANWR. I believe we ought to develop it. I think this country needs it. I think we are better for it. We will be a stronger nation, we will be more independent, we will have greater flexibility, we will create more jobs, we will get greater opportunities for our kids and our grandkids, and our environment will remain clean and sound and the Porcupine caribou herd will flourish and the world will go on.

But it will be different if we cannot do that. We will be less free, more dependent, with less flexibility. The job of Colin Powell and his colleagues will be even more difficult because we have less independence to engage our friends and our enemies in trying to create a safer world. That is part of the issue. That is part of the debate.

My colleague from Oklahoma is in the Chamber ready to speak. It is an important issue. I hope all of us will take seriously the vote that we will be casting, I believe tomorrow, on cloture on

this most important issue. In my opinion, it is a generational issue that comes before the Senate at this time.

I yield the floor.

ANDEAN TRADE PREFERENCE EXPANSION ACT--Resumed -- (Senate - May 14, 2002)

Mr. CRAIG. Mr. President, as a cosponsor of the Dayton-Craig amendment, I wish to speak for a few moments about the constructs of the amendment itself and applaud my colleague and partner in this amendment, the Senator from Minnesota, for a very thorough and well-thought-out explanation as to the reason for this amendment.

I need not repeat the statistics. I need not repeat the facts that have been so eloquently spoken about a problem that exists in our country today that begs for a remedy and, at the same time, demands that we move forward in the area of expanding trade amongst our trading partners around the world.

The elements of fairness, the elements of transparency, the elements of the right hand knowing what the left hand is doing are absolutely critical in any trade relationship.

By the character of a developing economy, by the uniqueness of a resource-directed economy, by the uniqueness of a populated economy, all of our countries around the world have differences. And those differences have values. And those countries that sense those values work to protect them or

in some way assure that they will not be traded down or effectively destroyed by the very governments that are destined to protect them.

As a result of that, from the very beginning, and from the beginning of the debate over trade, very substantively coming with the Kennedy Round of trade years ago, when we first established the fast-track concept, we knew our trade negotiators, once they were at the table of international negotiations, would have to have flexibility to propose and bring back to the Congress a whole package. But that whole package had to be representative of the laws of the country of which they were diplomats.

We have struggled with that over the years. Congress has consistently passed fast tracks, and we have worked to move progressively and to liberalize our trade laws. We, the United States, have been the world's promoters of trade. It is quite simple why we would want to be that.

In my State of Idaho, nearly a third of every acre planted of agricultural produce has to sell in world markets to maintain some degree of value in a domestic market.

My State was built on potatoes, potato chips. Now it is being built on computer chips. And those products have to sell in world markets. Clearly, the DRAMs that are produced by Micron, a large portion of those move into international markets to be applied to new technologies being developed in those markets that then again sell in the world market.

Clearly, in my State, trade has expanded dramatically in the last several decades. But while the hi-tech economy has grown very well with a substantial amount of profitability, the agricultural

economy has floundered. And while trade has been extremely beneficial in some areas, I would have to argue, as the Senator from Minnesota has, that in other areas it appears to have been less than fair and, in many instances, not fair at all.

There is a bit of a classic struggle going on between the United States and Canada in our forest products industries, forest products industries that are in part supply, publicly owned in the sense that the timber comes from public lands. Whether it is the Federal lands of the U.S. Forest Service in the lower 48 and Alaska or whether it is crowned and provincial timber in Canada, the reality of placing values on those rough products as they move to the market is substantially different.

Over the years we have fought mightily to create balance. But as a result of some of what we believed to be unfair practices between Canada and the United States, we have seen the rights of our policies go out and our men and women walk away with empty lunch pails while Canadians were aggressively logging and dumping in our markets. Just this year our President had to use trade remedy laws to stop the very process I have just defined. He stood up and he spoke out and he placed a tariff against Canadian lumber until such time as they can come back to the table and balance out with us a relationship and an agreement that does not put our men and women out of work and still allows them to work and still allows the beneficial reality of Canadian and U.S. sticks, 2 by 4s, being at the local lumberyard to build the homes of Americans.

That is called balanced trade. That is called fair trade. The 201 process that brought about the investigation by our government, which was open and transparent, and that led our President to move is known as a trade remedy law passed by the U.S. Congress, passed by a majority vote out of this body--in other words, reflective of the constitutional responsibility of every Senator and every U.S. Member of Congress representing their States but, most importantly, taking an oath right there in that well to uphold the Constitution of the United States.

The argument is simple and the argument has been made already today by the administration in a letter to all of our colleagues that fast track is simply a process and we make all of these proposals and we make all of these changes and all of them come back for a vote in this Chamber and they are correct--one vote, up or down.

The problem occurs with the anticipation of the positives that will happen in an overall trade package once negotiated because they are never quite negotiated in a vacuum. The process goes on for years and years, as you have round after round and finally they conclude; there is a lot of attention and the world finally says, Oh, here it is, here is a trade package, a product of WTO, a product of aggressive negotiations, probably a product of the new round launched last year in Doha. The anticipation is so great and the public pressure is so great that when it gets to the well of the Senate and we see that substantive law has been changed and we would like to fix it, we cannot. We can vote against it, but the pressure by business, by industry, by the economy in general is you must pass this trade package. And we do. And we have consistently.

As a result, some of us have had to vote no. I voted no against NAFTA. Why? Because of some environmental provisions in it and because of loopholes that I felt were in it, that an

18-wheeler truckload with Canadian grain could get through and into our markets were a reality, and they were and I voted against it, and time has proven that to be the case.

But it has also proven one other thing--that Canadians are very good at enforcing laws at the border and we are very bad. But that was then. This is now. This administration is acting differently, and it is acting responsibly, and it led with the steel decision and it has now followed with the softwood lumber decision, and it is saying that it will effectively use a very transparent process to review the fairness or the lack of fairness in trade relationships and where it finds dumping it will move. And it has. I credit them for that.

But what I am also saying, what the Senator from Minnesota is saying is that within the process itself, we can avoid some of the problems that have now been recorded over the last several decades if we would be allowed, on laws that we are proposing to be changed that might reduce the ability of the executive branch of our Government to enforce trade remedy laws, to say that they would apply to a point of order and a simple majority vote, the same vote it takes to pass the trade package that would be in the Chamber that they would be a part of. So I would say to any negotiator, if you are negotiating a package that cannot get 51 votes in this Chamber, and you are proposing changes in substantive law that might be required to get 51 votes, wherein lies the problem, especially if we are defending what I believe to be the very thing that the Senator from Minnesota has talked about--our constitutional responsibility and the sovereignty in doing that.

Every administration and this administration protects with a vengeance its executive prerogatives, its executive authority, and we have seen this administration step up to that on at least two occasions in the last couple of years. That is what we are doing today--stepping up to what is, in fact, a legislative prerogative of the Constitution and why we think it is right that it be allowed to be a part of this package requiring a simple majority vote.

What am I saying? The Dayton-Craig amendment is simply a point of order that would be part of it. That is, if a package comes to the floor and there are changes in trade remedy law--and in the current package that we are alleging we will know if they are there without even having to look because 90 days prior, under the law proposed, the negotiators would have to announce proposals of changes in the law. That is part of what came out of the House. That is part of what the Finance Committee, Chairman *Baucus* and Senator *Grassley* agreed on. And that is appropriate. It is appropriate that the legislative bodies of this constitutional Republic understand that changes in the laws that they have written are being proposed. What we are saying today is that there ought to be the next step and that next step is quite simple--to allow a simple majority vote of the constitutional officers of this body--us, U.S. Senators--to say whether those changes are right.

Now, here is the next step, though: but to do so without dragging the whole trade package down. Not all trade packages are changes in our laws. They are expansions of authority. They are access to other markets. They are adjustments in other laws--ours and

theirs, our trading partners. And so we are saying you do not bring down the whole package; there is good in trade and we know that. But what we are saying is that there is an authority and a responsibility that we should not abrogate or that we should not cast in such a way as to never

be able to get there because the value of the whole appears to be so much greater and so important at that moment in time than the long-term constitutional responsibility of these Senators.

So the Senators from Minnesota and Idaho, pass go, because the whole is so much more important than the parts. We are here today to tell you that the parts are darned important. They are constitutionally important.

And now let me try to set another stage for you about the pressures involved.

Our trade remedy process, countervailing duty, antidumping, 201 is transparent. It is a public process. If you, Mr. President, are a manufacturer in your State and you feel you are being dramatically harmed by a product coming in under a trade agreement, you have a course of action. Now, it takes a couple of years. It is open, it is public, and it will cost you money because you will have to get the attorneys and you will have to make the argument. If it is dramatic dumping and dramatic competition, you might be out of business before you get a remedy, but the remedy is still there and it is still open and it is still public. What we have tried to do and what our negotiators have tried to do since the Kennedy round forward is to convince other countries of the world to make their processes more transparent.

Now, over time, there has been a shift. The shift has been away from their duties and away from their penalties toward antidumping provisions, not unlike ours. They are not transparent. Sometimes they are cast or administered in the dark of night. And so what our trading partners are telling our trade negotiators, or at least our trade negotiators believe, is that we have to get rid of what we have to cause them to get rid of what they are getting or they have got as it relates to trade remedy laws. In other words, we walk the plank first and maybe they will follow. In the meantime, what happens to the manufacturers and the workers? What happens to the economies of Idaho and Minnesota? Do they have to shift to the new paradigm? Do the old economies have to go away even though under a different day and a different scenario they were viable and productive? Well, I guess I am frustrated by it all.

Let me talk about what happened in November of 2001 at Doha, Qatar, when our trade negotiators were involved in a round that we worked very hard to get, that was a product of the fallout of the very tragic round that occurred in Seattle, which basically fell apart as a result of national and international dissidents and disruption. In Doha this past November, our administration agreed to reopen negotiations on agreements of implementation of article 5 of the GATT--that is called on antidumping and countervailing duties--and on subsidies and countervailing pressures. The World Trade Organization had already ruled a number of times against our domestic trade remedy laws under these agreements and stated: the stated purpose of almost every other WTO member in securing these new negotiations is to further weaken U.S. trade law; in other words, further weaken the ability of the U.S. Government to protect its work

force and its producers and its industries from what might be dumping, what might be clearly antitrade or unfair trade.

The Japanese Government was elated by that action. They said: We are satisfied. This constitutes a major victory for their efforts to gut our trade laws. Those are the words of the Japanese economy, trade and industry minister. He said: ``We are 120 percent satisfied that that's where the Bush administration wants to go.''

The USTR sacrificed our antidumping and countervailing duty laws in order to get a new round of talks at the table--not yet; they simply put them on the table.

Now, here is where I think the Senator from Minnesota and I agree and we also agree with our Trade Ambassador. There is nothing wrong with putting those issues on the table. When you are sitting at a negotiating table, everything ought to be negotiable, if the goal is to move from here to here and the benefits that will accrue as a result of that proposal are positive for our economies. So, our Trade Ambassador, put it on the table.

But in putting it on the table, it is important that you recognize who made those laws and how we ultimately ought to address them. And what we are saying is, put them on the table; talk about them. See if there is a better way to get where we need to go in 2002 than there was in 1960. The world has changed dramatically. We understand that. We are willing to listen to it. Put it on the table. The laws we passed in 1960 may not apply today.

But in putting it on the table, we are simply saying: And you bring back proposed changes in current law, not new law, in current trade remedy laws that are subject to a point of order. Why? Because this sovereign body created those laws. And the executive branch of government does not have a right to change them. And they don't. They only propose changes, but they do so in an environment that almost always assures that never will that vote occur.

It is a rather simple approach. We are being told by the administration and by some in it that this destroys TPA. It has been editorialized that this is a bitter pill. Then the other day it was called a torpedo. Today, in what is a well-meaning but not totally accurate letter from the administration, they strongly opposed it.

Let me go through the letter in the context of what I have just talked about, about the flexibility of negotiations. Before I do that, let me drop back a moment to something I think is important, and it is a frustration that our negotiators deal with when they are in the business of negotiating.

I had the opportunity a couple of years ago to be part of an observer team at The Hague at a climate change conference. The head of the U.S. team of the Clinton administration that was there said at the beginning of that conference: We will not propose laws that will damage the economy of the United States. And he said: No agreement is better than a bad agreement. The conference began and the pressure built.

During that time I had the opportunity to have a dialog with some of our counterparts from different Parliaments around the world. For the first time, I began to understand that they don't

understand us. They didn't realize that a treaty negotiated by an administration and signed off on by an administration was not law until the Senate ratified it. Why? Well, if you are a member of a parliamentary body and you are elected and then you, if you are in the majority party, elect the Prime Minister out of that, that Prime Minister and the parliamentary body are, in essence, one. If that Prime Minister signs off on a treaty, it is law, unless the country doesn't like it. Then you hold a special election and get rid of the Prime Minister and the party. You get a new party and a new Prime Minister. That is how it works for a lot of countries in the world.

It does not work that way here. Our Founding Fathers created a division of labor in our Constitution. I think it was quite a clear division. When I began to say: The Kyoto treaty is not law in our country, it is a proposed treaty the Senate of the United States has refused to consider, therefore, it is not law, therefore, our negotiators don't have to negotiate to it or for it, the European parliamentarians, didn't understand that, or at least they chose not to understand it.

Of course, I was there as part of an observer team. I spent a lot of time encouraging the team not to make bad law, not to craft an agreement with which we couldn't live.

Ultimately, they could not agree with the parliamentarians of Europe, and they came home.

That is the reality of where we are at the moment. That is why it is important to understand the frustrations our trade ambassador has when he goes to the table and they say: Why can't you just negotiate something? That has been arguable, why we have wanted TPA or fast track over the years. It is why we originally gave it.

But from the 1960s to 2002, the world and the economies of the world and the economies of this country and the economies of Idaho and the economies of Minnesota have changed dramatically in part because of trade, both positive and negative.

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I believe it is right and proper that we debate this issue today, that we don't sweep it under the rug, that we ask our colleagues to choose whether we ought to have a point of order and whether we ought to have a simple majority vote on the need to change the trade remedy laws of our country as proposed by the trade agreement that is on the floor at the time or if we should retain the existing law.

In the letter sent this morning by the administration, they say that ``first and foremost, the amendment derails TPA without justification.'' I disagree with that. The Senator from Minnesota said it so well: An appointed bureaucrat is not an elected Senator. The oath of office we take to adhere to the Constitution is so clear and so simple and so important. We ought to be extremely cautious about delegating that constitutional responsibility to an unelected official.

The trade ambassador would say: You don't do that. You ultimately get to vote on it. I think I have talked about the vote, the circumstances of the vote, the climate in which the vote is cast. That is why we are here today suggesting we make some subtle changes in the law.

``We have been committed not just to preserving U.S. trade laws but, more importantly, to using them.'' This is the administration talking in the letter. You are right; they have. And yet we are saying: we want to preserve them if it fits for you to use. They are saying, no, no; they can be negotiable or at least we want the right to negotiate.

We are not denying that right. I have said it once. The Senator from Minnesota has said it. We are not denying the right of negotiation at all. If we are bright and clear and articulate in what we do, we will not sour the debate or the environment in which those negotiations occur because if I were a negotiator, I would say: You bet, we will talk about it. We will put it on the table. It will require a simple majority to pass. But then the whole agreement will.

In all fairness to the administration, they recognize in the letter 41 Senators are a minority blocking this process. We offered to the administration yesterday that we would make some modification. They did not see fit to accept that. We went ahead. The Senator from Minnesota, when he offered the amendment this morning, modified it so it is not a two-thirds. It is a simple majority on the point of order, exactly the same vote it takes to pass the whole package. I believe that is a reasonable and right approach and a fair approach toward dealing with this issue.

A minority ought not be allowed to block trade law or any law for that matter. We rule by a majority procedurally. We deal with supermajorities on occasion, and we have done it here on occasion, and with cloture and other issues to protect trade laws.

S.J. RES. 34--APPROVAL OF YUCCA MOUNTAIN DEPOSITORY MOTION TO PROCEED -- (Senate - July 09, 2002)
[Page: S6450] GPO's PDF

Mr. MURKOWSKI. Mr. President, might I ask how much time the Senator from Idaho is going to require?

Mr. CRAIG. I will consume the remainder of the time.

Mr. MURKOWSKI. I yield the remainder of the time for this morning to the Senator from Alaska.

The PRESIDING OFFICER. The Senator from Idaho is recognized for 15 minutes.

Mr. CRAIG. Mr. President, already this morning we have seen an example of the kind of record that is attempting to be made in part by the Senator from Nevada who would, first, argue a procedural issue that I and others, including renown Parliamentarians, argue does not exist. Clearly, the Nuclear Waste Policy Act of 1982 established an extraordinary procedure--not a precedent-setting procedure. Parliamentarians have agreed that is the case.

But even today, as the Senator from Alaska has mentioned, we have been willing to shape that to accommodate the Senators from Nevada to allow debate on a motion to proceed prior to that vote. Clearly, the majority leader was not engaged on the floor. He already engaged us by saying he would not schedule a vote. He has walked away from his responsibility, if in fact it was there. I would argue that it was not there. Any Senator, by an act of Congress and by the law of the United States, could have done this.

When we talk about precedent-setting action on the floor of the Senate as it relates to the rules of the Senate, we talk about the normal processes of configuring the schedule. I agree with the junior Senator from Nevada on that statement. This is not a precedent-setting action today. In fact, I think those who have observed it have recognized the kind of flexibility and give and take and the responsibility that this Senate had to take under the 1982 law.

I believe the record will be complete. I do not believe that complete record in any way can or will demonstrate that future Parliamentarians would argue that a precedent has been set. Quite the opposite has happened. The Senate of the United States voted in 1982 to establish a process. Therefore, the Senate collectively spoke. It was clear in its speaking that a motion could be placed. And the reason they did that was very clear. They did not want a single person, a majority leader, Democrat or Republican, blocking the responsibility of the Federal Government as it related to a necessary step in the process of determining whether this Nation would establish a deep geologic, high-level waste nuclear repository; that it was more important than one Senator, in that case the majority leader.

It set in place a time schedule. It even gave the State of Nevada--the two Senators are on the floor speaking in behalf of phenomenal power--the power to veto. They have vetoed this. But even in that case, it did not allow a total State prerogative because this is a national issue of very real importance. And that is why we are on the floor today.

We can debate procedure, if we want.

But I think that is clear and it has been well established, and several Parliamentarians argue on either side of the case.

What is clear is a law, and a law clearly stating and a law being passed by the Congress itself and signed by a President. That is what is important. It is from that law that we act today. But because, as the Senator from Nevada has spoken, we wanted and we believed it most important to accommodate my colleagues from Nevada--as I would want to be accommodated if this were happening in my State--we have given that kind of flexibility inside the law by a unanimous consent. And it is under that action that we are currently debating Senate Joint Resolution 34.

What are we doing today? We are taking another step forward. This action today does not, in itself, establish a deep geologic repository for high-level nuclear waste at Yucca Mountain in Nevada. It says that we, the Senate, agree with the Department of Energy that a certification process has gone forward to determine the minimum standards and capabilities of geology and water tables and all of those kinds of things to meet tremendously high level protocol, and now we hand it forth into the next step, and that is licensure.

The Senator from Pennsylvania is concerned about transportation, as he should be. But the Senator from Alaska responded appropriately. That is part of a very meticulous effort at licensing a facility, how it will be constructed, under what conditions it will be constructed, how the waste will move from the State of Pennsylvania or from the State of Idaho to that facility.

Yes, we have ample oversight capacity and capability, and we ought to exercise it. I serve on the Energy Committee from which this resolution came. I want to make sure the Nuclear Regulatory Commission handles that transportation portion of the licensing well. We also have multiple jurisdictions--the Department of Transportation. Therefore, Environment and Public Works will have some say in oversight.

Will there be another action or another vote? No. That is not prescribed within the law. But I also know the State of Nevada is not through either. They will exert phenomenal oversight, as they should, as this process goes forward if--if--the Nuclear Regulatory Commission determines that a license is appropriate for this facility under all of these kinds of conditions.

I would suggest that we have also spent $4 billion. And $4 billion is an important figure. It was not our money. It was not taxpayer money. It was ratepayers' money from the 39 States that have commercial nuclear reactors operating power-generating facilities who have paid into a fund to take us this far, a fund that continues to grow, and a fund that will, in large part, finance the construction and the operation of this facility.

So we are taking the next step, the important step. I must tell you, a vote today on a motion to proceed is a vote to take the step or to not step at all. If we do not, we step back 20 years--20 years--into a debate about how to manage high-level nuclear waste with commercial facilities, and temporary repositories filling up with waste as we speak.

Do we say, if we do not speak today, there will be no future for the nuclear industry in this country? Well, we certainly say we have no resolution of how to manage its high-level waste stream, except to leave it in well over 100 facilities spread across 39 States.

Will the States then respond by allowing additional

repositories to be built in those States when they were promised that those were the only repositories and that high-level waste would move out and move to a permanent repository, as the Congress decided, in a single location? Those are the unknowns.

But what is known today is that the 20 percent of the electrical energy of this country that is generated through nuclear reactors is the cleanest electrical energy outside of hydro in the United States. Some who are concerned about climate change and want even cleaner energy--and this Nation demanding even higher volumes of high-quality electrical energy--are recognizing that, at least under current and immediate-future technology, the nuclear industry is the right industry to turn to for advanced generation.

So do we want to walk away from that industry today, as we will if we vote down a motion to proceed? Or do we want to take a step forward in a licensing process that says the whole industry can move to, potentially, a future opportunity of producing 25 or 30 or 40 percent of our electric energy needs of this country in a clean and responsible fashion?

Let me talk for a few moments about transportation. I do not fear transportation. The reason I do not fear transportation is the history of transportation of radioactive materials and high-level waste in this country. There have been 2,700 shipments, over the last 30 years, of spent nuclear fuel; some 300 million hazardous and radioactive shipments annually in this country; and there are currently about 3 million shipments annually of radioactive material in this country. So there is a lot of movement going on.

So why the alarm? It is a tactic. It is an alarmist political tactic to try to kill this very effort. Should we be concerned about transportation? You bet we should. But we have a very good record to date of a lot of movement of nuclear waste in this country and radioactive material in a safe and sound fashion.

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The reason is quite clear: Because the Federal Government has demanded from day one that those shipments be done in extraordinary ways, extraordinary super-built containers, much of it traveling by rail. The high-level waste that comes to Idaho is naval waste. It comes by rail. But the low-level waste that leaves Idaho leaves by highways in very well designed, tremendously strong containers, and well-managed, selected routes, all of it guided and monitored by GPS. It is tremendously safe today as that waste goes from Idaho to the Waste Isolation Pilot Plant in Carlsbad, NM.

Yes, we have a right to be concerned, but we do not have a right to use alarm and fear where they should not exist. But we have a right to do what is responsible to keep it out of our populated areas, to move it in appropriate fashions in less populated ways.

The Senator from Nevada speaks about rail and an appropriate and safe way to handle it, well demonstrated, well proved. And the Nuclear Regulatory Commission may well want even enhanced containers. But what I would suggest is that if we fail to act today to determine the next step, and many of these utilities go to a private location and establish a private repository--as some are now contemplating--then there is a strong possibility that, in a much less regulated way, in a much less orchestrated and monitored way, we will see nuclear waste moving across this country simply because we failed to act and failed to organize and failed to respond to a highly regulated, highly controlled, and highly monitored transportation system.

Those are the realities of where we are today with this industry and where we are today with the volume of nuclear waste, high-level spent fuel nuclear waste that is building up in repositories across the country. It isn't damned if you do and damned if you don't. It is a responsible and important step to take to move this resolution through to a licensing procedure which will then have full transparency, which will then have the ability of the Senate of the United States and the House to do the kind of oversight necessary to make sure that we can recognize what both Senators from Nevada, who are in the Chamber, need: The best assurance possible, in a zero sum game, if you can get there, that this has been done to the maximum capability of the engineering talent of the best we have to offer.

The 10,000-year protocol established all of those kinds of things that meet the standards that are so critically necessary to do what is right and responsible for this country:

store our high-level waste in a deep geologic repository; cause the next step to happen; advance the future of the nuclear industry; advance clean electrical energy for our country well into the future.

It is a responsible act that the Senate undertakes today to allow that very kind of thing to happen. I hope this afternoon, when we have an opportunity to vote on the motion to proceed, which, in fact, is a vote on whether we will allow the process to go forward, a majority of the Senate will vote in favor of that motion to proceed.

I yield the floor.

SUBMITTED RESOLUTIONS -- (Senate - October 06, 2004)
[Page: S10583] GPO's PDF

Mr. DOMENICI (for himself, Mr. **CRAIG,** Mr. **CRAPO,** Ms. **LANDRIEU,** Mr. **GRAHAM** of South Carolina, Mr. **FITZGERALD,** Mr. **SESSIONS,** Mr. **VOINOVICH,** Mr. **PRYOR,** Mrs. **LINCOLN,** Mr. **MILLER,** and Mr. **ALEXANDER**) submitted the following concurrent resolution; which was referred to the Committee on Energy and Natural Resources:

S. Con. Res. 141

Whereas the Energy Information Administration in the Department of Energy estimates that by 2025 the United States will need more than 300,000 megawatts of new electricity-generating capacity to maintain its current levels of growth and standards of living;

Whereas Vision 2020, the nuclear energy industry's plan to increase the use of nuclear energy through the year 2020 to meet the projected growth in the demand for electricity, calls for maintaining the Nation's nonemitting electricity generation at 30 percent, which would require 50,000 megawatts of new nuclear power to be generated;

Whereas meeting the increasing demand for continuous and reliable, or baseload, electricity is essential for supporting the economic growth which is necessary to maintain the Nation's standard of living;

Whereas even the aggressive implementation of energy-efficiency initiatives cannot replace the need for new electricity-generating capacity;

Whereas nuclear power generated by the 103 commercial nuclear power plants operating in the United States provides the electricity for 20 percent of the United States;

Whereas consumers of nuclear power enjoy a higher level of price stability compared to consumers of other energy sources;

Whereas nuclear power plants do not produce harmful emissions or greenhouse gases and can provide States, and the Nation as a whole, with flexibility in meeting goals for clean air and economic growth at lower costs than other sources of power;

Whereas increasing nuclear power generation will require designing and building new plants as well as operating the new facilities, which together will create thousands of new jobs;

Whereas the nuclear power industry, the Department of Energy, and the Nuclear Regulatory Commission are working together to demonstrate the effectiveness of a new licensing process for nuclear power plants, which allows full public participation in decisions about the designs and sites of new nuclear power plants without causing delays in construction or commercial operation;

Whereas nuclear energy, science, and technology applications are vital in the diagnosis and treatment of disease, food and mail safety, space exploration, structural inspection, and other important applications;

Whereas for decades, commercial nuclear power generating facilities have had an unmatched safety record;

Whereas nuclear power plants in the United States use excess material from Russian weapons programs to generate power, which is a vital component of United States nonproliferation policy;

Whereas many countries intend to build new nuclear power plants, with 29 new plants currently under construction worldwide and more than twice that many being planned, and the United States must continue to play a leadership role both in domestic nuclear power production and in encouraging the use of nuclear power in other countries; and

Whereas the United States continues to lead the world in the development, use, and control of nuclear technology: Now, therefore, be it

Resolved by the Senate (the House of Representatives concurring), That Congress--

(1) recognizes the essential role of nuclear power in the national energy policy of the United States; and

(2) supports the increased use of nuclear power and the construction and development of new and improved nuclear power generating plants as a means of contributing to national energy independence and maintaining a clean environment.

ENERGY -- (Senate - September 15, 2004)
[Page: S9268] GPO's PDF

Mr. CRAIG. Mr. President, I come to the floor to talk about energy once again. Here we are now, with record gas and oil prices, and several of the opponents of the energy bill produced by Senator *Domenici*, myself, and others--my Democrat colleagues on the other side of the aisle--are now claiming that the bill does little, if it were passed and if it were law, to reduce our dependence upon oil or other fossil fuels.

Less dependence is something we all share.

First of all, I challenge my Democratic opponents to pass the law. First pass the law, get it into production, see where it takes us, instead of simply carp and carp very loudly about energy prices and dependency on oil, and then do nothing about it except talk in political terms in a very political year.

What I am going to suggest and show you in the next few moments about one aspect of the bill--one relatively small aspect of the bill--I think argues that if the bill were law today and if it were allowed to be implemented, it would give us the opportunity to rapidly begin to decrease our dependence on foreign oil and other fossil fuels.

The one provision I am talking about in the bill by itself could reduce our dependence on gas and other foreign oils by as much as 12 billion gallons. To understand how wrong my Democratic colleagues are on this issue, let's look at the provisions of the bill that would enable loan guarantees to help kick-start the cellulose ethanol industry. Cellulose ethanol could develop very quickly as an industry and have a major impact on rural incomes and the environment as well as our energy security.

What is cellulose ethanol? Cellulose ethanol looks, smells, and acts like regular ethanol, but instead of being made from corn, it is made from what we call agricultural residues. Agricultural residues are a part of the plants for which we have no commercial productive use today. When a crop is grown--grain, for example--we use the grain for food, both animal food and human food. Some of the plant is often left on the ground to keep the soil fertile and from eroding. We call it straw. And the rest must be disposed of as a form of residue. Sometimes it is burned, sometimes it is bailed and used for livestock bedding, and a variety of other purposes. But residue is straw from which wheat and barley grow in my State and nearly every other State in the Nation. It is the corn stover, the stalks, the husks, the cobs from the Corn Belt. It is the sugar bagasse or cotton stalks from Florida or Texas. It is that residue that American agriculture produces.

Farmers often pay to dispose of this material. We have known for a long time that cellulose in this material can be transformed into hydrocarbons. Now it seems that the technology to do so is closer than ever before.

The Wall Street Journal reported on April 21 of this year that Iogen, a Canadian company, had begun to produce cellulose ethanol commercially. That ethanol produced from wheat straw is now being sold and used in small quantities in Ottawa and surrounding areas.

The cover of the August 30 issue of Fortune magazine, a magazine I hold in my hand, says ``How to Kick the Oil Habit.'' The article mentions alternative fuels as one of the four ways to kick the habit. It also focuses on Iogen and cellulose ethanol in this article. So cellulose ethanol seems to be on its way.

But why should any of us care about this? What does it have to do with our Energy bill? The Energy bill contains a provision that would allow commercial cellulose ethanol production to begin in the United States within a matter of a couple of years.

Iogen has partnered with Shell Oil, and together they want to build the world's first full-scale cellulose ethanol

production facility right here in the United States. But as long as the Energy bill is stalled, so is this project. A lot of lipservice can be given, but until this Congress acts and until my colleagues on the other side of the aisle line up with us to allow this technology to come on line, there can be a lot of talk, but the dependence on foreign oil will continue.

Also stalled today would be an opportunity to begin to fill the gas tanks of Americans with a fuel that would be grown in the heartland of America. Certainly, we have and will continue to use corn-based ethanol, and the Energy bill I talk about would go a long way toward bringing more of that into production. But there is a limit as to how much corn we can dedicate to energy production.

On the other hand, with cellulose ethanol, we are not talking about small quantities. This summer, Secretary of Agriculture Ann Veneman announced the results of a study that showed there is enough agricultural residue produced on our farms to support 200 of these types of ethanol plants and that those plants could displace 7 to 10 percent of the gasoline we consume today. That is a reasonable guesstimate.

You have heard me right: If we get this industry going by simply using waste materials from America's farms, we could knock almost 10 percent off our gas imports. What does that say as to our ability to negotiate in a world market? It says a great deal because now we have leverage, and the leverage is a product being produced right here at home.

This will not happen unless we are able to implement this bill and bring it on board. Just one cellulose ethanol plant would enhance energy security by replacing a gasoline component of the crude oil imports from 2.4 to 2.9 million barrels per year; increase farm income by $25 million per year by creating economic value for residues that currently, as I said, have little to no value or are simply viewed as waste;

create economic development by creating over 1,000 new jobs during peak construction, and almost 200 new permanent jobs and about 450 spinoff jobs.

That is positive economics when you can talk in those terms, and those terms are not just talk. That is reality if we implement the Energy bill.

It would reduce net emissions of carbon dioxide by 355,000 metric tons annually and would reduce emissions of major air components targeted by the Clean Air Act.

A mature cellulose ethanol industry based on agricultural residues alone would multiply these benefits: Enhance U.S. energy security by displacing up to 10 to 12 billion gallons of gas annually, which represents 7 to 10 percent of current U.S. gas consumption; provide approximately 200 to 300 rural communities with more jobs and farmers with more income, and certainly a stronger economy for American agriculture; reduce carbon dioxide, CO2, emissions from 65 to 100 million metric tons.

We are talking about putting money into U.S. farmers' pockets instead of the pockets of the oil sheiks of the Middle East.

About 29 States currently produce ethanol, and those States clearly have the ability to produce cellulose ethanol in a tremendous way. Chart 1 shows the States that are capable of doing that. Can you imagine, instead of having only a few oil-producing States in our Nation, we would have nearly 25 States capable of producing? That is the value of this program, and adding nearly $25 million a year to the local economy. That is what we are talking about with regard to this Energy bill and what it could do.

So not only are we talking about that, but our second chart shows what is extremely important, and that is in carbon savings reported by various studies by bringing this kind of production online. Reducing demand on gasoline from foreign oil from 15 to 20 percent creates anywhere from $5 billion to $7.5 billion annually in economic growth in rural America. That is what we are talking about, and that is what I think chart 3 represents so clearly. It is tremendously important.

Here is today's gas engines, in relation to greenhouse gas emissions. Here is the diesel hybrid that we are all excited about today in hybrid production, again a decline. Here is the hydrogen fuel cell car. Our President has been leading and talking about the new hydrogen technologies for surface transportation. Then we have today's ethanol engine, today's ethanol fuel cell engine.

As a country, we are simply on hold at this moment because for 5 long years this Congress has debated but has refused to pass a comprehensive national energy policy that not only advances these technologies but incentivizes the marketplace to go after these technologies.

So when our colleagues on the other side of the aisle simply say the Energy bill will do nothing for the American consumer, I say politically and in reality, shame on them. They know better. They worked with us in trying to develop this bill over the last 5 years. It has become a bipartisan working piece in a very comprehensive way.

Today, I have taken just a small piece of that bill, the cellulose ethanol production capability of this country, and to suggest that it would reduce our dependence by 12 percent or even more, that

it would improve American agriculture and put $25 million a year into the heartland of America, oh, my goodness, we cannot as a country look forward in that way, shame on us.

I hoped we could have passed a national energy bill this year. We are certainly going to in the future because the American public, I trust, is going to get fed up with paying $2.10 or more a gallon for their fuel and finding themselves increasingly dependent upon the Middle East. That is something the American consumer should not tolerate and that the American politician ought not stall out or block from happening.

I yield the floor.

ENERGY POLICY ACT OF 2003--CONFERENCE REPORT -- (Senate - November 19, 2003)

[Page: S15111] GPO's PDF

Mr. CRAIG. Mr. President, the Senator from New Hampshire has left. I don't blame him for his frustration over MTBEs. What he didn't say was that it was a Federal program and a Federal mandate. If there is a liability, maybe it ought to be the Federal Government. It was the Clean Air Act that drove States in meeting their air shed requirements to address additives to gasoline that would result in some improvement in that pollution. I don't blame him for his frustration in all of that.

I hope we can sit down and resolve this issue apart from the bill that is currently on the Senate floor as it relates to the concern of the Northeast or any State that has experienced pollution and now has a groundwater problem as a result of a Federal program and a Federal mandate passed by this Congress in a Clean Air Act. The product, yes, produced independently by a private company to meet a Federal mandate and now, of course, years later, after the application of that product, we find that there were environmental consequences.

For a few moments this morning I want to talk about the energy bill we have before us, the Energy Policy Act of 2003, and to bring some context to it, on where I believe we are and how I believe we ought to approach this particular piece of legislation.

I came to the Senate in 1990. I went on the Energy and Natural Resources Committee in 1990. In 1990, we began to talk about the need for a national energy policy because we were growing increasingly dependent upon foreign sources for our energy--primarily hydrocarbons--but we had a myriad of Federal regulations that were in large part driving energy policy into a nonproductive approach.

We were basically saying to the energy companies of our country, whether electrical, hydro-based, or nuclear-based, or whether they were coal-based--we were saying to the hydrocarbon companies: You really ought not do business here because it is going to be so expensive to meet all of these Federal rules and regulations.

We had the Clean Air Act and the Clean Water Act. National environmental policy has been talked about by the Senator from New Hampshire. That was in play, and it was beginning to have very real consequences in the ability to produce an abundance of energy for our country at a reasonable cost to the consumer.

Our economy has been based on--historically and even today--an abundant supply of low-cost energy. Every American is the beneficiary of that. From the car you drive to the toys you play with out there in recreational ways, to the home you heat, to the products you use--all of them have been tied to an abundant supply of energy at a relatively low cost. But that was because we had always been producing a lot of energy.

In the 1990s, all of the environmental regulations came into play. Attitudes shifted there. There seemed to be an attitude on the part of policymakers that energy was always going to be in

abundance, always going to be there; therefore, you could begin to regulate and control it for a variety of different reasons and it would just keep coming.

That is not so. The decade of the nineties proved it. In the decade of the nineties, we experienced unprecedented economic growth, but we also became increasingly huge consumers of energy at a time when we were no longer producing much energy. We were living off the surpluses that had been built into the capacity of the energy development and producing system in our country and a delivery system that was produced in the sixties and the seventies and the 1980s.

Guess what began to happen in the latter part of the nineties. The lights went out. The lights dimmed and, of course, energy costs began to go up. That once 75 cents or 80 cents a gallon for gas all of a sudden went to $1.25, $1.60, and not long ago, in some areas, it spiked at $4 in one instance. We saw what happened to electrical energy. No longer was that switch that you woke up to every morning and flipped expecting your home and bedroom and bathroom to be filled with light--no longer was that switch something you considered automatic, that you just flipped and it was always going to be there. The generation at hand always accepted that energy was always there and relatively inexpensive, but, more importantly, they believed it was always going to be there: Just throw the switch and on came the lights.

In the late part of the nineties, they threw the switch in

California and the lights didn't come on. What happened this summer in the Northeast? They threw the switch and the lights didn't come on. Somebody has to be to blame; the lights are not coming on. We went to the gas pumps, and all of a sudden it was costing us an arm and a leg to fill up our cars or SUVs; any form of transportation was beginning to cost more.

What happened? Why are we here? This President, George W. Bush, before he came to office as President elect, met here with the majority leader and leaders in the Senate and said: We have to get this country back into the business of producing energy--all forms of energy, including hydrocarbon, electrical, green energy, black energy, but environmentally sound in all respects. We have to get back into the business of production.

No longer were we 35, 40, 45, 50 percent dependent; now we were 55 percent dependent upon some other country to supply our hydrocarbon base. We had to begin to extend our politics around the world to secure the stability of that market and that supply because we decided here at home that we were no longer going to be producing it because there was an environmental cost to that production.

If you were witnessing the Senate floor a couple of years ago, the debate was on producing oil in Alaska. This Senate basically said: No, we are not going to do that anymore; the environmental consequences are too great. So we will let somebody else produce it in Saudi Arabia or in Iraq or Russia, and we will pay them and we will ship it over here. They will profit by it and we will spend it, we will use it.

That is really what our policy said--not in a spoken way but in an unspoken way.

That is why this President and it is why others--I and others who work on the Energy Committee and studied the market and watched the trends over the past decade--realized something had to be done. We began to try, as Republicans and then as Democrats.

The Senator from New Mexico is in the Chamber. He chaired that committee. He worked mightily hard to produce an energy bill a couple of years ago, and we got it to the floor and we passed it out of the Senate. I voted for it. Why? Because it was a major step in the right direction. In fact, it was the bill of the Senator from New Mexico that passed out of the Senate this year because we could not get our bill out. We could get enough votes for that bill.

What was happening out there was a growing consensus in the Congress, the House and the Senate, that something had better get done.

Now, let's take the Clean Air Act. To maintain clean air quality, you heard about the problems we created in the Northeast with MTBEs--that additive to fuels. We have another problem as it relates to all of that. The lights went out up there this summer because we had not created an environment in which investment in a profitable way could be put back into the electrical grids and electrical systems, that could be returned to the investor so that these kinds of problems would not exist. There were a lot of other things we tried to do.

Out of all of that, there clearly came a consensus that something ought to be done. What you have before you now--and my guess is we ought to debate it for a good long while--is the Energy Policy Act of 2003. It just passed the House. It is a mighty big piece of legislation, no question about it. What does it do? It puts the United States back into the business of producing energy. That is what it does. It didn't pick winners or losers. It largely said, pick it all, get it all, advance solar power, advance wind power, advance conservation, take the old technologies of gas , coal, and oil and put new technology to them so that we can use those abundant resources in a way that they will be environmentally cleaner.

That is what we are saying here. We are not subsidizing. We are saying that if you invest your dollars into the market, you are going to get a tax credit in return. That is called incentivizing investment. That is why those who look at our work product say that over the course of the decade this bill could produce over 800,000 new jobs in the lower 48 States and Alaska and Hawaii. Why? Because we are asking the marketplace to invest, and we are incentivizing all of the bits and pieces of the marketplace.

I used to be a bit selective--solar is only a percent; wind may be a couple to 3 percent. Was it worth doing? Yes, it is worth doing. It is clean. So we add it up and it is 4, or 5, or 6 percent in the total marketplace over the next decade, and it is clean energy. Americans want clean energy, and we ought to be doing that. So we are doing it in this bill.

We are also saying, without question, that coal is a huge producer of electricity today and it has caused problems in the past. We have a Clean Air Act, and we want to drive ourselves toward

ever cleaner air. Here we are continuing to incentivize the substantial investment in clean coal technology.

What is also transpiring here--and we heard it debated on the floor a good number of times--is the issue of greenhouse gases and climate change , a product of burning of hydrocarbons. This bill goes more toward climate change and improving our environment than any climate change bill we ever had on the floor of the Senate, and here is the reason: Every new technology, every new dollar invested in the marketplace puts down a cleaner form of energy and brings down the overall emission of greenhouse gases . That is what happens when you create new technologies and you bring on line new approaches. It was the old approaches that were producing the greenhouse gases using hydrocarbons. The new approaches are producing substantially less greenhouse gases .

As this economy comes back under new technologies, already per unit of production in our economy we are using less carbon, and that has already been shown. We are leading the world as it relates to unit of production as to the amount of energy or carbon produced by that production. This bill drives us even further toward a cleaner environment because we are investing in the environment, and we are incentivizing that investment.

Madam President, how much time do I have?

The PRESIDING OFFICER (Ms. **MURKOWSKI**). Two minutes remaining.

Mr. CRAIG. Madam President, another area that is significant in this bill--and I will be talking later about a variety of the approaches we have taken--is the area of nuclear energy, without question one of the cleanest forms of energy out there. There are no emissions. There has always been a concern about waste management and the waste stream that comes from nuclear plants, but we also have recognized our ability to manage it and other nations' ability to manage that waste stream in a responsible fashion.

In this bill, we clearly incentivize the marketplace to get back into the business of electrical production through nuclear generation. We have even proposed a new reactor concept called a passive generation 4 reactor, and also we will tie to that an electrolysis process to produce hydrogen, to begin to fuel this new exciting initiative which our President led in saying the transportation fuel of the future ought to be

hydrogen. Why? We can produce it, and we can produce a lot of it. We ought not be producing it from natural gas ; we ought to be producing it from water. Let natural gas heat space. Don't ask natural gas to generate electricity or create hydrogen. That is not the way to use natural gas . That is part of what has driven the cost of it up. So another new initiative.

While anyone can stand on the floor and pick at the pieces, look at the whole. It is a market basket full of energy for the future of this country to ensure reliability so that when you wake up in the morning and you turn on the light switch, the light comes on; when you plug in your computer, the screen lights up; when you go to the Internet, you can communicate across the world instantly, and it is all driven by energy.

Every single minuscule thought is driven by energy, and

this country hasn't been producing energy for over a decade. We have been only the consumer of that energy basket. I think we ought to be proud of this work. I think we ought to be energized to pass it for the future of our country, for the future of our economy. We incentivize the marketplace to go back to work and produce all forms of energy from every concept and every idea.

Let's not pick winners and losers. I am sorry, we don't pick winners and losers. The Senator from New Hampshire is wrong. We say do it all and do it well. Out of it may come new sources that 30 or 40 years out dominate the energy supply of this great country.

I am proud of the work we have done. I hope the Senate will join collectively in adopting the conference report. The House has already seen the merit. The President strongly supports it. Let me tell you, the American people support this package because they don't want $4-a-gallon gas , and they want the light to come on in the bathroom when they wake up.

I yield the floor.

CLIMATE STEWARDSHIP ACT OF 2003 -- (Senate - October 30, 2003)
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Mr. CRAIG. Mr. President, as many of my colleagues in the Senate know, I have been fascinated and awed by the complexity of the climate change issue for quite some time.

Certainly, being born and raised in the high desert region of the State of Idaho located in the rugged and majestic Pacific Northwest, I grew up with reverence for the natural beauty of our world and a deep respect for the awesome power of nature.

I have stated several times on the floor of the Senate that climate change is one of the most significant issues of our time. I have not changed my view.

I come to the floor of the Senate today to both compliment my colleagues, Senators **MCCAIN** and **LIEBERMAN**, for their determination to legislatively address the issue of climate change and to object to the manner in which they have chosen to do so.

Their proposal, S. 139, The Climate Stewardship Act, is portrayed by its proponents to be a modest legislative attempt to reduce emissions of carbon dioxide and other greenhouse gases .

It is hard for me accept the word ``modest'' as an accurate descriptive term for the legislation when I measure the bill by what it does--it regulates carbon dioxide--a gas that is not a criteria pollutant under the Clean Air Act is not a poisonous gas or toxic substance, and does not represent a direct threat to public health.

When I decided to enter politics, I was guided by a deep belief in personal freedom--the maximum amount possible for the citizens of our Nation that is consistent with an orderly society.

By freedom I mean the opportunity to achieve one's true potential, whether as an individual, a community, or a business. Freedom spawns discovery and innovation and in turn discovery and innovation solve problems and create opportunities. Regulation is the antithesis of freedom. It certainly retards, if not completely extinguishes our natural desire to discover and be innovative, and yet, we, as a Nation, seem more and more inclined to willingly accept the form of a regulatory state.

I am periodically awed by the prescience of Alexis de Tocqueville's 1839 work--``Democracy in America.'' In Part II of Chapter 6, Tocqueville voiced perhaps his greatest concern for the future conditions of American democracy.

In general terms, he said that democracies have a sort of soft ``despotism'' to fear. That is, conditions of democracy include toward men's equality, and in that equality, the government takes care of all of man's necessities, needs, and desires, in order to maintain this patterned equality among men. Tocqueville's description of this ``soft despotism'' aptly describes the modern regulatory state.

I note that there are 2,620 pages in the 1936 Federal Register, a year after the Federal Register Act was passed in 1935. In the Federal Register for the year 2000, there are 74,258.

A quote from Chapter 6 of Tocqueville's work is quite pertinent

to our discussion here. In discussing the regulatory threat, he states:

That power is absolute, thoughtful of detail, orderly, provident, and gentle ..... It provides for their security, foresees and supplies their necessities, facilitates their pleasures, manages their principal concerns, directs their industry, makes rules for their testaments, and divides their inheritances ..... Thus it makes the exercise of free choice less useful and rare, restricts the activity of free will within a narrower compass, and little by little robs each citizen of the proper use of his own faculties.

Tocqueville goes on to note that regulation:

is not at all tyrannical, but it hinders, restrains, enervates, stifles, and stultifies so much that in the end each nation is no more than a flock of timid and hardworking animals with the government as its shepherd.

Now, let me be clear, regulation, indeed, has its place. But this extremely powerful Government tool should be employed only as a last resort after facts developed by a comprehensive and systematic analysis clearly indicate that it is necessary to protect the public welfare.

It is with this analytical perspective that I have reviewed carefully the underlying scientific and economic support for this bill, S. 139.

The bill assumes that there is currently a definitive scientific basis for imposing a regulatory structure on industry. I am unable to agree with that basic assumption. There is no definitive evidence supporting regulation. Surface temperatures have warmed. We are not sure why. Since the mid-1990s, I have paid close attention to the developing science on global warming .

Indeed, I have organized and attended meetings at scientific research venues, set-up and participated in numerous conference calls with scientists from the National Academy of Sciences, and, along with the Board of the NAS convened a high level conference at the Academy's headquarters in Washington, DC to discuss the state of the science on global warming .

That conference, held on June 6, 2001, was a marvelous opportunity to talk with eleven scientists that included several Nobel Laureates who just finished responding to the now well publicized ``Key Questions'' request of President Bush.

We couldn't have had better timing for such a conference and the conference was set up solely to address concerns of the U.S. Senate.

Yet there were only two other Senators besides myself who made the effort to attend. Senators *Bingaman* and *Sessions* joined me, former Treasury Secretary O'Neill and former Chairman of the President's Council of Economic Advisors, Glenn Hubbard.

I can say to all in the Chamber today that the forum was a veritable feast for the mind and wonderfully successful in explaining matters of extraordinary scientific complexity. But it had to be quite a disappointment for the Academy. Only three U.S. Senators took the time to attend.

The National Academy made extraordinary efforts to get Members of the Senate to attend its intensive Climate Science Forum, including sending a letter one month in advance of the forum to each Member of the Senate, followed by a personal phone call to each Senate office.

What more could the Academy have done to encourage attendance? I don't think much else could have been done.

For some, it appears contentment on the science issue comes from simply learning about it from media reports contained in newspapers and popular magazines. Is that a fair knowledge base for regulation?

Indeed, a little over a year before the NAS conference I organized and attended, with Senator **LINCOLN CHAFEE** and former Senator Bob Smith, a meeting of over 30 scientists working at the Woods Hole Oceanographic Institute in Woods Hole, MA, to discuss the state of science on climate change .

Again, I could tweak the interest of only a handful of Members to join me at that excellent scientific conference held exclusively for members of the United States Senate. This issue is too economically and environmentally important for Congress to continue to have only casual interest in its scientific complexity.

Sure, there have been several congressional hearings during the last year debating different views of the science. But how much do we really learn in a couple of hours under restrictive time limits for questions, particularly when we invite mostly ``advocates" of a particular position, instead of objective scientists? Not much. Surely, not as much as we learned at reputable scientific forums.

So, today, the Senate is asked to pass legislation that will regulate carbon dioxide, an emission that has no health impacts--we humans exhale it with every breath--and heretofore has never been listed as an ``air pollutant." Stated simply, the scientific case for regulation is unpersuasive.

Those Senators who assert that the science is settled are, in my opinion, simply wrong.

The 2001 NAS Report on the ``Analysis of Some Key Questions," often quoted to establish the basis for regulatory action, contains a sentence that is often half-quoted, and I will read it here in its entirety:

The changes observed over the last several decades are likely mostly due to human activities, but we cannot rule out that some significant part of these changes is also a reflection of natural variability.

This is the third sentence in the summary at the very beginning of the report.

Even a cursory reading of the report indicates that the uncertainties are real and they are significant. Indeed, the report uses the words ``uncertain'' and ``uncertainty'' 43 times in its 28 pages.

Some press accounts have said that this report acknowledged a dire, near term threat to the environment from climate change . This is not true.

One of the conclusions of the Report was that:

[a] causal linkage between the buildup of greenhouse gases in the atmosphere and the observed climate changes during the 20th Century cannot be unequivocally established.

Natural variations in climate that occur over decades and even centuries have been identified by the NAS as also playing a role in climate change , and so it is not correct to say that this problem results only from human activities, or that reduction of emissions of heat-trapping gases will entirely solve it.

Mr. President, 2 years before the NAS prepared its 2001 ``Analysis of Some Key Questions'' it issued one of this country's most comprehensive reports on climate change science entitled: ``Research Pathways for the Next Decade.''

The Pathways report is short on creative literature and long on technical issue framing--not particularly suitable for catchy media headlines, which may explain why many newspapers showed little interest in its existence or import. But its critical and thorough scientific analysis of the current state of our climate change knowledge is what makes the Pathways report so important to policy makers.

Now, if you are like me and you find out that America's National Research Council has just published the most comprehensive report in history on the state of Climate Science, you don't want to read all 550 pages!

You want to cut to the chase and read the report's bottom line conclusion. And the last thing you want is a report that provides more questions than answers.

But the Pathways Report authors are brutally honest. To best explain the current state of climate science they had no choice but to lay out a whole series of potentially show-stopping questions.

Let me stop for a moment and reflect on my trip to Woods Hole, MA, that I mentioned earlier. I spent a day at the Oceanographic Institute exploring these questions with over 30 scientists. It was a real eye-opening experience.

Dr. Berrien Moore, who coordinated the publication of the Pathways Report, helped lead a discussion on where science and public policy intersect.

Two themes came through clearly in those discussions:

No. 1, there are significant gaps in scientific understanding of the way oceans and the atmosphere interact to affect climate ; and

No. 2, scientists need more data, especially from the oceans to better understand and predict possible changes.

It was humbling to get a glimpse of how much we don't know.

You need to know what is in the ``Pathways Report'' in order to fully understand the Research Council's ``Analysis of Some Key Questions''--if

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read objectively, I think you will find that both Reports are consistent--both highlight the uncertainty of our current understanding of climate science.

Another important point to highlight is that the United Nations Framework Convention on Climate Change does not define what is meant by ``dangerous interference with the climate system'' nor does it specify a ``dangerous'' level of greenhouse gas concentrations.

To my knowledge, no Federal or federally supported scientific entity has firmly established what is a ``dangerous'' level of greenhouse gas . We simply don't know!

Recently, James Schlesinger, a former Secretary of Energy under President Jimmy Carter stated in the Washington Post:

We cannot tell how much of the recent warming trend can be attributed to the greenhouse effect and how much to other factors. In climate change , we have only a limited grasp of the overall forces at work. Uncertainties have continued to abound--and must be reduced. Any approach to policy formation under conditions of such uncertainty should be taken only on an exploratory and sequential basis. A premature commitment to a fixed policy can only proceed with fear and trembling.

The President understands that reality.

The administration's Scientific Strategic Plan for climate change research is a valuable effort to develop a framework for acquiring and applying knowledge of the Earth's global environment through research and observations. It is a long overdue decision and should be welcomed by all.

The President's approach is most prudent. At this time, it is my preferred option over regulation. Despite claims to the contrary, no government administration has aggressively pursued a voluntary action program. The President's plan is well conceived and deserves a chance.

The simply truth is that any cap-and-trade scheme is a hidden tax on consumption. Like a tax, it would raise the cost of production.

Moreover, a cap-and-trade on CO

2 emissions will be a regressive tax which will hurt those on low or fixed income--that is the poor and elderly--disproportionately. I will submit for the record a letter sent to me as Chairman of the Aging Committee from ``The 60 Plus Association'' with membership of 4.5 million senior citizens including 10,000 in Idaho, asking

me to oppose S. 139.

A quote from a June, 2001 CBO study entitled ``An Evaluation of Cap-and-Trade Programs for Reducing U.S. Carbon Emissions'' is revealing on this subject:

This analysis does not address the issue of taxing carbon emissions. However, the economic impacts of cap-and-trade programs would be similar to those of a carbon tax: both would raise the cost of using carbon-based fuels, lead to higher energy prices, and impose costs on users and some suppliers of energy.

Another instructive quote from that study states:

The higher prices for energy and energy-intensive products that would result from a cap-and-trade program would reduce the real income that people received from working and investing, thus tending to discourage them from productive activity. That would compound the fact that existing taxes on capital and labor already discourage economic activity.

The only way to reduce CO

2 emissions from powerplants is to reduce the amount of coal, oil or natural gas consumed at the power plant.

Placing a cap on CO

2 emissions from powerplants means those plants simply will not be able to generate any significant amounts of new electricity. There are no control technologies like selective catalytic reduction or scrubbers for CO

2.

Capping CO

2 emissions from power plants will make the current crisis in electricity markets permanent. It will force shuttering of most of U.S. coal fired steam electric generation prematurely and will essentially mandate reliance on new natural gas fired power plants without any assurance that adequate gas supplies will be available.

Further, a report by the U.S. Energy Information Administration found that reductions of SO

2, NO

X, *and CO*

2 at levels consistent with the current proposal drives up electricity costs substantially. The report shows that electricity prices would rise by 21 percent by 2005 and 55 percent by 2010.

The report goes on to attribute most of the rise in prices to controlling CO

2 emissions.

The report, Mr. President, also was prepared when natural gas prices were a third of what they are today which means that future electricity prices likely would be much higher because the report assumes that most new generating capacity would be gas fired.

The last point that must be addressed is the assertion that the United States is somehow out of step with the rest of the world on this issue. Climate change is as much an economic issue as it is an environmental issue. We must ensure that our global competitiveness is not compromised. Let's not allow our nation to be duped into assisting our competitors in the global market to achieve competitive advantage under the subterfuge of environmental policy. When viewed in comparative perspective, the process by which environmental policy is developed and implemented has been far

more ``conflictual and adversarial'' in the United States than in Europe or Japan. In the U.S., while fines for violations have grown larger, numerous violations of environmental laws have been reclassified as ``felonies'' and many now carry prison sentences.

Contrast this with Europe and Japan. Japan implements its policies without resorting to legal coercion or overt enforcement. Japanese MUST negotiate and compromise to ensure compliance. Europe emphasizes mutual problem-solving rather than arm's length enforcement and punishment.

Our legal system allows Third Party lawsuits. Europe and Asian countries do not. In a 2003 study on the direct costs of the U.S. Tort system, it was estimated that costs equal 2.2 percent of our nations GDP. Europe and Asian countries give no standing to Third Parties in environmental compliance and enforcement cases.

Perhaps, if we were a less litigious nation, we could accomplish more in environmental compliance, and be less fearful of international environmental treaties becoming law. However, for better or worse, when our nation commits to a particular environmental policy, we enforce that commitment with the heavy hammer of civil penalties and criminal prosecution. Europe, Japan, and other nations do not. Our global competitiveness and economic security is ``in the balance.''

Mr. President, I ask unanimous consent that a letter from a large senior citizen organization expressing their fear about high costs of energy based on S. 139 be printed in the **RECORD**.

There being no objection, the material was ordered to be printed in the **RECORD**, as follows:

THE 60 PLUS ASSOCIATION,

Arlington, VA, October 28, 2003.
Hon. **LARRY E. CRAIG,**
Chairman, Senate Special Committee on Aging,
Dirksen Senate Office Building, Washington, DC.

DEAR SENATOR CRAIG: As Chairman of the Senate Special Committee on Aging, you are a proven fighter for seniors. Accordingly, I'd like to bring to your attention legislation that, if enacted, would be very detrimental to the elderly.

We are very much opposed to S 139, the Climate Stewardship Act, which seeks to do by statute much of what the discredited Kyoto Protocol would have done by treaty. (The Kyoto Protocol was rejected by you and your Senate colleagues in 1997 by a 95-0 vote.) S 139 would seriously adds to the costs of both electricity and gasoline for seniors and others on a fixed income.

According to a June 2003 report by the Energy Information Administration at the U.S. Department of Energy, this legislation would increase electricity rates by 46%, natural gas prices by 79%, and the cost of gasoline by as much as 40 cents a gallon.

Seniors on a fixed income are least able to afford these higher prices.

During the cold winter months, many seniors must choose between staying warm and having enough food to eat and medicine to stay healthy. And in the heat of the summer, an inability to cool a home can be a death sentence to the elderly.

The very last thing public policies should do is to add to the costs of electricity and natural gas for the elderly. Likewise, many seniors and their families must be able to afford gasoline to be able to get to their doctor's office, grocery store, and pharmacy.

Government mandates which increase the costs of electricity, natural gas , and gasoline are tantamount to a tax on those least able to pay it.

On behalf of 4.5 million seniors, including nearly 10,000 in Idaho, please do everything you can to prevent S. 139 from being passed.

Cordially,

James L. Martin,
President.

Mr. CRAIG. Mr. President, I have come to the floor on more than one occasion over the last 5 years to discuss and debate the issue of climate change .

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Many of us engaged in this issue believe it to be a serious and important issue. That I cannot deny. The Senator from Florida talked about it being of critical character. I do not dispute that. The question is, Can we do anything about it and are we the cause of it? And I am speaking ``we'' as mankind. That is the essence of the debate today.

Also, S. 139, the Climate Stewardship Act, would portray, in part, that we are the cause and, therefore, let us make some moderate adjustment changes in our regulatory structure in this country to begin to mitigate greenhouse gases .

Let me suggest that the word ``modest'' has been used, but I would guess if you read the legislation, and then you downstreamed it through the regulatory process, it might be anything less than modest.

Here is what is most important about regulating carbon dioxide. It is a gas . It is not a pollutant under the Clean Air Act. It is not a poisonous gas or a toxic substance. It does not represent a direct threat to public health. That is what scientists tell us. Yet somehow we are going to be able to regulate and shape it in a way that controls what we believe to be the cause of producing greenhouse gas .

I suggest that probably the most invasive process we are going through right here with this legislation is the regulatory process that will ultimately come.

The Senator from Arizona and I, more often than not, are critics of big government and the regulatory process. What De Tocqueville said a good number of years ago--in fact, well over a century ago--was about the great democracy of America and the despotism of fear that is produced in the regulatory process that limits freedom.

He talks about the regulatory process as being soft despotism.

I note that in 1936, there were about 2,600 pages of the Federal Register. In the year 2000, there were 74,258 pages of the Federal Register. We have become a phenomenally regulated and controlled economy and country. In so doing, de Tocqueville would note very clearly, as we all understand and as the Senator from Arizona understands as well as anyone, we begin to shape our freedoms, control our freedoms in a very interesting way. That is what this bill is all about, a

massive new regulatory process to reshape certain utilizations of energy in a way that will have a significant impact on our economy. And we would be led to believe that somehow it is going to improve the environment in which we live.

That is the issue at hand. That is the one that we now need to discuss. That is, does scientific evidence support what S. 139 is all about.

I have spent a good deal of time on the science. You have to. That is probably the greatest frustration that all of us have, is trying to comprehend this massive body of science that is assembling out there and what it means and is it valid and, from it, should we begin to reshape our economy; if it is invalid or inaccurate, what would be the impact of the reshaping that S. 139 might accomplish.

Organized meetings have been held all over. I organized one with the assistance of the National Academy of Sciences in June 2001. It was a high-level conference meeting here in our Nation's Capital. Every Senator was invited to come. Three showed up. Only three showed up to listen. Senator *Bingaman* and Senator *Sessions* attended, along with Secretary O'Neill, to listen to the President and the President's Council of Economic Advisers, to listen to some of our noted scientists from all over the world. No one else came. O'Neill at that time was serving as Secretary of the Treasury and was a somewhat outspoken advocate of changing our economy for the sake of climate change . He went away from that meeting not confused but recognizing that there was a broad field of science out there that he had not yet explored and that scientists had not, in fact, come together in a way to understand.

We worked with a variety of scientists from the National Academy of Scientists. In 2000, I went up to Woods Hole Oceanographic Institute. Senator *Chafee* and Senator Bob Smith went along at that time. We listened to the best scientists out there, scientists who have studied this for decades. They cannot in any absolute way suggest that greenhouse gases are the creator of a heating trend or a warming trend that does exist and most agree does exist.

The Senator from Arizona, the authors of S. 139, would suggest that this is the definitive document, the ``Analysis of Some Key Questions,'' of climate change science by the National Research Council. This is a total of 27, 28 pages. I am not saying this document is wrong, but I am saying, to understand this document, you better read this document: ``Pathways Study,'' 550 pages. Now, it is not a hot topic, and it will put you to sleep. It is all science. From this document, they concluded this document.

And what does this document conclude? That the science today is not yet assembled that can in any definitive way argue that greenhouse gases and man's presence in the production of those greenhouse gases is creating the heating

trend in our global environment at this time.

There are not many sound bites here. The press did ignore this. Those who want the politics of this issue largely ignored this document. But they must go hand in glove. I am not a critic of this document at all. I have not read all of them, not all 550 pages. But I have thumbed through a lot

of it. I have read a good deal of it. Anyone who wants to be the advocate of climate change darn well better read the bible on it first before they conclude that all of the world's scientists have come together with a single statement to suggest that the global warming we are experiencing can be in any way clearly the product of the production of greenhouse gas around this globe and as a part of it.

Because we have not totally understood it yet, there is no question that we ought to try to understand it before we begin to craft a massive body of regulation to reshape the economy, all in the name of climate change . That is what the President understood. That is why the President denounced Kyoto.

The administration's strategic scientific plan for climate change research is a valuable effort to build the body of science that can truly allow those of us as policymakers a foundation from which to make the right choices. If we fail to make the right choices, if we head this massive regulatory effort in the wrong direction without question--and many have spoken to it over the last few hours--we could badly damage, if not curtail, much of the growth in our economy.

I think the effort that is underway ought to be the preferred option over regulation. Voluntary action based on clear evidence is a much preferred way to go.

Let me talk for a moment about economic impact because that ultimately is the issue. S. 139 wants to change our country, wants to change the utilization of carbon and the emission of gases . You do it through a regulatory process. Between 1990 and the year 2000, industrial GDP increased 35 percent.

The PRESIDING OFFICER. The Senator's time has expired.

Mr. CRAIG. The reality is, our industrial growth is climbing. Its emissions have rapidly dropped. The emission today of greenhouse -like gases , as we would argue, do not come from our industrial base. Yet this is where we send our regulatory effort.

I oppose the legislation. I hope the Senate will vote against it.

APPOINTMENT -- (Senate - October 01, 2003)

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The PRESIDING OFFICER. The Chair announces, on behalf of the Majority Leader, pursuant to provisions of S. Res. 98, agreed to July 25, 1997, the appointment of the Senator from Idaho, Mr. *Craig*, to the Global Climate Change Observer Group.

ENERGY POLICY ACT OF 2003 -- (Senate - June 09, 2003)
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Mr. CRAIG. I thank the senior Senator from New Mexico for what really has become a very thoughtful and methodical approach toward resolving a national energy debate, and bringing us legislation that not all parties agree on but clearly is that abundant market basket full of ideas and concepts and realities, we believe, that bring this country once again toward energy self-sufficiency,

and our ability to stand on our feet and be proud that we are what we are as a country.

Our great strength has always been in our abundance of relatively inexpensive energy. It has driven our economy. It powers us up as a great country. Without doubt, it is what lights up the computer screens of our country and has made us the leading high-tech manufacturer in the world.

I was in San Jose, CA, this weekend speaking to a group. There were about 50 CEOs from high-tech companies from the valley, the heart of the Silicon Valley. We call it Silicon Valley West because right here at the beltway in northern Virginia is what I call Silicon Valley East, the heart and home of the Internet systems and internet companies. While I was talking about technology, they wanted to know about energy. In that valley they demand a high quality of electrical generation, constant power loads to feed their manufacturing facilities. They are very frustrated because of the problems California has had, which has been in part a policy issue and in part a transmission problem.

All of those problems are embodied in our legislation. That is why it is important we resolve and get to our President's desk a bill so we can help the energy segment of our economy get on its feet and get moving again for the sake of all.

I have said several times, and I think most agree, this legislation, S. 14, has more new jobs to be created in the next 4 to 5 years than the stimulus package. While the stimulus package was critically important, and I voted for it and it already appears to be turning on the economy across this country, the long-term infrastructure investment for the energy industries of our country that will fuel our homes and light up our computer screens in the future is embodied in this bill. That is why it becomes so important for everyone.

Let me step back to hydrogen for a moment. I have no difficulty with the Senator from North Dakota proposing legislation that said agencies ought to submit annual plans and reports that look at transition and talk about and build a system or a mechanism for transition to a hydrogen economy as these technologies develop, as these new production capabilities come on line. That would be a right and appropriate thing to do in light of where the technology of this industry is.

I have visited with hydrogen fuel cell engineers, scientists who study this area. They are telling me it would be very hard to measure. They are suggesting we need to prove the worth of this

technology to the American consumer--``worth'' meaning a sense of safety. A lot of folks are wondering, Is

a hydrogen car going to be safe? They fail to recognize that a gas -powered car that they assume is safe sometimes is not as safe as we think it is. There have been fires and explosions. Is a hydrogen car safe? We believe they can be manufactured to be every bit as safe as a gas - powered car, if not safer.

But how do you prove it? One of the ways is to get hydrogen used in the economy before it is transitioned to transportation. How does that happen? The development of hydrogen fuel cells that actually fuel homes, manufacturing plants, other facilities that are perhaps less adjacent to or isolated from transmission capability. To have a hydrogen fuel cell that can actually produce enough power for a factory is not unreasonable to assume, or a single home in a

rural setting.

Once that consumerism begins to develop in this country and there is a general understanding that hydrogen is a part of our energy economy, the reality of transition to a transportation base is probably even greater. Maybe they go equally together. But I know the scientists and the engineers are thinking one or the other or both; one before the other. Part of it all comes together at some point. I believe it can.

I, along with Senator *Domenici* and others who study energy sources for our country as members of the Energy and Natural Resources Committee, have spent a long time looking at this as a concept to be explored. As the Senator from New Mexico mentioned, we are committing a lot of public resources to this. We ought to. It is clean. What happens to the exhaust system of a hydrogen-powered fuel cell? No emission, except a drop of water. So there is no emission of greenhouse gases into the atmosphere.

Interestingly enough, when you use natural gas to create hydrogen, the process creates an emissions problem. When you use electrolysis of water to create hydrogen, you do not. So there is another reason to examine and build on the technology of electrolysis. We think the natural blend, the hand in glove, if you will, the synergy that can be created by new passive nuclear reactors that are safe, cool in operation, automatic shutdowns, but can do the constant load, that can create the economies of optimum operation and therefore at great cost saving to the consumer, is a technology that ought to be developed and is embodied within S. 14.

I will now, therefore, have to oppose the Dorgan amendment for all of those reasons. It is not time to require the acquisition in the market. It is time to push the technology. It is time to ask for the reports. It is time for this Senate to be able to understand progress and growth and development in this area and the likelihood of a time down the road when more and more of our economy will actually be using hydrogen as an energy base.

It is with that I come to the floor to debate this amendment. I hope as we get to it tomorrow and a vote in the Senate, as the chairman has spoken to, that Senators will consider the reality that this is not the time for targets. This is not the time for hard goals. This is a time for pushing the

technology, building on it, encouraging the private sector to marry up with the public sector, to advance the technology, and it may well be time for the Department of Energy to be required to report and analyze on an annual basis for our sake, for those who make public policy, the reality of these technologies.

I yield the floor and suggest the absence of a quorum.

ENERGY POLICY ACT OF 2003 -- (Senate - June 05, 2003)
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Mr. CRAIG. Mr. President, we have arrived at a time and a defined period for debate on the Wyden amendment to subtitle B of this act. I think it is critical that we bring this issue to the forefront and make a decision on it.

The Senator from New Mexico, the chairman of the Energy Committee, has done an excellent job in the last 20 minutes outlining the dynamics of this major piece of legislation for our country and the kinds of issues embodied in it that are so critical to all of us as we debate the general issue of energy and this particular subtitle that relates to

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the development of new technology but, more importantly, the deployment of the concept of new reactor design into actual producing reactors in the United States. The Senator from New Mexico is so accurate in his overall review of where we are as a nation with energy or the absence thereof.

My colleague from Oregon and I live in the Pacific Northwest, where hydro is dominant as a part of our energy-producing capability. Even that marvelous, clean resource today is under attack. Why? Because it impounds rivers to produce hydro, and by impounding rivers, it changes the character of those rivers. Certain interest groups want those rivers, in large part, by some estimation, to be freed. So they wanted to reshape hydro. In all instances, it has reduced the overall productive capability of hydro facilities.

We have frustration in a variety of other areas. The Senator from New Mexico outlined our problem with burning coal under the Clean Air Act, and the ambient air as a result of that, and the cost now being driven against retrofitting and new coal-burning designs to produce energy.

That is in part--not in total but in part--what has developed a willingness on the part of our country, I believe, to renew our nuclear option and possibly to renew it under a new design concept, under a passive reactor design concept that the Senator from New Mexico has talked about.

Passive reactor design means, simply, one that reacts on its own when certain conditions arise. The human factor doesn't necessarily have to be there to start throwing switches and making adjustments because those kinds of things happen automatically. We believe our engineering talent in this country is now capable of that kind of design development. In doing that design, we would couple with it an electrolysis process that would make the reactor itself so much more efficient that it would run at peak load at all times, as reactors should in performing best.

But power demand isn't always constant. When you can switch that load to development of hydrogen fuels, through the electrolysis process, and then convert it back to use within a power grid, you make for phenomenal efficiencies and the cost of production goes down dramatically.

In doing that, in bringing back to this country an abundant source of electrical energy and a reliable supply to our grid system--a system we are working to improve today through the development of regional transmission authorities and a variety of other things that tie us together--we found out a few years ago in the Pacific Northwest that it has certain liabilities. If the energy in the system itself in other parts of the grid isn't abundant, and it starts pulling power from us and forcing our power rates up, it can be a problem. Where it is produced with an abundance in the system and the system is fully interrelated and interconnected all can generally benefit.

As a result of bringing some of these new concepts on line, where we are actively subsidizing other areas of production, we thought it was reasonable to bring to the floor of the Senate a similar concept, to take some of the risk out of new design development for the commercial side, and to do so in a way that our country has always done--to use public resources to advance certain technological causes and, out of those causes and their development, to generate phenomenal consumer benefits.

There is no greater consumer benefit in this country today than reliable, high-quality electrical energy at reasonable prices. Our world runs on it. Our world's wealth depends on it. This country's workforce depends on it.

What we have brought to the floor in this Energy bill is not a hunt and a pick. It is not a political decision versus another political decision. That is not the case. It is not green versus nongreen. That is not the case.

What the chairman of the Energy Committee has said in this bill, and what the committee itself has said, is that all energy is good energy as long as it meets certain standards, and as long as it fits within our environmental context, we ought to promote it and we ought to advance it.

That is exactly what this bill does. As the Senator from New Mexico characterized it a few moments ago, we have enough credit in this bill to put windmills about anywhere they want to go, or are allowed to go, to produce energy.

Some would say that is great, we don't need anything else.

Oh, yes, we do. The reason we do is you can put a windmill everywhere you can in the air sheds that can produce wind energy, and you can only get up to about 2 percent of

total demand. That is about it.

But we ought to do it because it is clean and it is renewable and it is the right thing to do. But what we are already finding out in my State of Idaho that has a couple of wind sheds that fit, if this bill passes, interest groups are stepping up and saying: Oh, I don't think we want that windmill there; that is a spike-tail grouse habitat; there are some Indian artifacts there and we certainly don't want them damaged. And we don't.

What I am suggesting is in these most desirable of wind sheds for windmills, there is going to be somebody stepping up and saying ``not here.'' And they are right. They probably won't go there.

That is public land, by the way, not private land. On some private land, the same argument will occur. Simply, they don't want in their backyard a machine that goes whomp, whomp, whomp and produces electricity. Something about the sound disturbs their sleep. As a result, my guess is some city ordinance will soon suggest, ``not in my backyard.''

But there are some backyards where we can put wind machines and we will and we already have and we ought to promote it and we ought not to be selective, and we are subsidizing them by a tax credit. You bet we are.

We are going to pass that provision. That is the right and the appropriate thing to do.

We have subsidized in most instances, in one form or another, through a tax credit or through an easing of regulation or through the ability to site on Federal lands, energy projects, historically, because our country, our Government, this Senate for well over 100 years has said: The best thing we can do for this country to make it grow, to make it prosper, and to make it abundant to the working men and women of America is a reasonable and available energy supply in whatever form the marketplace takes.

We also know we can shape the market a bit by a subsidy, by a tax credit, and we also do that.

We are going to do some wind. We are going to do some solar in here. We hope we do clean coal technology. Certainly the coal-producing States of our country want to keep producing coal, and they should. We should use it, and we will.

There is a provision in here on which Senator *Bingaman* and I disagree a little; that is, on the relicensing of hydro. We think it ought to be relicensed and environmentally positive. When we can retrofit it and shape it, we ought to do so as we relicense it into the next century. But hydro produces a nice chunk of power in this country today. We are going to relicense over 200 facilities in the next decade. That represents about 15 million American homes and 30 million megawatts of power. Any reduction in that productive capability means we have to produce that power somewhere else.

Some of those old plants, when relicensed and retrofitted, may lose some of their productive capability in the licensing process. We ought to have new supplies coming on line.

Several years ago, this Senate became involved in a very serious debate over an issue that we call climate change . We became involved as a nation internationally in this debate because we thought it was the right thing to do. We knew our global environment was heating, or appeared to be heating, faster than it had in the past, and we didn't know why. Some argued it was the emission of greenhouse gases which created a greenhouse effect around our globe which was largely a product of the burning of hydrocarbons and that we ought to do something about it.

Many of us were very concerned that if we didn't have the right modeling and the right measurement and the right facts to make those decisions, we would shape public policy and head it in a direction that was not appropriate and would allocate billions of dollars of

new resources that might put tens of thousands of people out of work if we did it wrong. At the same time, there has been and there remains a nagging concern as to the reality of this particular situation globally, environmentally. Or is it simply the natural characteristic of the changing world and evolving changing world?

We have known down through geologic time that this world has heated and cooled and heated and cooled. Is it the natural cycle? We didn't know that. But out of all of it, we generally grew to believe that the less emission into the atmosphere the better off we would be.

This bill embodies that general philosophy--that clean energy and clean fuels are better, that we ought to advance them, that we ought to subsidize them where necessary, and that we ought to plot them through the public policy which we debate here on the floor today. Out of all of that, we knew one thing: Energy generated by nuclear-fueled generating systems was clean with no emissions. It is the cleanest source in the country other than hydro with no emissions.

As a result of that, there was no question that the popularity of that consensus began to grow. Other nations around the world were using it. The senior Senator from New Mexico spoke of France and their use of it. Japan, a nation once very fearful of the atom, now builds almost a reactor a year coming on line to produce--what? Power for its citizens, power for its economy, and power for its workforce.

We once led the world in that technology. But we fell dramatically behind over the last three decades because there was a public perception fueled by some and feared by some that the nuclear-generating facilities of our country were not safe. Yet they have this phenomenal history of safe operation.

Through the course of all of this, and as the facilities aged, as they were relicensed and retrofitted, guess what happened over the course of the last few years. As we spiked in our power demands at the peak of the economy in the late 1990s and as electrical prices went through the roof, the cost of operating reactors was stable; it was constant. They became the least cost producers of electricity of any generating capacity in the country other than existing hydro. The world began to react in a favorable way to that.

All of that became a part of the production of the legislation before us now--to once again get this great country back into the business of the research and development of new reactor systems that not only are in every way perceived to be safer and cleaner in the sense of waste production at end of the game, but would do something else for our country in a way that we think is the right direction; that is, the development of hydrogen to fuel the next generation of surface transportation and to start growing our economy into an age of hydrogen-fueled systems, fuel cells, generating electricity, turning the wheels of automobiles, trucks, and other forms of transportation; and, on a case-by-case basis, the potential of a fuel cell to light a home, to fuel

and light a given industry by having one of those on location. We believe all of those things are possible.

What I hope is that the Senate will agree with us that it is now time to lead in all aspects of energy production in this country instead of nibbling around the edges selectively and politically determining what ought to be and what ought not to be because one individual thinks this way is better than another.

I have dealt with the energy issue all of my political life. While at one time I will honestly admit I was selective, I am no longer that. I support it all. I am voting for wind. I am voting for clean coal. I want to develop a responsible relicensing system for hydro. I am supporting nuclear development and nuclear growth. I am supporting oil production. Why? I don't want future generations of this country to be fuel-starved and victim to the politics of a region of the world which is unstable because this Senate didn't have the wisdom to produce when it could have and create incentives and maximum energy production for our country.

That is what this bill is about. The Senator from Oregon chooses to be selective for a moment in time. I wish he wouldn't be. I understand why he is. I think he is wrong.

Mr. WYDEN. Mr. President, will the Senator yield for a question?

Mr. CRAIG. I would be happy to yield in just a moment.

I think the Senator from Oregon is wrong on this issue. I think it is a form of selectivity as it relates to our willingness as a country to use public resources in the advancement of all forms of energy resources as the kind that is offered by the committee to, once a new reactor design is developed, allow for loan guarantees to guarantee up to about 8,400 megawatts of electrical development through nuclear reactor construction.

I would be happy to yield to my colleague from Oregon.

ENERGY POLICY -- (Senate - May 07, 2003)
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Mr. CRAIG. Mr. President, I am here this morning to speak to the bill that is now before us, S. 14, brought to the floor yesterday by Senator **PETE DOMENICI**, the chairman of the Energy and Natural Resources Committee of our Senate. It is a work product that a good many of us have been involved in for well over 3 years, in looking at the issue prior to the Bush administration coming to town and certainly with the initiative of the Bush administration to recognize the need for a national energy policy and to produce for us an outline of their vision of a national policy and asking the Congress to work its will over the last good number of years to produce that policy.

Of course, that came in the backdrop of brownouts and blackouts in California, of a jigsaw or certainly unprecedented ties or ups and downs in the gas markets of our country and a real recognition that over the last good number of decades the Congress of the United States and our Government had not minded the energy store of our country very well.

We were resting on the laurels of a relatively substantial surplus in electrical energy--the ability to produce hydrocarbons here at home; be less dependent upon foreign oil; and, to watch all of that change with the growth of our economy and some of the other government regulations that denied or limited the ability to produce energy for our country.

We know during the decade of the 1990s we went into a mode of deregulating the electrical industry all in the name of spreading that surplus out around the countryside but all based on the premise that you could lower the cost to the consumer because, in fact, there was a surplus.

Of course, during the decade of the 1990s we saw that surplus rapidly disappear with the phenomenal growth we went through with the country and the fact we were not adding to the energy base of our country. I believe while consumers in the short term experienced some relief--and ratepayers in the end--we saw price spikes, instability, brownouts, and a greater concern about a constant, stable flow of energy--the high-quality kind that is critical to fuel an industry and making sure that it was available upon call and when necessary, something that in the late 1990s and certainly at the turn of the decade was all in question.

That is one of the reasons we are here on the floor debating energy, and will be for the next several weeks in our effort to pass a comprehensive energy policy that will promote the kind of production that will advance conservation, and that will certainly promote the protection of the environment and the production of clean energy. In all of that context, what is most significant is, in fact, the production area. We now know with our capabilities and our technologies that we can produce it cleanly in a nonpolluting way, or certainly in a less

impacting way to enhance the availability of supply.

One of the areas I have spent a good deal of time on over the last number of years is the issue of nuclear energy. Certainly during the decades of the 1970s and the 1980s and into the 1990s

there was a concerted effort on the part of a variety of interests to argue that somehow nuclear energy was not a safe form of energy; that it was one that we ought to take out of our energy portfolio. What they failed to recognize was that about 20 percent of our generating capacity is based on nuclear energy. It really was a scare tactic to panic an uninformed public, on the safety and the stability of nuclear energy, into a sense of urgency as related to eliminating nuclear energy. During that period of time as knowledge began to grow, another fact began to emerge out of all of these issues. That was that nuclear energy was rapidly becoming a least cost part of our total energy package--that the cost of production was stable, that the reactors had operated very effectively, and that in retrofitting them, modernizing them, relicensing them, we were extending their life and getting greater efficiency.

In the last spike in our electrical costs, the nuclear energy industry--the electrical side of it--became the least cost producer of electrical energy.

At the same time, we have not brought any new reactors on line. The public and/or the interest groups have driven the costs by their concern over the siting of them and the building of them. And the constant demand of retrofitting them and building into them comprehensive and redundant systems has driven the costs and the ability to build one beyond the reach of the consumer and the ratepayer, and, of course, therefore, the utilities.

Understanding that we continue to push forward not only to develop a waste repository system to take the high-level waste out of the interim storage facilities at these reactors, as we have promised the public we would do, and move them to a permanent repository that is now sited and in the process of being licensed in Yucca Mountain in the deserts of Nevada, but we also have opened up another geological repository at Carlsbad, NM, known as a waste isolation pilot plant that handles transuranic waste--what I call ``garbage waste", such as the tools and smocks of nuclear workers. The WIPP facility takes waste from our defense facilities, but the point is this facility has been operating for a number of years and we have demonstrated that we can deal with this type of waste safely.

This government has worked hard to keep good on its promise while there are many who would deter it and try to deny those promises to the consuming public, arguing that somehow we couldn't handle waste; therefore, we shouldn't have new reactors, and, certainly, therefore, we shouldn't build them if we couldn't manage the waste stream.

While all of that was going on, another issue began to emerge in the context of global concern. It was the issue of climate change . I will be speaking to that in a few moments. But the issue of climate change began to be argued by many as a product of greenhouse gas emissions, and in part certainly produced by the emission of greenhouse gases from the production of energy, and mostly electrical energy. While that grew, it allowed many of us to argue that the ability to produce electricity through a nuclear reactor was nonemitting, or an emission-free system. That has clearly become recognized. I think many of our experts now in the field of energy worldwide, as we see the need for energy constantly growing, will admit that over the course of the decades to come 20 percent of the

electrical production, which is nuclear in this country, probably has to grow into 30 or maybe 40 percent of the total package to work to keep our air clean.

In France, I believe now nearly 80 percent of their electrical capacity is nuclear. Many other countries are following that route. They are managing their waste effectively and responsibly. It is also true in Japan. Here is a nation that not very long ago was most antinuclear for obvious reasons. But they came to recognize also that the ability to produce electricity for a growing economy in their country could be produced safely by nuclear energy.

All of that realization and all of that work in part came together with the

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coming to town of President George W. Bush, Vice President **DICK CHENEY**, and the selection of Spencer Abraham as our Secretary of Energy--all recognizing that in the course of this we were going to have to get a new reactor design and new concepts that would allow us to advance the cause of electrical generation through the nuclear industry.

As a result of that growing interest and as a result of all of the changes that occurred in the world over the last several decades, and the clear understanding that the energy we produce for today's market and future markets needs to be clean, there is a much better understanding of the role that can be played by the nuclear industry if certain kinds of things are allowed to happen. I believe those certain kinds of things are new reactor designs--what we call new passive designs, those systems that are designed to shut themselves down automatically if problems occur instead of to be activated manually by human operators. We believe--and the industry certainly believes--that all of that is highly possible today. There are models out there that demonstrate that capability.

There are many in the scientific and engineering community who recognize the validity of being able to do that. It is with that, and the concept of new generations of reactor systems, that we began to look at the potential of this country's building that kind of prototype--a

generation IV, passive reactor system that is clean, that burns its fuel more efficiently, that is extremely robust in its capabilities as it relates to safety and shutdown and, of course, in the end, because of its efficiencies and fuel utilization, leaves less waste compared to the old reactors.

Let me depart for a moment and tell you a story that I think most Americans do not know about today. It occurred in my State of Idaho, at a site now called the Idaho National Engineering and Environmental Laboratory. At the beginning of Admiral Hyman Rickover's desire to create a nuclear Navy a good number of years ago, activities began to be undertaken in the deserts of Idaho. Those activities related to the development of the prototype reactors to be put into the Nautilus submarine--a reactor that was small but efficient and powerful and safe for operation and safe to live by, to live right beside.

Of course, we have seen the phenomenal growth of that capability over the last good number of decades. We have become so good at building and engineering the reactors for our nuclear Navy today that a reactor that once had to be fueled every few years now need not be fueled for the design life of the hull of the vessel itself. That is almost a hard concept to imagine: that for a new

nuclear Navy vessel today, when launched, and when its reactor is activated, that reactor will operate for the life of the vessel--but that is what is going on today.

That engineering, that capability, that efficiency was developed in the laboratories in Idaho. Of course, it is one of the great stories of energy efficiency, of safety, and of the effective management of the atom itself. It is that kind of technology that should be, and we hope can be, applied to the commercial side of the atom today, that we can, in fact, build smaller, modular, flexible, passive reactors that, when fueled, continue to operate long term for the production of electricity; and, of course, in doing that, to be immune from the price spikes in the marketplace that are based on the supply of fuel itself, because when that reactor is fueled and activated, it then continues to operate, at a flat cost, nearly for the lifetime of that fueling, which could go on for a good number of years. That is a uniqueness that we think we are now capable of producing in new reactor designs and new reactor concepts.

As all of this was developing, and this new interest was growing--and certainly brought to the forefront by the Bush administration, as they came to town and began to openly talk about the development of passive reactor concepts versus an administration that had just left town that worked actively trying to stop, to turn off, or to shut down the nuclear industry--other dynamics began to occur.

This is another unique dynamic that now fits into the whole concept of building a new nuclear reactor today: It is hydrogen, hydrogen fuel cells, and the ability to build clean hydrogen fuel cells that generate electricity to operate our automobiles.

I have driven a hydrogen fuel cell automobile, as many of my colleagues have, and they drive most effectively, except the prototype that I was driving up in Dearborn, MI, costs about $6 million. Well, we know that is out of the reach of the average citizen. However, we also understand that if this technology is applied to the transportation market as a whole, that there could come a day when my children and my grandchildren will view it normal to go to the local car dealer and buy a hydrogen fuel cell electric automobile at a competitive price in the market. That electric automobile will drive very efficiently, long term, at low cost, and have zero emission.

This administration, once again, in pushing the envelope of energy and energy technology, has argued that this ought to be the transportation fuel of the future, and we ought to begin to invest, increasingly so, in this concept.

In S. 14, these concepts come full circle, and we begin to authorize the investment substantially in the development of the hydrogen fuel cell--now, not just for the automobile, but the idea that there could come a day when you could develop small, modular fuel cells for the individual home, and they could run safely and easily and emission free for long periods of time to generate electricity for a home site or a small business or a rural dwelling is very feasible with the development of that technology.

Here rests the problem: Most have said we will gain this hydrogen through natural gas , that natural gas can become the producer of hydrogen. The problem is, you are using one energy

source to produce another energy source. The efficiency of doing that makes it, in fact, a very poor use of natural gas .

We have also seen the unwillingness of this Congress or some interest groups to allow the exploration for natural gas and the expanded capability of that production.

I spoke yesterday on the floor about the pumping back into the ground of billions of cubic feet of natural gas in Alaska. Why? Because there is no way of getting it to the lower 48 States without the development of a pipeline, a pipeline that is proposed and embodied in S. 14, for the necessary purpose of supplying natural gas to the lower 48 states.

But the reality of the use of natural gas is that it ought not be used to produce hydrogen, and it ought not be used to fire gas turbines to generate electricity. Efficiency-wise, that is a poor use of natural gas . Natural gas ought to be used for the purposes of space heating. That is where it is the most efficient, and in an industry where it can be used for certain processing purposes. That is where natural gas finds its highest efficiencies.

If we want to develop a hydrogen transportation fuel industry--and natural gas is not necessarily the best source of hydrogen--how do we get it? How do we push that envelope to supply an abundant source of hydrogen to a marketplace that may well grow to fuel the fuel cells that will generate the electricity that will propel the modern car 20 or 30 years or 40 years from now? You can do it through using electricity to split water into oxygen and hydrogen--a process known as electrolysis. You can do it through the use of electricity in a much more efficient way than you can with the use of natural gas .

What do you use in electrolysis? You use water. So not only do you have an abundant resource that can be converted, but it can be converted in a very clean way into a gas that, when utilized, produces no emissions into the atmosphere.

Is this a dream? No, not at all. It is a reality, and we know that. It is a reality within the engineering capabilities of this country and the industries embodied in the energy field. We know that is a capability.

How do I jump from nuclear to hydrogen? I want to bring both of those together this morning because what we believe is that a generation IV passive reactor of the kind we are proposing be built as an experimental prototype by our Government, and one that is proposed and authorized in this S. 14 comprehensive energy policy for our country, also has built in it a system to

produce hydrogen. The idea is that we can, in fact, get two for one, and we can design safe nuclear reactors today, or passive nuclear reactors today, that are capable of having within them a system that splits water to produce hydrogen for the future transportation market of our country. This concept is something that is so exciting to me and ought to be exciting for our country.

To think that we have the capability of moving ourselves that much further forward is an opportunity. I liken this uniqueness, this application of science and engineering and technology,

to something almost as important as the space program was decades ago. It is what Government ought to be doing, ought to be using its resources for--to push the envelope of technology forward and to allow the kinds of developments in technology that the private sector can then take and effectively use--because the private sector cannot afford to invest the hundreds of millions of dollars that it ultimately will require to develop this kind of technology. This long term technology development does not have the immediate payback return on it and so if we leave it all to industry it simply will not happen for a long period of time.

Embodied in S. 14 are the provisions that would authorize exactly what I am talking about today,

a new reactor design for our country, a design that has within it the capability of the production of hydrogen through electrolysis, and to me that is a tremendously exciting concept. That is why I believe S. 14 is important legislation. A press person stopped me the other day and asked: How is President Bush doing on his domestic agenda? One of this President's No. 1 items, or top two or three, in his domestic agenda is a national energy policy. A lot has taken that issue off the headlines the last number of years--from the issue of 9/11 to terrorism to the war in Iraq. But underlying all of that and always important for the productivity of an economy, for the future of a Nation, is an abundant energy supply.

Through all of that, we have found just how fragile our energy supplies are. We are now nearly 60 percent dependent for our oil supply on foreign countries. We have in our infrastructure of electrical production aging facilities and transmission that is not effectively being replaced to sustain the quality of electricity we have.

As soon as this country begins to get back into the 3, 4, 5 percent growth rates we hope to see in the near future, we will find once again a lack of supply because we are not producing it or , if we are trying to produce it, we are trying to use gas through electrical turbines. The pricing of that is yet to be determined because of our inability to produce a more abundant supply of natural gas .

All of those issues fit together, and the American public, I hope, will be allowed to focus on that with us as we debate these issues embodied within S. 14.

S. 14 is a bill that was written the right way. It was written by the authorizing committee on Energy and Natural Resources, a combination of ideas that have worked their way through the process, that came to that committee to be crafted into legislation in a bipartisan way. Amendments were offered. Some were voted up; some were voted down. Most importantly, the process the American people respect and ask for was allowed to effectively work.

The energy bill we had on the floor a year and a half ago was not written by committee, but by a couple of individuals in the majority leader's office. The bill we have on the floor today was in fact crafted by the responsible committee of the Senate. I hope we can debate it thoroughly, amend it, if necessary, and ultimately get it into a conference with the legislation the House has passed so we can put it on our President's desk for his signature as a national energy policy for the country.

I have talked about a few provisions of the policy I believe are tremendously important. Let me speak to one other I believe is important as we work our way toward the development of a comprehensive policy.

Many of us have been through what is known as the Kyoto debate, a debate on climate change , an argument that the production of greenhouse gases is in fact creating a greenhouse effect that has created global warming . There are some who believe that emphatically. Others say the science simply does not bear that out today, that while our world may be getting warmer, it is not necessarily believed it is the greenhouse gases or the emission of those that is causing it. The obvious reason for that argument is clear. Historically, over the millions and millions of years of our timetable for the world, we have seen this globe get cold, get warm, and go through a variety of changes. There will be some who argue the changes we are experiencing today are in fact a product of that magnitude

of geological change . I am one who has argued on the side of science.

Others found this to be a rather nifty political idea and have generated the politics of it, arguing that, my goodness, the world was going to come to an end and the ice cap on the Antarctic was going to melt and shorelines were going to move inland hundreds of feet, if all of this ice melted in the world today, and that could all be stopped if we would simply stop emitting the greenhouse gases produced by the burning of fossil fuels.

If we were to do that, because that is what would be required, if we knew in fact our globe was warming and we knew it was warming because of the emission of greenhouse gases , that is something this country would rush to do. However, it would also rush to convince the rest of the world to do it with them and in a way that would find alternative sources of energy. We would want to do that based on the very best science available, to use the modeling that could be produced by the supercomputers to bring about those kinds of judgments. We really would be talking about turning the light switches of our country off, unless we were willing to shift dramatically to new sources of energy in a relatively short time.

I am one who believes the science is not yet there to argue those kinds of changes. In fact, the Clean Air Act has produced a much cleaner environment, and we have on board current policies today that are continually reducing the amount of greenhouse gas produced per capita individual in our country as compared with other countries. We are contributing in a major way today to the improvement of the world environment. But we are a big country. We are big in the sense of the use of energy. We are the largest country in the world when it comes to the use of energy, and it is because of our wealth and because of the size of our economy. So when you examine the amount of greenhouse gas produced per capita individual, we still remain high, at the top of the list.

There are other countries today who have demonstrated little concern about the emission of greenhouse gas in their building of an economy. China, India, other countries, Third World emerging nations working hard to produce an economy to put their people to work. They have paid little regard to the environment. In fact, in the debate at the Kyoto climate change conference, the interests driving the conference said: We can just exclude developing countries

because they can't comply. They are not advanced enough, and we couldn't get them to comply, anyway. Yet they have become major producers of greenhouse gases .

If you believe that in fact emissions of greenhouse gases are creating the kind of climate change some would argue is going on, then certainly the developing countries ought to be included. Why should we shut ourselves down and allow other countries to increasingly become polluters, allow them to be extremely competitive in the economic marketplace, when we have denied ourselves that kind of competitiveness because we have driven our cost of production up dramatically by new energy sources?

That is all part of a fairly general summary of the debate that has gone on here in the Senate and across the country and the world for the last number of years. I have attended a conference of the parties at The Hague related to climate change . That was the attitude of the rest of the world, that the United States economy was the bad actor producing all of the greenhouse gases , and we should just shut the United States' economy down or we should demand that the United States change its ways dramatically.

What they were not saying was: We also will consider making a similar

change in our country, as long as our cost of production remains relatively low.

The reason they will not say this is that they want their competitiveness in the world economy to rapidly increase compared to that of the United States.

That became part of all of that debate. I, along with Senator *Byrd* and Senator *Hagel*, some years ago developed a resolution that got 95 votes in the Senate suggesting that this country ought not go it alone when it came to climate change , and it certainly ought not proceed without good science; and we ought to build the systems that produce the science that allow those of us who shape public policy to make decisions based on the best science--I am talking lab science, not political science.

The climate change debate has been a good deal about the politics of the environment rather than the reality of the change itself, or what is producing the change and the science involved. This administration has said: Let's err on the side of science. Let's make sure we have an ambitious effort to get where we need to get, relating to climate change . We are not going to ignore it. We are going to be sensitive to it, but we are going to make sure that what we do is done right.

It just so happens that the nuclear initiative I have just talked about fits nicely into that equation of beginning to produce more and more of our electrical power from a nonemitting fuel source. The hydrogen fuel cell vehicle concept that I am talking about is, again, another clean technology. So while we are pushing the envelope of technology, we clearly ought to be building the scientific base to be able to make the decision as to how much further our economy and our country ought to go towards zero emissions into the environment in the name of climate change .

Those are awfully important issues, and they are some this country cannot deny or sidestep. But until we have the best science available, until we are using our own modeling, based on our own supercomputers, and we are not using the modeling with the Canadian bias, or a German bias, the kind of modeling that is producing the science that we are looking at today because we don't have our own, then shame on us for not developing it, for not using our own science and our own scientists to make sure that the science from which we base our decision is the right science. As I have said, the consequence is to produce an economy in which the American worker is no longer competitive or productive as it relates to other workers around the world. If that becomes the case, we slowly put our economy and our country at a tremendous disadvantage.

The great advantage we have always had as a country is the availability of an abundant energy supply. It is from that energy supply, which in most instances costs less than a comparable form anywhere else in the world, that we have built the greatest economy the world has ever seen, that we have put more people to work, that we have generated more wealth, and we have created a standard of living that all of us are proud of, and that we have provided for ourselves and our citizens truly the American dream.

Was it all based on energy? It all was based on the availability of energy as a major component of that industrial base, that economic base. It was certainly also based on the free market system and the competitive character of that and the innovation that occurred through that. But along the way, Government effectively used itself and the resources of the American taxpayer to push the technology, lift the horizons of experimentation that, in a way, ultimately brought that to the ground for use by the consuming public and to be generated in the private sector.

That is what S. 14, in large part, is about. It is about the grand, new designs of new concepts that deal with large

production. It is about the grand, new utilization of wind turbines and photovoltaics, and certainly the type of energy that is extremely clean and can provide a portion of energy to our energy basket. It is about making our current forms of energy even cleaner by advancing the technologies available, to give the tax incentives to effectively use the regulatory device to do so, and also not to deny ourselves the continued production of energy from our public lands and resources, and to do so in clean, environmentally sound ways that we now have the technology to utilize, because we pioneered it.

The world uses our technology today to produce clean energy. We are denying ourselves the use of our own talent. This very comprehensive energy bill will advance our cause as a country in the world, and in the area of energy technology dramatically. That which we produce for ourselves is also available to the rest of the world. It is not nor should it ever be ignored that even in China today, as it works to build new energy technologies, it is using the technology that we developed to produce energy for itself. Now we are wanting to push that envelope of technology even further, in a more aggressive approach that is environmentally benign and clean and productive for our general economy.

So a good deal of work has gone into the legislation. Now we will work our will on the floor of the Senate with different amendments that compete with some of the concepts I have talked about and, in some instances, would like to deny them altogether. We will vote it, I hope, up or down within the next few weeks. I believe it will pass and we will move it to a conference with the House and then ultimately to the President's desk. All of that happens when the President signs this into law and public policy.

I think the Senate and the Congress of the 108th can be proud of the work it has done on this energy bill. We can look forward into the future for generations of Americans and say we have redesigned the foundation, reshaped the context of a national energy strategy for our country. As this policy is implemented, it will allow that continuation of an abundant supply of a variety of forms of energy that in the past, today, and in the future will feed an ever-growing economy that continues to grant the average American citizen access to the American dream. That is what we are about. That is what good public policy ought to be about.

I believe S. 14 embodies a great deal of that.

I yield the floor and I suggest the absence of a quorum.

ENERGY POLICY ACT OF 2003--Continued -- (Senate - May 06, 2003)
[Page: S5759] GPO's PDF

Mr. CRAIG. Mr. President, I thank my colleague from West Virginia, who is currently on the floor, for being willing to yield for a few moments while I discuss the bill that is currently before the Senate. I thank him for that.

This morning Senator *Domenici*, chairman of our Energy and Natural Resources Committee, introduced S. 14. You can tell by the size of this legislation that it is, in fact, no ordinary bill. Since the spring of 2001 when the President issued his plan for a national energy policy, I and a good number of my colleagues, including the Presiding Officer at this moment, began to work on legislation to implement the recommendations of our President's energy policy. But as important as that is, we tried to bring together in a bipartisan way all of the issues that we have been looking at for a good number of years that reflect the absence of a comprehensive national energy policy for our country.

Democrats and Republicans alike had begun to recognize--as the numbers moved to greater dependency on foreign oil, as our economy began to grow and our overall surpluses that were built into our electrical system in the decades of the sixties and the seventies were being used up--that something had to be done.

While conservation was important, while new technologies were important, we simply were not producing more energy, but we were consuming large amounts of energy.

Along comes the high-tech revolution. That was to be a revolution in which less energy would be used, and quite the opposite happened. The large computer farms that fed the networks of the new electronic revolution, telecommunications, and artificial intelligence used a lot of energy, used high-quality energy.

Do I have to enumerate what happened in California a few years ago, the painful problems it went through with brownouts and blackouts, not because somebody was gaming the system, but because there was simply no way to produce the energy necessary to feed the demand system of that supply?

Major California utilities were moving toward bankruptcy under a new deregulated energy policy, and our western energy markets that the Presiding Officer and I are in, such as the State of Idaho and the greater Pacific Northwest, recognized that California was draining us of energy, our energy costs were beginning to move up at an unprecedented rate, and the supply within the greater system simply was not there, or the system did not have the capacity to handle it if, in fact, the supply was there.

The anxiety of choking the rest of our Nation off from energy caused shock waves and panic across the country in a way we had not seen before. I recall Senators who normally shun even the thought of price caps in a market system coming to the floor and advocating such misguided measures. We saw the Governor of California, Gray Davis, in somewhat of a panic entering into

long-term contracts for power at rates that he was proud of at the time, only to now come begging the federal government to break those contracts as unfair when the market changed.

A truer description of those contracts might suggest that it was unwise to enter into them, but it was not unfair at that moment. That was the market. The market was reacting to the

demand, or the lack thereof. This was just a little bit over 2 years ago, not 30 years ago, not a decade ago, just a little over 2 years ago.

It was not just a fluke. Yes, the Enron episode saw the potential of people gaming a system that was badly broken, that was not feeding the market in a way the market wanted to be fed and taking an opportunity that existed. But to suggest it was a manufactured energy crisis is absolute nonsense. The marketplace being what it is, if the market is starved for the resource it demands, then the price moves up until someone cannot afford to buy and only those who can afford to buy will buy. That is the nature of the marketplace.

All of those facts were true, and then along came September 11, and our country went through another shock, and we began to look at ourselves and our abilities as a country.

Today we have before us a comprehensive piece of legislation that has been literally a year or two in the making and several iterations and with several debates on the floor, but it is a bill that was written in the traditional way that good public policy is crafted, not in the back room of the office of the majority leader of the day when he denied the committee its ability to function a year or two ago, but it was crafted in the open light of day, in a full markup session of an authorizing committee with Democrats and Republicans agreeing and disagreeing in the structuring of this legislation.

What we have before us is what I believe to be a comprehensive bill to address a crisis that is real and true in our country, and we are only getting a slight reprieve in a recessionary economy because demand for the resource is down, and we are all hoping we can return to the growth years of the mid-nineties. If we do, there is the distinct possibility that the brownouts, the blackouts, and the high prices will return.

Even in their absence, we are already beginning to see shock waves in the marketplace because we have denied the market the right to produce at a time when we are demanding even more.

Energy Secretary Abraham stated a year and a half ago that America faced a major energy supply crisis. What he said is a reflection of the market. I say that because natural gas prices, interestingly enough, that reached almost $100 per million cubic feet during the period of the California crisis eventually dropped to more acceptable levels only to start creeping up again to the price of $19 per million cubic feet in February of this year.

We have seen phenomenal fluctuation in the market, but yet we are seeing peaks now in that gas market because of a limited supply. The Clinton

Administration encouraged everybody to burn gas ; not only to use it for space heating but also to use it for electrical generation, even when the experts in the market said that ought not to be done. Really, a poor use for natural gas is to put it in a turbine to create new energy when it ought to be used exclusively for space heat and other forms of heat creation. But because we had denied other forms of energy the ability to generate, that was the one available and everybody rushed to it, and we saw these phenomenal peaks in the market.

While we were doing that, we were denying the right to explore and develop gas reserves. In so doing, we created the ups and downs in that market. The natural gas market is volatile and will continue to be into the future. That is the reality of not only bad policy but bad direction of a use of a natural resource and denying the marketplace the right to adjust accordingly.

I will now talk about gas and electric transmission and infrastructure. If we were to meet the gas demand to produce electricity through gas turbine generation, we would have to construct over 38,000 miles of gas transmission pipeline to get the gas to market. This bill recognizes the need for that and the need to incentivize that kind of major construction across our country; not only that, but be able to gain access to the lands on which the pipes must be laid. Of course, that has remained an issue, as we have seen government policy deny the right to do that.

Alaska's Prudhoe Bay, for example, produces about 8 billion cubic feet of natural gas a day, and that is approximately 13 percent of America's daily consumption demand. But that gas is not even available in the market today. Why? Well, it is up in Alaska. There is no easy economic way to deliver it down to the lower 48 so it is simply pumped back into the ground. This bill recognizes it. This bill incentivizes the building of a major gas line across Alaska down through Canada to pick up the Canadian supply and to bring it into the lower 48, to meet the reality of demand, to meet the reality of the potential of a new hydrogen market for transportation that this President and others are talking about, but most importantly to recognize this Nation has phenomenal capacity to produce and to supply if we will simply provide the right incentives, instead of deny and restrict, for whatever reason, as we have over the last several decades access to the land for the purpose of production or access to the land for the purpose of laying the necessary pipelines to supply.

Over the next 20 years, the Department of Energy estimates electrical demand in the United States will increase 45 percent, based on current growth projections. One of the ways to meet that demand is to bring the gas from Canada to fuel the gas turbines to generate the electricity in a clean and appropriate way, even though I have argued that may be one of the least effective ways to use natural gas for the purposes it was intended.

Consumers are already feeling the impact of a transmission system that is being stressed by demand. Transmission bottlenecks contributed greatly to the blackouts in California, to price spikes in New York, in which the cost to consumers was estimated to be $100 million, simply because somebody denied the right to build a transmission line to access the appropriate systems.

The Department of Energy has estimated it will need to

construct over the next several years an additional 255,000 miles of distribution line at an estimated cost of $120 billion to $150 billion to ensure our electrical system remains the most reliable in the world. It is a huge investment, but the marketplace is ready to do it. All we have to do is guide it and direct it, and the marketplace will adjust. The consumer is willing to pay and the provider is willing to produce, supply, and build the necessary lines. What we have done is say, no, it cannot be done here, and it will not be done there, and it should not be done over there.

We are putting at risk the most reliable electrical system in the world. How many of us have traveled to Third World countries where you can stay in a beautiful hotel and you think you are in a four-star hotel, but the power goes out consistently, or the lights dim consistently, or there is no e-mail or there is no Internet, tools we have come to depend and rely on. When we walk to the wall today and flip the switch, the light comes on, and it consistently comes on. That is not always true in Third World nations, and the reason is they do not have the transmission or the generation system to ensure reliability.

They are striving to build them today and they know they have to have them if they are going to compete as an economy in this world and be competitive with us. The supply and availability of energy to our economy and to our working men and women has made us the great Nation we are, and it will continue to allow us to be if we will not deny the marketplace the right to produce and the consumer the right of access. This legislation understands that and this legislation is working to resolve that.

The State of my colleague, West Virginia, is a great producer of coal. Coal has historically been America's number one source of affordable electricity. It currently powers half of America's generators, and at today's recovery rates our Nation has enough coal to keep those plants running for 250 years. With rising demand, tight gas and oil supply, and an aging power infrastructure, it would be foolish to abandon our abundant coal resources.

So what do we need to meet our clean air standards? We need cleaner burning efficiencies from our coal. We need the technology that assures the clean bed of the coal-fired facility so we can use this abundant resource and supply the system that is already there and assure that as we grow other areas for producing electricity, that coal can grow right along with it.

The men and women who work in the coal fields and who live in the States that make their economy from coal production continue to recognize that. This bill recognizes it.

We do not have coal in Idaho, but we have something else that is just as valuable to the electric grid, and that is hydropower. It is one of Idaho's greatest energy resources. It is one of the Pacific Northwest's greatest energy resources. It makes up about 10 percent of the total supply of electricity in this country. Yet, over the last decade we have made it nearly impossible to relicense a hydro facility on a river. For all of the environmental reasons that almost anyone can imagine, the argument is that particular impoundment should not have been put there in the first place, or it ought to be dramatically modified to fit the environmental desires and needs of today, even at the cost of bringing its production capability down.

I recognize there are very real environmental needs and that we are working hard to return our rivers to a more natural state. At the same time, we can't just walk away from an abundant, clean form of energy that is renewable. No, we cannot. Nor should we.

The relicensing process we are dealing with needs to be fixed. Certainly, the hydro energy of today is clean. It is emission free. It is renewable. It meets all of those standards and, as a result of that, I and others have worked hard over the last 5 years to make sense out of a process that has become irrational. It can take as much as 2, 3 and 5 years' worth of bureaucratic red tape and tens of millions of dollars just to relicense, let alone retrofit and change the character of the generating facility for the purpose of making it more environmentally benign.

During the next 15 years, over half of all of the non-Federal hydro capacity, over 30,000 megawatts of power, enough to serve 15 million homes, must undergo the relicensing process. That includes about 296 dams in over 39 States. It is not just an Idaho or Oregon or Washington or California or Montana problem. It is an issue for the country. It is an issue for the Greater Colorado River system.

It is an issue for the country. These great facilities ought to be relicensed and, where necessary, retrofitting them to make them more environmentally benign.

But the process ought to be flexible. Clearly the operation of these facilities ought to be flexible to allow optimum power production and to bring that into conformity with the necessary environmental needs of that particular ecosystem and that particular river.

We have grown to enjoy our water impoundments in the arid West. While we may call them reservoirs, some

view them as high-quality recreation areas and high-quality fisheries, most assuredly, abundant power producing facilities.

As was true over 80 years ago when Congress passed Part 1 of the Federal Power Act, what we are striving for in this bill is to create the balance necessary to assure that all of those 296 projects, where necessary, and where they fit, can continue to operate and operate in a productive fashion for the sake of our country.

Let me talk about a couple of other items that are important. One is nuclear. For 20 years someone has said to this country that electrical generation by nuclear energy or nuclear fission was wrong, that it was dangerous. Yet the nuclear facilities we have, have gone on operating uninterruptedly. They have been retrofitted and modernized. They have continued to produce. They make up nearly 20 percent of the total electrical base of our country.

During the last period of high electrical prices, they became the least cost economic producers. They were the base load that fueled the country, that assured that we would have the high-quality power we have. All of a sudden there is a new respect for electrical energy produced by nuclear power facilities.

We had a problem with the waste stream, the fuel rods that came out of the reactors, how they got handled, how they were stored, and did they get reused. We debated for nearly a decade and we assessed, by a tax, the ratepayers of those utilities that were producing with nuclear, a tax to fund a waste system, a waste management system.

Just a year ago, in the Senate we finally confirmed part of the process of licensing a facility out in Nevada known as Yucca Mountain for the storage of high-level waste. The Daschle-Bingaman bill we debated this last year was a bill that called for much investment in research and development in our Nation's energy solutions but dealt very little in this area. So much of the research done over the last several years to get us to a point where we could begin to consider as a nation bringing more nuclear energy back into production has been at work, and it has been at work in a laboratory in Idaho, the Idaho National Engineering and Environmental Laboratory.

In this bill, for the first time, we speak about a new generation of nuclear generation--we call it generation 4--passive reactor systems, much safer, even than those that have been extraordinarily safe through the decades. And at a time when we agree, and I hope collectively as a nation, that we are handling the waste stream and managing it in the appropriate fashion, if we really want abundant clean air in the growth rate of that, 45 percent over decades to come, an ever increasing portion of our electrical production needs to come from nuclear generation.

We think it is now time for this country to explore the new research and development, the new reactor designs that are safer, cleaner, in the sense of their engineering, in the sense

of their capacity to deal with problems that might occur, although our history with nuclear reactors in this country has been one of safeness, but one of expert management. Why? Because this Government, this Senate, years ago, created a Nuclear Regulatory Commission and managed it in a comprehensive and sensible way.

There are a good many other issues about which I can talk. My colleague from West Virginia and I teamed up some years ago, along with our colleague from Nebraska, to say that if there was going to be climate change legislation that dealt with the emission of greenhouse gases , that we and the rest of the world must come together to do it. Our country should not penalize its economy or its industries by attempting to march down that road alone. We could accomplish it and not destroy our economy if we would work innovatively to bring on the new technologies to the marketplace of power in a way that made sense.

That is what this bill, S. 14, is all about. It is all about new technologies. It is all about producing an abundance of energy for our Nation that is clean and ever increasingly cleaner than the past. It is about clean air. It is about a recognition that if there is a change in our climate , that is a product of ever-increasing greenhouse gases in the world, we want to do our part. But we are not going to deny ourselves and our economy and our workforce the ability to produce by simply shutting down; that we are smart enough through our technology and utilization of other forms of resources that we can generate an abundance of power and still be pragmatic and work through our problems with climate change .

Our country needs a national energy policy. It needs to get back into the business of producing energy. It needs to fill the market basket of energy, full of all types of energy. Wind? Yes. In this bill and its companion tax bill we incentivize wind farmers and the use of the new turbines in the production of electrical power through wind. What about photovoltaics or the sun? We incentivize that.

We have not, through this legislation, denied any element of the marketplace or any area of technology access to the production of electrical energy or the supply of energy for our country. Our country and our economy runs on energy. Every moment of the day we use more energy on a per capita basis than any other nation in the world. It is not by accident that we are the richest nation in the world. I say that with great pride. We have worked hard over the years. We have relied on the free market system. We have relied on a government that has been reasonable and moderate in its regulations and balanced in how it applies those regulations to all forms of the producing entities of our economy. And we have always based that on an adequate and abundant and a relatively inexpensive supply of energy.

When the gas prices go up 10 or 12 cents a gallon at the pump, that is several dollars, for every time the car is filled up, that is spent on energy and denied to the breakfast table of the family or to the disposable income of the family or to the college trust fund of the family or any of the things for which the American family wants to use their collective resources.

We ought to work constantly as a government and as a Senate to make sure those kinds of spikes or run-ups in price do not happen, whether it is at the pump or at the electrical meter or anywhere else in our society. We can do that with the passage of this legislation by the recognition that government can play a role in the assistance of the production of an abundant supply of energy to our country. S. 14 just has not happened. S. 14 is a demand of the marketplace of our country saying: Supply us with an abundant supply of energy, and we will produce for you and for generations to come untold wealth and the American dream.

I am proud of that. I am proud of our history. I trust this Senate, over the course of the next several weeks in debating this legislation, will in the end have one important goal in mind: That is to pass a national energy policy for our country that recognizes now and in the future that the basis of this great country's strength and its wealth is the ability to consume clean, high-quality energy at reasonable prices.

That is what S. 14 is all about. That is why we have worked as hard as we have, and I applaud Senator *Domenici* for his effort in the production of this legislation.

I yield the floor.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -- (Senate - September 27, 2006)

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Mr. CRAIG. Mr. President, I rise today to express my strong support for the Nuclear Fuel Management and Disposal Act introduced today by Senator **PETE DOMENICI.** Senator *Domenici* has long been a courageous supporter of dependable, emissions-free nuclear energy, and he is largely responsible for the current renaissance of nuclear power in this country--with upwards of 30 new nuclear reactors on the drawing board to be licensed in the next several years. Senator *Domenici*'s landmark legislation will help assure the future of nuclear power in this country by providing the necessary legislation for moving forward on the long-stalled Yucca Mountain repository and authorizing much-needed interim storage for spent fuel and high-level waste that has been accumulating around the country. For used nuclear fuel that will eventually be recycled, the Senate Energy and Water Appropriations bill approved by the Appropriations Committee earlier this year provides for interim storage of commercial spent fuel at Consolidation and Preparation--CAP--facilities. Senator *Domenici*'s legislation introduced today addresses defense spent fuel and high-level waste that cannot be recycled, so that these wastes will be sent to Yucca Mountain for storage and eventual disposal. In this way, this bill removes the final roadblock to developing new nuclear power in this country.

And let me say a few words about this ``roadblock'' to Yucca that has persisted for so many years. The Federal Government made a promise to take possession of spent nuclear fuel in order to safely and permanently dispose of it in a geologic repository. We promised to begin taking this fuel back in 1998--8 years ago. However, through concerted efforts by the state of Nevada and its congressional delegation, progress on Yucca has often slowed to a crawl. This is the classic NIMBY attitude--``not in my backyard.'' And yet my colleague from Nevada, Mr. *Reid*, has repeatedly called for this Congress and the administration to do something to help reduce emissions of greenhouse gases because of his concerns about global warming .

This Congress and this administration have done a great deal to promote emission-free power generation. This Congress passed the Energy Policy Act last year, which provided financial incentives for new, emission-free sources

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of energy, including wind, solar, clean coal--and nuclear. And earlier this year, this administration introduced the Advanced Energy Initiative--AEI--to support research and development of new energy sources--including nuclear power. In fact, the Global Nuclear Energy Partnership--GNEP--is one part of the AEI. One goal of GNEP is to reduce the amount and toxicity of nuclear waste ultimately destined for disposal at Yucca Mountain; another goal is to eventually help expand the deployment of emission-free nuclear power in developing countries that otherwise would need to depend on burning fossil fuels for their growing energy demands. Contrary to Senator *Reid*'s comments about doing nothing to help reduce greenhouse gas emissions, we have done a great deal to develop emission-free energy in this country and abroad. But the deployment of nuclear power requires that we manage the spent fuel from

nuclear power plants in a safe and responsible manner. One aspect of that management strategy must be to open the Yucca Mountain repository as soon as possible.

As Senator *Domenici* has said, Yucca Mountain is the cornerstone of a comprehensive spent-fuel management strategy for this country, but Yucca alone cannot meet the government's spent-fuel obligations. Through GNEP we will also explore technologies that promise to reduce the volume and toxicity of spent fuel. Thus, GNEP, interim storage and Yucca Mountain together provide a comprehensive program for safely managing our Nation's Nuclear waste.

GLOBAL NUCLEAR ENERGY PARTNERSHIP -- (Senate - February 09, 2006)
[Page: S973] GPO's PDF

Mr. CRAIG. Mr. President, I rise today to express my agreement with President Bush's belief that our country's security depends in large part on a diverse energy portfolio, one that is not overly reliant on any one energy source, especially sources of foreign origin. I agree with the President that this country is overly dependent on foreign oil. Consistent with that belief, the Bush administration has just announced a potentially far-reaching energy program known as the Global Nuclear Energy Partnership or GNEP. This program provides a wide-reaching, long-term plan for establishing a robust and sustainable future for nuclear energy in this country and abroad.

The Global Nuclear Energy Partnership promises to provide abundant energy, without emitting greenhouse gases ; to recycle used nuclear fuel in order to minimize waste; to safely and securely allow developing nations to deploy nuclear power to meet their energy needs, while reducing proliferation risks; to assure maximum energy recovery from still-valuable used nuclear fuel; and to allow the U.S. to rely on a single geologic waste repository for the rest of this century.

Nuclear energy currently provides about 20 percent of this Nation's electricity, and does so without emitting any carbon, greenhouse gases , or other air pollutants. All the waste generated by commercial nuclear powerplants is securely managed and destined for safe, permanent disposal in a geologic repository.

However, according to current law, that repository can contain only slightly more than the amount of waste already stored at existing reactor sites. Even if the law is changed, the repository at Yucca Mountain can only accommodate about the amount of spent nuclear fuel that will be generated by the existing reactors in this country over their lifetimes. If nuclear power is to have a future in this country, even to maintain its current 20 percent share of electricity generation, either a second repository will need to be developed soon--with many more to follow--or an alternative means of managing this waste is needed.

After a single use, spent nuclear fuel retains more than 95 percent of its energy potential. That energy potential could be tapped by reprocessing the spent fuel, recycling the useable part and disposing of the rest as waste, which makes up only about 3-4 percent of the spent fuel. This could substantially reduce the amount of long-lived nuclear waste requiring burial in a geologic repository, and could extend the lifetime of the Yucca Mountain repository many fold.

But efforts to recycle spent fuel were abandoned in this country back in the 1970s, largely because of concerns about nuclear proliferation. Those concerns stemmed from the fact that, at that time, the method used to recycle spent fuel, the ``PUREX'' process, separated out pure plutonium, which might be used to construct a nuclear bomb.

During the 30-plus years since then, the U.S. has--through research at its National Laboratories--made considerable progress in developing new methods for reprocessing spent fuel

that are much less prone to proliferation risks, because they do not separate out pure plutonium, but keep it mixed with other actinides. This mixture is not readily used for nuclear weapons.

Reintroducing recycling into this country's strategy for managing spent fuel is a major change in policy, and one that deserves serious discussion. That discussion should be based on fact and not emotion; should address current technologies, not those from more than a generation ago; and should consider reasonable alternatives to maintaining nuclear energy as a viable part of our Nation's energy supply.

And what reasonable alternatives are there? Total electricity consumption in the U.S. is projected to increase by about 40 percent by 2025. Wind and solar energy cannot provide large-scale, base-load electricity, because they are intermittent energy sources. Hydro provides about 10 percent of our electricity right now, but building new

dams to fully accommodate the increased demand is not possible. Relying solely on fossil fuels to make up the difference is environmentally irresponsible, and with the price of natural gas increasing dramatically, less economically appealing. Nuclear energy is the most environmentally sound technology capable of adequately meeting such increased demand. But even simply maintaining the current share of electricity generation provided by nuclear energy will require constructing many new nuclear powerplants in this country.

So should we continue to push for opening Yucca Mountain to begin accepting waste as soon as possible? The answer is clearly yes. Electric utilities demand confidence that spent fuel will be managed responsibly if they are going to continue to build new nuclearpower plants in the U.S.

But can we build many more Yucca Mountains to accommodate the additional waste? I think the answer is clearly no.

Still, new nuclear powerplants are being planned--and not only in this country, which has not ordered a new nuclear plant in 30 years, but around the world. China, Russia, several European countries, and others are planning--or building--new nuclear powerplants. Somewhere between 100 and 150 new nuclear plants are likely to be built in the next 20 years or so. In fact, the U.S., despite having pioneered nuclear power, risks falling far behind in this home-grown technology.

Furthermore, the growth in nuclear power worldwide, while avoiding the potential environmental impact of a similar number of fossil-fuel powerplants, raises serious concerns about nuclear proliferation. An increasing number of countries are interested in developing nuclear power, and in some cases, developing or acquiring technologies that could lead to their ability to produce nuclear weapons. North Korea and Iran constantly remind us of the potential danger.

Therefore, the U.S. and other responsible nuclear-capable countries need to work together to help developing countries acquire clean, affordable energy, but not the means to develop nuclear weapons.

And this is another farsighted goal of the Global Nuclear Energy Partnership. Through GNEP, this administration proposes to work with international partners to help developing nations deploy proliferation-resistant and emission-free nuclear energy by developing international fuel services and small-scale modular reactors.

Finally, if this country is to eventually wean itself off its dependence on foreign oil and gas , we need to develop a clean-burning fuel for transportation. In fact, even if nuclear power replaced all the fossil-fueled powerplants in this country, it would make little impact on our oil use. We would still need to import about 70 percent of our oil for transportation.

This need to reduce our dependence on foreign oil, in addition to reducing carbon emissions, was the impetus for President Bush to propose his Hydrogen Initiative in the 2001 State of the Union, and he has restated his convictions in all subsequent State of the Union addresses.

Consistent with President Bush's vision, we must continue our efforts to make the transition to a hydrogen-based economy, and we need to generate that hydrogen by using environmentally responsible technologies. Nuclear energy provides one such technology with high-temperature reactors such as the Next Generation Nuclear Plant that will be able to produce market-competitive hydrogen.

Nuclear power has the potential to provide clean, affordable, and emission-free electricity to an increasingly energy-hungry world, and the next generation of nuclear plants will produce fuel for transportation in an increasingly oil-starved world.

Access to affordable energy is crucial for improved quality of life and overall economic prosperity. The Global Nuclear Energy Partnership promises to increase energy security, both here in the United States and abroad. It will encourage environmentally responsible energy development around the world, and will provide that energy with minimal impact on the environment. I congratulate our President for his vision and commitment to helping make all this possible.

ENERGY POLICY ACT OF 2005 -- (Senate - June 22, 2005)
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Mr. CRAIG. Mr. President, let me thank my colleagues, Senators **MCCAIN** and **LIEBERMAN**, for bringing this debate to the Senate floor. Let me say to my colleague from Delaware, he has made a very compelling statement for sustaining the status quo. America and America's industries have awakened to the marketplace, and they are recognizing and moving this country toward cleaner energy and cleaner industry faster than any command and control Federal regulation could bring us there. Last year, a 2.3-percent reduction in greenhouse gases ; this year a projected 3 percent, and all within the economy and all within the initiative of boards of directors and city councils and urban areas. Why? Because there is a belief that it is necessary and important for us to drive down the emission of greenhouse gases without the Federal Government stepping in and taking away the very value of a free market and beginning to command and control a market and shape it in what could be, if not done well or on the wrong science, a distorted market false way.

What we passed yesterday was very clear--incentivize, bring in new technology. The Hagel-Pryor amendment that was agreed to by a bipartisan majority is consistent with where this administration and where our initiatives have been going now for well over a decade.

We are beginning to see the results. We haven't created a huge Federal bureaucracy. We haven't created a carbon czar. We haven't picked winners and losers. We have allowed the DuPonts and the other major companies of this country to recognize the value. We have even incentivized them to some extent. But more importantly, America recognizes that if we use our markets and our technology, we can be much cleaner than we are without commanding and controlling and creating a Federal bureaucracy that just might get it wrong.

Here is what happens when you blend politics and bureaucracy. Let me make this point because Senator *Lieberman*

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was on the floor yesterday making the point. I want to broaden what he said. It is important for us to understand the politics of the business we are in. The politics of the business is now the G8. We have the President going to the G8. The chairman of the G8 is Tony Blair. Tony Blair wants to get in favor with the political greens of Europe because he got out of favor with them in Iraq, and he is making climate change his initiative. But he is also over in Brussels bidding for more credit because he can't get his country there without shutting down the economy because the technology is not yet there to get Great Britain there. That is the politics across this issue and the politics across Europe.

My colleague, **JOE LIEBERMAN**, did something, and it is not a criticism at all.

On the joint science academies' statement of a month ago, I noticed two very big polluters, India and China, are signatories of this national academy document. They are burning coal. They

are going to burn a lot more and they don't plan to do anything about it. But they are concerned. Here is the lead paragraph:

There will always be uncertainty in understanding a system as complex as the world's climate . However, there is now strong evidence that significant global warming is occurring.

And then they go on. I took issue with that and I called and wrote to the chairman of our academy because they were a signatory. I said: What is wrong here? Why are you changing your course and direction? Bruce Alberts wrote back to me.

I ask unanimous consent that these letters be printed in the **RECORD**.

There being no objection, the material was ordered to be printed in the **RECORD**, as follows:

U.S. SENATE,

Washington, DC, June 8, 2005.
BRUCE ALBERTS, Ph.D.,
President, National Academies of Sciences,
Washington DC.

DEAR DR. ALBERTS: I received a copy of the ``Joint Science Academies' Statement: Global Response to Climate Change'' yesterday and read it with great interest. I was pleased that the recommendations contained in that Statement mirror actions that our government has taken during the last five years to address the potential threat of climate change and reduce greenhouse gases .

As you know, the United States has committed billions of dollars to mobilize the science and technology community to enhance research and development efforts which will better inform climate change decisions. Indeed, the Administration has initiated a Climate Change Science Program Strategic Plan that the Academy reviewed and endorsed. Moreover, the United States is engaged in extensive international efforts on climate change , both through multilateral and bilateral activities. The United States is by far the largest funder of activities under the United Nations Framework Convention on Climate Change and the Intergovernmental Panel on Climate Change .

So, it was with dismay that I read the attached press release from the Royal Society, attempting to characterize the Joint Statement as a rebuke of U.S. policies on climate change . Statements such as: ``The current U.S. policy on climate change is misguided. The Bush Administration has consistently refused to accept the advice of the U.S. National Academy of Sciences (NAS)'' contained in the press release are offensive and inconsistent with my understanding of the facts. Moreover, the interpretation of the NAS 1992 report on climate change is also contrary to my understanding of that document. Indeed, it appears to me that the Joint Statement is being hijacked by the Royal Society for reasons that have nothing to do with the advancement of scientific understanding of this most complex and controversial subject.

I would appreciate a clarification of the meaning of the Joint Science Academies Statement. I am also interested in the origins of this Statement and am very curious about the timing of the release of this Statement.

Thank you for your prompt attention to this request.

Sincerely,

Larry E. Craig,
U.S. Senator.

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NATIONAL ACADEMY OF SCIENCES,

Washington, DC, June 9, 2005.
Hon. **LARRY E. CRAIG,**
U.S. Senator,
Washington, DC.

DEAR SENATOR CRAIG: Thank you for your letter of June 8 concerning the statement by eleven science academies on Global Response to Climate Change . I was very dismayed when I read the press release issued by the Royal Society, especially the quote by Dr. Robert May contained in your letter. Their press release does not represent the views of the U.S. National Academy of Sciences, and it was not seen by us in advance of public release. The press release is not an accurate characterization of the eleven academies statement, and it is not an accurate characterization of our 1992 report. I have enclosed a copy of the letter that I sent yesterday to Dr. May, President of the Royal Society, expressing my displeasure with their press release.

The eleven academies statement was carefully prepared, and in our view it is consistent with the findings and recommendations of previous reports issued by our academy that underwent rigorous review. These reports include the Policy Implications of Greenhouse Warming : Mitigation, Adaptation, and the Science Base (1992) and Climate Change Science: An Analysis of Some Key Questions (2001).

Our hope was that eleven academies statement would be useful to policy makers as they deal with this important issue. Regarding the timing of the statement, the goal of the academies was to have the statement released prior to the G8 summit in July. The participating academies planned for a release in May, but preparation of the statement and securing its approval took longer than anticipated. As soon as the statement was approved by all of the academies, it was released a few days later.

I would be glad to provide any additional information or to answer any remaining questions you may have.

Sincerely,

Bruce Alberts,
President.

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NATIONAL ACADEMY OF SCIENCES,

Washington, DC, June 8, 2005.
DR. ROBERT MAY,
President, The Royal Society,
London U.K.

DEAR BOB: I am writing with regard to the press release issued June 7, 2005 by the Royal Society entitled ``Clear science demands prompt action on climate change say G8 science academies''. There, I was dismayed to read the following quote from you: ``The current U.S. policy on climate change is misguided. The Bush Administration has consistently refused to accept the advice of the U.S. National Academy of Sciences (NAS). The NAS concluded in 1992 that, `despite the great uncertainties, greenhouse warming is a potential threat sufficient to justify action now', by reducing emissions of greenhouse gases .''

Your statement is quite misleading. Here is what the report that you cite actually said: ``Despite the great uncertainties, greenhouse warming is a potential threat sufficient to justify action now ..... This panel recommends implementation of the options presented below through a concerted program to start mitigating further build-up of greenhouse gases and to initiate adaptation measures that are judicious and practical ..... The recommendations are generally based on low-cost, currently available technologies''. (Policy Implications of Greenhouse Warming : Mitigation, Adaptation, and the Science Base, p. 72; 1992).

By appending your own phrase, ``by reducing emissions of greenhouse gases'' to an actual quote from our report, you have considerably changed our report's meaning and intent. As you know, a statement resembling yours was present in the Royal Society's initial draft for a G8 statement. However, it was removed for carefully explained reasons from subsequent drafts. Thus, the relevant statement in the final G8 text is as follows: ``The scientific understanding of climate change is now sufficiently clear to justify nations taking prompt action. It is vital that all nations identify cost-effective steps that they can take now, to contribute to substantial and long-term reduction in net global greenhouse emissions''.

The actual text of the G8 statement that we signed is perfectly consistent with what we have been telling our own government in a variety of reports since 1992, whereas your interpretation of our 1992 report is not.

As you must appreciate, having your own misinterpretation U.S. Academy work widely quoted in our press has caused considerable confusion, both at my Academy and in our government. By advertising our work in this way, you have in fact vitiated much of the careful effort that went into preparing the actual G8 statement. As an unfortunate consequence, I fear that my successor, Ralph Cicerone, could find it difficult to work with the Royal Society on future efforts of this kind--both in this and other important areas for the future of the world.

Sincerely yours,

Bruce Alberts,
President.

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THE ROYAL SOCIETY,

London, U.K., June 9, 2005.
PROFESSOR BRUCE ALBERTS,
President, National Academy of Sciences,
Washington, DC.

DEAR BRUCE, Thank you for your letter of 8 June 2005. I am naturally concerned that our press release has caused so much difficulty for you in the Academy and with your Government.

I have read again the relevant part of your 1992 report, Your 1992 quote says, of course, ``despite the great uncertainties, greenhouse warming is a potential threat sufficient to justify action now.'' It then goes on to say ``This panel recommends implementation of the options presented below through a concerted programme to start mitigating further build up of greenhouse gases ....." Your report then immediately below (on the same page) in the section headed ``Reducing or Offsetting Emissions at Greenhouse Gases'' says

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Energy policy recommendations include reducing emissions related to both consumption and production." The next three pages of recommendations go into detail about how to achieve these reductions.

Given the very clear recommendations that your 1992 report contains for reducing greenhouse gas emissions, I fail to see how you could make the accusation that our press release misrepresents its contents. And clearly your 1992 report remains a definitive statement because you have placed a prominent link to it from the information about the joint statement on the home page of your website. The joint statement and your 1992 report both appear to me to be perfectly consistent with the statement in the press release to which you have objected.

I can understand that the Academy may have receive criticism for re-stating its position so clearly and so appropriately now. It is clearly not a politically convenient message for the U.S. Government, particularly at a time when media reports have suggested that there have been attempts to doctor official documents relating to the science of climate change . But the U.S. media coverage of the Academies' joint statement that I have seen appears rather favourable, as has been the media coverage in the UK. Indeed, the Philadelphia Inquirer published a supportive editorial today.

Some of the coverage has suggested that the release of the statement showed ``uncharacteristic political timing''. This, of course, was by accident, rather than design. We had originally hoped to publish the statement on 24 May, but agreed to delay until 8 June at your request. We were

completely unaware when we agreed to the change of date that this was so close to the Prime Minister's visit to Washington.

In the event, we only moved forward the release by a day when it became apparent that British journalists had discovered a neat-final draft of the statement on the website of the Brazilian academy. And we only issued the release after we had obtained explicit agreement from the Academy and even delayed contacting journalists until your officials had had the opportunity to brief the White House.

I am confident that we acted perfectly properly in this matter and am surprised by your comments. I am sure that our two academies will continue to work closely together as we have done in the past and as befits organisations with such similar objectives.

Yours,

Robert M. May,
President.

Mr. CRAIG. Mr. President, he said they had not changed their course and direction and they didn't agree with the Royal Academy's statement. They thought it was misleading. That is not what they said, not what they believe. It is not what they intended.

Then the head of the National Academy of Sciences wrote a letter to the Royal Academy. The Royal Academy basically said stuff it, it is our interpretation of what you said and we have a right for our own interpretation. No, the Royal Academy does not have a right to reinterpret the profound work of the National Academy of Sciences, the Hathaway study, the 1992 documentation that brought us to the scientific level we are today.

The reason we are having this gamesmanship in the National Academy of Sciences is because this is ripe politics. It is not substantive science. While there are those of us who believe there are strong indicators that this world is getting warmer, we are not so sure about the science yet. But we are sure--and that is why this legislation we are adding this amendment to, or attempting to add the McCain-Lieberman amendment to, is all about ``clean'' and all about new technology that is less emitting, has less greenhouse gas in it, and recognizes the importance that our country lead in this direction.

I spoke about that yesterday. I spoke about the intensity indicator as it relates to units of production instead of the false game of capping, because that is where you show how much carbon you are using to produce an element or an indices and a unit of economic growth. That is what this all ought to be about. The Hagel-Pryor amendment is about that. I am not going to slip into what some would call the false argument of the economy. But there is a profound argument to be made if you decide you are going to cap and control carbon in our country and distort the market and don't drive us toward new technologies of gasification and all of those things that reduce carbon in the atmosphere.

Let me tell you where it is. A few years ago, when we were debating against Kyoto and we said it would cause a recession here and cost nearly 3 million jobs, it was laughed at by some at that time. I am sorry, you were wrong and a few of us were right. Here are the facts to prove it. The chart speaks for itself. In the industrial sector of our economy, during the depth of the last recession we have just come out of, we lost about 2.5, 2.6, or 2.7 million jobs in that sector of our economy. It drove them down to 1990 levels of greenhouse gas emissions. In other words, we hit the targets of the Kyoto protocol by a recession that took away 2.9 million jobs.

Now, we have continued to grow some in transportation, residential, and commercial. But in the industrial sector, where the blue-collar American works, we drove them out of their jobs by the economy's inaction; whereas, if we had accepted the Kyoto protocol, accepted McCain-Lieberman in principle, we would have had to have the rules and regulations to accomplish 1990 levels, and that would have been the consequence.

Now there is a strong, legitimate, economic argument that has to be made. Unless you let the economy work its will, and you incentivize the economy to do exactly what it is doing, to do what the Senator from Delaware talked about, energy being used by industry in a way that is cleaner, every time you create a new job in this country, that job is a cleaner job. Why? Because it is employment from new technologies, and that economic unit of production is less carbon intensive, and those are the realities of where we are. We expressed that very clearly yesterday in the Hagel-Pryor amendment.

It is all about science, about new technologies, about creating partnerships with our foreign neighbors. It is not command and control and penalize. We want Third World nations to step up and to grow and to improve the economy and, therefore, the livelihood of their country for their own people. You don't do that by controlling them. That is why China would not step into this. That is why India would not step into it at the time of Kyoto and the protocol itself. Now they may be playing political games in this national academy joint statement of a month ago, but are they doing it substantively at home on the ground? China is going to burn a lot more coal in the future and, in large part, the way we can help them is to help ourselves by incentivizing the use of gasification and bringing that technology online, and doing so not with commanding and controlling but encouraging, incentivizing.

De Tocqueville was right, that regulations could kill the great American experiment. Regulations are the antithesis of freedom and freedom in the marketplace, so incentivizing is doing for us exactly what we want done on climate change today, changing the character of how we do it and the character of the energies we use and the cleanliness of it. It is beginning to recognize if you are for climate change , you have to be for nuclear electric generation and a combination of a lot of other things.

I hope our colleagues will oppose McCain-Lieberman. Command and control will not get us where we want to get without costing us jobs and building a big Federal bureaucracy to regulate the system.

I yield the floor.

Mr. *McCAIN*. Mr. President, I yield myself 2 minutes. I hear a lot of conversation in private, and sometimes even on this floor, about being political and the reasons for action are political. The Senator from Idaho just did a great disservice to the Prime Minister of England, Tony Blair. I happen to know him. I have discussed this issue. To impugn his motives as the Senator just said--trying to get back with his buddies because of his support--that is character assassination. It is patently false and a great disservice to the leader of one of our great allies.

I would never question the motives of my opponents. To say the Prime Minister of England is motivated by political reasons for the strong and principled stand he has taken on climate change demanded my response, because I know he is an honorable man and not on this issue driven by political reasons.

I yield the floor.

Mr. CRAIG. Will the Senator yield for a moment? Mr. President, will the Senator from----

Mr. INHOFE. I yield one additional minute to the Senator from Idaho.

Mr. CRAIG. The Senator from Arizona suggested I am impugning the motives of Tony Blair. If I am, I apologize for that. I have submitted for the

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record the statements of the Royal Academy of Science and the statements of the National Academy of Sciences, and I will let them speak for themselves. I know the politics in Europe probably as well as my colleague from Arizona. I know it is a very green politics, attempting to force this President and this Government to ratify Kyoto and the Kyoto protocol. We have said no to that. Tony Blair has put unmitigated pressure on this President. He has even lobbied us individually on it, suggesting we ought to get this President to change his mind.

The Senate spoke yesterday. The Senate has not changed its mind. We support our President. The timing, as the Senator from Arizona knows, of this was uniquely special in light of a July 8--I believe it is July 8--conference of the economic powers. So I would imply there is a lot of politics in this. I will take out of that conversation the personality of Tony Blair, although he personally lobbied me and other Senators.

ENERGY POLICY ACT OF 2005--Continued -- (Senate - June 21, 2005)
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Mr. HAGEL. Mr. President, I rise today with my colleagues, Senators *Pryor*, *Alexander*, *Landrieu*, *Craig*, *Dole*, *Murkowski*, *Voinovich*, and *Stevens*, to offer an amendment to H.R. 6, the Energy Policy Act of 2005.

This amendment incorporates two bills I introduced earlier this year, the Climate Change Technology Deployment Act and the Climate Change Technology Deployment in Developing Countries Act. Taken together, these bills propose a comprehensive, effective U.S. global climate change policy.

The climate change debate is not a debate about who is for or against the environment. No one wants dirty air, dirty water, prolonged drought or declining standards of living for their children or grandchildren. We all agree on the need for a clean environment and stable climate .

The debate is not about whether we should take action but, rather, what kind of action we should take. A sound energy policy must include sensible and effective climate policies reflecting the reality that strong economic growth and abundant clean energy supplies go hand in hand.

The amendment my colleagues and I are offering is comprehensive and practical. Bringing in the private sector, creating incentives for technological innovation, and enlisting developing countries as partners will all be critical to real progress on global climate policy. This amendment seeks to do exactly that, by authorizing new programs, policies, and incentives to reduce greenhouse gas intensity.

It focuses on expanding clean energy supplies, enhancing

the role of technology, establishing partnerships between the public and private sectors and between the U.S. and developing countries. Innovation and technology are the building blocks for an effective and sustainable climate policy.

This amendment uses greenhouse gas intensity as a measure of success. Greenhouse gas intensity is the measurement of how efficiently a nation uses carbon-emitting fuels and technology in producing goods and services. It best captures the links between energy efficiency, economic development, and the environment.

The first section of this amendment supports establishing domestic public-private partnerships for demonstration projects that employ greenhouse gas intensity reduction technologies. These provisions are similar to those of title XIV of H.R. 6 but are tied more directly to climate policy. This plan provides credit-based financial assistance and investment protection for American businesses and projects that deploy advanced climate technologies and systems. Federal financial assistance includes direct loans, loan guarantees, standby interest coverage, and power production incentive payments.

We are most successful in confronting the most difficult and complicated issues when we draw on the strength of the private sector. Public-private partnerships meld together the institutional leverage of the Government with the innovation of industry.

This amendment directs the Secretary of Energy to lead an interagency process to develop and implement a national climate technology strategy developed by the White House Office of Science and Technology Policy. It establishes an executive branch Climate Coordinating Committee and Climate Credit Board to assess, approve, and fund these projects.

The second section of this amendment provides the Secretary of State with new authority for coordinating assistance to developing countries for projects and technologies that reduce greenhouse gas intensity. Current international approaches to global climate change overlook the role of developing countries as part of either the problem or the solution. That is, at best, unrealistic and shortsighted.

According to the Congressional Research Service, China is already the world's second largest consumer of oil, with its demand projected to more than double over the next 25 years. It is estimated that coal-burning emissions by China alone, over the next 25 years, would be twice the emissions reductions that would be achieved if all nations that ratified the Kyoto Protocol met their obligations. China and other developing nations will not be able to achieve greenhouse gas reductions until they achieve higher standards of living. They lack clean energy technology, and they cannot absorb the economic impact of necessary changes to reduce emissions reductions. New policies will require recognition of the limitations of developing nations to meet these standards and the necessity of including them in future emission-reduction initiatives.

This amendment works with those limitations by supporting the development of a U.S. global climate strategy to expand the role of the private sector, develop public-private partnerships, and encourage the deployment of greenhouse gas intensity reducing technologies in developing countries.

Further, this amendment directs the Secretary of State to engage global climate change as a foreign policy issue. It directs the U.S. Trade Representative to identify trade-related barriers to the export of greenhouse gas intensity reducing technologies and establishes an interagency working group to promote the export of greenhouse gas intensity reducing technologies and practices from the United States.

Finally, the amendment authorizes fellowship and exchange programs for foreign officials to visit the United States and acquire the expertise and knowledge to reduce greenhouse gas intensity in their countries.

The action we take must be as comprehensive as possible in order to be effective in reducing international greenhouse gas emissions. That means any climate change initiatives we adopt must capture the links between energy use, the environment, and economic development in a global context.

Climate change does not recognize national borders. It is an international issue. It is a shared responsibility for all nations. Focusing on solutions that are too narrow may resolve one problem just to create or exacerbate another problem somewhere else in the world.

Consider, for example, the U.S. manufacturing sector. According to one recent study written for the National Association of Manufacturers, this sector accounts for some 15 million jobs in the United States, producing everything from semiconductors to food products. It is a cornerstone of our economy, and it is the largest consumer of energy in our country.

Rising energy costs and shrinking supply, especially of

natural gas , are already a factor in the loss of U.S. manufacturing jobs today. These rising costs, in part a result of regulations and other self-imposed limitations, contribute to a less competitive position for U.S. companies around the world--just as the world economy is becoming increasingly more and more competitive.

Some of these companies are going out of business. Others are going offshore to locations with lower costs and more accessible energy sources. In the end, long-term success will come from stimulating increased energy efficiency and new lower carbon systems, not from actions that set up a system to continually constrain energy supplies.

There are viable policy options for protecting the environment without sacrificing economic performance in manufacturing and other sectors here in this country or in other nations. That will involve ensuring adequate supplies of energy at globally competitive prices. By promoting new energy supplies and clean energy technologies, we could potentially add millions of new jobs and improve our economic performance, as well as the economic

performance of all nations, increasing all standards of living across the globe, assuring more stability and secure living environments around the world, with less conflict, less war around the world.

At the same time, there are policies under discussion today that would restrict energy supplies either now or in the future. These policies would hurt our economic performance without necessarily improving environmental quality. Too often, such policies are considered in isolation of other real-life factors instead of comprehensively and internationally.

America's climate policy needs to be a comprehensive policy that captures the links between our energy use and our economic and environmental well-being. That will mean expanding the availability of cleaner fuels and improving the efficiency of our energy use and production through new technologies. Right now, fuel substitution possibilities are limited, and the rate of innovation is not fast enough to keep pace with our demand.

Natural gas supplies in the U.S. are constricted. No new nuclear powerplants have been constructed in many years. Renewables are promising but not at an adequate level of development for the needs of our growing dynamic economy.

Achieving reductions in greenhouse gas emissions is one of the more important challenges of our time. We recognize that. In developing a sound energy policy, however, America has an opportunity and a responsibility for global climate policy leadership. But it is a responsibility to be shared by all nations.

Mr. President, I look forward to working with my colleagues; the Bush administration, which has done a significant amount in dealing with this issue, especially in market-based, technology-driven projects; the private sector, from which innovation comes; the public interest groups that help focus our attention; and America's allies--American's allies--key to any achievable climate change policies. I look forward to working with all of these individuals, institutions, bodies, and nations to achieve a climate change policy that is workable, sustainable.

By harnessing our many strengths, we can help shape a worthy future for all people in the world.

I encourage my colleagues to review this amendment, and I ask for their consideration and support.

Mr. President, I thank you and yield the floor.

The PRESIDING OFFICER. The Senator from Idaho.

Mr. CRAIG. Mr. President, let me say how proud I am to speak in behalf of and in favor of the climate change amendment we have just heard thoroughly explained by Senator *Hagel* and to thank him and Senator *Pryor* for joining in a bipartisan way to provide for us the underpinnings of a path forward on the issue of climate change and to meet both this Nation's and the global needs that are obvious when we talk about climate change and, in that context, economic progress.

In addition, this legislation will provide a sound basis for productive engagements with our friends and allies in sharing a need to cooperatively work literally around the globe on this issue. If we are talking about climate change , we are not talking about it only in the United States. It is literally the climate of the world we are talking about and a concern about those elements that are introduced by man into the environment that make the change or could make the change .

An essential element in this legislation is an active engagement of developing countries. My views on this point are not new, but I do believe they are worth repeating as we begin this important debate on national energy policy and as we step into the arena of climate change .

Our policy must recognize the legitimate needs of our bilateral trading partners to use their resources and meet their needs for their people. For too long, the climate policy debate has been about fixing and assigning blame and inflicting pain. This is most harmful. It is counterproductive. When the climate change community said to the world, save the world by turning out your lights and turning off your economies, the world in large part said: Wait a moment. We don't think we can do that. We have to look at this issue differently.

Our best technological advances, our research activities, all are focusing on how we become cleaner. And as we become cleaner, we immediately provide and send that technology to the world, and we meet their needs while they grow and develop and provide for their own people.

Senator *Hagel*, Senator *Pryor*, and those of us who support this amendment have made it clear that there are important issues we ought to be about when we talk about climate change . Above all, this legislation is a true acknowledgment that climate variability and change is a top priority of the United States and of all nations, and we have not shirked from that. There can be an honest debate about whether the United States should do more or whether too much reliance is being placed on voluntary initiatives. But to claim that the United States is not acting seriously reflects at best a lack of knowledge or at worst political posturing.

An objective review of government and private sector programs to reduce increases in greenhouse gases now and in the future would have to conclude that the United States is doing at least as much, if not more, than countries that are part of the Kyoto Protocol which went into effect last February. The best evidence of this is our domestic rate of improvement in greenhouse gas intensity relative to improvements in other countries. The term I just used--and it is one we ought to all become familiar with because it is the true measurement of this issue, not the politics of the issue, it is in fact the scientific measurement--``greenhouse gas intensities'' is defined in the legislation Senator *Hagel* has just offered as the ratio of greenhouse gas emissions to economic output. This is a far wiser measure of progress because it compliments rather than conflicts with a nation's goal of growing its economy and meeting the needs of its aspiring citizens.

Too much attention has been paid to the mandatory nature of Kyoto, and too little is resulting from it because nations simply can't go there. Most of the countries that ratified Kyoto will not meet the greenhouse gas reduction targets by the deadlines required by Kyoto. So why did they ratify it? Was it the politics of the issue or were they really intent on meeting the goals? We did not ratify it because we knew that it couldn't be done in this country. Yet we are the most technologically advanced country of the world.

Why couldn't it be done here? Simple reason: When we stated on the floor some years ago that we would have to take a hit of at least 3 million jobs in our country to dial ourselves down to meet the Kyoto standards, we were right. In fact, at the depths of this last recession we have just come out of, with 2.9 million people unemployed, we met the standards that we were supposed to meet under Kyoto. Most fascinating is the recent news that Great Britain needs more allocation of credits to meet its targets under Kyoto.

Imagine this, the most aggressive advocate of Kyoto, the nation best positioned to meet the requirements of the treaty, is now backsliding because they can't hit their targets. They need more relief.

At a recent COP-10--that is a climate change conference in Buenos Aires I attended along with many of our

colleagues--delegates from a variety of countries came up to us and said very clearly, we need the intensity approach in order to avert harsh, clearly unmanageable, unattainable consequences of Kyoto. Indeed, a conference delegate from Italy informed me and others attending COP-10 that Italy will bow out--they were early to ratify Kyoto--by 2012 because they couldn't comply with phase 2 of the treaty. Remarkable stuff? No. Real stuff. Now that the politics have died down, in every country except this one, where we still want some degree of political expression--now that the politics have died down in these other countries that have ratified the treaty, they don't know what to do because they can't get there.

Let me tell you what they can do. They can follow the guidance and direction of the Hagel-Pryor amendment that I hope will become law. In that law we will engage with them in the use of our technology to advance a cleaner fuel system and systems for the world and not have to ask them to turn their economy down.

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The United States is currently spending in excess of $5 billion annually on scientific and technological initiatives. That is far more than any other nation in the world. In fact, I believe we are spending more as a nation than all of the other nations combined on the issue of cleaner emissions--therefore, proclimate change ; pro-Kyoto. But nobody talks about it because it wasn't one bill. It wasn't one vote. It wasn't a great big press conference. It is a collective initiative on the part of our Government with some of our direction over the course of a decade to become better at what we do and cleaner in how we do it.

The Bush administration has entered into more than a dozen bilateral agreements with other countries to improve their energy efficiencies and reduce greenhouse gas growth rates and has received compliments from major industries and worked with them to make improvements in the use and the effective efficiencies of their energy sources. These programs are designed to advance our state of knowledge, accelerate the development and deployment of energy technologies, aid developing nations in using energy more efficiently, and achieve the 18-percent reduction in energy intensity by 2012, as our President laid out.

Domestically, the United States continues to make world-leading investments in climate change and climate science technology. The United States has also implemented a wide range of national greenhouse gas control initiatives, carbon sequestration, and international collaborative agreements.

Let me cite from a summary of what we have done: The climate change technology program, a $3 billion program; the climate change science program, a $2 billion program; DOE's registry for greenhouse gas reporting, another major program; DOE's climate vision partnership for industry reductions that includes 12 major industry sectors and the Business Roundtable.

Here are some examples: Refineries committed to improve energy efficiency by 10 percent between 2002 and 2012. The chemical industry will improve greenhouse gas intensity by 18 percent between 1990 and 2012. Mining sites committed to increase efficiency by 10 percent. That is in that initiative alone.

EPA'S climate leaders for individual company reductions: Over 60 major corporate-wide reduction goals are in place, including GM, Alcoa, British Petroleum, IBM, Pfizer, and the list goes on and on.

We could spend an hour talking about the initiatives that are underway in this country. What I told the chairman of the Energy Committee last night as we discussed the issue of climate change was: Mr. Chairman, we ought to take this whole bill and call it the climate change bill of 2005. Why? Clean coal, wind, solar, nuclear, hydrogen--all kinds of incentives and new technologies all designed to keep this economy roaring and to keep the economy greener, if you want to say it that way, certainly to keep it cleaner.

Remember the term that I used a few moments ago when I talked about the term in the legislation, to dramatically improve our greenhouse gas intensity as it relates to emissions per units of economic output. That is where the Hagel-Pryor bill goes. That is where this Senate ought to be going. But we still have an attitude around here that you have to point fingers and you have to inflict pain because that is the only way you can sell an idea to the American people. That is wrong. We have already proven that if we were to walk the walk and talk the talk of Kyoto, there would be 3 million Americans not working today. How would we deal with that? A wink and a nod and simply say we did it because it makes the world cleaner? I know what my young sons would say who might be out of work as a result of that. They would say: Dad, we are the smartest country in the world. We are the most technologically advanced. We can't figure out a way to do it better?

Yes, we can. And we are. The Hagel bill does it. That

is why we ought to be supporting it. The key issue is not whether there is any human influence effect on the globe today. Instead the issue is how large any human influence may be as it compares with natural variabilities in our climate ; how costly and how effective human intervention may be in reversing, justifying, moderating any form of variability that exists out there; if, in fact, we could possibly do it. What technologies may be required over the near and long term is to determine all that they relate to as it relates to intensity and the climate change issue itself.

It is an important issue for the Senate to address. I believe it has been brought to us today in the proper format, not only to drive technologies at home but to embrace other countries around the world. Why in the air high over Ohio today do we find carbon not from the United States but from China? And we do. Gases , carbon-containing gases , high in the atmosphere over the United States today are coming from the largest burner of coal as a nation in the world. And they are outside Kyoto, and we don't do anything about it. The Hagel bill does. It embraces them. It begins to work with them.

It begins to recognize that if we are going to clean up the world beyond where it is today, if we did it alone, it would be but a moment of time. We must engage our colleagues from all over the world in a comprehensive fashion that deals with technology, that causes the world to be relatively transparent in all that they do, for the developing nations of the world not to say to them, Just turn your lights out and stay where you are. They won't. They haven't. And now we

need to work with them to make sure that in our pursuit of a cleaner world, we allow our technology to embrace their problems along with our problems. That is recognized and understood by the Hagel-Pryor amendment. I am pleased to be a cosponsor of it.

I urge my colleagues in the final analysis of this debate, this is the right direction to go. We ought to take it and be happy we are moving in this direction.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -- (Senate - February 15, 2005)

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Mr. CRAIG. Mr. President, I am pleased to be on the floor at this moment to join my colleague *Chuck Hagel* in the introduction of legislation that he has put together out of a variety of avenues of interest and importance to deal with the issue of climate change , a issue in which he and I have been engaged for a good long while. I am not quite sure how many years ago it was that I, as the freshman chairman of the Republican Policy Committee, turned to *Chuck* to see if he could bring Senators together in a bipartisan way on what we believed at the moment--and we still believe today--was a critically important issue to be addressed.

Out of that effort grew the Hagel-Byrd resolution which passed this body by an overwhelming vote, and was a very clear message to America--and to the world--on what we believed was necessary and important if we were to responsibly and effectively engage in the debate of climate change outside and well beyond the Kyoto protocol.

The legislation Senator *Hagel* brings to the floor today, of which I am proud to be a cosponsor, is what I believe is a needed and necessary next step to work cooperatively with this administration and with countries around the world to begin to recognize all that is the makeup of this issue.

Our policy must recognize the legitimate needs of our bilateral trading partners to use their resources to meet the needs of their people. Yet, at the same time, the initial debate basically suggested that if in fact human involvement in the climate of the world was changing the climate of the world, the only way you could save the climate was to turn the lights out. It did not address the human need. It did not address the economic growth that was critically necessary at that time. That is why our country pushed back and said no, we would not ratify Kyoto;

that we would go much further than that in bringing about the changes that were necessary and that this administration engaged in.

This legislation does a great deal more toward recognizing the need for bringing resources together.

Senator *Hagel* has made clear the other important things this legislation will do. Above all, this legislation is a true acknowledgment that climate variability and change is a top priority as an issue for the United States--and for all nations--to be involved in.

There can be an honest debate about whether the United States should do more or whether too much reliance is being placed on voluntary initiatives, but to claim that the United States is not acting seriously reflects, at best, a lack of knowledge or , at worst, political posturing.

An objective review of Government and private sector programs to reduce increases in greenhouse gas now and in the future would have to conclude that the United States is doing at

least as much, if not more, than countries that are part of the Kyoto Protocol which will go into effect tomorrow. The best evidence of this is our domestic rate of improvement in greenhouse gas intensity relative to the improvements other countries are making.

The term I just used, ``greenhouse gas intensity,'' is defined in legislation as the ratio of greenhouse gas emissions to economic output. This is a far wiser measure of progress because it complements, rather than conflicts with, a nation's goal of growing its economy and meeting the needs and aspirations of its people.

Too much attention is being paid to the mandatory nature of Kyoto. Too little results are being achieved. It is very interesting to note that most of the countries that ratified Kyoto will not meet the greenhouse gas reduction targets by the deadlines

required by Kyoto. Indeed, when I and Senator *Craig Thomas* and Congressman *Joe Barton* were in Buenos Aires at the COP-10 conference in December, many nations were quietly acknowledging that they could not get to where they promised they would get, and, in fact, some have even suggested that by 2012 they would find it incumbent upon themselves and their nations to back out of Kyoto. However, all still recognize the importance of this issue, understanding it, and clearly defining it.

What Senator *Hagel*'s legislation does is shape for us a variety of things that are already underway, while still allowing us clearly to define them and to say, both here at home with our domestic policy as well as internationally, that we mean what we say and we mean what we do.

The United States is currently spending in excess of $5 billion annually in scientific and technological initiatives. When we were in Buenos Aires, I was very proud to stand before my colleagues from around the world and before nongovernmental organizational groups and state that the United States is spending more on this issue, in both advances in science and technological change , than the rest of the world combined times two. Then I reminded them that all that we do, they could have also: that our technology would be in the world, that our science would be available to them, and that to work our way out of or to change the character of our economies without damaging those economies would in large part be the responsibility of new technologies.

This legislation does not pick one technology over another or one energy source over another. That has always been the debate. Somehow we had to go around and selectively turn out the lights if we were going to change the climate around us. We knew that was not acceptable to the developing world and in large part that is why the developing world would not come along. How can you deny a country the right to use its resources for the economic, humanitarian, and health benefits of its people? You cannot do that. Nor should we be engaged in trying to do that.

What we can do as a developed and advanced Nation is offer up exactly what we are doing; offer up what the Hagel legislation brings together. That is all we are doing now, and advancing and incentivizing, through this legislation, countries to do more in the area of technology.

These programs are designed to advance our state of knowledge, accelerate the development and the deployment of energy technologies, aid developing countries in using energy more efficiently, and achieve an 18-percent reduction in energy intensity by 2012--a phenomenally responsive goal and something we clearly can take to the world community.

Our administration today in a series of bilateral agreements is working with other countries to help them get to where we want and where they want to get, and for the sake of the environment, where we all want us all to go.

I was extremely proud sitting in different forums in Buenos Aires to see the United States talk about the leadership role it has taken and the bilateral partnerships it has agreed to, and all the things that we can help with in the world of change today. It is clearly to our advantage and to the advantage of the world at large.

What Senator *Hagel* has effectively done today is to get our arms around this issue to try to more directly define it, and to show that we are sensitive to it; that we are responding to the issue as clearly as our administration has and continues to do.

Domestically, the United States has and continues to make world leading investments in climate change science technology. The United States has also implemented a wide range of national greenhouse control initiatives, cash sequestration programs, and international collaborative programs. All of those are bound up within the bilaterals I have talked

about that we are engaged in.

The legislation we have introduced today furthers all of these goals.

President Bush has consistently acknowledged how human activity can affect our climate , and that the climate variability does not recognize national borders. The key issue is not whether there is any human-influenced effect. Instead, the issues are how large any human influence may be as compared to natural variability; how costly and how effective human intervention may be in reversing climate variability; and how and what technology may be required over the near and the long term as determined by developments in climate science.

As I said, there can be a legitimate debate about whether more can be done while meeting our Nation's economic objectives. I, for one, support doing more in the areas of technological development to help lift developing countries from the depths of their plights and to advance their cause as we advance ours. That is why I am proud to be working with my colleagues in the Senate. I thank Senator *Hagel*, Senator *Alexander*, Senator *Dole*, and others for the hard work they have put in and the cooperative effort reflected in the bill introduced this afternoon.

I yield the floor.

AUTHORITY FOR COMMITTEES TO MEET -- (Senate - January 26, 2005)
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SUBCOMMITTEE ON CLEAN AIR, CLIMATE CHANGE AND NUCLEAR SAFETY

Mr. CRAIG. Mr. President, I ask unanimous consent that the Subcommittee on Clear Air, Climate Change , and Nuclear Safety be authorized to meet on Wednesday, January 26, 2005, at 10 a.m. to conduct a hearing regarding multiemissions legislation. The hearing will be held in SD 406.

The PRESIDING OFFICER. Without objection, it is so ordered.

ENERGY -- (Senate - January 18, 2007)

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Mr. CRAIG. Madam President, I come to the Chamber today to speak about efforts that are now underway in the 110th Congress to deal with an issue the American people have become tremendously sensitized to over the last couple of years--the issue of energy, the availability of energy, and the cost of energy. I believe it is important, as we look at cost and America's reaction to it, to recognize that while Americans are paying a higher price for energy today, there has never yet been a question about the availability of energy and the supply itself. I think we forget that when we paid, in midsummer, $3 at the gas pump for gas and substantially more for diesel, it was always there, it was always available, and that never became the issue.

What I believe is important for us today, in the new Congress, under new leadership in the House and the Senate, is to not only focus on the availability of energy but also move ourselves toward being a nation that becomes independent in its ability to produce its own energy--all kinds, in all ways--for the American consumer.

I find it fascinating that somehow, in the midst of all of this, we have forgotten that while the energy is still at the pump, the lights still come on when we throw the switch in our house in the morning, and America is awash in the use of energy, we have become increasingly dependent on foreign sources for a substantial portion of the very energy that moves this country. Here is a chart which I think demonstrates that. Today, arguably, we have become 60 percent dependent upon someone else producing our hydrocarbons--our oil to produce our gas and our diesel and, of course, the plastics our country uses as a derivative of that.

In this new Congress, we should focus as aggressively as we did in the last Congress in the creation of the National Energy Policy Act of 2005. We ought to now move a major step forward toward energy independence by not only encouraging the increased production of all forms of energy but looking to see if Government stands in the way of that.

Is Government promoting it or are we inhibiting it and forcing those who supply our energy to progressively seek offshore sources of that supply?

The new Committee on Energy and Natural Resources that I serve on, under the guidance of **JEFF BINGAMAN,** recently held a hearing on who supplies the oil for the world. Is it ExxonMobil? No. Is it Conoco? No. Is it Phillips? No, even though we think it is because that is where we get our fuel when we go to the gas pump. What we found out and what many have known is that 80 percent of the world's oil supplies are controlled by governments. And they are not our Government. They are controlled by government or government-owned companies.

I recently gave a speech to a group of oil producers. I talked about petro nationalism and a growing concern in this country that the world that supplies this portion of our oil can use their political muscle but, more importantly, the valve on the pipeline of the oil supply, to determine the kind of politics and international relations they want to have with us, knowing how we have become so dependent upon that supply.

I hope we continue to focus on supply and availability instead of doing what some are saying we are going to do. We are going to punish the oil companies because they are making too much money. We are going to tax them, and we are going to tax the consumer because somehow that will produce more

oil? No, no, no. That is politics, folks. That is, plain and simply, big-time politics, to show the consumer you are macho, that somehow you will knock down the big boys who supply the oil.

Ask the questions, if you are a consumer: Will that keep oil at the pump? Will that keep gas available to me? Will that produce more gas to bring down the price? Those are the legitimate questions that ought to be answered when the leadership of the new Senate says: No, we will muscle up to the big boys and knock 'em down because somehow they may be price gouging. Yet investigation after investigation after investigation suggests that is quite the opposite. That simply is not happening.

Nowhere are they going to tell you in all of this political rhetoric that I would hope would take us toward energy independence and a greater sense of energy security in our country that the new deep wells we are drilling in the gulf that produce or new oil supply could cost upward of $1 billion a well in actual expenses before the oil begins to flow out of that well and into the ships or into the pipelines that take it to the refineries that ultimately put it in the pipeline that get it to the consumers' pumps. And the issue goes on and on.

I hope that in this Congress, while some will want to play politics, a good many will focus on the reality not only of what we have done, which has been very successful in the last few years--and that is the Energy Policy Act of 2005--but go on with the business of setting goals and driving incentives that move us to energy independence. It is phenomenally important we do that as a country. Long-term investment, new technologies, clean sources of energy are going to become increasingly important.

But more important is that we can stand as a Nation and say we are independent of the political pressures of the Middle East or the political pressures of Venezuela or the political pressures of Central Europe and Russia, that now control the world's supply of oil. That is what Americans ought to be asking our Congress at this time. Are you going to ensure an increased supply? Are you going to ensure a greater sense of independence by the reality of where our oil comes from?

This is not just an issue of oil. We know it is an issue of new technology. It is an issue of cleanness. It is an issue of nonemitting greenhouse gas sources of energy because today we are all about clean energy. And we ought to be. Yet we understand the agenda for climate change is going to be a punitive one, one that would obviously distort a market's growth toward cleaner supplies. It is called cap and trade or command and control instead of saying, yes, that is the old technology. Now let's invest in new technologies. Instead of penalizing, let's create the incentives that move toward new technologies and let us then lay down the old. That is how we cause America to become increasingly energy independent. I am talking climate change.

The Speaker of the House yesterday did something very fascinating. She couldn't get the climate change she wanted out of her own committee so she has created a new select committee on climate change to be headed up by Representative **ED MARKEY.** I remember Representative *Markey* over the years: All antinuclear, day after day, year after year. He lost that battle. Americans said: You are not going to go there anymore. You are going to start producing energy because it is clean. Now he has been assigned a select committee on climate change.

Congressman *Dingell,* who chairs the appropriate committee, said select committees are about as useful as feathers on a fish. Congressman *Dingell* gets it right.

What is useful, what is important in the argument of climate change, is new technology, it is incentives, it is producing energy in today's market that is, by any dimension, cleaner than what we produced in the past. You do not penalize the producer, you incentivize the producer to make sure that

they move in the direction of clean energy. When you do that, you also say, as we said in the Energy Policy Act of 2005, and as we sought to say again and again and again to the consumer, we are going to provide you with the tools to conserve, to become more efficient in your use of energy.

All of those things, in combination over the next 10 to 15 years, clearly ought to allow this country to stand up and say we have narrowed this gap; we are more independent as a Nation today in our supply of energy than we were in 2007, and we are more independent because our Government stood up, got out of the way, incentivized,

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created those kinds of tools that the private sector could effectively use for an ever-increasing supply of clean energy and that we, as consumers, were given the tools to become more efficient in the use of those clean supplies of energy.

I hope that ought to be and will become the mission of this new Congress, not to play games with the politics they thought brought them to power but to realize that the American consumer still is going to ask that the gas pump be full of energy, that the light switch supplies electricity in the morning and that, hopefully, it will come in a cleaner form and it won't cost any more than it has cost in the past in relation to cost of living and inflation.

Those are the realities of a marketplace that we ought

to help, not penalize. Is that politically wise to do? In the long run, it is very politically wise to do because then America can stand on its own two feet. It will not have to bow to the suppliers, such as Russia and the Middle East, and to let a dictator in Venezuela jerk us around because he has a major supply of oil. We can say: No, we supply our own. We are independent. We have been responsible in doing so, and we did it in a clean and diverse way.

It is a phenomenal challenge for us but a challenge that is important to meet.

The PRESIDING OFFICER (Mr. *Nelson* of Nebraska). The Senator from Georgia.

(The remarks of Mr. *Isakson* and Mr. *Alexander* pertaining to the introduction of S. 330 are located in today's **RECORD** under ``Statements on Introduced Bills and Joint Resolutions.''

The PRESIDING OFFICER (Mr. *Obama*). The Senator from Iowa.

Mr. GRASSLEY. Mr. President, I rise to talk about energy, and I start by reminding people, as well as my fellow Senators, that in August 2005, the President signed an energy bill that was very comprehensive--probably tilted toward renewable fuels, such as ethanol, and toward conservation, such as fuel cell cars, but also a small part of it was some incentives for domestic fuel, petroleum production, for refining and for distribution and for things of that nature.

It was a very comprehensive bill because we were concerned about the price of gasoline. We were concerned about what working men and women of America were having to pay. We were concerned about national security. There were a lot of reasons for passing that bill.

But then you get into an election year, 2006, and the impression you get from the election rhetoric is that we never had an energy policy, never passed a bill, or what we did pass was only for the big oil

companies, and that there was no concern whatsoever about national security, there was no concern on the part of the Senate, when we passed that Energy Policy Act in 2005, about what many working men and women were paying for gasoline and things of that nature.

And all of this rhetoric against it--or what was said about it, if anybody wanted to admit we had an energy policy passed by Congress--was that it was all for big oil. I wish to remind people that bill was overwhelmingly bipartisan. But yet during the last campaign, one political party talked all about giveaways to big oil, never talked about ethanol, never talked about conservation, that it was an energy bill that was just for big oil and for big corporations, making the other political party out to be nothing but for big corporations, as opposed to what our incentive was: to drive down the price of gasoline and to have an adequate supply of gasoline and not be dependent so much upon foreign sources of oil, which was our motivation.

So I am here, now that the House of Representatives is working on a bill that deals with energy policy, and particularly to repeal what was referred to in the last election as ``sweetheart tax deals for big oil'' that were included in that Energy Policy Act of 2005, to say this bill that we passed was very well balanced for ethanol, alternative energy, conservation, with a small part of it for domestic oil production, and how intellectually dishonest it is to refer to this bill as a giveaway to big oil.

I will use some statistics to back up what I am referring to. At the time we considered the Energy Policy Act of 2005, I was chairman of the Senate Finance Committee because my party was in the majority. So I played a central role in developing the tax title, along with my colleague, Senator *Baucus*. So, in fact, it was a very bipartisan bill. In fact, Senator *Baucus* and I produced, on a bipartisan basis, this comprehensive tax package that included provisions to increase domestic energy production, increase energy efficiency, and increase the development of alternative and renewable energies.

On the whole, I think the effort was a success. All you have to do to know it was a success is to look at the explosion in the building of ethanol plants throughout the country--most of them in the Midwest but throughout the country--as people are going to alternative energies, renewable fuels now because ethanol is made from crops that are growing from year to year. So I think the effort was very much a success, and that is one small part of it being a success.

The Senate tax title was supported unanimously--I wish to emphasize unanimously--because there, at that time, were 11 Republicans and 9 Democrats on the committee. It came out of our committee unanimously. This bill, which during the last election was talked about as a giveaway to big oil, came out of our committee unanimously and eventually passed the Senate 85 to 15. And the conference agreement, ironing out the differences between the House and the Senate, passed by a margin of 74 to 26.

So throughout the whole process it was bipartisan, that this was the answer to the energy problems facing the Nation--not that it was the end-all and be-all, but it was a very comprehensive effort and a successful effort to solve the energy problems of our Nation.

The entire tax package that was in this bill, the Energy Policy Act of 2005, had a budget score of $11.1 billion over 10 years.

According to the nonpartisan Congressional Research Service, $2.6 billion or 18 percent of the package was for oil and gas production, refining, and distribution. Distribution isn't always by the big oil companies. So 18 percent--that is why I said our bill, passed in 2005, signed by the President, was overwhelmingly tilted toward renewable fuels and toward conservation, not toward domestic petroleum

production. According to the Joint Committee on Taxation, the tax title of the Energy Policy Act actually raised taxes on oil and gas companies by at least $224 million.

Understand, this was described in the last election as a giveaway to big oil. Yet nonpartisan staff said that oil and gas companies ended up paying $224 million in new taxes. In the last election, the tax title was characterized as tax giveaways to big oil, anywhere from $9 billion to $14 billion. How do you get $14 billion, if you want to say it was 100 percent for big oil instead of 18 percent? How can you say a bill that was scored at $11.1 billion could end up being a giveaway of $14 billion? It doesn't add up. And figures don't lie.

At a time of record high gas prices last year, the other side accused the Republican majority of failure of leadership. They said it was time to rewrite the Energy bill and stop the billion dollar tax giveaways for big oil, the same kind of misleading insinuations I have been referring to on another issue they had in the last campaign, about the fact that we ought to negotiate with drug companies to get prescription drug prices down, when we are already doing that, as I pointed out in some speeches last week. For the 24 most-used drugs by seniors, the plans that are negotiating with the drug companies have negotiated prices down an average of 35 percent.

Getting back to energy, during the same campaign cycle, Members on the other side sold the taxpayers a bill of goods. They committed to repealing all the tax giveaways to big oil that the Republican Congress included in the Energy Policy Act of 2005, which ended up with $224 million more coming in from oil and gas. With the results of the November election, I presume they believe they were given a mandate from the voters to take away all of those ``tax giveaways''--the words they used--in that bill. We heard the arguments over and over, both here on the Senate floor and across the country on the campaign trail. But now that the debt has come due, it is time for the new Democratic majority to deliver on

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their promises to the American people. So what have they come up with to repeal? How much money are they going to take back from big oil to alleviate consumer pain at the pump? Just one provision--that is right, one provision.

After all the demagoguery against our party and the Energy bill that passed by an overwhelming bipartisan majority, supposedly because of ties to big oil, are they accusing the Democrats who voted for it of ties to big oil as well? And they are going to repeal what? One single tax provision enacted in the Energy Policy Act signed by the President in August of 2005. Of course, that is only half the story. It turns out this outrageous ``tax giveaway'' to big oil is scored by the Congressional Budget Office to save the U.S. Treasury $104 million over 10 years, not the $14 billion that was the outside figure used during the campaign, not $1.4 billion but $104 million.

I am a family farmer from New Hartford, IA. I know $104 million is still a lot of money. But it turns out to be less than 1 percent of the entire package of the energy tax incentives included in that Energy Policy Act that came out of my committee on a unanimous vote, all Republicans and all Democrats, and passed the Senate in an overwhelmingly bipartisan manner. So in a desperate attempt to increase the size of the tax penalty on domestic oil and gas producers, they have also included the repeal of the oil and gas industry's eligibility for the manufacturing income tax deduction. That is not just for oil and gas; that is for all manufacturing in America. This was another bill, in 2004, that passed overwhelmingly with a bipartisan majority. The American JOBS Creation Act of 2004 was a new law supported by 69 Senators--that is bipartisan--that contained far-reaching measures to revive the manufacturing base in America because of outsourcing.

We did that by cutting taxes so that the cost of capital is competitive with the cost of capital overseas, so we don't lose jobs overseas. We also created incentives for people to invest in the United States instead of investing overseas. It devoted tax benefits to American manufacturers in the form of a 3-percentage-point rate cut subject to the payment of wages to their employees. If they didn't hire more people, they didn't get the benefit. Remember, it was called the Americans JOBS Creation Act. This manufacturing tax cut goes to large and small corporations, family-held S corporations, partnerships, sole proprietors, family farmers, and cooperatives. If you manufacture here, you get the tax cut here. If you manufacture overseas, you don't get the tax cut. It was only for manufacturing in the United States, and it was only for U.S. manufacturers that paid employees' wages. It was not for manufacturing offshore and it was not for folks who only manufacture and hire overseas.

In defining U.S. domestic manufacturing, Congress included in the definition all things that are extracted or grown, including what the family farmers grow. That means that all domestic minerals and the people who produce domestic minerals receive benefits. And that would include extraction of domestic--meaning here in America--oil and gas and the production of products made out of our own oil and gas.

It seems very strange to me that if you want to become less dependent upon foreign oil, the first thing you would do, in your first 100 days being in the majority for the first time in 12 years, is to increase the taxes by 3 percentage points on domestic production of oil and gas, which was part of the American JOBS Creation Act of 2004, which passed in a bipartisan majority in the Senate.

In addition, the House proposal also increases the taxes on all refinery products. That means your home heating oil and your farmer's diesel used to run the machines that harvest the crops. In addition, fertilizer is a primary product of natural gas, so midwestern family farmers are going to be hurt and not helped by any of this proposal. That is what is coming out of the other body to this body to consider. Maybe because it is represented by so many people from the big cities of America, they don't realize food grows on farms. It doesn't grow in a supermarket. Maybe they don't realize what they are doing to the American farmer. But we don't need the cost of our anhydrous

ammonia, which last summer was $550 a ton compared to about $250 a ton 2 years ago--so we have fertilizer to grow our crops--to be driven up still more.

In the 100 days of the new majority, this is what they are doing to the American consumer, the American farmer. All of this in the new House majority so they can rewrite and adopt a campaign promise to cut tax benefits to big oil. It is an example of a problem they made up that now they have to deliver on. In the process, they are going to hurt the family farmers, hurt the consumers, and cut out one of the things this body adopted in the JOBS Creation Act of 2004, to create manufacturing jobs in America, incentives to invest in America so that we don't have outsourcing.

If they wanted to get back at Exxon--that is big oil, if there ever was big oil--they missed the mark. The people who produce here in the United States are the same people you go to church with and your kids see in school. If you want to become more dependent upon foreign oil, then you should be happy with this proposal coming out of the first 100 days of the new majority in the new House of Representatives. If you want to create incentives for the production of U.S. lower 48 domestic oil and gas, then this quite obviously is the wrong policy, all for a campaign gimmick, all for campaign pandering. That is not right, to teach the family farmers and the consumers of America, who are already paying enough for their prices and are suffering from high energy costs, to do more by taking away this 3-percent point tax incentive we gave for investment in America to create jobs in America. If it is made in America, you get the benefit of it. If it is made overseas, you don't get the benefit.

Granted, there were also three provisions relating to royalty relief that were included in their bill. Two were included in the bipartisan Energy Policy Act, and one seeks to remedy an error caused by the Clinton administration bureaucrats in the Interior Department of 10 years ago. I will leave those discussions to the people who are best prepared to answer those, my colleagues on the Energy and Natural Resources Committee, who have jurisdiction and expertise in this area.

I also point out to my colleagues and constituents that I am not beholden to big oil or the energy industry. In the years I have been in the Senate, I have battled big oil, because they hate renewable fuels that we call ethanol. They don't want you burning anything in your gas tank that doesn't come out of their oil wells. They don't want you burning in your gas tank those things that come off the farmers' fields in the way of corn from which we make ethanol, also for all of the sorts of things that they don't like, what we call energy conservation and forcing electric utilities to use renewable portfolio standards within the industry. I have supported biodiesel. I have supported ethanol. I have supported renewable portfolio standards--all things that big corporations in America don't like. But we have been successful in doing it.

I have relentlessly chased the bad players in the petroleum industry at all levels, both legal and illegal. As chairman of the Senate Finance Committee, we closed over $10 billion in tax provisions that the President signed into law, shutting down fuel fraud and folks stealing fuel excise taxes from the Highway Trust Fund. These are real provisions, collecting $10 billion of taxes that were evaded that will no longer be evaded.

So what are the facts concerning the track record of the previous Congress and the President of the United States on energy policy and promoting renewable and alternative energy, and what is wrong with the rhetoric of the last campaign that led people to believe it was something different than we ended up passing? We extended and expanded the production tax credit for electricity produced from renewable sources such as wind, biomass, geothermal, and landfill gas. We enacted tax credits for the purchase of hybrid fuel cells and advanced lean burn diesel vehicles. We enacted incentives for the production and use of ethanol and biodiesel and the infrastructure to dispense that fuel.

The distinguished Presiding Officer contributed the idea behind doing that, so we would set up more biodiesel pumps at stations through the 30-percent tax credit that the Senator from

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Illinois thought of. I thank him for that idea. I was very happy to work with him on that. That is the distinguished Presiding Officer. We enacted the first ever renewable fuel standard for ethanol and biodiesel that has led to fantastic growth in the industry.

With regard to energy efficiency, we enacted incentives for efficiency improvement for new and existing homes and commercial buildings and for energy-efficient home appliances.

According to the clock in the other body, we are still somewhere within the first 100 days of the new Democratic majority, and again we see another example of legislative action not living up to campaign rhetoric. A word of caution to voters across America: Beware of the goods that you might be sold during an election. That applies to both Republicans and Democrats as far as I am concerned. In the case of repealing the ``big oil tax giveaways''--those are words used in the last election--from the Energy Policy Act, it turns out in fact to be a pig in a poke.

I yield the floor.

The PRESIDING OFFICER. The Senator from Nevada is recognized.

Mr. ENSIGN. Mr. President, we are debating an important piece of legislation. The American people are rightly frustrated with the process Congress uses to consider. That is to say, it is not done in the light of day and with full transparency. They believe lobbyists have too much influence on this institution. Last year, we tried to pass a lobbying reform bill to help clean up some of the ways that we do legislation around here. We were not able to come to an agreement between the House and Senate, so there is another effort underway this year.

I think this legislation is very important. Republicans support reform. We have been offering relative amendments to make Congress more accountable to the American people. More transparent. These amendments will address the problems that have existed for some time. The majority, however, is trying to end the debate on this bill. They are not willing to let the Senate consider some very important amendments that will improve how Congress handles the people's business. I will mention a couple of my own amendments to this legislation in just a moment. I would say that the majority would be right to cut off debate, if Republicans were strictly trying to obstruct passage of this bill. Then their parliamentary move would, I agree, be appropriate. But the minority is not being obstructionist. We have legitimate amendments that deserve to be debated and voted on. Senators deserve to be heard. It is not right for the majority to try to railroad this piece of legislation through this body without giving Members their right to have amendments debated. Particularly when those amendments are not being used as a delaying tactic. I simply do not believe that is the way this institution should be run. That is why, last night, 45 Senators voted against what is called cloture. That would have brought debate to a close and would have brought any attempt to improve this legislation to a close.

Let me give you two examples of legitimate amendments that have been offered and why they are important to be debated and voted on.

The first amendment I want to talk about addresses provisions where this bill falls short, particularly with respect to transparency and to allow the American people to observe how this Congress operates. Section 102 of this bill is an example of where the bill falls short. I commend the authors of the legislation for including this section. The intent is to stop the conferees from putting unrelated pieces of legislation in a conference report. Too often in the past conferees have inserted provisions in the conference that were completely unrelated to the bill. This simply is not the way the Congress should be legislating. The Senate should not bypass the regular legislative process. When we do, it means we are passing legislation, in some cases, without even holding a hearing. This process also denies Senators the opportunity to debate and offer amendments to improve unrelated provisions. But the most offensive part of this is that it is done outside of the public's view.

In a democracy such as ours, Congress should do its business in the full light of day. The entire Senate should consider, debate, and amend legislation in full view of the American public. I often hear from constituents who have concerns about legislation we are debating on the Senate floor. That feedback has always been important to me. I have always appreciated Nevadans who have taken the time to participate in the legislative process. So when we insert unrelated matters into a conference report, we deny the American people the chance to observe what we are doing, to participate in that process, and to be heard. That is why I fully support the intent of section 102 of the bill because the intent is to fix that which is broken.

In my review of this section, and after consulting with the Senate Parliamentarian's Office, I don't believe that the current language in this bill will work. This section will not change what we are saying needs to be changed. What do I mean? First and foremost, section 102 states that a Senator may object to a conference report that contains provisions that were not considered by the House or the Senate. That

sounds good. As written, this sentence reads how rule XXVIII actually operates; that is to say that the point of order is raised against the entire conference report and not the offending provision or objectionable item

in a conference report.

While the intent of section 102 is to allow a Senator to object to a single provision that is added into the bill, the bill is not written to allow that. My amendment makes it clear that the point of order is to be raised against an individual item that is in the conference report and not the conference report itself. In other words, this small, simple change is absolutely critical to the process because if you want to strip something out of the bill, without my amendment you cannot strip a single provision out of the bill. You raise a point of order and it brings the entire conference report down. Why is that important? Well, let me tell you why it is important.

For instance, we had a port security bill last year. There was an unrelated item put into the port security bill. There may have been objections to that item, but if one had raised the point of order, it would have brought the whole port security bill down. Nobody wanted to do that. It was an important piece of legislation. Without my amendment, that is the way we would continue to operate.

But that is not what section 102 in this bill states. Its intent is to be able to surgically go in and cut out a piece that is added in the dead of night, behind closed doors, in a conference report--the types of things that, frankly, most Americans find objectionable. So this is one of the reasons that we should not be passing this legislation until the Senate has carefully considered each provision of this bill. We should allow for amendments to go forward, to be debated. We should make sure that we get things in this bill right before it leaves the Senate, so that when it is joined with the House's bill, we have done the best possible job to ensure that we cleaned up the way we do our business.

I have another amendment that I want to talk about. This illustrates the other important point of why it is important to allow Senators to have their time with amendments.

The minority--the Republicans in the Senate--want legitimate amendments to improve this legislation. I believe we should have the right to offer those amendments.

The second amendment I want to talk about is to ensure that our men and women in the military, those serving in harm's way, remain our top budget priority. I want to speak about protecting defense spending from being raided and used for nondefense purposes.

Over the past several years, there have been several congressional scandals that have undermined public confidence in government. It is my sincere hope that this legislation before us will be the first of many steps to restore that confidence. The message to both parties last November was that Congress has to change the way we operate. The American people will no longer accept some of the practices of the past, nor should they. It is up to this body to change our practices, to reform how Congress does the people's business. We should ensure that our dealings are transparent, that we are accountable, and that we are honest with the American people.

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The tradition of America is that we rise to the occasion. Americans have a history of meeting the challenges that we face together. Each generation has met obstacles and overcome them. For Congress's part, we must be honest and straightforward with the American people about the nature of the challenges

facing our Nation.

Unfortunately, in some respects, Congress has not lived up to its end of the bargain. We have been using sleight of hand and budget gimmicks to mask our out-of-control spending habits. Over the past 5 years, Congress has been underfunding defense in the regular appropriations process in order to shift some of those funds into what are called other discretionary programs that are nondefense items.

The game being played, with a wink and a nod, is that if we underfund defense in the regular appropriations process, we will then make defense whole with what are called emergency supplemental bills. In some instances, Congress has shifted as much as $11.5 billion from defense to nondefense spending in just 1 single year. We know that emergency spending has increased substantially in each of the last 5 years.

I have a chart to illustrate this. In the years 1990 to 1993, under the first President Bush, we had a total of $115 billion in emergency supplementals. During the Clinton administration, the total was just about the same, $115 billion. Since President Bush has been in office, there have been a total of $585 billion in emergency supplementals. Now, we have had 9/11, Katrina, and we have had the war against Islamic extremists around the world, including the wars in Afghanistan and Iraq, that account for most of that spending but not for all of it.

This increased reliance on supplementals coincides exactly with the same time period in which defense has been underfunded. The effects of this gimmick are not felt just in 1 year either. Because of the way we do budgeting, called baseline budgeting, money that is shifted from defense in 1 year is really a permanent shift in funding. And, as a result, a $1 billion shift represents not only a shift of $1 billion this year, but that is put in the baseline next year and adds up cumulatively in perpetuity.

Let me point out exactly how this works and illustrate it. In 2002, $1.9 billion in new spending was shifted from the Department of Defense. That new spending is built into the baseline in the next year. The green part of the graph is from the previous year. The red part on top of that is the amount that defense was underfunded and shifted into other programs that year. Take that and shift it into the next year, and on and on, where we have a total of 4 years later built into the baseline the $29 billion that we have shifted from defense into other programs. That is one of the reasons spending is out of control in Washington, DC. What was labeled as defense spending is not spent on defense and is then being made up in supplemental appropriations bills. Which is a clever way to disguise increased spending in other places. People in Washington have talked about spending around here. They say we have held the line on spending, except for defense-related items. That is not true. We have actually been playing a smoke and mirrors game, and this chart illustrates that.

I believe what we are doing is not honest with the American people, and we have the annual budget deficits as a result of that. I mentioned before that it is important for us to be able to offer amendments. I would not be able to offer an amendment if cloture is invoked on this bill, and we should not cut off debate.

This would be considered a nongermane amendment. It would not survive cloture, even though the point of this bill is to require legislative transparency. We are trying to make Congress' actions transparent and to clean up the budget process, however, the majority is trying to cut off debate on these critical reforms.

I am going to have one last chart to demonstrate the effect of this budget gimmick. The total effect of underfunding defense and playing this game has cost the American people. This last chart, when one

totals the cost of this gimmick up, is $84 billion. We have shifted $84 billion by using these budget gimmicks. $84 billion that was shifted from defense to nondefense programs. Then we backfill the defense accounts with supplemental appropriations.

We need to have honest budgeting around this place. We need to be honest with the American people. If we are going to appropriate money for defense, let's do it for defense. If it has to be for some other program, let's be honest with the American people and stop playing these budget gimmick games.

If we are going to have transparency in Government, we should have transparency in Government. Accountability in government. That is what this bill is supposed to be about. It is what we are telling the American people that we intend to do. This amendment, along with the one I discussed earlier, are very important to ensure that we end the games and that we end the gimmicks. This amendment ensures that we tell the truth to the American people.

Mr. President, I yield the floor.

Mr. PRYOR. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. PRYOR. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from Maine.

END

Senator Larry E. Craig
Climate Change
Floor Statements
CRS Search Results

January 30, 2007

110th Congress

LexisNexis *Congressional Record* search results for "climate change" or "global warming" or "greenhouse gas" or "greenhouse effect"

1. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 24, 2007 , 153 Cong Rec S 1004, Vol. 153, No. 14, ENERGY
Senate
Mr. DURBIN; **Mr.** SALAZAR; **Mr.** ALEXANDER
... more emissions and the more **global warming;** the more **global warming,** the more **climate change** and a disastrous environmental ...
... going through a **climate change** in America. If you have seen ...
... forward to make the argument that this **climate change** is changing the world we live ...
... saw ample evidence of **climate change**_glacier melt and changes ...
... security of our country, knowing what **global warming** is doing to the North Pole and to the **climate changes** all around the world, is something we ...

2. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 24, 2007 , 153 Cong Rec S 1132, Vol. 153, No. 14, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. REID
... a Proposal to Reduce **Greenhouse Gas** Intensity with a Cap and ...

3. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 23, 2007 , 153 Cong Rec S 990, Vol. 153, No. 13, NOTICES OF HEARINGS/MEETINGS
Senate
Mr. BINGAMAN
... Stern Review of the Economics of **Climate Change,** examining the economic impacts of **climate change** and stabilizing greenhouse gases ...

4. CONGRESSIONAL RECORD -- SENATE, Monday, January 22, 2007 , 153 Cong Rec S 791, Vol. 153, No. 12, FAIR MINIMUM WAGE ACT OF 2007
Senate
Mr. REID; **Mr.** McCONNELL; **Mr.** GREGG; **Mr.** BYRD. ; **Mr.** ROBERTS; **Mr.** KENNEDY; **Mr.** CONRAD; **Mr.** ENZI; **Mr.** SESSIONS; **Mr.** CARDIN; **Mr.** BINGAMAN; **Mr.** MENENDEZ; **Mr.** NELSON of Nebraska
... Without objection, it is so ordered. **Global Warming** Mr. BINGAMAN . Madam President, the issue of **global warming** is more and more on the minds of ...
... approach to tackling the challenges of **climate change.** That resolution called for ...
... slow, stop, and then reverse **greenhouse gas** emissions without harming the ...
... bipartisan discussion draft on **global warming** legislation. The choice to release this ...
... begins to reduce the growth of **greenhouse gas** emissions without harming the ...
... use is required if we are to reduce **greenhouse gas** emissions. But there has been a ...
... Mandatory Market-Based **Greenhouse Gas** Regulatory System." That white ...
... engage in the debate on **global warming** issues, I plan to ...
... will keep momentum on **global warming** legislation moving forward. ...
... together to offer principles on **global warming** legislation and recommendations for that ...
... a Proposal To Reduce **Greenhouse Gas** Intensity With a Cap and ...
... targeted reductions in **greenhouse gas** intensity, defined as emissions ...
... payments are accumulated into a "**Climate Change** Trust Fund," capped at $ ...
... deployment of technologies to reduce **greenhouse gas** emissions. The U.S. Treasury would ...
... D) resulting from the creation of the **Climate Change** Trust Fund are expected to ...

... dollars, as are deposits relating to the **Climate Change** Trust Fund. Results ...
... maximum cumulative deposits to the **Climate Change** Trust Fund is reached ...
... |**Climate Change** | | | ...
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... |**greenhouse gas** | | | ...
... |**Greenhouse** | | |
|**gas.**_The term | | |
||**greenhouse** | | |
|**gas'** means_ | | | ...
... |**greenhouse gas** | | | ...
... |a **greenhouse** | | |
|**gas.** | | | ...
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... |**greenhouse gas** | | | ...
... |**climate change** | | | ...
... |**greenhouse gas** | | | ...
... |**climate change** | | | ...
... quantity of nonfuel-related **greenhouse gas,** determined in accordance with ...
... quantity of nonfuel-related **greenhouse gas** shall be equal to_ "(A) ...
... volume of nonfuel-related **greenhouse gas** by more than 1 ...

... purposes under any foreign **greenhouse gas** regulatory program. "(i) ...
... 1)(A) reduce any **greenhouse gas** emissions that are not covered **greenhouse gas** emissions; or "(B) sequester a **greenhouse gas;** "(2) meet the requirements of ...
... for quantifying and verifying the **greenhouse gas** emission mitigation benefits of the ...
... project to reduce or sequester **greenhouse gas** emissions before the initial ...
... reported the reduced or sequestered **greenhouse gas** emissions under_ "(1) the ...
... actions and programs relating to **greenhouse gas** emissions of_ "(A) each ...
... 75 percent of the total **greenhouse gas** emissions of those countries have taken ...
... taken action with respect to **greenhouse gas** emissions that is comparable to action ...
... issued under foreign **greenhouse gas** regulatory programs in ...
... under a foreign **greenhouse gas** program; and "(E) whether and how the ...
... issued under foreign **greenhouse gas** regulatory programs in ...
... allowances are_ "(A) from foreign **greenhouse gas** regulatory programs that the Secretary ...
... compliance under any foreign **greenhouse gas** regulatory program. "(e) ...
... under a foreign **greenhouse gas** regulatory program. "(2) ...
... for quantifying and verifying the **greenhouse gas** emission mitigation benefits of the ...
... standards for covered **greenhouse gas** emissions; "(2) standardized methods of calculating covered **greenhouse gas** emissions in specific ...
... method of estimating covered **greenhouse gas** emissions of the regulated entity; "(...
... double counting of covered **greenhouse gas** emissions; "(5) a ...
... entity with respect to covered **greenhouse gas** emissions; and "(6) a ...
... data relating to covered **greenhouse gas** emissions by_ "(A) ...
... Required information._ "(A) **Greenhouse gas** emissions reduction._In the case of a **greenhouse gas** emissions reduction, the entity ...
... actual reduction in **greenhouse gas** emissions_ "(I) relative to ...
... increase in other **greenhouse gas** emissions of the entity; and "(ii) if the ...
... net reduction of direct **greenhouse gas** emissions of the entity, the entity ...
... net reduction. "(B) **Greenhouse gas** sequestration._In the case of a **greenhouse gas** sequestration, the entity shall ...
... trust fund, to be known as the '**Climate Change** Trust Fund' (referred to ...
... shall be based on the relative **greenhouse gas** emission benefits of electricity and ...

5. CONGRESSIONAL RECORD -- SENATE, Monday, January 22, 2007 , 153 Cong Rec S 828, Vol. 153, No. 12, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. VOINOVICH; **Mr.** SPECTER; **Mr.** BIDEN; **Mr.** CRAPO; **Mr.** GRASSLEY; **Mr.** NELSON of Florida; **Mr.** DOMENICI; **Mrs.** FEINSTEIN; **Mr.** BROWNBACK; **Mr.** INOUYE; **Ms.** SNOWE; **Mr.** KENNEDY; **Mr.** OBAMA
... economy and safety, reduce **greenhouse gas** emissions, reduce dependence on ...
... carbon dioxide_the top **greenhouse gas** and biggest single cause of **global warming** from being emitted into our atmosphere ...
... in the fight against **global warming.** We have already seen the potential destruction that **global warming** can cause in the ...
... predicting how the impact of **global warming** will be felt around the ...
... for fuel economy and **greenhouse gas** emissions. SEC. 2. ...
... fuel and the reduction in **greenhouse gas** emissions during the most ...
... FOR FUEL ECONOMY AND **GREENHOUSE GAS** EMISSIONS. Section 32908 of ...
... reflect the fuel economy and **greenhouse gas** and other emissions consequences of ...
... ii) will have the lowest **greenhouse gas** emissions over the useful ...
... one of the largest contributors to **global warming.** This level of savings after ...

6. CONGRESSIONAL RECORD -- SENATE, Thursday, January 18, 2007 , 153 Cong Rec S 717, Vol. 153, No. 10, ENERGY
Senate
Mr. CRAIG; **Mr.** GRASSLEY; **Mr.** ENSIGN; **Mr.** PRYOR
... cleanness. It is an issue of nonemitting **greenhouse gas** sources of energy because today we are all ...
... understand the agenda for **climate change** is going to be a punitive ...
... independent. I am talking **climate change.** The Speaker of the House yesterday did ...
... fascinating. She couldn't get the **climate change** she wanted out of her own ...
... new select committee on **climate change** to be headed up by ...
... a select committee on **climate change.** Congressman Dingell, who chairs the ...
... important in the argument of **climate change,** is new technology, it is incentives, it is ...

7. CONGRESSIONAL RECORD -- SENATE, Thursday, January 18, 2007 , 153 Cong Rec S 728, Vol. 153, No. 10, ENERGY DEPENDENCE
Senate
Mr. SALAZAR; **Mr.** KERRY
... try to address issues such as **global warming,** it is important for us to address this ...

8. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 17, 2007 , 153 Cong Rec S 672, Vol. 153, No. 9, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. AKAKA; **Mr.** INOUYE; **Mr.** WARNER; **Mr.** KOHL; **Mr.** LEAHY; **Mrs.** FEINSTEIN; **Mr.** DORGAN; **Mrs.** BOXER; **Mr.** DOMENICI; **Mr.** BINGAMAN; **Mr.** VOINOVICH; **Mrs.** LINCOLN; **Mr.** McCAIN
... issue facing this planet_**global warming.** This bill establishes a ...
... industry to seriously tackle **global warming.** This bill is just the beginning of ...
... way to go if we are to slow **global warming.** A great debate has ...
... consequences can be averted. **Global warming** can be contained to 1- ...
... Peter, would you help me out on **Global Warming** legislation?" To his immense credit, ...
... today. This is the most aggressive **global warming** bill that industry has supported to ...
... single largest piece of the **global warming** puzzle, accounting for ...
... most dire consequences of **global warming.** That's the cap. The trade part of the ...
... TITLE I_GLOBAL **CLIMATE CHANGE** Sec. 101. Global **climate change.** "TITLE VII_GLOBAL **CLIMATE CHANGE** "Sec. 701. Definitions. " ...
... A_Stopping and Reversing **Greenhouse Gas** Emissions "Sec. 711. Regulations; **greenhouse gas** tonnage limitation. "Sec. ...
... 736. Offset credits from **greenhouse gas** emissions reduction projects. " ...
... reporting. TITLE II_**CLIMATE CHANGE** RESEARCH INITIATIVES Sec. ...
... Sec. 202. Abrupt **climate change** research. Sec. 203. ...
... TITLE I_GLOBAL **CLIMATE CHANGE** SEC. 101. GLOBAL **CLIMATE CHANGE.** (a) In General._The ...
... TITLE VII_GLOBAL **CLIMATE CHANGE** "SEC. 701. DEFINITIONS. " ...
... megawatts; "(ii) combusts **greenhouse gas**-emitting fuels; and "(iii) ...
... means, with respect to a **greenhouse gas,** the quantity of the **greenhouse gas** that makes the same contribution to **global warming** as 1 metric ton of ...
... a)(1). "(11) **Greenhouse gas.**_The term '**greenhouse gas**' means_ "(A) carbon ...
... sulfur hexafluoride. "(12) **Greenhouse gas** authorized account representative._The term '**greenhouse gas** authorized account representative' ...
... pertaining to this title. "(13) **Greenhouse gas**-emitting fuel._ "(A) In general._The term '**greenhouse gas**-emitting

fuel' means any fuel that produces a **greenhouse gas** as a combustion product. "(B) Inclusions._The term '**greenhouse gas**-emitting fuel' includes_ "(...
... C) Exclusion._The term '**greenhouse gas**-emitting fuel' does not ...
... for significant quantities of **greenhouse gas** emissions. "(16) International ...
... means an increase in **greenhouse gas** emissions or a decrease ...
... practice that_ "(A) reduces **greenhouse gas** emissions or increases sequestration ...
... by reducing the combustion of **greenhouse gas**-emitting fuel at an affected ...
... a project that reduces **greenhouse gas** emissions or increases sequestration of ...
... other than reduction of combustion of **greenhouse gas**-emitting fuel at an affected ...
... a net emission of **greenhouse gas** during the lifecycle of biomass ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... A_Stopping and Reversing **Greenhouse Gas** Emissions "SEC. 711. REGULATIONS; **GREENHOUSE GAS** TONNAGE LIMITATION. "(a) ...
... United States. "(b) **Greenhouse Gas** Tonnage Limitation._Beginning ...
... States an objective of 'stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... reports from the Intergovernmental Panel on **Climate Change,** relating to_ "(i) the specific ...
... reduction rate for **greenhouse gas** emissions required under ...
... necessary to stabilize atmospheric **greenhouse gas** concentrations at the safe climate ...
... technological capability to reduce **greenhouse gas** emissions; "(ii) the progress that ...
... made toward reducing their **greenhouse gas** emissions; "(iii) the economic ...
... Negatively Affected by **Climate Change and Greenhouse Gas** Regulation._For each ...
... local or regional impacts of **climate change** and the impacts, if any, from **greenhouse gas** regulation, including by ...
... 2) to mitigate impacts of **climate change** and the impacts, in any, from **greenhouse gas** regulation on low-income ...
... percent to mitigate the impacts of **climate change** on fish and wildlife habitat ...
... i) to carry out **climate change** impact mitigation actions ...
... other assistance to develop **climate change** impact mitigation and adaptation ...
... communities that are most vulnerable to **climate change;** "(ii) to restore and protect ...
... guard against damages from **climate change** events; and "(iii) to restore and ...
... services that are most vulnerable to **climate change.** "(B) Administration._Amounts ...
... damaged or depleted by **climate change;** "(II) to monitor Federal ...
... damaged or depleted by **climate change;** "(ii) Federal programs and projects to identify **climate change** risks and develop adaptation ...
... other habitats vulnerable to **climate change** on private land enrolled ...
... migratory birds that are vulnerable to **climate change** impacts; "(iv) programs and ...
... being damaged by **climate change;** "(II) to monitor those resources to ...
... resources; and "(V) to integrate **climate change** adaptation requirements into State ...
... concern that are vulnerable to the impact of **climate change;** "(vi) programs and projects ...
... communities that are most vulnerable to **climate change;** "(II) to restore and protect ...
... guard against damages from **climate change** events; and "(III) to restore and ...
... services that are most vulnerable to **climate change;** "(viii) to address **climate change** in Federal land ...
... plan implementation and to integrate **climate change** adaptation strategies into_ "(I) ...
... promote sharing of information on **climate change** wildlife impacts and mitigation ...
... wildlife to adapt successfully to **climate change** through the Wildlife Conservation and ...
... reduction credits for **greenhouse gas** reduction or sequestration projects ...
... Eligible Projects._A **greenhouse gas** reduction or sequestration project ...
... 736(a), with respect to **greenhouse gas** reduction projects; and "(B) ...
... a State or regional **greenhouse gas** registry. "(c) Limitation._ "(...
... credits available for **greenhouse gas** reduction or sequestration projects ...
... quantity of credits associated with the **greenhouse gas** emissions of the affected unit ...
... quantity of credits associated with the **greenhouse gas** emissions of the new affected ...

... Credits From Countries With Mandatory **Greenhouse Gas** Limits._The owner of an affected ...
... absolute tonnage limits on **greenhouse gas** emissions from the country or 1 or ...
... Countries Without Mandatory **Greenhouse Gas** Limits._ "(1) In ...
... absolute tonnage limits on **greenhouse gas** emissions from the country or 1 or ...
... absolute tonnage limits on **greenhouse gas** emissions from the country or 1 or ...
... 0.5 percent of global **greenhouse gas** emissions as of 2010 or as of the most ...
... under this subtitle to stabilize **greenhouse gas** concentrations in the atmosphere at the ...
... costs of the anticipated impacts of **climate change** in the United States. "(...
... Use in Other **Greenhouse Gas** Allowance Trading Programs._ "(...
... used in any other **greenhouse gas** allowance trading program, ...
... credit obtained from another **greenhouse gas** trading program, including ...
... by the affected unit of **greenhouse gas**-emitting fuels during the ...
... affected unit of a **greenhouse gas**-emitting fuel in ...
... metric ton of excess **greenhouse gas** emissions of the affected unit; and "(...
... report reductions in **greenhouse gas** emissions and increases in ...
... offset credits for **greenhouse gas** reductions from agricultural, forestry, ...
... 736. OFFSET CREDITS FROM **GREENHOUSE GAS** EMISSIONS REDUCTION PROJECTS. "(...
... offset credits for **greenhouse gas** emissions reduction offset ...
... offset credits for **greenhouse gas** emissions reduction projects ...
... Create Offset Credits._**Greenhouse gas** emissions reduction offset ...
... c) Approved Categories of **Greenhouse Gas** Emissions Reduction Offset Projects._**Greenhouse gas** emission reductions from the following ...
... Creation of Additional Categories of **Greenhouse Gas** Emissions Reduction Offset ...
... create additional categories of **greenhouse gas** emissions reduction offset ...
... Use._Notwithstanding the eligibility of **greenhouse gas** emission reduction projects to ...
... subsection (c) or (d), **greenhouse gas** emissions reduction offset ...
... gases and reductions in **greenhouse gas** emissions, including_ "(1) the ...
... calculations of sequestration flow and **greenhouse gas** emission reductions achieved ...
... gases or reductions in **greenhouse gas** emissions, as described in ...
... unit, or to the extent applicable, the **greenhouse gas** authorized account representative ...
... quarterly reports that describe the **greenhouse gas** mass emission data, ...
... title VII (relating to **global warming** pollution emission reductions),"; and (...
... section 129, or any regulation of **greenhouse gas** emissions under title ...
... title". TITLE II_**CLIMATE CHANGE** RESEARCH INITIATIVES SEC. ...
... for research and development on **climate change** that are not being adequately ...
... SEC. 202. ABRUPT **CLIMATE CHANGE** RESEARCH. (a) In ...
... scientific research on abrupt **climate change** designed to provide timely ...
... abrupt human-induced **climate change.** (b) Authorization of Appropriations._There are ...
... measurement technologies to calculate **greenhouse gas** emissions or reductions for which ...
... carbon changes and other **greenhouse gas** emissions and reductions from agriculture, ...
... greenhouse gases and reduction of **greenhouse gas** emissions on public land that is_ (...

9. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 16, 2007 , 153 Cong Rec S 550, Vol. 153, No. 8, LEGISLATIVE TRANSPARENCY AND ACCOUNTABILITY ACT OF 2007

Senate

Mr. CORNYN; **Mr.** SANDERS; **Mr.** BENNETT; **Mr.** DeMINT; **Mrs.** FEINSTEIN; **Mr.** FEINGOLD; **Mr.** NELSON of Florida; **Mr.** CASEY; **Mr.** CASEY. ; **Ms.** COLLINS; **Mr.** LIEBERMAN; **Mr.** DURBIN; **Mr.** DeMint. ; **Mr.** BYRD; **Mr.** CHAMBLISS; **Mr.** OBAMA; **Mr.** NELSON of Nebraska; **Mr.** HARKIN; **Mr.** LEVIN; **Mr.** INHOFE; **Mr.** SALAZAR

... world about the danger of **global warming** and what it will mean for our ...

10. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 16, 2007 , 153 Cong Rec S 579, Vol. 153, No. 8,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. LAUTENBERG; **Mr.** LOTT; **Ms.** LANDRIEU; **Ms.** MURKOWSKI; **Mr.** COLEMAN; **Mr.** KYL; **Mrs.** CLINTON; **Mr.** VOINOVICH; **Mr.** GRASSLEY; **Mr.** DODD; **Mr.** SANDERS
... in this Nation and reduce **greenhouse gas** emissions. The bill I am ...
... reduce fuel usage and thus **greenhouse gas** emissions, but also of provisions that are ...
... believe the ultimate cause of the **climate change** we are seeing is not yet ...
... carbon dioxide and other **greenhouse gas** emissions. This bill, paired with ...
... produce energy without any **greenhouse gas** emissions. And I will ...
... environment by reducing **greenhouse gas** emissions. It will encourage ...
... today I am introducing the **Global Warming** Pollution Reduction Act of ...
... earth itself due to **global warming** and that is why this legislation is the first bill that ...
... a U.S. Senator. The **Global Warming** Pollution Reduction Act, the ...
... offering a forwardthinking **global warming** bill is known by all ...
... effort. I am also proud that the **Global Warming** Pollution Reduction Act has the ...
... Concerned Scientists, and US PIRG. The **Global Warming** Pollution Reduction Act is ...
... scientific evidence and consensus that **global warming** poses a significant ...
... 3 weeks of hearings on **global warming.** Like Americans across the ...
... want action to fight **global warming** and they wish their Federal Government would ...
... support for action on **global warming** is clear. Over 300 ...
... continually misrepresented the science of **global warming**_want to see movement on this ...
... regional effort to reduce **greenhouse gas** emissions and other northeastern ...
... recognized the need to act on **global warming** and is moving forward with a ...
... community warned us of the problem of **global warming** and the disastrous impact it will have on our ...
... intense hurricanes. All of this is due to **global warming** caused by the carbon ...
... how to stop continued **global warming**_we simply need the political ...
... 1990 levels_in **global warming** pollutants by 2050 ...
... against taking action on **climate change** on their head. In a ...
... action to combat the threat of **global warming** will in fact ...
... two excerpts from those remarks: **Global warming** is real and it is already happening. Its ...
... proposing real action on **climate change,** and passing the torch to a ...
... produces 25 percent of its **greenhouse gas** emissions, the United States has ...
... I rise to introduce the **Global Warming** Pollution Reduction Act of ...
... facing mankind is the problem of **global warming. Global warming** is real and it is already happening. Its ...
... within the scientific community is that **global warming** has begun, is largely the result of ...
... activity, and is accelerating. Atmospheric **greenhouse gas** concentrations have risen to 378 ...
... taking some form of action on **climate change.** I am today introducing the **Global Warming** Pollution Reduction Act, which ...
... reaching and forward thinking **climate change** bill ever introduced. It sets ...
... 80% reduction in **global warming** pollutants by 2050. It ...
... few decades to combat **global warming.** I believe that if this bill were ...
... path to potentially solving the **global warming** problem. If it were passed, we would reshape our ...
... most dangerous effects of **global warming.** If it were passed, we would be in a ...
... can act to reduce **global warming.** We can reduce emissions to ...
... proposing real action on **climate change,** and passing the torch to a ...
... a difference for us all. **Global warming** is upon us now. The question is, ...

... act decisively to combat **global warming?** That is the opportunity and challenge of the coming years, which my bill on **global warming** seeks to address. I ...
... posed by dangerous **global warming.** I urge my ...
... Act may be cited as the "**Global Warming** Pollution Reduction Act". SEC. 2. **GLOBAL WARMING** POLLUTION EMISSION REDUCTIONS. The ...
... TITLE VII_COMPREHENSIVE **GLOBAL WARMING** POLLUTION REDUCTIONS "Sec. ...
... Definitions. "Sec. 704. **Global warming** pollution emission reductions. " ...
... Conditions for accelerated **global warming** pollution emission reduction. " ...
... 710. Geological disposal of **global warming** pollutants. "Sec. 711. ...
... carbon. "Sec. 715. **Global warming** pollution reporting. "Sec. ...
... Congress finds that_ "(1) **global warming** poses a significant ...
... other heat-trapping **global warming** pollutants that are accumulating in the ...
... States emits more **global warming** pollutants than any other country, and ...
... 50 years; "(8) **global warming** has caused_ "(A) ocean ...
... limits and incentives to reduce **global warming** pollution emissions into the atmosphere; "(...
... current rate of emission, **global warming** pollution concentrations in the ...
... use in reducing **global warming** pollution emissions, and significant ...
... leader in solving **global warming;** and "(14) it should be a goal of the ...
... a reduction in **global warming** pollution emissions in the ...
... global atmospheric concentration of **global warming** pollutants that does not exceed ...
... a reduction in **global warming** pollution emissions compatible with ...
... global atmospheric concentrations of **global warming** pollutants do not exceed ...
... aggregate net level of **global warming** pollution emissions of the United ...
... aggregate net level of **global warming** pollution emissions for ...
... acceleration of reductions in **global warming** pollution emissions to prevent_ "(...
... global atmospheric concentrations of **global warming** pollutants from exceeding 450 ...
... a motor vehicle **global warming** pollution emission requirement; "(...
... units to meet a **global warming** pollution emission standard; "(...
... development of, the technologies to control **global warming** pollution emissions; "(9) to ...
... ranging impacts associated with **global warming;** and "(10) to promote, through ...
... accelerated reductions in **global warming** pollution from other countries with significant **global warming** pollution emissions. "SEC. ...
... means, for each **global warming** pollutant, the quantity of the **global warming** pollutant that makes the same contribution to **global warming** as 1 metric ton of ...
... United States. "(4) **Global warming** pollutant._The term '**global warming** pollutant' means_ "(A) ...
... comment, determines to contribute to **global warming.** "(5) **Global warming** pollution._The term '**global warming** pollution' means any combination of 1 or more **global warming** pollutants emitted into the ambient ...
... limit on the aggregate net **global warming** pollution emissions of 1 or ...
... allowing the transfer or sale of **global warming** pollution emission allowances. "(...
... 705. "SEC. 704. **GLOBAL WARMING** POLLUTION EMISSION REDUCTIONS. "(...
... other countries that emit **global warming** pollutants, to achieve a reduction in **global warming** pollution emissions_ "(A) to ...
... global atmospheric concentration of **global warming** pollutants that does not exceed ...
... States shall reduce the **global warming** pollution emissions of the United ...
... B) to stabilize average **global warming** pollution concentrations globally at or ...
... aggregate net levels of **global warming** pollution emissions of the United ...
... aggregate net level of those **global warming** pollution emissions during ...
... aggregate net level of **global warming** pollution emissions of the United ...
... aggregate net levels of **global warming** pollution emissions of the United ...
... aggregate net level of **global warming** pollution emissions of the United ...

... aggregate net level of the **global warming** pollution emissions of the United ...
... aggregate net level of **global warming** pollution emissions of the United ...
... aggregate net levels of **global warming** pollution emissions from the United ...
... minimize the effects of rapid **climate change** and achieve the goals of this title. "(...
... section 706(a) any **global warming** pollution emission allowances that are ...
... may recognize reductions of **global warming** pollution emissions made ...
... entity-wide reductions of **global warming** pollution emissions before the ...
... average market price of **global warming** pollution emission allowances ...
... means the total number of **global warming** pollution emission allowances ...
... price per ton of **global warming** pollution emissions determined ...
... emission of 1 ton of **global warming** pollutants through commercial ...
... effective options for **global warming** pollution control and emission ...
... CONDITIONS FOR ACCELERATED **GLOBAL WARMING** POLLUTION EMISSION REDUCTION. "(...
... Academy, are the result of anthropogenic **climate change.** "(2) Events._The events ...
... exceedance of an atmospheric concentration of **global warming** pollutants of 450 parts ...
... not reliably reduce **global warming** pollution emissions; or "(D) would ...
... A) the status of current **global warming** pollution emission reduction ...
... for capture and disposal of **global warming** pollutants; "(ii) efficiency ...
... technologies; "(iii) zero-**global-warming**-pollution-emitting energy ...
... costs of available alternative **global warming** pollution emission reduction ...
... date relating to_ "(i) **climate change;** "(ii) **climate change** technologies; and "(iii) national and international **climate change** commitments. "(c) Additional ...
... trends in annual **global warming** pollution emissions by the ...
... more than 90 percent of **global warming** pollution emissions (including country-specific inventories of **global warming** pollution emissions and facility-specific inventories of **global warming** pollution emissions in the ...
... analysis of the trends in **global warming** pollution concentrations (including observed atmospheric concentrations of **global warming** pollutants); "(3) a ...
... caused by anthropogenic **global warming** pollution emissions, in ...
... providing for the allocation of **global warming** pollution emission allowances to the ...
... emitting economy; or "(B) **global warming;** "(2) owners and operators of ...
... produced by an anthropogenic **global warming** pollution emission source ...
... wildlife) affected by **climate change;** and "(6) manufacturers producing ...
... in substantially reduced **global warming** pollution emissions, for ...
... meet the standards for **global warming** pollution emissions described ...
... Emission standards._The average **global warming** pollution emissions of a ...
... meet the standards for **global warming** pollution emissions described ...
... Emission standards._The average **global warming** pollution emissions of a ...
... feasibility and cost-effectiveness of **global warming** pollution reductions from the non- ...
... shall meet a **global warming** pollution emission standard that is ...
... may increase the stringency of the **global warming** pollution emission standard ...
... 710. GEOLOGICAL DISPOSAL OF **GLOBAL WARMING** POLLUTANTS. "(a) Geological ...
... support research on global **climate change** standards and processes, with the goals of_ "(...
... knowledge applicable to the reduction of **global warming** pollutants; and "(2) facilitating ...
... grants, a global **climate change** standards and processes research ...
... necessary to enable the monitoring of **global warming** pollution; "(ii) to assist ...
... future trading in **global warming** pollutants (including the measurement of ...
... procedures for reducing **global warming** pollution; and "(iv) to assist ...
... designed to reduce or eliminate **global warming** pollution. "(3) Abrupt **climate change** research._ "(A) Definition of abrupt **climate change.**_In this paragraph, the term 'abrupt **climate change**' means a change ...
... research on potential abrupt **climate change** that is designed_ "(i) to develop ...

... past instances of abrupt **climate change;** "(ii) to improve understanding of ...
... relating to the mechanisms of abrupt **climate change;** "(iii) to incorporate those mechanisms into advanced geophysical models of **climate change;** and "(iv) to test the output of those ...
... records of past abrupt **climate changes.** "(c) Sense of the Senate._It is the ...
... information. "SEC. 715. **GLOBAL WARMING** POLLUTION REPORTING. "(a) ...
... report describing the emissions of **global warming** pollutants from the entity for the ...
... voluntarily report the emissions of **global warming** pollutants from the entity to the Administrator. "(...
... Expression of measurements._Each **global warming** pollution report submitted ...
... section shall express **global warming** pollution emissions in_ "(...
... metric tons of each **global warming** pollutant; and "(B) metric ...
... dioxide equivalent of each **global warming** pollutant. "(2) Electronic ...
... may specify the level of **global warming** pollution emissions from a ...
... transparency, and accuracy of data on **global warming** pollution emissions submitted ...
... in reduced emissions of **global warming** pollutants. "(2) Developing ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... significant growth in **global warming** pollution emissions over the ...
... actions to further limit **climate change** (except that section 209 ...
... a reduction in **global warming** pollution emissions of 75 ...
... title VII (relating to **global warming** pollution emission reductions),"; and (...
... 1)) the following: "(o) **Global Warming** Pollution Emission Reductions._ "(...
... title VII (relating to **global warming** pollution).". SEC. 5. ...
... posed by global **climate change,** and foster sustained economic ...
... Nations Framework Convention on **Climate Change,** done at New York ...
... countries that are major emitters of **global warming** pollution, in accordance with the ...
... term reduction in **global warming** pollution emissions; and (2) ...
... monitor any international negotiations on **climate change;** and (B) to ensure that the advice and ...
... reduction in total **global warming** pollution emissions in the ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... 1992. SEC. 8. **CLIMATE CHANGE** IN ENVIRONMENTAL IMPACT ...
... net changes in **global warming** pollution emissions; and (2) the ways in which **climate changes** may affect the action or ...
... CORPORATE ENVIRONMENTAL DISCLOSURE OF **CLIMATE CHANGE** RISKS. (a) Regulations._ ...
... exposure of the issuer because of the net **global warming** pollution emissions of the issuer; and (...
... potential economic impacts of **global warming** on the interests of the issuer. (b) ...
... States to reduce emissions of **global warming** pollution under the United Nations Framework Convention on **Climate Change,** done at New York on ...
... material effect; and (B) **global warming** constitutes a known ...

11. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 16, 2007 , 153 Cong Rec S 628, Vol. 153, No. 8,
NOTICES OF HEARINGS/MEETINGS
Senate
Mr. KERRY; **Mr.** BINGAMAN
... a Proposal to Reduce **Greenhouse Gas** Intensity with a Cap and ...

12. CONGRESSIONAL RECORD -- SENATE, Friday, January 12, 2007 , 153 Cong Rec S 485, Vol. 153, No. 7,
LEGISLATIVE TRANSPARENCY AND ACCOUNTABILITY ACT OF 2007
Senate
Mr. STEVENS; **Mr.** KERRY; **Mr.** KERRY. ; **Mr.** NELSON of Nebraska; **Mrs.** FEINSTEIN; **Mr.** FEINGOLD; **Mr.**

REID; **Mr.** VITTER; **Mr.** LEAHY; **Mr.** LOTT; **Mr.** DURBIN; **Mr.** DURBIN. ; **Mr.** BENNETT; **Ms.** KLOBUCHAR; **Mr.** CORNYN; **Mr.** ENSIGN; **Mr.** BOND
... spiraled out of control, **global warming** that threatens the future of our environment and our ...

13. CONGRESSIONAL RECORD -- SENATE, Friday, January 12, 2007 , 153 Cong Rec S 509, Vol. 153, No. 7, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BINGAMAN; **Mr.** LIEBERMAN; **Mr.** McCAIN; **Ms.** SNOWE; **Mr.** OBAMA; **Mr.** DURBIN; **Mr.** KERRY; **Mr.** WARNER; **Mr.** WEBB; **Ms.** MURKOWSKI; **Mr.** NELSON of Florida
... program to accelerate the reduction of **greenhouse gas** emissions in the United ...
... market-driven system of **greenhouse gas** tradeable allowances, to support the deployment of new **climate change**-related technologies, and to ensure ...
... prompt action to curb **global warming,** extreme drought will ...
... Service forecasted that unchecked **global warming** will cost the world ...
... Environmental Health cited **global warming** as "the largest looming public ...
... study projecting that unchecked **global warming** could cause sea levels to ...
... Arctic ice melt from **global warming.** When even erstwhile skeptics ...
... threatened, I say the **global warming** debate is over. The American ...
... brought our legislation to solve **global warming** to a vote in this ...
... Act would have capped U.S. **greenhouse gas** emissions at year 2000 ...
... forestall catastrophic, manmade **climate change,** provided the world's other ...
... chair a subcommittee on **climate change.** Colleagues of mine on that committee, ...
... proposals for curbing **global warming.** I look forward to ...
... practices for reducing **greenhouse gas** emissions. And we will do so without ...
... placing legislation to curb **global warming** among his top ten ...
... significantly reduce the Nation's **greenhouse gas** emissions to prevent the dangerous impacts of **climate change,** enhance our national security and ...
... since we first introduced **climate change** legislation in the 108th ...
... addressing the serious problem of **global warming.** We continue to learn more about the science and the impacts of **climate change** on a daily basis. We ...
... doing its part to reduce **global warming,** and join in the global ...
... requiring mandatory reduction of **greenhouse gas** emissions, and the Northeast States of ...
... protect our environment from the impacts of the **climate change** resulting from the buildup of greenhouse ...
... can significantly reduce **greenhouse gas** emissions, mitigate the impacts of **climate change,** and increase the nation's energy ...
... public's concern about **climate change,** desire for national ...
... more about the science of **climate change** and the dangerous precedence of not ...
... strong evidence that significant **global warming** is occurring." and "[t] he scientific understanding of **climate change** is now sufficiently clear to ...
... reductions in net **greenhouse gas** emissions in the near ...
... yield only more **climate change** and a much harder ...
... threat posed by **global warming** which most regard as the greatest ...
... will skyrocket and intensify the **greenhouse effect and the global warming** it produces. As nuclear plants are ...
... by air pollution and **greenhouse gas** emissions to the environment and human ...
... risk posed by **global warming,** I believe that providing ...
... passage of legislation to address **climate change** in a meaningful ...
... become clear to us that any responsible **climate change** measure must contain ...
... system. It must limit **greenhouse gas** emissions and allows the trading of ...
... economic impacts associated with any **climate change** legislation. I know that ...

... efforts to solve the problem. **Global warming** is an international problem requiring an ...
... actions to reduce manmade **greenhouse gas** emissions for the protection of ...
... for all demonstrate leadership on **climate change** and reduce emissions in the ...
... economic research demonstrates that **climate change** is one of the most significant ...
... concerns that the lack of domestic **climate change** policy is akin to Nero's ...
... overwhelming scientific evidence that **global warming** is adversely impacting the health of our ...
... take action. Anthropogenic **greenhouse gas** emissions that enter the atmosphere ...
... inaction. The urgency is clear as **climate change** is no longer an abstract ...
... may well be the symbol of **climate change** just as the bald eagle was when ...
... actions. Clearly, as the causes of **climate change** are global and the atmosphere knows ...
... high-level International **Climate Change** Taskforce_the ICCT_to chart a way forward on **climate change** on a parallel track with the ...
... a pathway to solve **climate change** issues in tandem_ ...
... require that the increase in **greenhouse-gas** concentrations as well as all the other ...
... Achieving success for **climate change** legislation that calls for ...
... actions now for **global warming** reductions so that we may leave ...
... decisions we make now on **greenhouse gas** emissions will have effects ...
... poorest global populations. **Climate change** is not reflected just ...
... bigger problem is that global **climate change** will, in this century and the ...
... by year, showing that **climate change** is a global threat ...
... technological expertise to mitigate **climate change.** This bill establishes limits for **greenhouse gas** emissions well into the 21st ...
... how best to reduce **greenhouse gas** emissions, rewarding cost- ...
... future generations of global **climate change.** By Mr. DURBIN (...

14. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 10, 2007 , 153 Cong Rec S 319, Vol. 153, No. 5, LEGISLATIVE TRANSPARENCY AND ACCOUNTABILITY ACT OF 2007
Senate
Mr. LIEBERMAN; **Mr.** DeMINT; **Mr.** DeMint; **Mr.** VITTER; **Mr.** VITTER. ; **Mrs.** FEINSTEIN; **Mr.** REID; **Mr.** BAUCUS; **Mr.** GRASSLEY; **Ms.** COLLINS; **Ms.** COLLINS. ; **Mr.** COLEMAN; **Mr.** SALAZAR; **Mr.** LEAHY; **Mr.** BENNETT; **Mr.** STEVENS; **Mr.** STEVENS. ; **Mr.** GREGG; **Mrs.** HUTCHISON; **Mr.** CONRAD; **Ms.** STABENOW; **Mr.** DORGAN; **Mr.** BYRD; **Mr.** LEVIN; **Mr.** INOUYE; **Mr.** WHITEHOUSE; **Mr.** ALLARD
... coming back because of global **climate change.** There is no question about that. We ...

15. CONGRESSIONAL RECORD -- SENATE, Thursday, January 04, 2007 , 153 Cong Rec S 8, Vol. 153, No. 1, A NEW CONGRESS
Senate
Mr. REID
... deal with the threat_the threat_of **global warming.** I, with five of my ...
... pump and the harmful effects of **global warming.** So in an effort to begin to ...

16. CONGRESSIONAL RECORD -- SENATE, Thursday, January 04, 2007 , 153 Cong Rec S 19, Vol. 153, No. 1, NATIONAL ENERGY AND ENVIRONMENT SECURITY ACT OF 2007
Senate
Mr. BINGAMAN; **Mrs.** BOXER; **Mr.** ALLARD
... matters, including the issue of **global warming,** in the 110th Congress. ...
... reduce our exposure to the risks of **global warming.** While there are several Senate ...

... 85 percent of all U.S. **greenhouse gas** emissions come from energy ...
... efficiency and we have to do something about **global warming.** If we do not act on **global warming,** our children and our grandchildren will ...
... order to avoid dangerous **global warming.** If we fail to act, we could reach the ...
... but to act to slow **global warming.** We should look at our actions as an insurance ...
... enough to do something about **global warming.** Here is the good news. Whatever we do about **global warming,** to reduce greenhouse gases, has ...
... landmark legislation to fight **global warming**_my State_and doing it on such ...
... history of mankind to fight **global warming.** Everyone knows I ...
... about it, but when we have an issue such as **global warming,** which is a national security ...
... trend. There are predictions that if we have bad **global warming,** we will have weather extremes with ...

17. CONGRESSIONAL RECORD -- SENATE, Thursday, January 04, 2007 , 153 Cong Rec S 24, Vol. 153, No. 1, POLAR BEARS
Senate
Mr. INHOFE; **Mr.** BUNNING; **Mr.** BUNNING.
... population before we blame **global warming** for changes in ...
... want to somehow insert **global warming** as a crisis in ...
... Hudson Bay population is **climate change**-induced ice melting. To ...
... assertion, they rely on hypothetical **climate change** computer models showing ...
... polar bears to global **climate change,** all kinds of projects around the ...
... activity that allegedly affects **climate change or greenhouse gas** emissions, they have to be evaluated and approved ...
... many alarms about **global warming.** Now even the Bush ...
... namely about the politics of **global warming.** Once a plant or ...
... government do something to address that **climate change.** Faster than you can say ...
... federal mandates to reduce **greenhouse gas** emissions. Think we're ...
... threat to polar bears is **global warming** and without acknowledging the science of **global warming."** Her outfit was one of those who had sued the ...

18. CONGRESSIONAL RECORD -- SENATE, Thursday, January 04, 2007 , 153 Cong Rec S 42, Vol. 153, No. 1, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Ms. COLLINS; **Mr.** REID; **Mr.** WEBB; **Mr.** HARKIN; **Mrs.** BOXER; **Mr.** KOHL; **Mrs.** FEINSTEIN; **Ms.** LANDRIEU; **Mr.** BAUCUS; **Mr.** McCONNELL; **Mr.** INOUYE; **Mr.** INHOFE; **Mr.** AKAKA
... energy sources and the risks of **global warming,** and for other purposes; to the ...
... energy sources and the risks of **global warming** by_ (1) requiring ...
... health concern. The evidence of **climate change** is absolutely clear and very ominous, ...
... gases emissions that drive this **global warming.** Despite these negative consequences, our ...

19. CONGRESSIONAL RECORD -- SENATE, Thursday, January 04, 2007 , 153 Cong Rec S 42, Vol. 153, No. 1, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. McCAIN; **Mr.** KERRY; **Mrs.** BOXER; **Mr.** INOUYE; **Mr.** OBAMA; **Ms.** SNOWE; **Mr.** LEAHY; **Mr.** BAUCUS; **Ms.** LANDRIEU; **Mr.** ALLARD; **Mr.** CARDIN; **Mr.** LAUTENBERG
... single greatest cause of **climate change** and the damaging weather patterns that have been its ...

20. CONGRESSIONAL RECORD -- SENATE, Thursday, January 04, 2007 , 153 Cong Rec S 42, Vol. 153, No. 1, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mrs. FEINSTEIN; **Mrs.** BOXER; **Mr.** BUNNING; **Mr.** CONRAD; **Mr.** WYDEN; **Mr.** McCAIN; **Ms.** COLLINS; **Ms.** LANDRIEU; **Mr.** KERRY; **Mr.** KENNEDY; **Mr.** ALLARD; **Mr.** INHOFE; **Mrs.** HUTCHISON; **Mr.** STEVENS; **Mr.** INOUYE; **Mr.** LAUTENBERG; **Mr.** SPECTER; **Mr.** LEAHY
... oil, and significantly reduce **greenhouse gas** emissions. The bill would remove from the ...
... improvements in reducing **greenhouse gas** emissions, fuel consumption, and ...
... other industries that generate **greenhouse gas** emissions. Participation in the ...
... BASED INITIATIVES FOR **GREENHOUSE GAS** REDUCTION Sec. 201. ...
... Act of 2007.". (b) **Greenhouse Gas** Credits Applied to CAFE ...
... end the following: "(g) **Greenhouse Gas** Credits._ "(1) In ...
... BASED INITIATIVES FOR **GREENHOUSE GAS** REDUCTION SEC. 201. ...
... registry system for **greenhouse gas** trading among industry ...
... voluntary actions to reduce **greenhouse gas** emissions and increase energy ...
... entities to record voluntary **greenhouse gas** emissions reductions; in ...
... baselines and to monitor and track **greenhouse gas** emissions; and (B) establishing ...
... Standards and Technology for **greenhouse gas** baselines and reductions generally; and (...
... against any future mandatory **greenhouse gas** reductions required by the ...
... for the implementation of the mandatory **greenhouse gas** emission reduction program, ...
... expert in the field of **greenhouse gas** emissions reduction, certification, or ...
... States Code, for **greenhouse gas** reduction, certification, and trading ...
... measurement, verification, and recording of **greenhouse gas** emissions and **greenhouse gas** emission reductions by ...
... measuring, verifying, and recording **greenhouse gas** emissions and **greenhouse gas** emission reductions proposed to the ...
... new forms of acceptable **greenhouse gas** reduction certification procedures. (...
... registry from_ (A) owning **greenhouse gas** emission reductions recorded ...
... engaged in trading of **greenhouse gas** emission reductions, subject to ...
... measure, verify, and record **greenhouse gas** emissions and **greenhouse gas** emission reductions, taking into ...
... not double-count **greenhouse gas** emission reductions; and (B) if **greenhouse gas** emission reductions are recorded ...
... 3) determining the ownership of **greenhouse gas** emission reductions and recording and tracking the transfer of **greenhouse gas** emission reductions among ...
... assignment of serial numbers to **greenhouse gas** emission reductions); (4) ...
... technologies; (5) measuring **greenhouse gas** emission reductions resulting from ...
... 6) measuring prevented **greenhouse gas** emissions through the rulemaking ...
... projections for prevented **greenhouse gas** emissions in tons ...
... In this title: (1) **Greenhouse Gas.**_The term "**greenhouse gas**" includes_ (A) carbon ...
... baseline" means_ (A) the **greenhouse gas** emissions, determined on an entity- ...
... year annual average of **greenhouse gas** emissions prior to the date of ...
... 3-year period, the **greenhouse gas** emissions as of September 30, ...
... shall take into account **greenhouse gas** emission reductions or off- ...
... Secretary of Transportation. (4) **Greenhouse gas** emissions._The term "**greenhouse gas** emissions" means the quantity of ...
... greenhouse gases. (5) **Greenhouse gas** emission reduction._The term "**greenhouse gas** emission reduction" means ...
... difference between_ (A) the **greenhouse gas** emissions of a source ...
... a period; and (B) the **greenhouse gas** emissions of the source during ...
... Nations Framework Convention on **Climate Change** (including the Montreal Protocol to the ...

... recording quantified and verified **greenhouse gas** emissions and emissions reductions of ...
... means a source of **greenhouse gas** emissions. By Mr. ...

21. CONGRESSIONAL RECORD -- SENATE, Thursday, January 04, 2007 , 153 Cong Rec S 199, Vol. 153, No. 1,
ROBERT T. STAFFORD WHITE ROCKS NATIONAL RECREATION AREA
Senate
Mr. REID; **Mr.** LEAHY; **Mr.** SANDERS
... greenhouse gases related to **global warming,** during a very difficult ...

109th Congress

LexisNexis *Congressional Record* search results for "climate change" or "global warming" or "greenhouse gas" or "greenhouse effect"

1. CONGRESSIONAL RECORD -- SENATE, Friday, December 08, 2006 , 152 Cong Rec S 11601, Vol. 152, No. 135, CLIMATE CHANGE
Senate
Mr. INHOFE
... one of the four hearings we have had on **climate change.** It is probably the most misunderstood of all ...
... manmade emissions are driving **global warming.** Let me clarify this because it is not ...
... in every aspect of **climate change.** David Deming, a ...
... linked [by the media] with **global warming,** no matter how ...
... human gases causing **climate change,** Mike Hulme, the director of the ...
... Tyndall Centre for **Climate Change** Research, is on the other side of this ...
... increasingly chastised" by **global warming** activists because his public statements "have ...
... compared the media's coverage of **global warming** to "the unreality of Hollywood films." ...
CLIMATE CHANGE (82%); ENVIRONMENTAL TREATIES & ...
... 82%); INFRASTRUCTURE (73%); **GLOBAL WARMING** (63%); TREATIES & AGREEMENTS (...

2. CONGRESSIONAL RECORD -- SENATE, Thursday, December 07, 2006 , 152 Cong Rec S 11462, Vol. 152, No. 134, HONORING SENATORIAL SERVICE
Senate
Mr. HATCH; **Mr.** KENNEDY; **Mr.** CONRAD; **Mr.** KOHL; **Mrs.** CLINTON
... pollution from powerplants, fighting **global warming,** and making our buildings more ...

3. CONGRESSIONAL RECORD -- SENATE, Wednesday, December 06, 2006 , 152 Cong Rec S 11252, Vol. 152, No. 133, HONORING SENATORIAL SERVICE
Senate
Mr. DURBIN; **Mr.** SALAZAR; **Mr.** OBAMA; **Mr.** BYRD; **Mr.** FEINGOLD; **Mr.** KENNEDY; **Mr.** AKAKA; **Mr.** WARNER
... energy security, reducing **global warming,** and boosting the income of family ...

4. CONGRESSIONAL RECORD -- SENATE, Wednesday, December 06, 2006 , 152 Cong Rec S 11372, Vol. 152, No. 133, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. WARNER
... hold a hearing on **Climate Change** and the Media. The PRESIDING OFFICER. ...

5. CONGRESSIONAL RECORD -- SENATE, Tuesday, December 05, 2006 , 152 Cong Rec S 11127, Vol. 152, No. 132, AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION, AND RELATED AGENCIES APPROPRIATIONS ACT, 2007
Senate
Mr. BENNETT; **Mr.** CONRAD; **Mr.** GREGG; **Mr.** DORGAN; **Mr.** COBURN; **Mr.** THUNE; **Mr.** FEINGOLD; **Mr.** AKAKA; **Mr.** NELSON of Nebraska; **Ms.** CANTWELL; **Mr.** COLEMAN; **Mr.** VITTER; **Mrs.** FEINSTEIN; **Mrs.** BOXER; **Mr.** VOINOVICH; **Mr.** VOINOVICH. ; **Mr.** CARPER; **Mrs.** CLINTON; **Mr.** KOHL.
... don't know whether it is global **climate change** or this is some very unusual weather pattern, ...

6. CONGRESSIONAL RECORD -- SENATE, Thursday, November 16, 2006 , 152 Cong Rec S 10982, Vol. 152, No.

130, UNITED STATES-INDIA PEACEFUL ATOMIC ENERGY COOPERATION ACT
Senate
Mr. LUGAR; **Mr.** LUGAR. ; **Mr.** BIDEN; **Mr.** DORGAN; **Mr.** ALLEN; **Mr.** BROWNBACK; **Mr.** ISAKSON; **Mr.** CORNYN; **Mr.** VOINOVICH; **Mr.** KENNEDY; **Mr.** HARKIN; **Mr.** BINGAMAN; **Mr.** DOMENICI; **Mr.** McCONNELL; **Mr.** ENSIGN
... increase the speed and risk of **global warming.** The need for new ...

7. CONGRESSIONAL RECORD -- SENATE, Thursday, November 16, 2006 , 152 Cong Rec S 11010, Vol. 152, No. 130, RECESS SUBJECT TO THE CALL OF THE CHAIR
Senate
Mr. LUGAR; **Mr.** LUGAR. ; **Mr.** LEAHY; **Mr.** FEINGOLD; **Mr.** SCHUMER; **Mrs.** BOXER; **Mr.** BIDEN; **Mr.** BOND; **Mr.** OBAMA; **Mr.** OBAMA. ; **Mr.** KENNEDY; **Mr.** REED; **Mr.** ALEXANDER; **Mrs.** CLINTON; **Mr.** DODD; **Mr.** KERRY; **Mr.** ROCKEFELLER; **Mr.** McCONNELL; **Mr.** FRIST; **Mr.** BROWNBACK; **Mr.** CHAMBLISS
... cause just as much **global warming** as our greenhouse gases, then it is in our ...

8. CONGRESSIONAL RECORD -- SENATE, Wednesday, November 15, 2006 , 152 Cong Rec S 10950, Vol. 152, No. 129, AGRICULTURE APPROPRIATIONS
Senate
Mr. CONRAD; **Mr.** DORGAN
... know what it is. Some say global **climate change.** Some scientists who have studied it say ...
... by a global **climate change,** that these extremes would be made more ...

9. CONGRESSIONAL RECORD -- SENATE, Friday, September 29, 2006 , 152 Cong Rec S 10663, Vol. 152, No. 125, GLOBAL WARMING REDUCTION ACT OF 2006
Senate
Ms. SNOWE
... for the Kerry-Snowe **Global Warming** Reduction Act of 2006. ...
... years into the 21st century, **global warming** should be on a trajectory toward ...
... domestic policies confronting **climate change** should already be in place. We ...
... dangers posed by **global warming** by calling for an 85 percent reduction of **greenhouse gas** emissions no later than ...
... Nations Framework Convention on **Climate Change,** which has the objective of stabilizing **greenhouse gas** concentrations in the atmosphere at ...
... centers. The Intergovernmental Panel on **Climate Change** projects that temperatures will ...
... development program on global **climate change** and abrupt **climate change** research. We also call for ...
... act also contains vehicle **greenhouse gas** emission standards for ...
... come lightly nor lately to the **climate change** issue. That is why, this past year, when ...
... high level International **Climate Change** Taskforce_the ICCT_to chart a way forward on **climate change** on a parallel track with the ...
... a pathway to solve **climate change** issues in tandem ...
... require that the increase in **greenhouse-gas** concentrations as well as all the other ...
... bill reverses the growth of **greenhouse gas** emissions starting in ...
GLOBAL WARMING (95%); **CLIMATE CHANGE** (94%); EMISSIONS (82%); ...

10. CONGRESSIONAL RECORD -- SENATE, Friday, September 29, 2006 , 152 Cong Rec S 10682, Vol. 152, No.

125, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. REID; **Mr.** DeMINT; **Mr.** ENZI; **Mr.** OBAMA; **Mr.** FEINGOLD; **Mr.** LUGAR; **Mr.** HARKIN; **Mr.** DeWINE; **Mr.** DOMENICI; **Mr.** BINGAMAN; **Mr.** MENENDEZ; **Mr.** SMITH; **Mr.** SPECTER; **Mr.** WYDEN; **Mr.** INHOFE; **Mr.** FRIST; **Mr.** KENNEDY; **Mr.** LEAHY; **Mr.** GRASSLEY; **Mr.** HATCH
... Fifth, the threat of global **climate change** has been made worse by ...
... worsens the threat of global **climate change.** SEC. 3. DECLARATION OF ...

11. CONGRESSIONAL RECORD -- SENATE, Friday, September 29, 2006 , 152 Cong Rec S 10682, Vol. 152, No. 125, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mrs. CLINTON; **Mr.** HATCH; **Mr.** DODD; **Mr.** REID; **Mr.** SARBANES; **Mr.** LEAHY; **Mr.** DURBIN; **Mr.** ALLEN; **Mrs.** DOLE
... loss of biodiversity; (C) **climate change;** (D) marine overfishing and ...

12. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 27, 2006 , 152 Cong Rec S 10224, Vol. 152, No. 123, RETIRING FROM THE SENATE
Senate
Mr. JEFFORDS; **Mr.** REID; **Mr.** LEAHY; **Mr.** GRASSLEY; **Mr.** KENNEDY; **Mr.** DURBIN; **Mr.** DODD; **Mr.** HARKIN; **Mrs.** BOXER; **Mr.** ROCKEFELLER; **Mr.** OBAMA
... solution to combat global **climate change** this body has ever considered. He has championed ...
... roadmap on how to fight **global warming**_a huge challenge we ...
... follow your leadership on **global warming.** I am excited about the ...
... measures, investigated the effects of **greenhouse gas** emissions, and promoted increased ...
... U.S. Senate he introduced the **Global Warming** Pollution Reduction Act, the ...

13. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 27, 2006 , 152 Cong Rec S 10289, Vol. 152, No. 123, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. FRIST; **Ms.** SNOWE; **Mr.** BINGAMAN; **Mr.** KERRY; **Mr.** KENNEDY; **Mr.** DeWINE; **Mr.** INHOFE; **Mrs.** CLINTON; **Mr.** WARNER; **Mr.** STEVENS; **Mr.** DOMENICI; **Mr.** LOTT; **Mr.** CRAIG
... gases because of his concerns about **global warming.** This Congress and this administration have done ...
... nothing to help reduce **greenhouse gas** emissions, we have done a ...

14. CONGRESSIONAL RECORD -- SENATE, Monday, September 25, 2006 , 152 Cong Rec S 10056, Vol. 152, No. 121, CLIMATE CHANGE
Senate
Mr. INHOFE; **Mr.** SALAZAR
... politicians are afraid to say, and that is "**global warming.**" I have spoken more about **global warming** than any other politician in ...
... but on the media's coverage of **climate change. Global warming**_just the term_evokes ...
... actual facts about **global warming,** I will address some of the recent media coverage of **global warming** and Hollywood's involvement in this ...
... between global cooling and **global warming** scares during four ...
... until the 1960s, they warned of **global warming.** From the 1950s until the 1970s, they ...
... age. This makes modern **global warming** the fourth estate's fourth attempt to promote opposing **climate change**

fears during the last ...
... try to convince the public that **global warming** is the greatest moral issue of our ...
... possible weather event to **global warming.** The year 2006 saw ...
... pretense of balance and objectivity on **climate change** coverage and instead crossed squarely on into **global warming** advocacy. First, I ...
... gun" of proof of catastrophic **global warming** is the so-called hockey stick ...
... Mann, who also copublishes a **global warming** propaganda blog_reportedly ...
... close-knit group of **global warming** believers after he published ...
... by a prominent **global warming** alarmist and told point ...
... trying to prove manmade **global warming** by comparing the well- ...
... views on manmade catastrophic **global warming** have only strengthened as new ...
... state of the scientific knowledge on **global warming.** Keep in mind, these ...
... necessary. The letter also noted: "**Climate change** is real" is a meaningless ...
... fears is justified. Global **climate changes** occur all the time due to ...
... mantra of a "consensus" on **global warming** into our pop culture is through the ...
... out with the Intergovernmental Panel on **Climate Change,** and Dr. Gray said: The effects of ...
... time for us to separate **climate change** fact from hysteria. One ...
... Inhofe, to doubt the dire **global warming** predictions? Will you be able to ...
... latest scare mongering on **climate change:** scientists such as MIT's Richard ...
... scientists. More important, it is the **global warming** alarmists who should ask the question: What if they are ...
... about manmade catastrophic **global warming?** They have come up with no ...
... truly believe that manmade **greenhouse gas** emissions are dooming the planet, then they ...
... bought into this hoax called **global warming**_after he researched this chart, ...
... everything is true that they have said about **global warming,** and if all of the countries_I am talking ...
... final point on the science of **climate change.** Again, I am approached ...
... impact. And more recently, **global warming** alarmists and the media have been praising ...
... fluorescents to help avert **global warming.** Changing to more energy- ...
... dark side. While **greenhouse gas** limiting proposals may ...
... scientifically unfounded fears of **global warming** to influence policymakers to restrict ...
... problems. Guess what. They place **global warming** at the bottom of the list in ...
... realize that these fears about **global warming** are severely misguided. I ...
... much time and effort on **global warming** fears and pointless solutions, such as the ...
... Kyoto represents not **climate change** but represents "the first ...
... drop all pretense of balance on **global warming** and have instead become committed ...
... York Times reads: **Climate Changes** Endanger World's Food ...
... 1974. They were not referring to **global warming;** they were warning of a coming ...
... Time magazine has also reported on **global warming.** Here is an example: [Those] who claim that winters were ...
... before they returned to hyping **global warming.** Time magazine, in ...
... noted that the "trump card" of **global warming** "has been the melting glaciers." But the ...
... switched gears to promoting **global warming.** This is the 1930s: America in ...
... believed "the facts of the present **climate change** are such that the most optimistic experts would ...
... year media history on **climate change** that I have documented today ...
... today's sensational promoters of **global warming?** You be the judge. On February 19 of this ...
... extreme scenarios" to dramatize **climate change** "may have been appropriate one ...
... excluding scientists skeptical of **global warming** alarmism from his segments because he considers ...
... Times who is promoting the aspect of **global warming** alarmism in a ...
... magazine devoted an issue to **global warming** alarmism entitled "Be Afraid, Be Very ...
... switched to warning about **global warming** in the 1930s, before it ...
... April 3, 2006, **global warming** special report of Time ...
... speculations on how bad **global warming** might become is nothing ...

... increased hurricane activity and **global warming** that most scientists believe does ...
... Mount Kilimanjaro is disappearing because of **global warming,** even while the region ...
... glacier's retreat is due to **global warming,** while ignoring the fact that the ...
... America are advancing. He blamed **global warming** for water loss ...
... role as advocates for **global warming** fears. ABC News ...
... people to submit their anecdotal **global warming** horror stories in ...
... presented a documentary on **global warming** narrated by former ...
... 100 percent consensus that **global warming** was not caused by ...
... percent of the papers dealing with **global warming,** according to a critique ...
... human activity is driving **global warming** and some of the studies actually opposed that ...
... hot hype regarding **global warming,** this time from the New York ...
... in the United States to **global warming**_something even the alarmist ...
... threatened with extinction by **global warming.** The article by correspondent ...
... fairness, and objectivity when it comes to **climate change. The global warming** alarmists and their friends in the ...
... premise of manmade catastrophic **global warming,** and as a result some scientists have ...
... media has so relentlessly promoted **global warming** fears that a British ...
... seemingly endless number of **global warming** impact studies which do not even address whether **global warming** is going to happen. They merely ...
... studies that purportedly show that **global warming** could increase mosquito populations, ...
... just a few of the **global warming**-linked calamities. Oddly, ...
... evenly between those who say **global warming** is due to human activity ...
... severe weather events to **global warming,** and the portion of Americans who believe **global warming** is naturally occurring is on the rise. It is ...
... expect accuracy and objectivity on **climate change** coverage. We have a right to ...
... report on the objective science of **climate change,** stop ignoring legitimate ...
GLOBAL WARMING (94%); **CLIMATE CHANGE** (63%); ENVIRONMENTAL & WILDLIFE ...

15. CONGRESSIONAL RECORD -- SENATE, Thursday, September 21, 2006 , 152 Cong Rec S 9863, Vol. 152, No. 119, SECURE FENCE ACT OF 2006_MOTION TO PROCEED
Senate
Mr. CRAIG; **Mr.** CONRAD; **Mr.** NELSON of Nebraska; **Ms.** LANDRIEU; **Mr.** SANTORUM; **Mr.** STEVENS; **Mr.** KYL; **Mr.** THUNE; **Mr.** CARPER; **Mr.** CARPER. ; **Mr.** REED; **Mr.** WYDEN; **Mr.** OBAMA; **Mr.** BROWNBACK; **Mr.** DeWINE; **Mrs.** CLINTON; **Mr.** LIEBERMAN; **Mr.** DURBIN; **Mr.** FRIST
... don't pretend to know whether **global warming** or global **climate change** is part of this. What I do know is ...
... severe and unprecedented drought, and whether it is because of **global warming** or whether it is just because of the severe weather ...
... itself. And so it continues to subside. And with **global warming,** it is now exacerbated. But that is ...

16. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 20, 2006 , 152 Cong Rec S 9854, Vol. 152, No. 118, U.S. ECONOMY CONTINUES TO PROSPER
Senate
Mr. HATCH
... way we should. If there is such a phenomenon as **global warming**_I believe there is_this will be ...

17. CONGRESSIONAL RECORD -- SENATE, Thursday, September 14, 2006 , 152 Cong Rec S 9645, Vol. 152, No. 114, AUTHORITY FOR COMMITTEES TO MEET
Senate

Mr. FRIST
... subcommittee on clean air, **climate change,** and nuclear safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

18. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 12, 2006 , 152 Cong Rec S 9363, Vol. 152, No. 112, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Ms. STABENOW; **Mr.** FEINGOLD; **Mr.** HARKIN; **Mr.** MENENDEZ
... a part of the solution to **global warming.** It is clear that the section 9006 ...

19. CONGRESSIONAL RECORD -- SENATE, Monday, September 11, 2006 , 152 Cong Rec S 9297, Vol. 152, No. 111, REDUCING FOREIGN ENERGY RELIANCE
Senate
Mr. LUGAR
... populism. Fifth, the threat of **climate change** has been made worse by ...

20. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 06, 2006 , 152 Cong Rec S 8991, Vol. 152, No. 108, NOMINATION OF JOHN BOLTON
Senate
Mr. DODD
... global health generally, **climate change,** energy security, and the list ...

21. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 05, 2006 , 152 Cong Rec S 8912, Vol. 152, No. 107, AN AMPLE AGENDA
Senate
Mr. DURBIN
... process and reducing the threat of **global warming.** A lot of families ...

22. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 05, 2006 , 152 Cong Rec S 8933, Vol. 152, No. 107, REPORT ON FOREIGN TRAVEL
Senate
Mr. SPECTER
... international terrorism, disease, **climate change** and Middle East peace. ...

23. CONGRESSIONAL RECORD -- SENATE, Thursday, August 03, 2006 , 152 Cong Rec S 8725, Vol. 152, No. 106, Senate
Senate
Mr. FRIST; **Mr.** REID; **Mr.** GRASSLEY; **Mr.** GRASSLEY. ; **Mr.** DURBIN; **Mr.** CONRAD; **Mrs.** MURRAY; **Mr.** BYRD; **Mr.** KENNEDY; **Mr.** LAUTENBERG; **Mr.** REED; **Mr.** AKAKA; **Mr.** JOHNSON; **Mr.** DODD; **Mr.** OBAMA; **Mr.** KERRY; **Mr.** LEVIN; **Mr.** BAUCUS; **Mr.** BIDEN; **Mr.** SANTORUM; **Mrs.** HUTCHISON; **Mr.** KYL; **Mr.** DOMENICI; **Mr.** ENZI; **Mr.** McCONNELL
... security challenges, or the threat of **global warming.** So if the Republicans want to bring ...

24. CONGRESSIONAL RECORD -- SENATE, Thursday, August 03, 2006 , 152 Cong Rec S 8783, Vol. 152, No. 106,
EUROPEAN UNION COMPLIANCE TO THE KYOTO TREATY
Senate
Mr. McCAIN
... Kyoto Treaty. There are many **climate change** skeptics who claim that the EU ...
... not be able to meet their **greenhouse gas** emission reduction targets ...
... system for the reduction of **greenhouse gas** emissions. Under the Kyoto Treaty, the EU has committed to
greenhouse gas reductions target of 8 ...
... made toward reducing **greenhouse gas** emissions. The report indicated that ...
... projects that result in **greenhouse gas** reductions through the Joint ...
... member states' projections of **greenhouse gas** emissions will be 5 ...
... reduce the EU-25 **greenhouse gas** emissions to 9.3 percent ...
... Nations Framework Convention on **Climate Change,** Richard Kinley, 34 ...
... Annual European Community **Greenhouse Gas** Inventory 1990-2004 and ...
... indicates that the EU-15 **greenhouse gas** emissions for 2004 ...
... total EU-15 **greenhouse gas** emissions were 4.7 index ...
... compliance of the EU-15 with its **greenhouse gas** emission targets in ...
... policies and measures, such as the EU's **greenhouse gas** emissions trading scheme, to ...
... measures under the European **Climate Change** Programme, ECCP. Most of these ...
... years. These include: The EU **greenhouse gas** emissions trading scheme; the ...
... EU's efforts to address **climate change.** Let me highlight a ...
... percent reduction, had reduced their **greenhouse gas** emissions by 0.9 ...
... much more has to be done. Its **climate change** policy does not stop ...
... adapt to the inevitable impacts of **climate change.** A follow-up ...
... EU is committed to tackling **climate change** and expects all of its institutions, businesses, and ...
... QUALITY REGULATION (63%); **CLIMATE CHANGE** (63%); EMISSION CREDITS (...

25. CONGRESSIONAL RECORD -- SENATE, Tuesday, August 01, 2006 , 152 Cong Rec S 8478, Vol. 152, No. 104,
LEGISLATIVE AGENDA
Senate
Mr. REID; **Mr.** FRIST; **Mr.** GREGG
... certainly, than talking about **global warming** because, according to them, it doesn't exist. It ...

26. CONGRESSIONAL RECORD -- SENATE, Tuesday, August 01, 2006 , 152 Cong Rec S 8482, Vol. 152, No. 104,
GULF OF MEXICO ENERGY SECURITY ACT OF 2006
Senate
Mr. McCONNELL; **Mr.** DURBIN; **Mr.** SESSIONS; **Mr.** ALEXANDER; **Mr.** CONRAD; **Mr.** KYL
... people are concerned about **global warming** a majority of this Senate is. That is why we ...
... electricity. If you care about **global warming,** for example, it is not ...

27. CONGRESSIONAL RECORD -- SENATE, Tuesday, August 01, 2006 , 152 Cong Rec S 8492, Vol. 152, No. 104,
GULF OF MEXICO SECURITY ACT OF 2006_Continued
Senate
Ms. MIKULSKI; **Mr.** VITTER; **Mr.** HARKIN; **Mr.** SCHUMER; **Mr.** LOTT; **Mr.** CRAIG; **Mr.** HATCH; **Mr.** ENZI;
Mr. GRASSLEY; **Mr.** BURNS; **Mr.** SPECTER; **Mr.** DODD; **Mr.** OBAMA; **Ms.** SNOWE; **Mr.** FEINGOLD; **Mrs.**
CLINTON; **Mr.** BIDEN; **Mr.** REED; **Mr.** JOHNSON; **Mr.** BYRD; **Mr.** LEAHY; **Mr.** DAYTON; **Mr.** McCONNELL;
Ms. LANDRIEU; **Mr.** DOMENICI; **Mr.** FRIST; **Mr.** KERRY

... By 2018, we would be cutting **global warming** pollution by 220 ...
... renewable fuels, or even **global warming.** The result is another missed ...

28. CONGRESSIONAL RECORD -- SENATE, Monday, July 31, 2006 , 152 Cong Rec S 8418, Vol. 152, No. 103, 109TH CONGRESS
Senate
Mr. DURBIN.
... health care, ignoring **global warming,** energy and gas prices. ...

29. CONGRESSIONAL RECORD -- SENATE, Thursday, July 27, 2006 , 152 Cong Rec S 8329, Vol. 152, No. 101, GULF OF MEXICO ENERGY SECURITY ACT OF 2006
Senate
Mr. GREGG; **Mr.** DURBIN; **Mr.** ISAKSON; **Mr.** CORNYN; **Mr.** NELSON of Florida; **Mr.** SESSIONS; **Mr.** FRIST; **Mr.** REID; **Mr.** BINGAMAN; **Mr.** VITTER; **Mr.** BROWNBACK; **Mrs.** MURRAY; **Mrs.** HUTCHISON; **Mr.** DOMENICI; **Mr.** DOMENICI. ; **Mr.** DeMINT; **Ms.** CANTWELL; **Ms.** LANDRIEU; **Mr.** DORGAN; **Mr.** SALAZAR; **Mr.** LAUTENBERG; **Mr.** WYDEN; **Mr.** THOMAS; **Mr.** BYRD; **Mr.** BENNETT; **Mr.** ALEXANDER; **Mr.** PRYOR; **Mr.** ROBERTS
... cloud over our globe, this **greenhouse effect** which captures the heat of the Sun and ...
... point where we are seeing dramatic **climate change** in America and around the ...
... read so much about, **global warming,** another scare tactic that is ...
... solutions that have been offered to address **global warming** is that most of the proponents penalize the ...
... discussed fossil fuels and **global warming.** In the Netherlands last ...
... 1704. We see evidence of **global warming** all over the place. I ...
... major weapon against **global warming.** If my friend and fellow ...
... nuclear power. That is the solution to **global warming.** So, first, we encouraged conservation. Then we ...
... recapture the carbon, deal with **global warming,** reduce the price of natural ...

30. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 26, 2006 , 152 Cong Rec S 8222, Vol. 152, No. 100, GULF OF MEXICO ENERGY SECURITY ACT OF 2006_MOTION TO PROCEED_Continued
Senate
Mr. REID; **Mr.** McCONNELL; **Mr.** WYDEN; **Mr.** MARTINEZ; **Mr.** CRAIG; **Mr.** DOMENICI; **Mr.** THOMAS; **Mr.** LOTT; **Mr.** BINGAMAN; **Mr.** SESSIONS; **Mr.** BOND; **Mr.** BOND. ; **Mr.** SHELBY; **Mr.** REED; **Mr.** MENENDEZ; **Mr.** COCHRAN; **Ms.** LANDRIEU; **Mr.** KYL; **Mr.** DORGAN; **Mr.** TALENT; **Mr.** ALLARD; **Mr.** ALEXANDER; **Mr.** DURBIN; **Mr.** BENNETT
... future threat is from factors such as **global warming.** Last year, in the ...
... record heat wave, and **global warming** threatens to bring us even ...
... country. So this land is very fragile. Because of **global warming,** and because of other things, because of some of the canals that were ...
... free energy. That affects **global warming.** So the first way to reduce the ...
... clarity and precision, the challenge of **global warming** and what will happen if we continue to ...
... increasing greenhouse gases and **global warming,** watching **climate change,** and all of the things that are likely to occur. It is ...

31. CONGRESSIONAL RECORD -- SENATE, Monday, July 24, 2006 , 152 Cong Rec S 8124, Vol. 152, No. 98, CLIMATE CHANGE AND ITS POTENTIAL IMPACT ON WILDFIRES
Senate

Mr. REID
... unexplored correlation between **climate change** and wildfires. The article found that the ...
... not believe that the issue of **climate change** should be a partisan issue. ...
... evidence that is piling up on **climate change** will compel my ...
... sides and the administration to treat **climate change** as a moral issue and ...
FIRES & ARSON (91%); **CLIMATE CHANGE** (90%); LOGGING INDUSTRY (...

32. CONGRESSIONAL RECORD -- SENATE, Thursday, July 20, 2006 , 152 Cong Rec S 8041, Vol. 152, No. 96, GLOBAL WARMING POLLUTION REDUCTION ACT OF 2006
Senate
Mr. AKAKA
... in decreasing U.S. **greenhouse gas** emissions. I am proud to ...
... Reed in introducing the **Global Warming** Pollution Reduction Act of ...
... below 1990 levels. The **global warming** debate began in ...
... combating the threats resulting from **global warming.** My home State of ...
... stabilization of global atmospheric **greenhouse gas** concentrations. We must invest ...
... technology research to control **greenhouse gas** emissions. Encouraging renewable ...
... poised to substantially reduce **greenhouse gas** emissions. But Federal ...
... accomplishing our goals to combat **global warming.** I appreciate the technical ...
... actively address the issue of **global warming.** I encourage my ...
EMISSIONS (93%); **GLOBAL WARMING** (92%); COASTAL AREAS (90%); **CLIMATE CHANGE** (90%); WATER POLLUTION (...

33. CONGRESSIONAL RECORD -- SENATE, Thursday, July 20, 2006 , 152 Cong Rec S 8050, Vol. 152, No. 96, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. INHOFE; **Mr.** JEFFORDS; **Mr.** SPECTER; **Mr.** SMITH; **Mr.** WYDEN; **Mrs.** FEINSTEIN; **Ms.** SNOWE; **Mr.** MENENDEZ; **Mr.** KENNEDY; **Mr.** MARTINEZ
... I rise to introduce the **Global Warming** Pollution Reduction Act of ...
... facing mankind is the problem of **global warming. Global warming** is real and it is already happening. Its ...
... within the scientific community is that **global warming** has begun, is largely the result of ...
... activity, and is accelerating. Atmospheric **greenhouse gas** concentrations have risen to 378 ...
... taking some form of action on **climate change.** I am today introducing the **Global Warming** Pollution Reduction Act, which ...
... reaching and forward-thinking **climate change** bill ever introduced. It sets ...
... percent reduction in **global warming** pollutants by 2050. It ...
... few decades to combat **global warming.** I believe that if this bill were ...
... path to potentially solving the **global warming** problem. If it were passed, we would reshape our ...
... most dangerous effects of **global warming.** If it were passed, we would be in a ...
... can act to reduce **global warming.** We can reduce emissions to ...
... proposing real action on **climate change,** and passing the torch to a ...
... a difference for us all. **Global warming** is upon us now. The question is, ...
... act decisively to combat **global warming?** That is the opportunity and challenge of the coming years, which my bill on **global warming** seeks to address. I ...
... posed by dangerous **global warming.** I urge my ...
... Act may be cited as the "**Global Warming** Pollution Reduction Act". SEC. 2. **GLOBAL WARMING** POLLUTION EMISSION REDUCTIONS. The ...
... TITLE VII_COMPREHENSIVE **GLOBAL WARMING** POLLUTION REDUCTIONS "Sec. ...

... Definitions. "Sec. 704. **Global warming** pollution emission reductions. " ...
... Conditions for accelerated **global warming** pollution emission reduction. " ...
... 710. Geological disposal of **global warming** pollutants. "Sec. 711. ...
... carbon. "Sec. 715. **Global warming** pollution reporting. "Sec. ...
... Congress finds that_ "(1) **global warming** poses a significant ...
... other heat-trapping **global warming** pollutants that are accumulating in the ...
... States emits more **global warming** pollutants than any other country, and ...
... 50 years; "(8) **global warming** has caused_ "(A) ocean ...
... limits and incentives to reduce **global warming** pollution emissions into the atmosphere; "(...
... current rate of emission, **global warming** pollution concentrations in the ...
... use in reducing **global warming** pollution emissions, and significant ...
... leader in solving **global warming;** and "(14) it should be a goal of the ...
... a reduction in **global warming** pollution emissions in the ...
... global atmospheric concentration of **global warming** pollutants that does not exceed ...
... a reduction in **global warming** pollution emissions compatible with ...
... global atmospheric concentrations of **global warming** pollutants do not exceed ...
... aggregate net level of **global warming** pollution emissions of the United ...
... aggregate net level of **global warming** pollution emissions for ...
... acceleration of reductions in **global warming** pollution emissions to prevent_ "(...
... global atmospheric concentrations of **global warming** pollutants from exceeding 450 ...
... a motor vehicle **global warming** pollution emission requirement; "(...
... units to meet a **global warming** pollution emission standard; "(...
... development of, the technologies to control **global warming** pollution emissions; "(9) to ...
... ranging impacts associated with **global warming;** and "(10) to promote, through ...
... accelerated reductions in **global warming** pollution from other countries with significant **global warming** pollution emissions. "SEC. ...
... means, for each **global warming** pollutant, the quantity of the **global warming** pollutant that makes the same contribution to **global warming** as 1 metric ton of ...
... United States. "(4) **Global warming** pollutant._The term '**global warming** pollutant' means_ "(A) ...
... comment, determines to contribute to **global warming.** "(5) **Global warming** pollution._The term '**global warming** pollution' means any combination of 1 or more **global warming** pollutants emitted into the ambient ...
... limit on the aggregate net **global warming** pollution emissions of 1 or ...
... allowing the transfer or sale of **global warming** pollution emission allowances. "(...
... 705. "SEC. 704. **GLOBAL WARMING** POLLUTION EMISSION REDUCTIONS. "(...
... other countries that emit **global warming** pollutants, to achieve a reduction in **global warming** pollution emissions_ "(A) to ...
... global atmospheric concentration of **global warming** pollutants that does not exceed ...
... States shall reduce the **global warming** pollution emissions of the United ...
... B) to stabilize average **global warming** pollution concentrations globally at or ...
... aggregate net levels of **global warming** pollution emissions of the United ...
... aggregate net level of those **global warming** pollution emissions during ...
... aggregate net level of **global warming** pollution emissions of the United ...
... aggregate net levels of **global warming** pollution emissions of the United ...
... aggregate net level of **global warming** pollution emissions of the United ...
... aggregate net level of the **global warming** pollution emissions of the United ...
... aggregate net level of **global warming** pollution emissions of the United ...
... aggregate net levels of **global warming** pollution emissions from the United ...
... minimize the effects of rapid **climate change** and achieve the goals of this title. "(...
... section 706(a) any **global warming** pollution emission allowances that are ...
... may recognize reductions of **global warming** pollution emissions made ...

... entity-wide reductions of **global warming** pollution emissions before the ...
... average market price of **global warming** pollution emission allowances ...
... means the total number of **global warming** pollution emission allowances ...
... price per ton of **global warming** pollution emissions determined ...
... emission of 1 ton of **global warming** pollutants through commercial ...
... effective options for **global warming** pollution control and emission ...
... CONDITIONS FOR ACCELERATED **GLOBAL WARMING** POLLUTION EMISSION REDUCTION. "(...
... Academy, are the result of anthropogenic **climate change.** "(2) Events._The events ...
... exceedance of an atmospheric concentration of **global warming** pollutants of 450 parts ...
... not reliably reduce **global warming** pollution emissions; or "(D) would ...
... A) the status of current **global warming** pollution emission reduction ...
... for capture and disposal of **global warming** pollutants; "(ii) efficiency ...
... technologies; "(iii) zero-**global-warming**-pollution-emitting energy ...
... costs of available alternative **global warming** pollution emission reduction ...
... date relating to_ "(i) **climate change;** "(ii) **climate change** technologies; and "(iii) national and international **climate change** commitments. "(c) Additional ...
... trends in annual **global warming** pollution emissions by the ...
... more than 90 percent of **global warming** pollution emissions (including country-specific inventories of **global warming** pollution emissions and facility-specific inventories of **global warming** pollution emissions in the ...
... analysis of the trends in **global warming** pollution concentrations (including observed atmospheric concentrations of **global warming** pollutants); "(3) a ...
... caused by anthropogenic **global warming** pollution emissions, in ...
... providing for the allocation of **global warming** pollution emission allowances to the ...
... emitting economy; or "(B) **global warming;** "(2) owners and operators of ...
... produced by an anthropogenic **global warming** pollution emission source ...
... wildlife) affected by **climate change;** and "(6) manufacturers producing ...
... in substantially reduced **global warming** pollution emissions, for ...
... meet the standards for **global warming** pollution emissions described ...
... Emission standards._The average **global warming** pollution emissions of a ...
... meet the standards for **global warming** pollution emissions described ...
... Emission standards._The average **global warming** pollution emissions of a ...
... feasibility and cost-effectiveness of **global warming** pollution reductions from the non- ...
... shall meet a **global warming** pollution emission standard that is ...
... may increase the stringency of the **global warming** pollution emission standard ...
... 710. GEOLOGICAL DISPOSAL OF **GLOBAL WARMING** POLLUTANTS. "(a) Geological ...
... support research on global **climate change** standards and processes, with the goals of_ "(...
... knowledge applicable to the reduction of **global warming** pollutants; and "(2) facilitating ...
... grants, a global **climate change** standards and processes research ...
... necessary to enable the monitoring of **global warming** pollution; "(ii) to assist ...
... future trading in **global warming** pollutants (including the measurement of ...
... procedures for reducing **global warming** pollution; and "(iv) to assist ...
... designed to reduce or eliminate **global warming** pollution. "(3) Abrupt **climate change** research._ "(A) Definition of abrupt **climate change.**_In this paragraph, the term 'abrupt **climate change**' means a change ...
... research on potential abrupt **climate change** that is designed_ "(i) to develop ...
... past instances of abrupt **climate change;** "(ii) to improve understanding of ...
... relating to the mechanisms of abrupt **climate change;** "(iii) to incorporate those mechanisms into advanced geophysical models of **climate change;** and "(iv) to test the output of those ...
... records of past abrupt **climate changes.** "(c) Sense of the Senate._It is the ...
... information. "SEC. 715. **GLOBAL WARMING** POLLUTION REPORTING. "(a) ...
... report describing the emissions of **global warming** pollutants from the entity for the ...

... voluntarily report the emissions of **global warming** pollutants from the entity to the Administrator. "(...
... Expression of measurements._Each **global warming** pollution report submitted ...
... section shall express **global warming** pollution emissions in_ "(...
... metric tons of each **global warming** pollutant; and "(B) metric ...
... dioxide equivalent of each **global warming** pollutant. "(2) Electronic ...
... may specify the level of **global warming** pollution emissions from a ...
... transparency, and accuracy of data on **global warming** pollution emissions submitted ...
... in reduced emissions of **global warming** pollutants. "(2) Developing ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... significant growth in **global warming** pollution emissions over the ...
... actions to further limit **climate change** (except that section 209 ...
... a reduction in **global warming** pollution emissions of 75 ...
... title VII (relating to **global warming** pollution emission reductions),"; and (...
... 1)) the following: "(o) **Global Warming** Pollution Emission Reductions._ "(...
... title VII (relating to **global warming** pollution).". SEC. 5. ...
... posed by global **climate change,** and foster sustained economic ...
... Nations Framework Convention on **Climate Change,** done at New York ...
... countries that are major emitters of **global warming** pollution, in accordance with the ...
... term reduction in **global warming** pollution emissions; and (2) ...
... monitor any international negotiations on **climate change;** and (B) to ensure that the advice and ...
... reduction in total **global warming** pollution emissions in the ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... 1992. SEC. 8. **CLIMATE CHANGE** IN ENVIRONMENTAL IMPACT ...
... net changes in **global warming** pollution emissions; and (2) the ways in which **climate changes** may affect the action or ...
... CORPORATE ENVIRONMENTAL DISCLOSURE OF **CLIMATE CHANGE** RISKS. (a) Regulations._ ...
... exposure of the issuer because of the net **global warming** pollution emissions of the issuer; and (...
... potential economic impacts of **global warming** on the interests of the issuer. (b) ...
... States to reduce emissions of **global warming** pollution under the United Nations Framework Convention on **Climate Change,** done at New York on ...
... material effect; and (B) **global warming** constitutes a known ...

34. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 19, 2006 , 152 Cong Rec S 7813, Vol. 152, No. 95, WATER RESOURCES DEVELOPMENT ACT OF 2005
Senate
Mr. FEINGOLD; **Mr.** FEINGOLD. ; **Mr.** McCAIN; **Mr.** JEFFORDS; **Mr.** INHOFE; **Mr.** BOND; **Mr.** BAUCUS; **Mr.** SCHUMER; **Mr.** CARPER; **Mrs.** BOXER; **Mr.** LIEBERMAN; **Mr.** THUNE; **Mr.** MARTINEZ; **Mr.** TALENT; **Mrs.** LINCOLN; **Mr.** ROCKEFELLER. ; **Mr.** VOINOVICH; **Mr.** NELSON of Florida; **Ms.** LANDRIEU; **Mr.** VITTER; **Mr.** STEVENS; **Mr.** WARNER; **Mr.** REED; **Mr.** LEVIN; **Mr.** LEVIN. ; **Mr.** LAUTENBERG; **Mr.** AKAKA; **Mr.** OBAMA; **Mr.** SARBANES; **Mr.** HARKIN
... isn't like a **climate change** debate. This isn't one where ...

35. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 19, 2006 , 152 Cong Rec S 7922, Vol. 152, No. 95, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BOND; **Mr.** JEFFORDS; **Mr.** KERRY; **Mr.** OBAMA; **Mr.** ROCKEFELLER; **Mr.** LEAHY
... By 2018, we would be cutting **global warming** pollution by 220 ...

36. CONGRESSIONAL RECORD -- SENATE, Thursday, July 13, 2006 , 152 Cong Rec S 7513, Vol. 152, No. 91, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Ms. MIKULSKI; **Mr.** JEFFORDS; **Mr.** CRAIG; **Mrs.** FEINSTEIN; **Ms.** SNOWE; **Mr.** SANTORUM; **Mr.** KERRY
... water pollutants, reducing **greenhouse gas** emissions, and stimulating the development of ...

37. CONGRESSIONAL RECORD -- SENATE, Thursday, July 13, 2006 , 152 Cong Rec S 7530, Vol. 152, No. 91, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. GREGG
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

38. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 11, 2006 , 152 Cong Rec S 7357, Vol. 152, No. 89, COMMEMORATING THE 100TH ANNIVERSARY OF THE NATIONAL AUDUBON SOCIETY
Senate
Mr. FRIST
... by such factors as pollution, **climate change,** toxins, and habitat loss, as ...

39. CONGRESSIONAL RECORD -- SENATE, Monday, July 10, 2006 , 152 Cong Rec S 7261, Vol. 152, No. 88, SENATE AGENDA
Senate
Mr. REID
... done anything to look at **global warming?** No, nothing. Today ...
... reduce the risk of global **climate change?** No. This administration doesn't ...
... movie showing the problems we have with **global warming**_ice caps dropping into the ...
... investigating and taking action on **global warming.** These are tough issues relating to **global warming.** We have to do something. It is not going to be ...
... CIVIL RIGHTS (62%); **GLOBAL WARMING** (62%); **CLIMATE CHANGE** (62%); STEM CELL ...

40. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 28, 2006 , 152 Cong Rec S 6592, Vol. 152, No. 86, CHECKLIST FOR CHANGE
Senate
Mrs. CLINTON; **Ms.** MIKULSKI; **Mrs.** BOXER; **Mrs.** MURRAY; **Ms.** CANTWELL; **Mrs.** LINCOLN; **Mrs.** FEINSTEIN; **Ms.** LANDRIEU; **Ms.** STABENOW
... pressing environmental crises: **global warming** and Superfund cleanup. It is easy to put **global warming** on the back burner as long as our ...
... near the tipping point on **global warming.** Just the other day, the ...
... other nations, agreed that **climate change** is real and it has to be addressed. So we call on this ...
... week a historic **global warming** bill cleared the first ...
... world when it comes to the threat of **global warming,** and they have recklessly reduced clean ...

41. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 28, 2006 , 152 Cong Rec S 6615, Vol. 152, No. 86, EXECUTIVE SESSION
Senate

Mr. GRASSLEY; **Mr.** BAUCUS; **Mr.** WYDEN; **Mr.** BOND; **Mr.** REED; **Mr.** DURBIN; **Mr.** COBURN; **Mr.** SCHUMER; **Mr.** FRIST; **Mr.** THOMAS; **Mr.** DOMENICI; **Mr.** HATCH; **Mr.** REID
... for the environment of the world. Whether it is **global warming** or toxic release, we are literally all ...
... forward look at the issue of **global warming.** This is an issue which is real, and this administration ...
... international agreements that deal with **global warming.** Mr. Paulson's voice at the ...

42. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 28, 2006 , 152 Cong Rec S 6635, Vol. 152, No. 86,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. DURBIN; **Mr.** JEFFORDS; **Mr.** KENNEDY; **Mrs.** BOXER; **Mr.** LIEBERMAN; **Ms.** COLLINS
... consumption, 38.1 percent of **greenhouse gas** emissions, and 30 percent of ...

43. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 27, 2006 , 152 Cong Rec S 6511, Vol. 152, No. 85,
FLAG DESECRATION AMENDMENT_Continued
Senate
Mr. LEAHY; **Mr.** CARPER
... foreign oil, the threat of **global warming,** the skyrocketing cost of health ...

44. CONGRESSIONAL RECORD -- SENATE, Monday, June 26, 2006 , 152 Cong Rec S 6471, Vol. 152, No. 84,
FLAG DESECRATION AMENDMENT
Senate
Mr. SPECTER; **Mr.** LEAHY; **Mr.** LEAHY. ; **Mr.** HATCH; **Mr.** SHELBY; **Mr.** DURBIN; **Mr.** GRASSLEY
... instead of addressing the issue of **global warming,** which is a threat not ...

45. CONGRESSIONAL RECORD -- SENATE, Thursday, June 22, 2006 , 152 Cong Rec S 6324, Vol. 152, No. 82,
NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2007
Senate
Mr. KYL; **Mr.** WARNER; **Mr.** REED; **Mr.** HATCH: **Mr.** NELSON of Florida; **Mr.** JEFFORDS; **Mr.** SARBANES; **Mr.** FEINGOLD; **Mr.** LEVIN; **Mr.** KERRY; **Mr.** McCAIN; **Mr.** CONRAD; **Mr.** REID; **Mr.** FRIST; **Mr.** CHAMBLISS; **Mrs.** HUTCHISON; **Mr.** DOMENICI; **Mr.** ISAKSON; **Mr.** THUNE; **Mr.** INHOFE. ; **Mr.** LIEBERMAN; **Mr.** DODD; **Mr.** BIDEN; **Mrs.** BOXER; **Mr.** OBAMA; **Mr.** BINGAMAN; **Mr.** SESSIONS; **Mr.** ALLARD; **Mr.** COBURN
... sense-of-the-Senate resolution on **climate change.** One year ago the ...
... issue. The Senate debate on **climate change** included discussions on various ...
... moving forward and addressing **global warming** in a ground- ...
... State initiatives to address **global warming.** My own State of ...
... year about the science of **climate change.** Last year, the National ...
... declared that "scientific understanding of **climate change** is now sufficiently clear to ...
... years. With regard to the impacts of **global warming,** a recent study ...
... seen any studies that would indicate **global warming** will create more ...
... by human-induced **climate change.** In addition, there are more ...
... Uncertainty in Hurricanes and **Global Warming.** Science 308: 1753- ...

46. CONGRESSIONAL RECORD -- SENATE, Thursday, June 22, 2006 , 152 Cong Rec S 6437, Vol. 152, No. 82,
AUTHORITY FOR COMMITTEES TO MEET

Senate
Mr. WARNER
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety Mr. ...
... Subcommittee on Clean, Air, **Climate Change,** and Nuclear Safety be authorized to ...

47. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 20, 2006 , 152 Cong Rec S 6100, Vol. 152, No. 80, IRAQI AMNESTY PLAN
Senate
Mr. REID
... agree. We have our differences about whether there is **global warming,** about the staggering deficits we have, ...

48. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 20, 2006 , 152 Cong Rec S 6157, Vol. 152, No. 80, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mrs. CLINTON; **Mr.** GRAHAM; **Mrs.** FEINSTEIN
... economy and safety, reduce **greenhouse gas** emissions, reduce dependence on ...
... foreign oil, decrease our **greenhouse gas** emissions, and save consumers at the ...
... two largest culprits of **climate change** are coal-fired powerplants and ...
... for fuel economy and **greenhouse gas** emissions. SEC. 3. ...
... annual reduction in **greenhouse gas** emissions, properly attributable to the ...
... FOR FUEL ECONOMY AND **GREENHOUSE GAS** EMISSIONS. Section 32908 of ...
... reflect the fuel economy and **greenhouse gas** and other emissions consequences of ...
... ii) will have the lowest **greenhouse gas** emissions over the useful ...

49. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 14, 2006 , 152 Cong Rec S 5828, Vol. 152, No. 76, EMERGENCY SUPPLEMENTAL APPROPRIATIONS ACT FOR DEFENSE, THE GLOBAL WAR ON TERROR, AND HURRICANE RECOVERY, 2006_CONFERENCE REPORT
Senate
Mr. REID; **Ms.** CANTWELL; **Mr.** DURBIN; **Ms.** LANDRIEU; **Mr.** COCHRAN; **Mr.** HARKIN; **Mr.** HARKIN.
... find out what is going on with **global warming** and other issues of that nature, and ...

50. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 13, 2006 , 152 Cong Rec S 5770, Vol. 152, No. 75, HURRICANE SEASON AND INSURANCE COMPANIES
Senate
Mr. NELSON of Florida; **Mr.** COCHRAN
... meteorological phenomenon to the fact of **global warming** where, as the Earth's temperatures rise because of the ...
... more ferocious storms. Whether that **global warming** is affecting this particular cycle, ...
... I know that the phenomenon of **global warming** added to_if we are in a ...
... 93%); HURRICANES (82%); **GLOBAL WARMING** (82%); INSURANCE PREMIUMS (...

51. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 07, 2006 , 152 Cong Rec S 5517, Vol. 152, No. 71, MARRIAGE PROTECTION AMENDMENT_MOTION TO PROCEED
Senate
Mr. FRIST; **Mr.** REID; **Mr.** FEINGOLD; **Mr.** BROWNBACK; **Mr.** ALLARD; **Mr.** DURBIN; **Mr.** LEVIN; **Mr.** KERRY; **Mr.** JEFFORDS; **Mr.** INHOFE; **Mr.** BURNS; **Mr.** OBAMA; **Ms.** COLLINS; **Ms.** MIKULSKI; **Mr.** ENZI;

Mr. McCONNELL; **Mr.** AKAKA; **Mr.** SANTORUM; **Mr.** SESSIONS; **Mr.** LEAHY
... Head Start reauthorization, **global warming,** and a rapidly increasing ...
... national debt. We should be debating **global warming.** We should be debating stem cell ...

52. CONGRESSIONAL RECORD -- SENATE, Friday, May 26, 2006 , 152 Cong Rec S 5319, Vol. 152, No. 68, NOMINATION OF GENERAL MICHAEL V. HAYDEN TO THE POSITION OF GENERAL IN THE U.S. AIR FORCE
Senate
Mr. NELSON of Florida; **Mr.** MENENDEZ; **Mr.** CRAPO; **Mr.** LAUTENBERG; **Mr.** FEINGOLD; **Mr.** FRIST; **Ms.** LANDRIEU
... administration to face the facts on **global warming.** We quite simply might ...
... change their conclusions about **global warming.** This year, we have seen numerous ...

53. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 23, 2006 , 152 Cong Rec S 4958, Vol. 152, No. 65, HURRICANE SEASON
Senate
Ms. LANDRIEU
... books about the fact that **global warming** is happening. One can ...

54. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 23, 2006 , 152 Cong Rec S 4958, Vol. 152, No. 65, HURRICANE SEASON
Senate
Ms. LANDRIEU
... books about the fact that **global warming** is happening. One can ...

55. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 23, 2006 , 152 Cong Rec S 4962, Vol. 152, No. 65, GLOBAL CLIMATE CHANGE
Senate
Mr. FEINGOLD
... step on the issue of global **climate change** by passing a ...
... United States to address **global warming** through the negotiation of fair and ...
... face the facts on global **climate change.** Just last week, ...
... Christian Aid, which suggests that **climate change** could lead to millions of deaths ...
CLIMATE CHANGE (93%); EMERGING MARKETS (...
... FOREIGN POLICY (78%); **GLOBAL WARMING** (73%); NONPROFIT ORGANIZATIONS (...

56. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 23, 2006 , 152 Cong Rec S 4962, Vol. 152, No. 65, GLOBAL CLIMATE CHANGE
Senate
Mr. FEINGOLD
... step on the issue of global **climate change** by passing a ...
... United States to address **global warming** through the negotiation of fair and ...
... face the facts on global **climate change.** Just last week, ...
... Christian Aid, which suggests that **climate change** could lead to millions of deaths ...
CLIMATE CHANGE (93%); EMERGING MARKETS (...

... FOREIGN POLICY (78%); **GLOBAL WARMING** (73%); NONPROFIT ORGANIZATIONS (...

57. CONGRESSIONAL RECORD -- SENATE, Thursday, May 18, 2006 , 152 Cong Rec S 4798, Vol. 152, No. 62,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. LOTT; **Mr.** PRYOR; **Mr.** LUGAR; **Mr.** SPECTER; **Mr.** DODD; **Mr.** SESSIONS; **Mr.** SCHUMER; **Mr.** KOHL; **Mr.** BIDEN
... environment by reducing **greenhouse gas** emissions. We must reduce the ...
... require the Secretary to consider **greenhouse gas** emissions when promulgating a ...

58. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 17, 2006 , 152 Cong Rec S 4697, Vol. 152, No. 61,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. KOHL; **Mr.** CRAIG; **Mr.** BINGAMAN; **Mr.** KERRY; **Mr.** AKAKA; **Mr.** DODD; **Ms.** CANTWELL
... take steps to curb **greenhouse gas** emissions by diversifying ...

59. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 16, 2006 , 152 Cong Rec S 4619, Vol. 152, No. 60,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. ENZI; **Mr.** ROCKEFELLER; **Mr.** GRASSLEY; **Mrs.** FEINSTEIN; **Mr.** DODD; **Mr.** JOHNSON; **Mr.** HARKIN
... extremists. And we are accelerating the pace of **global warming.** Substituting biofuels for ...
... dangerously rising levels of **greenhouse gas** emissions. The reality is that gasoline is ...

60. CONGRESSIONAL RECORD -- SENATE, Thursday, May 11, 2006 , 152 Cong Rec S 4385, Vol. 152, No. 57,
TAX INCREASE PREVENTION AND RECONCILIATION ACT OF 2005_CONFERENCE REPORT
Senate
Mr. FRIST; **Mr.** REID; **Mr.** GRASSLEY; **Mr.** BAUCUS; **Mr.** BINGAMAN; **Mr.** DODD; **Mr.** DeMINT; **Mr.** LOTT; **Mrs.** HUTCHISON; **Mr.** SCHUMER; **Mr.** WYDEN; **Mrs.** BOXER; **Mrs.** BOXER. ; **Mr.** GREGG; **Mrs.** FEINSTEIN. ; **Mr.** REED; **Mr.** AKAKA; **Mr.** CONRAD; **Mr.** DORGAN; **Mr.** BYRD; **Mr.** THOMAS; **Mr.** LAUTENBERG; **Mr.** McCONNELL; **Mr.** SANTORUM; **Mr.** HATCH; **Mr.** THUNE; **Mr.** CRAIG; **Mr.** DAYTON; **Mr.** KENNEDY; **Mr.** OBAMA; **Mr.** ENZI; **Mr.** DURBIN; **Mr.** FEINGOLD; **Mrs.** MURRAY; **Mr.** LEVIN
... breathe. We want to stop **global warming.** Some on the other side say it is a hoax, **global warming.** Ice floes are coming ...
... lands across this globe, with **global warming** creating melting seas. ...

61. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 10, 2006 , 152 Cong Rec S 4242, Vol. 152, No. 56,
HEALTH CARE REFORM
Senate
Mr. REID
... education. We need to focus on **global warming,** and we are not. It is being ignored because ...

62. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 10, 2006 , 152 Cong Rec S 4249, Vol. 152, No. 56,
HEALTH CARE WEEK
Senate

Mr. KENNEDY; **Mr.** BINGAMAN; **Mr.** BURR; **Mrs.** LINCOLN; **Mr.** ISAKSON; **Mr.** LAUTENBERG; **Mr.** ALLARD
... being done about **global warming** as the Earth that we live on gets ...

63. CONGRESSIONAL RECORD -- SENATE, Thursday, May 04, 2006 , 152 Cong Rec S 4031, Vol. 152, No. 52,
SUPPLEMENTAL APPROPRIATIONS AND AGRICULTURE DISASTER ASSISTANCE
Senate
Mr. CONRAD; **Mr.** ENSIGN
... happening. Some say it is global **climate change.** Some say it is a weather ...

64. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 03, 2006 , 152 Cong Rec S 3933, Vol. 152, No. 51,
ENERGY
Senate
Ms. MURKOWSKI; **Mr.** CRAIG
... sequestration to lock up **greenhouse gas** emissions. But the other ...

65. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 02, 2006 , 152 Cong Rec S 3854, Vol. 152, No. 50,
FAILED ENERGY POLICY
Senate
Mr. DURBIN
... greenhouse gases, more **global warming,** more natural disasters, ...
... going to talk about **global warming** and how it is changing the world we ...

66. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 02, 2006 , 152 Cong Rec S 3858, Vol. 152, No. 50,
MAKING EMERGENCY SUPPLEMENTAL APPROPRIATIONS FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2006_Resumed
Senate
Mr. COCHRAN; **Mr.** LEVIN; **Mr.** McCAIN; **Mr.** INOUYE; **Mr.** COBURN; **Mr.** MENENDEZ; **Mr.** BENNETT
... levels caused by **global warming,** we need a new ...

67. CONGRESSIONAL RECORD -- SENATE, Thursday, April 27, 2006 , 152 Cong Rec S 3706, Vol. 152, No. 4,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. DODD; **Mr.** BURNS; **Mr.** DeWINE; **Mr.** BAUCUS; **Mr.** AKAKA; **Mrs.** BOXER; **Mr.** CRAPO; **Ms.** CANTWELL; **Mr.** BIDEN; **Mr.** NELSON of Florida; **Mr.** BYRD
... another terrorist attack, **global warming,** avian flu, rising ...

68. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 26, 2006 , 152 Cong Rec S 3585, Vol. 152, No. 47,
EARTH DAY 2006
Senate
Mr. FEINGOLD
... health of our citizens, increased **greenhouse gas** emissions feed global **climate change,** and the majestic Great Lakes, ...
... atmosphere and that these gases fuel **global warming.** We all also know that global **climate change** is a problem

plagued ...
... Getting real about **global warming**_which must happen soon_ ...
... ENVIRONMENTAL LAW (90%); **GLOBAL WARMING** (90%); **CLIMATE CHANGE** (90%); STUDENTS & STUDENT ...

69. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 25, 2006 , 152 Cong Rec S 3494, Vol. 152, No. 46,
TRIP TO COLOMBIA, PERU, BRAZIL AND DOMINICAN REPUBLIC
Senate
Mr. SPECTER
... effects the deforestation of the Amazon is having on **global warming.** Ms. Durazo explained that the ...
... largest portion of the manmade **greenhouse effect.** Each year, there are eight ...
... role in the manmade **greenhouse effect.** NASA is continuing to study the ...

70. CONGRESSIONAL RECORD -- SENATE, Thursday, April 06, 2006 , 152 Cong Rec S 3213, Vol. 152, No. 43,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. SPECTER; **Mr.** LEAHY; **Mr.** KOHL; **Mr.** DeWINE; **Mr.** DOMENICI; **Mr.** CRAIG; **Mr.** COCHRAN; **Mr.** ENZI; **Mr.** BURR; **Mr.** JEFFORDS; **Mr.** LUGAR; **Mr.** OBAMA; **Mrs.** BOXER; **Mr.** SARBANES; **Mr.** HATCH; **Mr.** CONRAD; **Mr.** ALEXANDER; **Mr.** BURNS; **Mr.** DURBIN; **Mr.** SALAZAR; **Mr.** KERRY; **Mr.** COBURN; **Mr.** HARKIN
... more of. All those who want to solve **global warming** in a generation should be ...
... part not to add to **global warming,** we should do all these things. We do not need ...

71. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 05, 2006 , 152 Cong Rec S 3156, Vol. 152, No. 42,
AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. SESSIONS
... ordered. Subcommittee on Global **Climate Change** and Impacts Mr. SESSIONS . ...
... consent that the Subcommittee on Global **Climate Change** and Impacts be authorized to meet on ...

72. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 04, 2006 , 152 Cong Rec S 2795, Vol. 152, No. 41,
GLOBAL CLIMATE CHANGE
Senate
Mr. FEINGOLD
... forward with legislation addressing **global warming.** As many Americans have realized_ ...
... reduce our contributions to global **climate change** before it is too late for ...
... champions of raising awareness of **global warming.** Today's conference, under the ...
... scheduled to consider the issue of **global warming.** Tomorrow, the Commerce Committee's Global **Climate Change** and Impacts Subcommittee will ...
... time when it was all right to ignore **global warming,** that time has long passed. We have ...
... turning our backs on the reality of **climate change,** we might as well be turning our ...
... optimistic that the Senate's treatment of **global warming** is nearing its own tipping ...
GLOBAL WARMING (91%); **CLIMATE CHANGE** (91%); DEVELOPING COUNTRIES (...

73. CONGRESSIONAL RECORD -- SENATE, Thursday, March 16, 2006 , 152 Cong Rec S 2316, Vol. 152, No. 34,

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BAUCUS; **Mr.** BENNETT; **Mr.** FEINGOLD; **Mr.** LUGAR; **Mr.** DeWINE; **Mr.** SALAZAR; **Mr.** WYDEN; **Mr.** NELSON of Florida; **Mr.** STEVENS; **Mr.** REID; **Ms.** CANTWELL; **Mr.** OBAMA; **Mr.** DURBIN; **Mr.** McCAIN; **Mr.** AKAKA; **Mr.** KERRY; **Mr.** SPECTER; **Mr.** FRIST
... impact on zoning, global **climate change,** ozone depletion, biodiversity ...

74. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 15, 2006 , 152 Cong Rec S 2199, Vol. 152, No. 33, SUNSHINE WEEK 2006
Senate
Mr. LEAHY
... conclusions about the dangers of **greenhouse gas** emissions and **global warming** differed with administration policy. This ...

75. CONGRESSIONAL RECORD -- SENATE, Thursday, March 09, 2006 , 152 Cong Rec S 1983, Vol. 152, No. 30, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. COLEMAN
... subcommittee on clear air, **climate change** and nuclear safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

76. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 08, 2006 , 152 Cong Rec S 1859, Vol. 152, No. 29, RENEWABLE ENERGY
Senate
Mr. ALLARD
... security, but they reduce **greenhouse gas** emissions and decrease demands ...

77. CONGRESSIONAL RECORD -- SENATE, Thursday, March 02, 2006 , 152 Cong Rec S 1632, Vol. 152, No. 25, MAKING AVAILABLE FUNDS FOR THE LOW-INCOME HOME ENERGY ASSISTANCE PROGRAM, 2006
Senate
Mr. COBURN; **Ms.** SNOWE; **Ms.** LANDRIEU. ; **Mr.** ENSIGN; **Mr.** INHOFE; **Ms.** COLLINS; **Mr.** COLEMAN; **Mr.** REED; **Mr.** SESSIONS; **Mr.** DODD; **Mr.** LOTT; **Mr.** KYL; **Mr.** COCHRAN; **Mr.** FRIST
... money? I thought we were having **global warming.** I thought it was a ...

78. CONGRESSIONAL RECORD -- SENATE, Thursday, February 16, 2006 , 152 Cong Rec S 1376, Vol. 152, No. 20, ENERGY
Senate
Mr. BOND; **Mr.** FEINGOLD
... in order to fight **climate change.** We will pass proposals to ...
... in their fight against **global warming.** Some do not care that there are no ...
... stating support for **climate change** strategies that did not hurt the ...

79. CONGRESSIONAL RECORD -- SENATE, Thursday, February 09, 2006 , 152 Cong Rec S 1037, Vol. 152, No. 15, AUTHORITIES FOR COMMITTEES TO MEET

Senate
Mr. COBURN
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

80. CONGRESSIONAL RECORD -- SENATE, Wednesday, February 08, 2006 , 152 Cong Rec S 837, Vol. 152, No. 14, TRIBUTE TO PROFESSOR THOMAS CROMBIE SCHELLING
Senate
Mr. REED
... energy and environmental policy, **climate change,** nuclear proliferation, terrorism, ...

81. CONGRESSIONAL RECORD -- SENATE, Monday, February 06, 2006 , 152 Cong Rec S 702, Vol. 152, No. 12, NUCLEAR POWER
Senate
Mr. ALEXANDER
... example, whether we are able to deal with **global warming** within a generation, the ...
... reasonably hope to deal with **global warming** in this generation is nuclear ...
... issues as if they were American issues_**global warming,** energy independence, clean ...
... aren't able to deal with the **global warming** issue, with the clean air ...
... generation can deal with **global warming,** energy independence, clean ...

82. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 25, 2006 , 152 Cong Rec S 112, Vol. 152, No. 5, TRIBUTE TO WILLIAM B. BONVILLIAN
Senate
Mr. LIEBERMAN
... S. 2025 (2005); **Climate Change** Act, S. 1151 (...

83. CONGRESSIONAL RECORD -- SENATE, Thursday, December 22, 2005 , 151 Cong Rec S 14221, Vol. 151, No. 167, DEPARTMENT OF DEFENSE APPROPRIATIONS ACT, 2006_CONFERENCE REPORT_Resumed
Senate
Mr. FEINGOLD; **Mrs.** BOXER; **Mr.** BINGAMAN; **Mr.** REID; **Ms.** CANTWELL; **Ms.** MURKOWSKI; **Mr.** COCHRAN; **Mr.** VITTER. ; **Mrs.** FEINSTEIN; **Mr.** DOMENICI; **Mr.** BYRD; **Mr.** GREGG; **Mr.** LOTT; **Ms.** LANDRIEU; **Mr.** STEVENS; **Mr.** KERRY; **Mr.** LIEBERMAN; **Mr.** DURBIN; **Mr.** FRIST
... maybe, perhaps, increase **global warming,** let me say that if we don't ...

84. CONGRESSIONAL RECORD -- SENATE, Tuesday, December 20, 2005 , 151 Cong Rec S 14073, Vol. 151, No. 166, DEFICIT REDUCTION ACT OF 2005_CONFERENCE REPORT
Senate
Mr. TALENT; **Mr.** GREGG; **Mr.** CONRAD; **Mr.** ROCKEFELLER; **Mr.** KENNEDY; **Mr.** KERRY. ; **Mr.** STEVENS; **Mr.** DURBIN; **Mrs.** BOXER; **Mr.** KYL; **Mr.** BOND; **Mr.** SCHUMER; **Mr.** LEVIN; **Ms.** CANTWELL; **Mrs.** HUTCHISON; **Mr.** ENZI; **Mr.** OBAMA; **Mrs.** FEINSTEIN; **Mr.** REED; **Mr.** AKAKA; **Mr.** BINGAMAN; **Mr.** ENSIGN; **Mr.** GRASSLEY; **Mr.** FRIST; **Mr.** REID
... Myron Ebell, Director of **Global Warming** & International Environmental Policy at ...

85. CONGRESSIONAL RECORD -- SENATE, Tuesday, December 20, 2005 , 151 Cong Rec S 14165, Vol. 151, No. 166, USA PATRIOT ACT
Senate
Mr. SALAZAR; **Mr.** BAUCUS; **Mr.** JEFFORDS; **Mrs.** FEINSTEIN; **Mr.** KENNEDY
... prices, energy security and **global warming** by increasing fuel ...

86. CONGRESSIONAL RECORD -- SENATE, Tuesday, December 20, 2005 , 151 Cong Rec S 14172, Vol. 151, No. 166, CLIMATE NEGOTIATIONS IN MONTREAL
Senate
Mr. JEFFORDS
... discuss the issue of global **climate change.** These countries are all signatories to the United Nations Framework Convention on **Climate Change.** The Montreal talks also included ...
... mandatory reductions in **greenhouse gas,** GHG, emissions and recognizing the ...
... mandatory action to reduce **greenhouse gas** emissions for many ...
... considering reductions in **greenhouse gas** emissions through avoided ...
... taking some form of action on **climate change.** A recent poll ...
... large companies to reduce **greenhouse gas** emissions to 2000 levels ...
... afford further delay on **climate change,** which appears to be the desired outcome of the ...
... more, much faster. **Climate change** is here and it will accelerate the longer we ...
... human-induced global **climate change.** Between November 28 and ...
... Nations Framework Convention on **Climate Change** (UNFCCC). That conference will be the ...
... parties to achieving "stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... measures relating to the mitigation of **climate change,** beginning in 1998 and " ...
... agreed that human-induced **climate change** is real and that "mandatory steps ...
... slow or stop the growth of **greenhouse gas** emissions into the atmosphere." On June ...
... a program of mandatory **greenhouse gas** limits and incentives for the ...
... TREATIES & AGREEMENTS (89%); **CLIMATE CHANGE** (89%); AIR QUALITY ...

87. CONGRESSIONAL RECORD -- SENATE, Monday, December 19, 2005 , 151 Cong Rec S 14024, Vol. 151, No. 165, CLIMATE CHANGE NEGOTIATIONS AND IMPACTS
Senate
Mr. REID
... performance at the recent international **climate change** meetings in Montreal, ...
... result in stabilizing **greenhouse gas** concentrations in the atmosphere. ...
... scientific evidence of manmade **global warming** has hobbled many Republicans' ...
... information on the potential impacts of **global warming** on Nevada and the West, as well as the ...
... Record, as follows: Potential **Climate Changes** Impact on Nevada: The Scripps ...
... November 17, 2005_**Global warming** study forecasts more water shortages: **Climate change** already affecting Sierra ...
... Climate experts study **global warming's** impact on water supplies.) ...
... being impacted by **climate change** in Nevada is the pika. ...
... Basin, scientists track **global warming.**). Fire climatology_Collaborative ...
... increased CO Potential **Climate Change** Impacts on the West: The Pacific ...
... February 16, 2004_**Global warming** to squeeze Western mountains ...
... website has documented how **global warming and climate change** are diminishing the beauty of Glacier ...
... August 13, 2001_**Global Warming** Impacts: Western Mountains.) ...
... about the severe impacts that **climate change** could have on the wildfire season in ...
... temperatures associated with global **climate change**", according to a new ...

... 2004_Report details **global warming's** role in wildfire risk.) Potential **Climate Change** Impacts on the Nation and the World: The ...
... Agency warned that "at current **global warming** rates, three-quarters of ...
... November 29, 2005_**Global warming** set to hit Europe ...
... Hamilton of the University of Maine's **Climate Change** Institute. The other glacier, ...
CLIMATE CHANGE (90%); SCIENCE & TECHNOLOGY (...
... SCIENCE NEWS (79%); **GLOBAL WARMING** (79%); TREATIES & AGREEMENTS (...

88. CONGRESSIONAL RECORD -- SENATE, Monday, December 19, 2005 , 151 Cong Rec S 14026, Vol. 151, No. 165, HONORING SENATOR JON CORZINE
Senate
Mr. BAYH; **Mr.** NELSON of Florida; **Mr.** LIEBERMAN
... Wildlife Refuge and to tackle **climate change.** On the international front, Senator ...

89. CONGRESSIONAL RECORD -- SENATE, Friday, December 16, 2005 , 151 Cong Rec S 13708, Vol. 151, No. 162, USA PATRIOT AND TERRORISM PREVENTION REAUTHORIZATION ACT OF 2005_CONFERENCE REPORT_Continued
Senate
Mr. CRAIG; **Mr.** LEAHY; **Mr.** KENNEDY; **Mr.** CORNYN; **Mr.** JEFFORDS; **Mr.** AKAKA; **Mr.** BINGAMAN; **Mr.** BAUCUS; **Mrs.** CLINTON; **Mr.** PRYOR; **Mr.** SPECTER; **Mr.** FEINGOLD; **Mr.** SALAZAR; **Mr.** KYL; **Mr.** SCHUMER; **Mr.** SCHUMER. ; **Mr.** DURBIN; **Mr.** FRIST; **Mr.** KERRY; **Mr.** REED; **Mr.** SESSIONS; **Mr.** CORZINE; **Mr.** LAUTENBERG; **Mr.** SARBANES; **Mr.** SARBANES. ; **Ms.** STABENOW; **Mr.** CONRAD; **Mr.** DAYTON; **Mr.** REID; **Mr.** JOHNSON; **Mr.** WYDEN; **Ms.** MIKULSKI; **Mrs.** LINCOLN; **Mr.** LIEBERMAN; **Mr.** BROWNBACK; **Mrs.** FEINSTEIN
... Wildlife Refuge and to tackle **climate change.** On the international front, Senator ...

90. CONGRESSIONAL RECORD -- SENATE, Thursday, December 15, 2005 , 151 Cong Rec S 13650, Vol. 151, No. 161, MONTREAL CLIMATE CHANGE NEGOTIATIONS
Senate
Mr. JEFFORDS
... problem of human-induced **climate change.** The broad consensus within the scientific community is that **global warming** has begun, is largely the result of human activity, and is accelerating. **Global warming** will result in ...
... important issue of global **climate change.** These countries met in ...
... Nations Framework Convention on **Climate Change,** to take steps to "prevent ...
... taking positive action on **climate change.** They witnessed firsthand how the ...
... taking. We should be leading the way on **climate change,** not burying our head ...
... international agreements to reduce **greenhouse gas** emissions remain a ...
... taking some form of action on **climate change.** A recent poll ...
... large companies to reduce **greenhouse gas** emissions to 2000 levels ...
... taking real action on **climate change.** The current administration is completely ...
... even localities are taking on **climate change** related commitments. Nine ...
... together through the Regional **Greenhouse Gas** Initiative, RGGI, to develop ...
... sponsored legislation to reduce **greenhouse gas** emissions from powerplants, which are a ...
... dioxide, a principal **greenhouse gas.** My bill, S. 150 ...
... Power Act, would reduce **greenhouse gas** emissions to 1990 levels ...
... States towards combating **global warming** that would show the rest of the world that we are ...
... care about stopping **climate change** did everything we could to help aid these ...

... resistance, the international dialogue on **climate change** will continue. But ...
... TREATIES & AGREEMENTS (89%); **CLIMATE CHANGE** (89%); **GLOBAL WARMING** (89%); TALKS & MEETINGS (...

91. CONGRESSIONAL RECORD -- SENATE, Thursday, November 17, 2005 , 151 Cong Rec S 13069, Vol. 151, No. 153, EPA ANALYSIS OF CLEAN AIR LEGISLATION
Senate
Mr. CARPER; **Mr.** WARNER; **Mr.** WARNER.
... dioxide, which we believe contributes to **global warming.** What we crafted in response to these ...
... higher cost. On the issue of **climate change,** the analysis shows we can ...
... clean air bill. **Climate change** must be addressed. As we have seen from ...

92. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 15, 2005 , 151 Cong Rec S 12812, Vol. 151, No. 151, DEPARTMENTS OF COMMERCE AND JUSTICE, SCIENCE, AND RELATED AGENCIES FOR FISCAL YEAR 2006_CONFERENCE REPORT
Senate
Mr. SHELBY; **Ms.** MIKULSKI; **Mr.** DAYTON. ; **Mr.** SARBANES; **Mr.** SARBANES. ; **Mr.** INHOFE; **Mr.** OBAMA; **Mr.** DURBIN; **Mr.** STEVENS; **Mr.** DeMINT; **Mr.** CORNYN
... in nanotechnology and in **global warming.** It also funds the post-doctorates and the ...
... several times on the subject of **global warming.** Many times, over and ...
... regarding the science and economics of the **global warming** issue that, sadly, many of ...
... in the world on the subject of **climate change**_the United Nations-sponsored Intergovernmental Panel on **Climate Change,** or IPCC. I will ...
... subject and the specific issue of **global warming** science. I am a ...
... a light on their activities. **Global warming** alarmists will undoubtedly ...
... accuse me of attacking the science of **global warming**_that is part of their game. But ...
... in Montreal to discuss **global warming,** the pronouncements of the IPCC leaders ...
... fourth assessment of the state of **global warming** science. If the fourth assessment is to have any ...
... question of whether man is causing **global warming.** Here is what Chapter 8_the key ...
... positively attributed all or part [of the **climate change** observed to date] to anthropogenic ...
... a major impact on **global warming.** It removes these doubts that were specific ...
... man is responsible for **global warming.** Notably, polls taken ...
... proof of man's causation of **global warming** because it was featured prominently in the ...
... told, believes in **global warming**_put it this way: Methodologically it is ...
... proof positive of catastrophic **global warming.** How can such a ...
... U.N. Framework Convention on **Climate Change,** which has the basic mission of eliminating the threat of **global warming.** This clearly creates a ...
... political agenda linking **global warming** to more severe hurricanes. ...
... greatest risks associated with **global warming.** But the relationship between ...
... borne malaria, believes that **global warming** would have little impact on the spread of ...
... example: To predict future **global warming,** the IPCC estimated how ...
... in turn drive the **global warming** predictions. Unfortunately, the method the ...
... end estimates of future **global warming.** The IPCC, however, has bowed to political ...
... world. The result: Future **global warming** predictions by the IPCC are ...
... advice of economists who conclude that, if **global warming** is real, future generations would have ...
... international collaboration on the issue of **climate change.** . . . To regain its credibility, the IPCC ...
... ranges of the costs of controlling **greenhouse gas** emissions. They have to talk about ...
... defensible ranges of the benefits of **global warming.** If we know the cost that is going to be ...

... know what kinds of benefits the **global warming** will produce. The fifth ...
... saying: Aha, it is due to **global warming.** It is a level of desperation that ...

93. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 15, 2005 , 151 Cong Rec S 12840, Vol. 151, No. 151, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mrs. MURRAY; **Ms.** COLLINS; **Mr.** MARTINEZ; **Mr.** HATCH; **Mrs.** LINCOLN; **Mr.** SMITH; **Mr.** KOHL; **Mr.** JEFFORDS; **Mr.** STEVENS
EMISSIONS (93%); **CLIMATE CHANGE** (92%); DEVELOPING COUNTRIES (...

94. CONGRESSIONAL RECORD -- SENATE, Monday, November 14, 2005 , 151 Cong Rec S 12772, Vol. 151, No. 150, AUTHORITIES FOR COMMITTEES TO MEET
Senate
Mr. DOMENICI
... hearing on U.S.-International **Climate Change** Approach: A Clean ...

95. CONGRESSIONAL RECORD -- SENATE, Thursday, November 10, 2005 , 151 Cong Rec S 12684, Vol. 151, No. 149, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. REED; **Mr.** BURR; **Mr.** HARKIN; **Mr.** OBAMA; **Mr.** JEFFORDS; **Mr.** KOHL; **Mr.** CONRAD; **Mr.** KERRY
... air quality, reduce **greenhouse gas** emissions and enhance the rural ...
... cleaner air, reduced **greenhouse gas** emissions, reduced dependence on ...

96. CONGRESSIONAL RECORD -- SENATE, Thursday, November 10, 2005 , 151 Cong Rec S 12702, Vol. 151, No. 149, AUTHORITIES FOR COMMITTEES TO MEET
Senate
Mr. WARNER
... subcommittee on clean air, **climate change,** and nuclear safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

97. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 08, 2005 , 151 Cong Rec S 12534, Vol. 151, No. 147, SUBMITTED RESOLUTIONS
Senate
Mr. CHAFEE
... by such factors as pollution, **climate change,** toxins, and habitat loss, as ...

98. CONGRESSIONAL RECORD -- SENATE, Thursday, November 03, 2005 , 151 Cong Rec S 12291, Vol. 151, No. 144, DEFICIT REDUCTION OMNIBUS RECONCILIATION ACT OF 2005_RESUMED
Senate
Mr. CONRAD; **Mr.** GREGG; **Mr.** OBAMA; **Mr.** ENSIGN; **Mr.** KENNEDY; **Mr.** KENNEDY. ; **Mr.** ENZI; **Mr.** BINGAMAN; **Mr.** REED; **Mr.** KOHL; **Mrs.** LINCOLN; **Mr.** CORNYN; **Mr.** INHOFE; **Mr.** COCHRAN; **Mr.** NELSON of Florida; **Mr.** GRASSLEY; **Ms.** MIKULSKI; **Mr.** DOMENICI; **Ms.** MURKOWSKI; **Mr.** STEVENS; **Mr.** WYDEN; **Mr.** TALENT; **Mr.** KYL; **Mr.** CHAMBLISS; **Mr.** LOTT; **Mr.** SUNUNU; **Mr.** McCAIN; **Mrs.** MURRAY; **Mr.** VITTER; **Ms.** LANDRIEU; **Mr.** BYRD; **Mr.** SPECTER; **Mr.** HARKIN; **Mr.** LAUTENBERG; **Ms.**

CANTWELL; **Mr.** LEAHY; **Mr.** WARNER; **Mr.** BAUCUS; **Mr.** SCHUMER; **Mr.** ROCKEFELLER; **Mr.** HAGEL; **Mr.** SANTORUM; **Mr.** LIEBERMAN; **Mr.** SHELBY; **Mr.** SMITH; **Ms.** SNOWE; **Mrs.** FEINSTEIN; **Mr.** VOINOVICH. ; **Mr.** DURBIN; **Mr.** PRYOR; **Mr.** BURNS; **Mr.** COBURN; **Mr.** DODD; **Mr.** FEINGOLD; **Mrs.** BOXER; **Mr.** BUNNING; **Mr.** JOHNSON; **Mr.** SALAZAR; **Mr.** LEVIN; **Mr.** HATCH
... oil and gas prices, and **global warming.** This is what I have been fighting for_ ...

99. CONGRESSIONAL RECORD -- SENATE, Wednesday, November 02, 2005 , 151 Cong Rec S 12149, Vol. 151, No. 143, DEFICIT REDUCTION OMNIBUS RECONCILIATION ACT OF 2005
Senate
Mr. REID; **Mr.** FRIST; **Mr.** CONRAD; **Mr.** GREGG; **Ms.** CANTWELL; **Mr.** DOMENICI; **Mr.** FEINGOLD; **Mr.** LIEBERMAN. ; **Mr.** DURBIN; **Mr.** BINGAMAN; **Mr.** SUNUNU; **Mr.** TALENT. ; **Mr.** STEVENS; **Mrs.** FEINSTEIN; **Mr.** JEFFORDS; **Mrs.** BOXER; **Mr.** WYDEN; **Mr.** GRASSLEY; **Mr.** CHAMBLISS; **Mr.** BUNNING; **Mr.** DORGAN; **Mr.** ISAKSON; **Mr.** HARKIN; **Mr.** BYRD; **Mr.** LOTT; **Mr.** LAUTENBERG; **Mr.** SMITH
... well as the possible implications of **climate change.** The report is intended to help ...
... prices, energy security, and **global warming.** We should be encouraging energy efficiency, ...

100. CONGRESSIONAL RECORD -- SENATE, Thursday, October 20, 2005 , 151 Cong Rec S 11603, Vol. 151, No. 134, TRANSPORTATION, TREASURY, THE JUDICIARY, HOUSING AND URBAN DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS ACT, 2006
Senate
Mr. BOND; **Ms.** STABENOW; **Mrs.** MURRAY; **Mr.** COBURN; **Mr.** COBURN. ; **Mr.** NELSON of Nebraska; **Mr.** ENSIGN; **Mr.** KENNEDY; **Mr.** BINGAMAN; **Mr.** LAUTENBERG; **Mr.** CONRAD; **Mr.** DURBIN; **Mr.** HARKIN; **Mr.** REED; **Mr.** GRASSLEY; **Mr.** DORGAN; **Mr.** SANTORUM; **Mr.** STEVENS; **Ms.** MURKOWSKI; **Mr.** FRIST; **Mr.** INHOFE; **Mr.** SPECTER; **Mr.** KERRY; **Ms.** LANDRIEU; **Mr.** LEAHY; **Mr.** COLEMAN
... evidence of the human-caused **global warming** that is exacerbating the destructiveness of storms and ...

101. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 19, 2005 , 151 Cong Rec S 11561, Vol. 151, No. 133, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. KERRY; **Mr.** JEFFORDS; **Mr.** FEINGOLD; **Mr.** HAGEL; **Mr.** BAUCUS; **Mr.** McCAIN; **Mr.** SANTORUM; **Mr.** ENSIGN; **Mr.** CORZINE
... operations aggravate global **climate change** by_ (A) decreasing the ...

102. CONGRESSIONAL RECORD -- SENATE, Friday, October 07, 2005 , 151 Cong Rec S 11285, Vol. 151, No. 130, NATURAL GAS CRISIS
Senate
Mr. DOMENICI; **Mr.** DODD; **Mr.** DODD.
... standards and because we worry about **global warming,** we will not build any ...

103. CONGRESSIONAL RECORD -- SENATE, Friday, October 07, 2005 , 151 Cong Rec S 11302, Vol. 151, No. 130, THANKING AND CONGRATULATING JANA DAVIS
Senate
Mr. LAUTENBERG
... education. Whether we are talking about **global warming** or stem cell research or ...

104. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 28, 2005 , 151 Cong Rec S 10529, Vol. 151, No. 123, EXECUTIVE SESSION
Senate
Mr. FRIST; **Mr.** NELSON of Florida; **Mr.** BROWNBACK; **Mr.** ROBERTS; **Mr.** DeMINT; **Mr.** BURR; **Mr.** SMITH; **Mr.** HARKIN; **Mr.** SCHUMER; **Mr.** WYDEN; **Mr.** GRAHAM; **Mr.** BURNS; **Mr.** WARNER; **Mr.** NELSON of Nebraska; **Mr.** SALAZAR; **Mr.** PRYOR; **Mr.** CONRAD; **Mr.** SUNUNU; **Mr.** TALENT; **Mr.** THUNE; **Mr.** VITTER. ; **Mr.** BUNNING; **Mr.** SESSIONS; **Mr.** SPECTER; **Mr.** STEVENS; **Mr.** DOMENICI. ; **Mr.** THOMAS; **Mr.** CORNYN; **Mr.** CORNYN. ; **Mr.** COCHRAN; **Mr.** BENNETT; **Mr.** CARPER; **Mrs.** MURRAY; **Mrs.** LINCOLN; **Mr.** GRASSLEY; **Mr.** JEFFORDS; **Mr.** GREGG; **Mr.** INOUYE; **Mr.** CHAFEE; **Mr.** HAGEL; **Mr.** VOINOVICH
... storage would have to be developed to address the **climate change** issues coal-based ...

105. CONGRESSIONAL RECORD -- SENATE, Thursday, September 22, 2005 , 151 Cong Rec S 10335, Vol. 151, No. 120, MILITARY CONSTRUCTION AND VETERANS AFFAIRS, AND RELATED AGENCIES APPROPRIATIONS ACT, 2006
Senate
Mrs. HUTCHISON; **Mrs.** FEINSTEIN; **Mr.** CRAIG; **Mr.** CHAMBLISS; **Mr.** AKAKA; **Mr.** STEVENS; **Mr.** DURBIN; **Mr.** SALAZAR; **Mr.** FEINGOLD; **Mr.** OBAMA; **Mr.** FRIST; **Mr.** REID
... Senator from Alaska. Global **Climate Change** Mr. STEVENS . Mr. ...
... Arctic science and global **climate change.** Given the interest some of our colleagues have ...
... scientific proof that all of the present **global warming** is attributable to humans, or caused by the **greenhouse effect.** Natural changes are also important ...
... concluded that this is a result of the **greenhouse effect.** Two other factors to ...
... C increase (not the **greenhouse effect!**), one third of the 0.6 ...
... determined to be the official estimate of **global warming** during the last 100 ...
... see that it was not due to the **greenhouse effect,** since uncommonly hot ...
... recent disasters have been attributed to the **greenhouse effect** without scientific proof; this ...
... by saying it is due to the **greenhouse effect,** I am afraid that they are hiding ...
... may be even greater than from **global warming** itself. In this respect, the ...
... scientific proof that all of the present **global warming** is attributable to humans, or caused by the **greenhouse effect.** Some of the changes we are seeing are the most ...
... may be even greater than from **global warming** itself. The effects of global **climate change** are real. Regardless of the cause, ...
... Committee's Subcommittee on Global **Climate Change,** chaired by Senator ...
... a hearing on global **climate change** policy in July. ...
... overall question of global **climate change,** and I am dedicated to pursuing this. As ...
... concerned, the evidence of global **climate change** is more apparent in ...
... in some way with global **climate change,** and we will continue in our ...

106. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 20, 2005 , 151 Cong Rec S 10215, Vol. 151, No. 118, AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION, AND RELATED AGENCIES APPROPRIATIONS ACT, 2006_Continued
Senate
Mr. DURBIN; **Mr.** BENNETT; **Mr.** INOUYE; **Mr.** ENSIGN; **Mr.** CONRAD; **Mr.** BYRD; **Mr.** AKAKA; **Mr.** TALENT; **Mr.** ROBERTS; **Mr.** KOHL; **Mr.** DAYTON; **Mr.** DAYTON. ; **Mr.** THUNE; **Mr.** SPECTER; **Mrs.** BOXER
... additional power without the **greenhouse gas** effect that comes from fossil ...

107. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 20, 2005 , 151 Cong Rec S 10245, Vol. 151, No. 118, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. BENNETT
... regarding the current state of **climate change** scientific research and the economics of strategies to manage **climate change.** Issues to be discussed include: the ...
... between energy consumption and **climate change,** and the potential effects on the U.S. economy of **climate change** and strategies to control **greenhouse gas** emissions. The PRESIDING OFFICER. ...

108. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 13, 2005 , 151 Cong Rec S 9994, Vol. 151, No. 114, NOTICES OF HEARINGS/MEETINGS
Senate
Mr. DOMENICI; **Mr.** THOMAS
... Resources. The hearing entitled "**Climate Change** Science and Economics" will be ...
... regarding the current state of **climate change** scientific research and the economics of strategies to manage **climate change.** Issues to be discussed include: the ...
... between energy consumption and **climate change,** and the potential effects on the U.S. economy of **climate change** and strategies to control **greenhouse gas** emissions. Because of the limited time ...
... NATIONAL PARKS (90%); **CLIMATE CHANGE** (90%);

109. CONGRESSIONAL RECORD -- SENATE, Monday, September 12, 2005 , 151 Cong Rec S 9912, Vol. 151, No. 113, DISAPPROVAL OF EPA RULE PROMULGATION
Senate
Mr. JEFFORDS; **Mr.** THOMAS; **Ms.** COLLINS; **Mr.** LEAHY; **Ms.** SNOWE; **Mr.** INHOFE; **Mr.** VOINOVICH; **Mr.** LAUTENBERG; **Mr.** BOND; **Mr.** CORZINE; **Mrs.** BOXER; **Mr.** KERRY; **Mr.** REID
... CAFE standards, reducing **greenhouse gas** emissions, and other positive ...

110. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 06, 2005 , 151 Cong Rec S 9610, Vol. 151, No. 109, HURRICANE KATRINA
Senate
Mr. HARKIN; **Mr.** CORNYN; **Mr.** KENNEDY; **Ms.** MIKULSKI; **Mr.** LOTT; **Mr.** LOTT. ; **Mr.** McCONNELL; **Ms.** STABENOW; **Mr.** DURBIN; **Mr.** SCHUMER; **Mr.** DORGAN
... advice that overwhelmingly points to **global warming** as a possible cause ...

111. CONGRESSIONAL RECORD -- SENATE, Friday, July 29, 2005 , 151 Cong Rec S 9335, Vol. 151, No. 106, ENERGY POLICY ACT OF 2005_CONFERENCE REPORT
Senate
Mr. DOMENICI; **Mr.** BYRD; **Mr.** BINGAMAN; **Mr.** NELSON of Florida; **Mr.** FEINGOLD; **Ms.** CANTWELL; **Ms.** LANDRIEU; **Mr.** SALAZAR; **Mr.** OBAMA; **Mr.** LEAHY; **Mr.** AKAKA; **Mr.** JOHNSON; **Mr.** JOHNSON. ; **Mr.** GRASSLEY; **Mrs.** FEINSTEIN; **Mrs.** CLINTON; **Mr.** JEFFORDS; **Mr.** CONRAD; **Mrs.** MURRAY; **Mr.** LIEBERMAN; **Ms.** MIKULSKI; **Mr.** LEVIN; **Mr.** DURBIN; **Mr.** HATCH; **Ms.** SNOWE; **Mr.** SANTORUM; **Mr.** SANTORIUM. ; **Mr.** DORGAN. ; **Mr.** BAUCUS; **Mr.** CORZINE; **Mr.** McCAIN; **Ms.** COLLINS; **Mrs.** LINCOLN; **Mr.** BUNNING; **Mrs.** BOXER; **Mr.** FRIST
... State. Finally, the issue of **global warming** and how we deal with that issue ...
... fails to address the threat of **global warming,** fails to make much ...
... last fall warned that **global warming** is occurring more rapidly than ...

... recent years to adjust to **climate change.** This bill's refusal to take any steps to combat **global warming** is not only disappointing, ...
... may turn out that **global warming** was the single most important ...
... a provision on the impacts of **global warming** in U.S. food ...
... fuel efficiency or deal with **global warming.** I supported those amendments, ...
... bill does nothing to address **global warming** and fuel economy standards. I believe that **climate change** is the most urgent energy- ...
... 2017. It is doable nationally. **Climate change** is the most important energy and ...
... include the Sense of the Senate on **climate change** that recognizes that **climate change** is being caused by ...
... emissions. The lack of action on **climate change** and fuel economy is an enormous ...
... peak power reliability, and **global warming.** It would have saved over 180 ...
... standard, the Sense of the Senate on **climate change,** and by gutting the energy ...
... foreign oil and global **climate change,** which grow more intractable the ...
... challenges of energy security and **climate change.** They are that vital to this Nation's security and our ...
... renewable resources, and address **climate change.** While the Senate-passed ...
... program to start reducing the **greenhouse gas** emissions that are contributing to **climate change.** That is gone as well. So as I ...
... about the looming threat of **climate change,** it makes no sense to ...
... effective strategy to reduce **greenhouse gas** emissions. But that is exactly what this ...
... other important issues, such as **climate change** and the need to improve vehicle ...
... thermal efficiency to combat **global warming** and in state-of-the art ...
... leader in reducing **greenhouse gas** emissions from our heavily coal- ...
... not addressed meaningfully. **Climate change** is a serious issue that ...
... mitigate the looming threat of **climate change.** To diversify energy sources ...
... a key contributor to **climate change.** This bill also rolls back ...
... set mandatory caps on **greenhouse gas** emissions. Solving these problems_and ...
... can help combat **climate change.** Again, it includes a ...
... real steps to reduce **greenhouse gas** emissions. I urge ...
... techniques, and to address the problem of **climate change** with mandatory steps that are so clearly ...
... standard, steps to deal with **global warming,** and requirements that would have lessened our dependence on ...
... high gas prices, **global warming,** and our growing dependence on foreign ...
... address the impact of global **climate change.** For years, almost all ...
... Experts also agree that this global **climate change** will lead to environmental ...
... States about what we should do to stop **climate change.** The threat is real and growing, and the ...
... needs, and to deal with global **climate change.** We are doing little, if anything, to ...
... per barrel mark; the **greenhouse effect** is beginning to have a substantial ...
... assure the growing threat of **global warming** is addressed in a ...
... issue of worldwide significance: **global warming.** Earlier this month, the leaders of the ...
... issued an agreement with respect to **climate change.** The agreement among the G8 ...
... multiple objectives of reducing **greenhouse gas** emissions [.]" This agreement followed the ...
... concluded that: "The scientific understanding of **climate change** is now sufficiently clear to ...
... in net global **greenhouse gas** emissions." It is very disappointing that the **climate change** provisions in the conference ...
... substantial reductions in **greenhouse gas** emissions. The conference report ...
... Department of Energy to develop **greenhouse gas** intensity technologies and strategies. Such ...
... already know that using the **greenhouse gas** intensity does not work. ...
... Department of Energy has shown us and because **climate change** science tells us that the climate system does not respond to **greenhouse gas** intensity, but rather to **greenhouse gas** concentration levels in the ...
... argue that we can control **greenhouse gas** emissions by only ...
... how our efforts to address **climate change** are misfocused and without substance. If we ...

... currently investing in the **climate change** science and technology programs ...
... credible scientific report on **climate change,** it speaks of the impact of greenhouse ...
... system, not the impact of **greenhouse gas** intensity. In all the hearings that we have ...
... scientist indicating that if we control our **greenhouse gas** intensity, then we can mitigate the impacts of **climate change.** If we are to address **climate change** consistent with the sense-of-the-Senate ...
... struggling industries, reduces **greenhouse gas** emissions, and helps diversify our ...
... only reduce smog and **greenhouse gas** emissions but also reduce ...
... Bingaman's provisions for **Climate Change** and Renewable Portfolio Standards ...
... carbon dioxide, the major **greenhouse gas** blamed for **climate change.** The tax incentive will ...
... California. One of the International **Climate Change** Taskforce, ICCT recommendations, ...
... address the issue of global **climate change.** And it will modernize and expand our ...

112. CONGRESSIONAL RECORD -- SENATE, Thursday, July 28, 2005 , 151 Cong Rec S 9255, Vol. 151, No. 105, ENERGY POLICY ACT OF 2005_CONFERENCE REPORT
Senate
Mr. DOMENICI; **Mr.** BINGAMAN; **Mr.** CRAIG; **Mr.** THOMAS; **Mr.** KERRY; **Mr.** ALEXANDER; **Mr.** WYDEN; **Ms.** MURKOWSKI; **Mr.** SCHUMER; **Mr.** CORZINE; **Mr.** SALAZAR; **Mr.** CORNYN; **Mr.** HARKIN; **Mr.** REID; **Mr.** AKAKA; **Mr.** SMITH; **Mr.** FRIST
... many it is a source of **global warming.** My colleagues do not have to ...
... get in trouble with **global warming,** everybody who builds a ...
... deeply divided on global **climate change.** We have had a couple of votes. ...
... not address a **global warming** tax, will do more to ...
... oil imports or by **global warming** will continue to face us and ...
... mandatory measures to address **global warming.** We had an excellent hearing which Chairman ...
... out to have this hearing on the issue of **global warming.** I believe it was a very ...
... deal with the emissions that are leading to **global warming.** Again, I congratulate ...
... happen. As to language that recognized **global warming,** I remember how ...
... floor, and they all embraced the language of **global warming** in a nonbinding ...
... language that acknowledged the problem of **global warming** has been taken out. There is nothing ...
... continue to ignore the global **climate change** issue. Higher temperatures ...
... heat to rising seas, **global warming** effects have already begun. ...
... save energy and fight **global warming.** In Singapore, air- ...
... table because it helps deal with **global warming,** and it helps deal with clean ...
... power. If you really care about **global warming,** you want to support nuclear ...
... President, that is really the way to address **global warming.** That is really the way to reduce the price of ...
... CAFE standards, decreasing **greenhouse gas** emissions that cause **global warming,** and protecting the coastline from offshore ...
... in reducing soaring **greenhouse gas** emissions. During the debate on the ...
... report fails to address is **climate change**_one of the most pressing ...
... makes it increasingly clear that that **greenhouse gas** emissions caused by ...
... problem and encourage reductions of **greenhouse gas** emissions. My advocacy on behalf of **climate change** legislation is not limited to the ...
... way to passing a **greenhouse gas** registry and reporting amendment to the ...
... well-intended programs, **greenhouse gas** emissions have risen on average ...
... better. The potential effects of **global warming** are dire for my State. If we do not control **climate change,** New Jersey could face ...
... Congress acts, the effects of **global warming** may be devastating to the worldwide ...
... adopt a responsible **climate change** policy, and for increased ...
... fuel economy and address **climate change.** It lavishes tax breaks to ...

... renewables, oil savings, **global warming,** and a Federal ban on ...

113. CONGRESSIONAL RECORD -- SENATE, Thursday, July 21, 2005 , 151 Cong Rec S 8711, Vol. 151, No. 100,
AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. WARNER
... regarding the current state of **climate change** scientific research and the economics of strategies to manage **climate change.** The PRESIDING OFFICER. Without ...

114. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 20, 2005 , 151 Cong Rec S 8582, Vol. 151, No. 99,
AUTHORITY FOR COMMITTEES TO MEET
Senate
Mrs. HUTCHISON
... objection, it is so ordered. Subcommittee on **Climate Change** and Impacts Mrs. HUTCHISON . ...
... consent that the Subcommittee on Global **Climate Change** and Impacts be authorized to meet on ...

115. CONGRESSIONAL RECORD -- SENATE, Monday, July 18, 2005 , 151 Cong Rec S 8414, Vol. 151, No. 97,
PERSONAL EXPLANATION
Senate
Mr. LIEBERMAN
... nothing to address the challenge of **climate change** and leaves us much work ...
... reduce economy-wide **greenhouse gas** emissions using a ...

116. CONGRESSIONAL RECORD -- SENATE, Friday, July 15, 2005 , 151 Cong Rec S 8333, Vol. 151, No. 96,
DEPARTMENT OF STATE, FOREIGN OPERATIONS, AND RELATED PROGRAMS APPROPRIATIONS ACT, 2006
Senate
Mr. McCONNELL; **Mr.** LEAHY
... programs aimed at reducing **greenhouse gas** emissions: Provided, That such assistance ...
... programs aimed at reducing **greenhouse gas** emissions: Provided, That such assistance ...
... clean energy and other **climate change** policies and programs in ...
... measure, monitor, and reduce **greenhouse gas** emissions; (2) increase ...
... activities; and (3) enhance **climate change** mitigation and adaptation programs. (b) **Climate Change** Report._Not later than ...
... domestic and international, for **climate change** programs and activities in ...
... each agency identifying **climate change** activities and associated costs ...
... reporting, verification, and reduction of **greenhouse gas** emissions; (iii) to promote ...
... under the Framework Convention on **Climate Change;** and (v) to develop assessments of the vulnerability to impacts of **climate change** and mitigation and adaptation response ...

117. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 13, 2005 , 151 Cong Rec S 8238, Vol. 151, No. 94,
NOTICES OF HEARINGS/MEETINGS
Senate
Mr. DOMENICI
... Resources. The hearing, entitled **Climate Change** Science and Economics, will be ...

... regarding the current state of **climate change** scientific research and the economics of strategies to manage **climate change.** Issues to be discussed include: the ...
... between energy consumption and **climate change,** new developments in **climate change** research and the potential effects on the U.S. economy of **climate change** and strategies to control **greenhouse gas** emissions. Because of the limited time ...
CLIMATE CHANGE (91%); TESTIMONY (90%);

118. CONGRESSIONAL RECORD -- SENATE, Monday, July 11, 2005 , 151 Cong Rec S 7981, Vol. 151, No. 92,
REMARKS OF DR. WANGARI MAATHAI
Senate
Mr. LUGAR
... Now some people say it is **climate change** and they say, "Well, you know, ...
... possible. It's possible that it is part of **climate change.** But **climate change** does not happen at a global level at once. **Climate change** starts at a local ...

119. CONGRESSIONAL RECORD -- SENATE, Friday, July 01, 2005 , 151 Cong Rec S 7882, Vol. 151, No. 91,
NOMINATION OF JOHN BOLTON
Senate
Mr. VOINOVICH
... hands to combating global **climate change,** from preventing the trafficking of sex ...
... other fronts, too. On global **climate change,** for example, the time has ...
... common effort to combat **global warming** beyond the year 2012, when the ...

120. CONGRESSIONAL RECORD -- SENATE, Friday, July 01, 2005 , 151 Cong Rec S 7899, Vol. 151, No. 91,
ENERGY POLICY ACT OF 2005
Senate
Ms. SNOWE
... take actions to address **climate change,** although, for the first ...
... sense of the Senate resolution on **climate change** that officially recognizes that there is no ...
... climate and that mandatory caps on **greenhouse gas** emissions are necessary. This truly ...
... reasoned solutions to confront **climate change,** setting the stage to bring the ...
... world to the table. This is what the International **Climate Change** Taskforce, for which I am the ...
... in concerted action on **climate change,** including those not bound ...
... limit the extent and magnitude of **climate-change** impacts. 2. A ...
... part of concerted action on **climate change** at the global level in the ...
... vulnerable countries adapt to **climate change** including the commitments made at the ...
... Governments committed to action on **climate change** raise public awareness of the ...
... leader for abrupt **climate change** research. Olympia was a ...
... UN's Intergovernmental Panel on **Climate Change,** and is now undertaking the international ...
... issues, especially global **climate change** and population stabilisation. He served ...
... UN's Intergovernmental Panel on **Climate Change.** His wide ranging expertise has ...
... specialising in international **climate change** policy. Simon is also co- ...
... Dr Hamilton has published on **climate change** policy and environmental economics, ...

121. CONGRESSIONAL RECORD -- SENATE, Friday, July 01, 2005 , 151 Cong Rec S 7930, Vol. 151, No. 91,
TSUNAMI PREPAREDNESS ACT

Senate
Mr. INOUYE; **Mr.** WYDEN
... current information on tsunami, **climate change,** sea level rise, ...
... impacts associated with tsunami, **climate change,** sea level rise, or ...

122. CONGRESSIONAL RECORD -- SENATE, Thursday, June 30, 2005 , 151 Cong Rec S 7647, Vol. 151, No. 90,
DOMINICAN REPUBLIC-CENTRAL AMERICA-UNITED STATES FREE TRADE AGREEMENT IMPLEMENTATION ACT
Senate
Mr. FRIST; **Mr.** BAUCUS; **Mr.** GRASSLEY; **Mr.** DeMINT; **Mr.** DORGAN; **Mr.** ALLARD; **Mr.** WYDEN; **Mr.** KENNEDY; **Mr.** ROBERTS. ; **Mr.** HARKIN; **Mr.** GRAHAM; **Mr.** THOMAS; **Mr.** CONRAD; **Mr.** McCAIN; **Mr.** DAYTON; **Mr.** DAYTON. ; **Mr.** DURBIN; **Mr.** HATCH; **Mr.** CORNYN; **Mr.** VITTER; **Mr.** FEINGOLD; **Mr.** LAUTENBERG; **Mr.** VOINOVICH; **Mr.** SALAZAR; **Ms.** STABENOW; **Mrs.** HUTCHISON; **Mr.** CRAIG; **Mr.** KERRY; **Mr.** INHOFE; **Mr.** BINGAMAN
... feel about that. We debated **climate change** on the Senate floor 2 ...

123. CONGRESSIONAL RECORD -- SENATE, Thursday, June 30, 2005 , 151 Cong Rec S 7822, Vol. 151, No. 90,
STATEMENTS OF INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. FEINGOLD; **Ms.** STABENOW; **Mr.** AKAKA; **Mr.** KOHL; **Mr.** SMITH; **Mr.** ROCKEFELLER; **Mr.** SPECTER; **Mrs.** CLINTON; **Mr.** REID; **Mr.** ENZI; **Mr.** KENNEDY; **Mr.** REED; **Mr.** GRASSLEY; **Mr.** BAUCUS; **Mr.** HARKIN; **Mr.** DURBIN; **Mr.** SESSIONS; **Mr.** DORGAN; **Mr.** ALEXANDER
... government scientific reports on **climate change** to systematically weaken conclusions on **global warming.** In May, the New ...

124. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 29, 2005 , 151 Cong Rec S 7605, Vol. 151, No. 89,
ENERGY POLICY ACT OF 2005
Senate
Mr. DODD; **Mr.** KERRY
... in acknowledging the existence of **global warming** and recognizing the need to take ...
... stop or reverse the growth of **greenhouse gas** emissions. It is a start, ...
... wish to explain my **climate change** votes. This is an important debate, and ...
... amendment relating to the promotion of **climate change** technology at home and abroad, ...
... address the issue of rising **greenhouse gas** emissions. At the very least, I would ...
... out, the evidence that manmade **greenhouse gas** emissions are impacting our climate ...
... impact on overall global **greenhouse gas** concentrations. I also was unable to ...
... comprehensive legislation to address **greenhouse gas** emissions will take ...
... broader approach to developing **climate change** legislation, rather than on an ad ...
... effort that encompasses all of the major **greenhouse gas** emitters_and those that will soon ...

125. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 28, 2005 , 151 Cong Rec S 7451, Vol. 151, No. 88,
ENERGY POLICY ACT OF 2005
Senate
Mr. FRIST; **Mr.** DORGAN; **Mr.** DOMENICI; **Mr.** BINGAMAN; **Mr.** FEINGOLD; **Ms.** FEINSTEIN; **Mr.** LEVIN; **Mr.** INOUYE; **Mr.** OBAMA; **Mrs.** BOXER; **Mr.** JEFFORDS; **Mr.** KYL; **Mr.** ALLEN; **Mr.** LEAHY; **Mr.** BIDEN; **Mr.** KOHL; **Mr.** BUNNING; **Mrs.** CLINTON; **Mr.** CORZINE; **Mr.** REED; **Mr.** McCAIN; **Ms.** CANTWELL; **Mrs.**

HUTCHISON; **Mrs.** HUTCHISON. ; **Mr.** McCONNELL; **Mr.** REID; **Mr.** BYRD
... fuel efficiency, or to reduce **greenhouse gas** emissions. But it makes ...
... first time, as saying that **global warming** is a problem and that we need to ...
... voice in this process. **Global Warming.** Although we can already see the real effects of **global warming,** this bill takes no ...
... growing and imminent problem of **global warming.** I strongly supported their amendment to cap **greenhouse gas** emissions at the year 2000 ...
... 20 percent of the world's **greenhouse gas** emissions. As the world's largest **greenhouse gas** emitter, the United States has ...
... see the very real effects of **global warming.** The polar ice caps are ...
... world is already reducing their **greenhouse gas** emissions and they are counting on us to do the same. It is ...
... world's largest contributor to **climate change**_stepped up and took ...
... actions and their impact on the world. **Global warming** is too serious a problem ...
... imports as well as curbing **greenhouse gas** emissions that cause **global warming.** In addition, increasing ...
... not do the right thing on **global warming,** ethanol, fuel economy, the ...
... rise, and the impacts of global **climate change** increasingly apparent, we need to ...
... not adequately address: **global warming.** For years, almost all ...
... increase. Experts also agree that this **global warming** will lead to environmental ...
... States about what we should do to stop **climate change.** The threat is real and growing, and the ...
... for all. We also could have addressed the fact that **global warming** is threatening us with higher temperatures, ...
... note of the Sense of the Senate on **climate change** successfully included in the ...
... fewer emissions include **greenhouse gas** emissions. Because less refining ...
... domestic program to reduce **greenhouse gas** emissions, and the Kerry-Biden ...
... in the global deliberations on **climate change.** We have to be creative and to recognize the many ...
... progress in reducing **greenhouse gas** emissions, with the goal of stabilizing the ...
... fuels contributes to global **climate change,** air pollution, and acid ...
... system, and address the challenge of **climate change.** I think that it should go ...
... program to start reducing the **greenhouse gas** emissions that are contributing to **climate change.** I think this represents ...
... foreign oil; address **climate change** in a meaningful ...
... oil, but cuts **global warming** emissions and saves consumers ...
... economy and our way of life_**climate change.** The science is increasingly clear that **greenhouse gas** emissions caused by ...
... meaningful way, the effects of **global warming** may be devastating to the worldwide ...
... Recognition by the Senate that **global warming** is indeed a problem is ...
... real, immediate action on **global warming.** This amendment would require a ...
... carbon dioxide_the top **greenhouse gas** and the biggest single cause of **global warming**_from entering the atmosphere each ...
... real reductions in the **greenhouse gas** emissions that cause **global warming.** They deserve a bill that ...
... contribution to the serious problem of **global warming.** While I commend the ...
... bill that addresses global **climate change:** more than 75 percent of ...
... believe that we need to reduce our **greenhouse gas** emissions and participate with our allies and ...
... prices will be higher, **greenhouse gas** emissions will be greater, and our ...
... emerging threat of global **climate change.** However, I am supporting this legislation because it ...
... way the threat of global **climate change;** and the fact that the majority of my ...
... comes to the issue of global **climate change.** So this year, next year and ...
... problems posed by **climate change** and foreign oil dependence. ...
... serious about addressing **climate change** and oil dependence because I have ...
... address the issue of global **climate change.** And it will modernize and expand our ...

126. CONGRESSIONAL RECORD -- SENATE, Friday, June 24, 2005 , 151 Cong Rec S 7385, Vol. 151, No. 86, ENERGY POLICY ACT OF 2005
Senate
Mr. ALEXANDER
... bill does that is important is it recognizes that **global warming** is a problem. There is not ...
... less carbon, then you have less **global warming,** if you believe carbon makes a difference in **global warming.** So there is a big difference ...
... in attitude toward **global warming,** a recognition by ...
... growing interest in **global warming.** That is caused, many say, ...
... power. So if we care about **global warming,** we better care about ...
... ground, that is a solution to **global warming** without mandates. That is a ...
... electricity. And the debate about **global warming** will be off our desks because we ...
... enough carbon to affect **global warming,** and we can argue about ...
... 2, a recognition that **global warming** is a problem, and the beginning of ...
... 59%); LEGISLATION (59%); **GLOBAL WARMING** (59%);

127. CONGRESSIONAL RECORD -- SENATE, Thursday, June 23, 2005 , 151 Cong Rec S 7204, Vol. 151, No. 85, ENERGY POLICY ACT OF 2005
Senate
Mr. KENNEDY; **Mr.** LEAHY; **Mr.** SCHUMER; **Mr.** ISAKSON; **Mr.** DOMENICI; **Mr.** BINGAMAN; **Mr.** LAUTENBERG; **Mr.** LAUTENBERG. ; **Ms.** LANDRIEU; **Mr.** VITTER; **Mr.** GREGG; **Mr.** CORZINE; **Mr.** LOTT; **Mr.** COCHRAN; **Mr.** HATCH; **Mr.** ALLEN; **Mr.** SESSIONS; **Mr.** NELSON of Florida; **Mr.** CORNYN; **Mr.** McCONNELL; **Mr.** INOUYE; **Mr.** CRAIG; **Mr.** SPECTER; **Mr.** SPECTER. ; **Mr.** KERRY; **Mr.** DURBIN. ; **Mr.** KYL; **Mr.** BURR; **Mrs.** LINCOLN; **Mr.** Sununu; **Mr.** SUNUNU; **Mr.** ALEXANDER; **Mr.** WYDEN; **Mr.** BOND
... a science-based **climate change** document that was significantly altered at ...

128. CONGRESSIONAL RECORD -- SENATE, Thursday, June 23, 2005 , 151 Cong Rec S 7267, Vol. 151, No. 85, ELECTRIC TRANSMISSION PROPERTY DEPRECIATION
Senate
Mr. THOMAS; **Ms.** CANTWELL; **Mr.** SALAZAR; **Mr.** CONRAD; **Mr.** CONRAD. ; **Mr.** VITTER; **Mr.** CORNYN. ; **Mrs.** MURRAY; **Mr.** ENSIGN; **Mr.** ALLEN; **Mr.** FEINGOLD; **Mr.** JEFFORDS; **Mr.** PRYOR; **Mr.** BYRD; **Mr.** REID; **Mr.** CRAIG; **Mr.** REED; **Mr.** FRIST
... concerned with the need to address **climate change.** The promise of IGCC technology's ...
... I strongly believe that **global warming** is an important national issue, which is why ...
... a national policy on **global warming.** I will continue to ...
... create a meaningful **global warming** program. Mr. JEFFORDS . ...
... water pollutants, reducing **greenhouse gas** emissions, and stimulating the development of ...
... sense-of- the-Senate resolution on **climate change.** I was unable to be present ...
... Nations Framework Convention on **Climate Change** or even under a ...
... Bush administration policy on **global warming** is ineffective, unproductive, and irresponsible. The ...
... approach and efforts to address **global warming** have been underfunded and will not ...
... United States on this critical **climate change** problem, the President is reneging on this ...
... States disproportionately contributes to the **global warming** problem. We need to reengage with the ...
... responsibility to reduce the risks of **global warming.** Mr. President, I ...
... local smog and global **climate change.** If they sequestered methane to sell to ...
... challenges of our time_global **climate change** and energy security. For too ...
... own contribution to global **climate change** and their growing energy dependency. ...
... daunting problem, global **climate change.** In 1997, during the ...

... critical component to resolving the **climate change** challenges in the U.S. and ...
... solution. I have long said that **global warming** and our energy security are major ...
... approach for dealing with **climate change,** both domestically and internationally. ...
... forward to address global **climate change** and our Nation's energy security ...

129. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 22, 2005 , 151 Cong Rec S 6979, Vol. 151, No. 84, SCHEDULE
Senate
Mr. FRIST
... McCain-Lieberman amendment on **climate change.** We expect to resume that amendment ...

130. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 22, 2005 , 151 Cong Rec S 6980, Vol. 151, No. 84, ENERGY POLICY ACT OF 2005
Senate
Mrs. FEINSTEIN; **Mr.** KENNEDY; **Mr.** REED; **Mr.** DOMENICI; **Mr.** ALEXANDER; **Mr.** BINGAMAN; **Mr.** DODD; **Mr.** SHELBY; **Mrs.** BOXER; **Ms.** CANTWELL; **Mr.** SESSIONS; **Mr.** CRAIG; **Ms.** LANDRIEU; **Mr.** BYRD; **Mr.** BYRD. ; **Mr.** SCHUMER; **Mr.** SCHUMER. ; **Mr.** LIEBERMAN; **Mr.** McCAIN. ; **Mr.** NELSON of Florida; **Mr.** JEFFORDS; **Mr.** SALAZAR; **Mr.** DeWINE; **Mr.** BOND; **Mr.** CARPER; **Mr.** CARPER. ; **Mr.** INHOFE; **Mr.** OBAMA; **Mr.** OBAMA. ; **Mr.** AKAKA; **Mr.** BROWNBACK; **Mr.** TALENT; **Mr.** LEVIN; **Mr.** REID
... program to accelerate the reduction of **greenhouse gas** emissions in the United ...
... a science-based **climate change** document that was significantly altered at ...
... No state actions on **global warming:**|States from Maine and Connecticut |...
... **greenhouse gas** emissions |initiatives to reduce greenhouse |...
... projection: The CRA study contains |assumes that **greenhouse gas** |...
... scientific community believes_that **global warming** is, in fact, a ...
... Whenever I think of **global warming,** my mind's eye ...
... Earth. If we are creating a **greenhouse effect,** which 99.9 percent of the scientists ...
... come is our continuously growing **greenhouse gas** emissions. These carbon emissions are the ...
... now to reduce our wasteful **global warming** emissions. My colleagues should ...
... strong legislation that reduces our **greenhouse gas** emissions. No major ...
... will do something about **global warming.** With all respect to the amendment offered ...
... businesses and other sources of **greenhouse gas** emissions. The allowances are allocated at the ...
... by reducing some sources of **greenhouse gas** or, even more, I ...
... more_to deal with the problem of **global warming** so that we can preserve this planet and ...
... society and help us deal with the **greenhouse gas global warming** problem, and that includes but is ...
... a major source of **greenhouse gas** emissions, a major ...
... a big source of **greenhouse gas** emissions and, of course, a ...
... unless we address the challenge of **global warming,** which is the subject of the McCain-Lieberman ...
... in the successful passage of the **global warming** amendment to the Energy bill. ...
... put the spotlight on the reality of **global warming** before us. I am also proud to be ...
... real progress on the issue of **global warming. Climate change** is a very real and very present ...
... bringing that change about. **Climate change** in our world poses ...
... country. We know what is causing **climate change.** Greenhouse gases, such as carbon ...
... not start cutting **global warming** pollution, the pile-up of ...
... a future of such rapid **climate change** that the results could be devastating to our children and to ...
... population of this world. This understanding of the **climate change** challenge we face is international ...
... lot at stake when it comes to **global warming.** We have a world-class ...
... live there. The likely outcomes of **global warming** are clear. Losses of forest and ...

... must do something about **global warming.** It is an imperative that we act now. We, ...
... courage, to address the issue of **global warming** or did they simply walk away from an ...
... mandatory program to cut **greenhouse gas** pollution. America's closest ...
... Tony Blair, has put **climate change** at the top of the G8 summit ...
... faster way to cut **global warming** pollution can profit ...
... in his fight against **climate change.** On the eve of the G8 meetings ...
... McCain and Senator Lieberman. **Climate change** is happening. There is simply no ...
... progress and in decreasing **greenhouse gas** emissions. The amendment before us ...
... greenhouse gases causing **global warming.** For instance, we need to ...
... sand and accept the reality that **climate change** is in fact occurring. ...
... field of natural indicators of **climate change.** For example, glaciers are ...
... extremely sensitive to global **climate change.** Other national indicators ...
... in efforts to control **climate change.** We have an obligation to be an engaged global ...
... future. Let me repeat: **Climate change** is happening and a shift to ...
... way to help slow **climate change.** As we all know, solar power is ...
... State. In closing, **climate change** is here. We have to face that fact. And we have to address it. We have to do it ...
... a leader on global **climate change** in dealing with this problem. ...
... in slowing the rate of **climate change** and in protecting our environment. ...
... up this matter, seeing **global warming** is a real problem, and ...
... opposing view on the issue of **global warming.** The paper's position was that there is scientific ...
... greenhouse gases are causing **climate change** and that failure to implement reductions ...
... detailed scientific information on the **global warming** issue than the average person. For years, the **global warming** issue has always been one that was ...
... a bit of discussion on **climate change** and whether it is due to manmade carbon ...
... world is ending, catastrophic **climate change** is upon us. The glaciers are melting, ...
... permafrost as signs of manmade **global warming.** However, overall climate data is ...
... funding for research on **climate change.** We are searching for answers, ...
... answers. Without this understanding of **climate change,** without the ability to blame **climate change** on human carbon dioxide ...
... carbon dioxide is causing **global warming,** we should be "better safe than sorry." ...
... in human-induced **global warming,** their solution_carbon mandates_ ...
... not in ways that **climate change** proponents will admit. We ...
... make any significant, if any, difference on **climate change.** Tight family budgets and ...
... will fighting so-called **climate change** with this amendment hurt our seniors and ...
... about man-made **global warming?** Yes. Earth's temperatures have ...
... about human-caused **global warming** occurred after the Earth's ...
... Nation's Intergovernmental Panel on **Climate Change** to address evidence of the PDO ...
... behalf of man-made **global warming.** Mr. McCAIN . Mr. ...
... come-lately on the issue of **global warming.** Not that long ago, ...
... become a believer. **Global warming** is real. We do need to do something ...
... OH, and pontificate about **global warming.** They get their hands dirty. They have ...
... figure out how **global warming** is changing the face of our most ...
... next 15 years because of **global warming.** And their fear is that little can be ...
... vegetation. This might be the upside of **global warming,** but there is a downside as ...
... smoking gun" in the **global warming** debate. What they have done is they have used ...
... made gases are the cause of **global warming.** Their words, not mine. ...
... Agency estimates that unless **global warming** is controlled, sea levels ...
... White House or Congress on **global warming**_at least not yet. The ...
... moved away from questioning whether **climate change** is real. They have now pinned their ...
... doing something proactive on **global warming** represents an opportunity to enhance their ...

... concluded that if we act to address **climate change** now, we can actually ...
... financial exposure to future **global warming** regulations. Their pressure has resulted ...
... many companies developing **global warming** policies in order to ...
... part of a global **climate change** initiative. This strategy allowed ...
... production. Their efforts have reduced their **greenhouse gas** emissions by more than ...
... taking steps to address **climate change,** more and more States and ...
... same argument applies to **global warming.** Thirty, 40, 50 ...
... in Iraq, and he is making **climate change** his initiative. But he is also over ...
... strong evidence that significant **global warming** is occurring. And then they go on. I ...
... Statement: Global Response to **Climate Change**" yesterday and read it with great ...
... address the potential threat of **climate change** and reduce greenhouse gases. As you ...
... will better inform **climate change** decisions. Indeed, the Administration has initiated a **Climate Change** Science Program Strategic ...
... extensive international efforts on **climate change,** both through multilateral and ...
... Nations Framework Convention on **Climate Change** and the Intergovernmental Panel on **Climate Change.** So, it was with dismay that I read the ...
... rebuke of U.S. policies on **climate change.** Statements such as: "The current U.S. policy on **climate change** is misguided. The Bush Administration has ...
... NAS 1992 report on **climate change** is also contrary to my understanding of that ...
... academies on Global Response to **Climate Change.** I was very dismayed when I ...
... Science Base (1992) and **Climate Change** Science: An Analysis of Some Key ...
... demands prompt action on **climate change** say G8 science ...
... current U.S. policy on **climate change** is misguided. The Bush Administration has ...
... follows: "The scientific understanding of **climate change** is now sufficiently clear to ...
... contains for reducing **greenhouse gas** emissions, I fail to ...
... documents relating to the science of **climate change.** But the U.S. media ...
... less emitting, has less **greenhouse gas** in it, and recognizes the importance that our ...
... down to 1990 levels of **greenhouse gas** emissions. In other ...
... exactly what we want done on **climate change** today, changing the character of ...
... beginning to recognize if you are for **climate change,** you have to be for nuclear electric ...
... principled stand he has taken on **climate change** demanded my response, because ...
... committed to addressing the issue of **climate change.** I will just ...
... in the global response to **climate change,** there will always be uncertainty ...
... strong evidence that significant **global warming** is occurring. The question is: Are we going to do ...
... Addressing the threat of global **climate change** is one such moment. **Climate change** is not just about ...
... in America, we have seen **global warming** contribute to the worst drought ...
... jeopardized. There are also health consequences to **climate change.** Rising temperatures mean that ...
... planet and our people from the effects of **global warming?** The first step is to adopt the ...
... bipartisan approach to addressing **climate change** is not only good ...
... best approaches to reducing **greenhouse gas** emissions and rewards those with the most ...
... dirtier air and dangerous **climate change.** We know this country's scientific ...
... Chair. The science is overwhelming that **climate change** is occurring. There is no doubt this is ...
... thank Senator Lieberman. **Climate change** is a topic that is very important to ...
... Council, the International Panel on **Climate Change,** and Federal agencies, including the ...
... Department of Energy, have been investigating **climate change** to broaden the scope of our understanding of the ...
... terrestrial and coastal impacts of **climate change.** Fifteen years ago, ...
... uncertain about the effects of **global warming.** Today, nearly 95 percent of scientists say that **global warming** is a certainty. Most ...
... a global response to **climate change.** Among the prestigious scientific ...
... action to reduce the causes of **climate change** and ensure that the issue is included ...

... my part of the world **climate change** will result in ...
... Programme, have offered evidence that **global warming** could result in a ...
... connect the dots with respect to **global warming.** I am particularly concerned ...
... Today, the global issue of **climate change** extends beyond our borders and threatens the livelihoods of these nations. **Climate change** is an important challenge and high ...
... cautious step to stabilize **greenhouse gas** emissions in the United ...
... fail to address the issue of **climate change** now, the U.S. may have to ...
... compliance costs of the EU **greenhouse gas** reduction program are expected to ...
... effort to reduce future **greenhouse gas** emissions. I thank ...
... for recognizing the importance of **climate change** and taking the lead on legislation to stabilize **greenhouse gas** emissions in the 108th ...
... reduce the total amount of **greenhouse gas** emissions in the United ...
... serious about the impacts of **climate change.** A policy of inaction on **climate change** is not acceptable and will ...
... Foundation for Global **Climate Change** reports that most industries have been ...
... important topic of global **climate change,** the McCain-Lieberman amendment. ...
... time with the issue of global **climate change.** I call it a ...
... I believe global **climate change** is occurring. Furthermore, I ...
... beings. Carbon is a **greenhouse gas.** Yet, the **greenhouse effect** is also critical in certain ...
... much. With respect to global **climate change,** I think we must be ...
... pursuit of their legislative action on **climate change,** addressing a real ...
... job in shaping the **climate change** debate thus far. However, I do ...
... clearly to reductions in **greenhouse gas** emissions. I respect ...
... States should seek to reduce our **greenhouse gas** emissions. Finally, the United ...
... forward in reducing **greenhouse gas** emissions. That is why I supported the ...
... incentives for new **greenhouse gas**-reducing technologies and technology ...
... way to actually get these **greenhouse gas** emissions down, not ...
... impact on the overall global **climate change.** I think we can do these ...
... in the debate over **global warming,** and that is time and accomplishment at the same ...
... alone cannot solve our **climate change** dilemma, but as we search ...
... potential effects in **climate change,** it only makes sense that we ...
... nuclear section in their **climate change** bill. This obviously may have ...
... believe we are seeing global **climate change.** I do believe that consequences of ...
... will reduce your **greenhouse gas** emissions, it is a phony. It does ...
... in the world knows **climate change** is real. It is happening. And it may ...
... strong evidence that significant **global warming** is occurring. I will ...
... England, recognizes that global **climate change** is real. It is taking place, and we have to do ...
... I did not say **global warming** is not a problem. He ...
... a release from the EU, **greenhouse gas** emissions up to 2003. It was ...
... now talking about **global warming** were talking about another ...
... alteration in the Earth's **greenhouse effect.** That reduced the amount of moisture ...
... vicinity of the mountain. Manmade **global warming** has nothing to do with it. I repeat, ...
... coming, and somehow this has something to do with **global warming.** Well, if you look at this chart, it ...
... greenhouse gases and the observed **climate change** in the 20th century ...
... give an impression that the science of **global warming** is settled, even though ...
... Kyoto really isn't about **climate change.** Kyoto is about "the economy, ...
... most people do believe that **global warming** is underway. They have been convinced of that because we have a very ...
... pollution problems. They are not with **global warming.** They are not with CO I ...
... 826, the McCain-Lieberman **climate change** amendment. As we debate whether to adopt some ...
... states that his plan to eliminate **greenhouse gas** emissions is "affordable and doable." However, ...

... result of adopting an onerous **climate change** proposal will be exported ...
... bill purports to address "**global" warming.** The bill's proponents are correct that the ...
... going to worry about **greenhouse gas** emissions. Advocates for this ...
... believe to be impending catastrophic **global warming.** Greenpeace International agreed that the ...
... point for controlling **greenhouse gas** emissions. Jessica Coven, ...
... cuts to protect the planet from **climate change."** Roderick believes a ...
... averted by a **greenhouse gas** limiting treaty of massive ...
... will substantially reduce **greenhouse gas** emissions. Senator Domenici ...
... technologies that will have no **global warming** emissions, and I won't ...
... reached the conclusion that the science of **global warming** is much less precise than ...
... but the evidence of resulting **global warming** is much more dubious. We are ...
... industrialized nations to limit their **greenhouse gas** emissions to varying percentages ...
... succeed in reversing "**global warming**" or eliminating greenhouse gases; it would ...
... emissions but also reduces **greenhouse gas** emissions by 50 ...
... industrial country also reduces **greenhouse gas** emissions by 50 ...
... current path, then worldwide **greenhouse gas** emissions will increase ...
... conclusion is inescapable that, even if **global warming** is a problem, the Kyoto ...
... faced with the threat of global **climate change** that could fundamentally alter all of our lives and the ...
... steps to halt and reverse **climate change.** My State enjoys ...
... in the central valley. **Climate change** is a very real threat to those ...
... indicate that human-induced **global warming** may produce a ...
... other purposes. The solution to the **climate change** problem is to first reduce **greenhouse gas** emissions. In this regard, the ...
... 2010, the system would cap **greenhouse gas** emissions at the level that was released ...
... credits that would allow for **greenhouse gas** emissions but within the ...
... step in solving the **climate change** problem is to increase the use of ...
... power is not the solution to **climate change,** and it is not "clean." The nuclear ...
... drastically reduce our Nation's **climate change** pollution without increasing the ...
... can and should solve the problem of **climate change** without increasing the problems of ...
... step forward on combating **global warming.** However, I do so with significant reservations ...
... generation is to tax or cap **greenhouse gas** emissions. The Federal Government should be ...
... Nations Framework Convention on **Climate Change.** That goal is stablization of atmospheric ...
... amendment addressing global **climate change.** I will vote ...
... address the very real problem of **greenhouse gas** emissions. My vote ...
... commitment to addressing the threat of **climate change.** But at the same time, ...
... added certain provisions to their **climate change** proposal, I also understand_from the ...
... strategy to address the issue of **climate change.** I have spoken on this floor ...
... emerged regarding the threat of **global warming.** I have addressed the issues of ...
... economic costs associated with **climate change,** particularly in the Pacific ...
... well be diminishing due to **global warming.** I have also spoken about this ...
... children and future generations. **Climate change** is too alarming a trend ...
... President, I believe **climate change** is occurring; I believe we are ...
... will hurt our economy. **Climate change** is not something we can ...
... only be solved globally. **Climate change** cannot be addressed unilaterally. It ...
... environment to push down **greenhouse gas** emissions in one ...
... standards. That does nothing to reduce **greenhouse gas** emissions and does damage to U.S. ...
... effective international treaty on **climate change** that binds all countries. In ...
... take steps to reduce **global warming** so that there is no incentive to move ...
... not a solution to **climate change**_it would just be another economic ...
... may not have records of **greenhouse gas** emissions to allow credit ...

... claim the savings in **greenhouse gas** emissions and further measures are ...
... Legislation and treaties limiting **greenhouse gas** emissions should reward, rather than ...
... sound policy. Global **climate change** is just that: global and it needs to be ...
... regarding the development and deployment of **climate change** reduction technologies. This new ...
... can significantly reduce **greenhouse gas** emissions, mitigate the impacts of **climate change,** and increase the Nation's energy ...
... public's concern about **climate change,** the economic interests of business and ...
... go on and on about the impacts of **climate change** and the associated science, yet there is ...
... town about whether or not **climate change** is real. If you still have doubts, ...
... strong evidence that significant **global warming** is occurring. The scientific understanding of **climate change** is now sufficiently clear to ...
... in net global **greenhouse gas** emissions. We urge all nations . . . to ...
... action to reduce the causes of **climate change,** adapt to its impact and ensure that the ...
... officials to "muddy" the science of **global warming.** In the June 8 ...
... many of the scientific reports on **climate change** have been "edited" by an official ...
... future of not only **climate change** science, but also the future of ...
... upon themselves to turn **climate change** science into political science. That is ...
... President to change his position on **climate change.** I guess this is understandable ...
... for joint action on **climate change** by the G8 nations. We should all be able to agree that **climate change** policy should be based upon ...
... evidence of human-induced **climate change** has grown even more ...
... presented data indicating that **climate change** in the Arctic is occurring ...
... Union to do more to fight **global warming** and to consider giving aid to their ...
... way of life is at risk. **Global warming** is said to be causing the arrival in the ...
... doing its part to slow **climate change.**" The efforts taking place globally to address **climate change** have gained even greater ...
... Tony Blair has made **climate change** one of his top two ...
... Blair's commitment to addressing **climate change** should be commended. He has chosen to take ...
... Blair has chosen to deal with are **climate change** and poverty in Africa. It is ...
... avoid the worst impacts of **climate change,** and to offer to work in ...
... international progress on reducing **greenhouse gas** emissions. Furthermore, the heads of ...
... for action to mitigate **climate change** and the importance of market-based ...
... prepared by the G8 **Climate Change** Roundtable, which is comprised of companies ...
... provide business perspectives on **climate change** in advance of the G8 ...
... a responsibility to act on **climate change.**" It further acknowledges there "is a ...
... significant efforts to reduce **greenhouse gas** emissions" . . . "because of the cumulative nature and ...
... tackling our planet's problem of **global warming.** In an introductory piece, ...
... Alaska to Bangladesh, a **global warming** trend is altering habitats, with ...
... a very different world. **Global warming** demands urgent action on all ...
... begin to address the urgent **global warming** crisis that is upon us. This effort ...
... include zero and low **greenhouse gas** emitting power generation, such as ...
... technological innovation to address **global warming.** These new directives include: ...
... partnerships to promote the commercialization of **climate change** technologies by working with ...
... NRC that would produce zero **greenhouse gas** emissions; three advanced ...
... Energy, a representative from the **Climate Change** Credit Corporation, as would be created ...
... emission allowances through the **Climate Change** Credit Corporation under the ...
... staggering cost of inaction on **global warming.** I think we'll ...
... reduce, eliminate, or sequester **greenhouse gas** emissions. The "reverse auction" ...
... allowances conducted by the **Climate Change** Credit Corporation under the ...
... address this urgent and growing **global warming** crisis upon us. The "cap and ...

... atmosphere with the ever-increasing volume of **greenhouse gas** emissions. Our dividend is continued energy dependence and **global warming** that places our nation and the globe at ...
... not only have acknowledged that **global warming** is real, but agree that we have to do ...
... alternative proposal to address **climate change**_one which would incorporate the recommendations of the ...
... growth in domestic **greenhouse gas** emissions, but not to ...
... reducing the factors contributing to **climate change.** The problem with the Commission's recommendations is that there is ...
... truly committed to addressing **climate change,** we need to act in ...
... threat posed by **global warming** which most regard as the greatest ...
... will skyrocket, intensifying the **greenhouse effect and the global warming** it produces. As nuclear plants are ...
... about addressing the problem of **global warming.** In a recent ...
... threat we face is actually **global warming** and that leads to a corollary: ...
... source does not cause **global warming,** and that is nuclear energy. I have ...
... air pollution and 11 **greenhouse gas** emissions to the environment and human ...
... risk posed by **global warming,** I believe that providing ...
... serious about the problem of **global warming** are serious about finding ...
... word regarding the magnitude of the **global warming** problem. In 2001, ...
... Bush wanted an assessment of **climate change** science. He further stated that **climate change** policy should be based upon ...
... key issues concerning **climate change.** Shortly thereafter, the National ...
... significant reductions in **greenhouse gas** emissions. Let's also consider the ...
... asteroid, or an incurable plague, **global warming** may be the single largest ...
... John Marburger, who says that, "**Global warming** exists, and we have to do something about it, and what we have to do ...
... United States says that **global warming** exists, and what we have to do about it is to reduce ...
... dioxide! The road ahead on **climate change** is a difficult and challenging ...
... next to nothing, about **global warming** because we don't know how ...
... many of the worst effects of **climate change** are expected to occur in the ...
... United States has reduced its **greenhouse gas** emissions intensity more than ...
... world in terms of **climate change** is not "intensity, but ...
... market for cutting **greenhouse gas** emissions. While in its ...
... growth while cutting their **greenhouse gas** emissions. Parallel to that a ...
... Congress on issues related to **climate change.** We strongly believe there is a ...
... come together and discuss **climate change.** Regretful as it is, as of today we have no ...
... Trans-Atlantic Dialogue on **Climate Change**_organized by Environment ...
... United States has reduced its **greenhouse gas** emissions intensity more than ...
... River Associates concerning our **climate change** amendment, stating it would result ...
... pieces ever done called "**Global Warming,** Bulletins From a Warmer ...
... statement, "Global Response to **Climate Change**": There will always be uncertainty ...
... strong evidence that significant **global warming** is occurring. Mr. President, the ...
... ago_said: The scientific understanding of **climate change** is now sufficiently clear to ...
... in the 1990s, U.S. **global warming** pollution grew by ...
... time, the EU decreased their **global warming** pollution by 4 percent. **Greenhouse Gas** intensity does not measure the quantity of **global warming** pollution reduced. GHG ...
... defined as the ratio of total **global warming** pollution to total gross ...
... responsible for 25% of **global warming** pollution, while less than ...
... In order to stop **global warming,** the world will need to ...
... carbon emissions that have caused **global warming.** The United States alone ...
... voluntary efforts to reduce **global warming** pollution over the past ...
... work either. Myth: **Global warming** emission limits should not be ...

... due to inevitable future **global warming** policy. Being a ...
... protect against the threat of **global warming.** American companies are currently ...
... States should not implement **global warming** policy until developing ...
... real reductions in **global warming** pollution. Simply because the U.S. ...
... will be impossible to stop **global warming** without the world's largest ...
... levels from 2010 onward. **Global warming** policy will help ...
... incentive to invest in **global warming** technology, European and Asian ...
... President Bush's voluntary **global warming** plan does not attempt to ...
... voluntary efforts to reduce **global warming** pollution over the past ...
... in emissions. Because the Bush **global warming** plan relies exclusively on ...
... past work on the science of **climate change.** Bottom line: Under the ...
... consensus that humankind has induced **global warming.** Scientists are virtually certain that ...
... recreate or parallel actual **climate changes** which have occurred over the last ...
... concluded the Intergovernmental Panel on **Climate Change** (IPCC), a group ...
... consensus is that humankind has induced **global warming.** Sallie Baliunas and Willie ...
... conclusion that humans have induced **climate change** is based on many scientific ...
... called the "smoking gun" of **global warming.** This report showed a ...
... Mann's report. Myth: **Greenhouse Gas** emissions are not Pollutants. ...
... consequence of human activities". **Global warming** pollution is also considered pollution ...
... oil dependence or address **global warming.** A market-based ...
... much more powerful **greenhouse gas** than carbon dioxide, and it should be controlled. However, ...
... primary concern for **global warming** because of the massive quantities of it released from ...
... 400,000 years. Myth: **Greenhouse gas** caps are bad for the ...
... a policy that limits **global warming** pollution in conjunction with ...
... changing to be clearer and clearer that **global warming** is a problem. What is not ...
... Senate, and it is an increasing recognition that **global warming** is a real problem. Some of our ...
... powerful consensus internationally that **global warming** is real. I see that ...
... thing. The science is compelling. **Global warming** is real. And colleague after ...
... own eyes the impact that **global warming** is having. Senator Carper brought ...
... Electric Power, says: **Climate change** is a challenge facing ...
... something real about **global warming.** That is what this is about. Not only do you ...
... don't do anything about **global warming,** we are going to turn this world ...
... time. Mr. President, **global warming** constitutes one of the greatest ...
... time. I believe that. **Greenhouse gas** emissions from the burning of fossil ...
... doctoring information about **global warming** in reports by ...
... removed or adjusted descriptions of **climate change** research that scientists had already ...
... opposed measures to reduce **greenhouse gas** emissions and has funded groups of **global warming** skeptics. It is time for the ...
... Federal policy to reduce **global warming** pollution. The President is increasingly ...
... week: The scientific understanding of **climate change** is now sufficiently clear to ...
... in net global **greenhouse gas** emissions. Even "The Terminator," ...

131. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 22, 2005 , 151 Cong Rec S 6980, Vol. 151, No. 84, ENERGY POLICY ACT OF 2005

Senate

Mr. BINGAMAN; **Mr.** LAUTENBERG; **Mr.** SPECTER; **Mr.** ALLARD; **Mr.** INHOFE; **Mr.** TALENT; **Mr.** DOMENICI; **Mr.** BAUCUS; **Mr.** WARNER; **Mr.** CORZINE; **Mr.** ALEXANDER; **Mr.** BROWNBACK; **Mr.** CRAIG; **Mr.** HARKIN; **Mr.** KERRY; **Mr.** BIDEN; **Mr.** FRIST; **Mr.** NELSON of Florida; **Mr.** MARTINEZ; **Ms.** LANDRIEU; **Mr.** FEINGOLD; **Mrs.** DOLE; **Mr.** REED; **Mr.** JOHNSON; **Mrs.** MURRAY; **Mr.** LOTT; **Ms.** MURKOWSKI; **Mr.**

LEVIN

... Federal Government to reduce **global warming.** The mayors, who represent 32 ...
... issue and opined that reducing **greenhouse gas** emissions will help ...
... provide stronger leadership on **global warming.** Fortune 500 companies, such as ...
... significant reductions in their **greenhouse gas** emissions. The United States ...
... 25 percent of the world's **global warming** pollution. U.S. leadership on **global warming** is critical to building international ...
... Lieberman amendment would cap **greenhouse gas** emissions in 2010 at ...
... amendment would limit emissions of **global warming** pollutants by electric ...
... defer action to address **global warming.** I commend and applaud these ...
... cut down on the problems of **global warming.** We have just had a vote on the ...
... step forward on the issue of **global warming.** It would always be desirable to move ...
... express the sense of the Senate on **climate change** legislation.) The PRESIDING OFFICER. The ...
... a substantial cause of **greenhouse gas** accumulation in the atmosphere; and (...
... slow or stop the growth of **greenhouse gas** emissions into the atmosphere. (b) ...
... McCain and Lieberman to cap **greenhouse gas** emissions. Some voted for it because they ...
... a substantial cause of **greenhouse gas** accumulation in the atmosphere. ...
... slow or stop the growth of **greenhouse gas** emissions into the atmosphere." There are some who have spoken ...
... National Commission's recommendations on **greenhouse gas** would be to those figures. How much would it ...
... increasing. The hurricanes in **global warming,** we spent time today ...
... not all that great when dealing with **global warming.** I suggest to you they are very great. ...
... doing something about **climate change.** It is a question of more ...
... doing something about **climate change.** Without prosperity, without ...
... mindset: We can solve the **global warming** problem, but we will do it with ...
... sense of the Senate resolution on **climate change** offered by Senators ...
... believe that there is a problem with **global warming.** And I believe that there will be ...
... greenhouse gases and the observed **climate changes** in the 20th century ...
... give an impression that the science of **global warming** is settled, even though ...
... amendment, sense of the Senate on **climate change,** 30 minutes equally ...
... States to address global **climate change** through comprehensive and cost- ...
... Nations Framework Convention on **Climate Change)** On page 768, after ...
... following: TITLE XV_**CLIMATE CHANGE** SEC. 1501. SENSE OF ...
... STATES TO ADDRESS GLOBAL **CLIMATE CHANGE.** (a) Findings._The Senate ...
... by the Intergovernmental Panel on **Climate Change** and confirmed by the National ...
... projected to result from increased **greenhouse gas** concentrations; (3) the United ...
... world, is currently the largest **greenhouse gas** emitter; (4) the **greenhouse gas** emissions of the United States are ...
... continue to rise; (5) the **greenhouse gas** emissions of developing countries are ...
... will soon surpass the **greenhouse gas** emissions of the United States and ...
... countries; (6) reducing **greenhouse gas** emissions to the levels necessary to ...
... undertaking measures to reduce **greenhouse gas** emissions, which provide industries ...
... international efforts to address **climate change;** (11) the United States is ...
... Nations Framework Convention on **Climate Change** adopted in May ...
... term objective of stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... achieve the objective of stabilization of **greenhouse gas** concentrations; (14) the Kyoto ...
... global effort to address **climate change** must provide for ...
... effort against global **climate change.** (b) Sense of the Senate._It is the ...
... posed by global **climate change** and foster sustained economic ...
... reduction in global **greenhouse gas** emissions; (2) enacting and ...
... term reductions in **greenhouse gas** emissions in the United ...
... monitor any international negotiations on **climate change;** and (B) ensure that the advice and ...

... mandatory action with respect to **global warming** in the United States. We did ...
... posed by global **climate change** and foster sustained economic ...
... reduction in global **greenhouse gas** emissions. The whole purpose of this is to ...
... yesterday the scientific evidence on **climate change** was addressed by the G8 ...
... G8 nations said that the evidence on **climate change** is now clear enough ...
... Demands Prompt Action on **Climate Change** Say G8 Science Academies The scientific evidence on **climate change** is now clear enough ...
... in net global **greenhouse gas** emissions." And to, "recognize that delayed ...
... uncertainty about aspects of **climate change** as an excuse for not ...
... urgent action to cut **greenhouse gas** emissions. "Significantly, along with the ...
... difficult the task of tackling **climate change** becomes. Lord May ...
... current U.S. policy on **climate change** is misguided. The Bush administration has ...
... critical because of the sheer amount of **greenhouse gas** emissions they are responsible for. ...
... percent rise in **greenhouse gas** emissions from the U.S. between ...
... U.K.'s efforts on **climate change,** Lord May said: "We welcome the ...
... Tony Blair has made **climate change** a focus for its ...
... a world leader on **climate change** into a reality. While the ...
... accidental rather than the result of **climate change** policies. Indeed, its emissions ...
... act now to tackle **climate change** or let future generations ...
... adapt to the adverse effects of **climate change.** Lord May said: "We, the industrialized ...
... solutions to the threats they face from **climate change."** Mr. KERRY. I ...
... statement about that. No **climate change** program is going to work ...
... global response to the threat of **climate change.** It was at those talks that the American delegation ...
... U.N. Framework Convention on **climate change.** As we know, in that agreement ...
... Herbert Walker Bush, that **climate change** is a global problem ...
... issue and building the science on **climate change** from the 1992 report to the path ...
... contains for reducing **greenhouse gas** emissions, I fail to ...
... advance the political cause of **climate change.** But what is the reality? Getting ...
... rest of the world combined on **climate change,** and we are sharing that technology with the world. That is ...
... ado today about **climate change?** It is the politics that drive, not the ...
... thing we have ever done for **climate change.** We advance more technology, we ...
... Scotland, to acknowledge that the threat of **climate change** is clear and increasing, to address its ...
... basic facts about **global warming.** It is real simple. The science is ...
... under which the Framework Convention on **Climate Change,** signed by President ...
... progress, to actually reduce **greenhouse gas** emissions, with the goal of stabilizing the ...
... aggressively reducing their own **greenhouse gas** emission_by over ...
... fair, and effective approach to **climate change** in our international negotiations. It is ...
... wake up to the realities of **climate change** to both the threat and the opportunity it ...
... something positive in **global warming,** the control of **global warming** gases. Frankly, everybody here should ...
... deal realistically with the issue of **global warming** on an international basis unless we ...
... science and research on global **climate change.** The amendment is cosponsored by ...
... days by those who challenge **climate change** and the science that they supposedly use to ...
... by government scientists on **global warming.** And he tried to muddy the waters ...
... rejection of the scientific evidence that **global warming** is occurring. I call this ...
... sections of U.S. reports on **climate change.** He didn't just alter the ...
... out a description of **global warming** impacts widely accepted ...
... associated with human-induced **climate change.** Contrast that heavy-handed ...
... scientists are saying about **global warming.** In January, Oxford ...
... universities in the largest **climate change** experiment ever conducted. The researchers found that the threat of **global warming** appears to be worse than previously ...

... Scotland, to acknowledge that the threat of **climate change** is clear and increasing, to address its ...
... more evident than when it comes to **global warming.** The front-page headline ...
... protect government reports on **global warming and climate change** from being altered for any ...
... government report about **climate change** is altered by the White ...
... scientific evidence about **global warming** is being ignored or disregarded ...
... science, especially when it comes to **global warming.** The bottom line is that the oil ...
... a bogus report on **global warming,** my amendment will ...
... recognition to address the issue of **climate change** and the various proposals that have been debated this ...
... Bingaman-Specter amendment. **Climate change** is a matter of great ...
... advanced since 2002. On **climate change** specifically, the most recent ...
... world in curbing **greenhouse gas** emissions. I have urged the ...
... means to address global **climate change** and support his efforts and those of individual ...
... Commission's recommended approach on **climate change** would be to implement a mandatory, ...
... growth in U.S. **greenhouse gas** emissions by 2.4 ...
... path toward reducing **greenhouse gas** emissions compared to business as ...
... intervals of global action on **climate change.** This new approach addressed ...
... discussion on the important issue of **climate change.** I cosponsored this Bingaman- ...
... adoption of technologies that reduce **greenhouse gas** intensity_emissions per ...
... necessary to address global **climate change.** While I was unable to ...
... action to deal with global **climate change.** I look forward to ...
... favor of the McCain-Lieberman **climate change** amendment. I supported this ...
... real action to reduce **greenhouse gas** emissions, something the Bush administration has so far refused to do. **Global warming** is a serious problem that has ...
... scientists now accept that **global warming** is real and that it is caused in ...
... hold total U.S. **greenhouse gas** emissions at year 2000 ...
... finally recognize the reality of **climate change** and take action to reduce our Nation's **greenhouse gas** emissions. Mr. KERRY . ...
... adoption of technologies that reduce **greenhouse gas** intensity in the United ...
... adoption of technologies that reduce **greenhouse gas** intensity in the United ...
... action to address global **climate change** in a real and ...
... begin addressing global **climate change.** Voluntary measures are constructive ...
... Scientific evidence shows that **global warming** poses a real ...
... significant cuts in **greenhouse gas** emissions, as the climate stewardship and ...
... real cuts in **greenhouse gas** emissions. This amendment will ...
... 2001, the Intergovernmental Panel on **Climate Change** (IPCC) concluded that the average ...
... likely to have been due to the increase of **greenhouse gas** concentrations accurately reflects the ...
GLOBAL WARMING (91%); ENERGY POLICY (...

132. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 21, 2005 , 151 Cong Rec S 6871, Vol. 151, No. 83, ENERGY POLICY ACT OF 2005
Senate
Mr. FRIST; **Mrs.** BOXER; **Mrs.** DOLE; **Mr.** DOMENICI; **Ms.** CANTWELL; **Mr.** DODD; **Mr.** MARTINEZ; **Ms.** LANDRIEU; **Mr.** ALEXANDER; **Mr.** BINGAMAN; **Mr.** NELSON of Florida
... bill. I believe the **climate change** amendments will be ready ...
... in all likelihood be voting on the **climate change** amendments later this afternoon. ...

133. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 21, 2005 , 151 Cong Rec S 6878, Vol. 151, No. 83, ENERGY POLICY ACT OF 2005_Continued

Senate

Mr. HAGEL; **Mr.** DAYTON; **Mr.** CRAIG; **Mr.** PRYOR; **Mr.** ISAKSON; **Mr.** ALEXANDER; **Mr.** DOMENICI; **Mr.** VOINOVICH; **Ms.** LANDRIEU; **Mr.** McCAIN; **Mr.** LIEBERMAN; **Mrs.** FEINSTEIN; **Mr.** DURBIN; **Mr.** REID; **Mr.** OBAMA; **Mr.** INHOFE; **Mr.** DeWINE; **Mr.** KOHL; **Mr.** CARPER; **Mr.** LEVIN; **Mr.** ENZI

... adoption of technologies that reduce **greenhouse gas** intensity in the United ...

... introduced earlier this year, the **Climate Change** Technology Deployment Act and the **Climate Change** Technology Deployment in ...

... effective U.S. global **climate change** policy. The **climate change** debate is not a ...

... policies, and incentives to reduce **greenhouse gas** intensity. It focuses on expanding ...

... policy. This amendment uses **greenhouse gas** intensity as a measure of success. **Greenhouse gas** intensity is the measurement of how ...

... demonstration projects that employ **greenhouse gas** intensity reduction technologies. These ...

... projects and technologies that reduce **greenhouse gas** intensity. Current international approaches to global **climate change** overlook the role of developing ...

... not be able to achieve **greenhouse gas** reductions until they achieve ...

... partnerships, and encourage the deployment of **greenhouse gas** intensity reducing technologies ...

... State to engage global **climate change** as a foreign policy ...

... related barriers to the export of **greenhouse gas** intensity reducing technologies and ...

... group to promote the export of **greenhouse gas** intensity reducing technologies and ...

... expertise and knowledge to reduce **greenhouse gas** intensity in their countries. The ...

... in reducing international **greenhouse gas** emissions. That means any **climate change** initiatives we adopt must ...

... a global context. **Climate change** does not recognize national ...

... Achieving reductions in **greenhouse gas** emissions is one of the more ...

... allies_key to any achievable **climate change** policies. I look ...

... nations to achieve a **climate change** policy that is workable, sustainable. ...

... behalf of and in favor of the **climate change** amendment we have just heard ...

... path forward on the issue of **climate change** and to meet both this Nation's and the ...

... obvious when we talk about **climate change** and, in that context, economic ...

... issue. If we are talking about **climate change,** we are not talking about it ...

... policy and as we step into the arena of **climate change.** Our policy must recognize the ...

... most harmful. It is counterproductive. When the **climate change** community said to the world, save the ...

... about when we talk about **climate change.** Above all, this legislation is a ...

... rate of improvement in **greenhouse gas** intensity relative to improvements ...

... fact the scientific measurement_"**greenhouse gas** intensities" is defined in the ...

... just offered as the ratio of **greenhouse gas** emissions to economic output. This is ...

... will not meet the **greenhouse gas** reduction targets by the ...

... COP-10_that is a **climate change** conference in Buenos ...

... energy efficiencies and reduce **greenhouse gas** growth rates and has received ...

... leading investments in **climate change** and climate science technology. The ...

... wide range of national **greenhouse gas** control initiatives, carbon ...

... a summary of what we have done: The **climate change** technology program, a $3 billion program; the **climate change** science program, a $ ...

... DOE's registry for **greenhouse gas** reporting, another major ...

... industry will improve **greenhouse gas** intensity by 18 ...

... night as we discussed the issue of **climate change** was: Mr. Chairman, we ought to ...

... whole bill and call it the **climate change** bill of 2005. Why? Clean ...

... legislation, to dramatically improve our **greenhouse gas** intensity as it relates to emissions ...

... relate to as it relates to intensity and the **climate change** issue itself. It is an important ...

... support of the Hagel-Pryor **climate change** amendment and to discuss the reality of **global warming.** I also thank my ...

... around the Senate. They have been encouraging. **Climate change** is not a new ...
... magnitude, the timing, and the rate of **climate change** have led to a stalemate on ...
... technologies targeted at reducing **greenhouse gas** emissions. In a ...
... above all, progress. This comprehensive **climate change** amendment has two main ...
... domestically and internationally to reduce **greenhouse gas** emissions. The domestic component of our ...
... deploy technologies that reduce **greenhouse gas** emissions. Additionally, we are asking ...
... a wide variety of **greenhouse gas**-reducing technologies would be eligible ...
... implement a national **climate change** strategy. While we deal with **climate change** here in the United States, ...
... already experiencing the effects of **global warming.** I have heard quite ...
... nevertheless, is on the front line of **climate change.** The increasing intensity of weather and ...
... States is a contributor to **climate change,** and we must take action to reduce **greenhouse gas** emissions, but we cannot prevent **global warming** on our own. That is why we have included an international ...
... projects and technologies that reduce **greenhouse gas** emissions. Second, the U.S. ...
... related barriers to the export of **greenhouse gas**-reducing technologies. Furthermore, this ...
... not the solution for all of our **climate change** problems. It is meant to serve as ...
... I am critically aware of the **climate change** concerns and the desires by some to ...
... worry about global **climate change,** this bill is the solution to that problem. There is ...
... Senator from Idaho said it was a **climate change** energy bill. But it ...
... beings to cause global **climate change.** So the Senate is like a ...
... power. If we are worried about **global warming,** the solution is nuclear power. ...
... concerns we might have about **global warming** because, especially with the Hagel-Pryor ...
... before we are finished with the votes on **global warming**_and I will have a ...
... not think we ought to do **global warming** per se. That is where we are. The Senate is ...
... Pryor to add a **climate change** title to the Energy bill. ...
... worried instead about **global warming,** with claims that urgent and dramatic ...
... Works Clean Air, **Climate Change,** and Nuclear Safety Subcommittee, ...
... held numerous hearings on **climate change.** The chairman of the committee, Senator ...
... hours personally examining **climate change** science. He has recently given ...
... call a consensus on **global warming.** His work points out very ...
... scientific debate, the issue of **global warming** and proposals to address this perceived ...
... domestic program to reduce **greenhouse gas** emissions, such as the amendment that will be ...
... Tony Blair, who has made **climate change** one of the focuses of the upcoming ...
... legislation that comprehensively address **climate change** by focusing on tax ...
... adoption of technologies that reduce **greenhouse gas** intensity by creating ...
... fund projects. Addressing **climate change** must be accomplished through the ...
... work with the top 25 **greenhouse gas**-emitting developing countries to reduce their **greenhouse gas** intensity. It also promotes the export of **greenhouse gas** intensity reducing technologies. ...
... maybe it does not address **climate change.** This is not true. I ...
... energy bill that deals with **climate change** in several ways. ...
... bill already deals with **climate change.** First, the bill provides ...
... free power. There is no **greenhouse gas** with nuclear power. I ...
... bill already addresses **climate change.** For all those concerned about **climate change,** the underlying bill deals with it. The ...
... amendments, including ours, addresses **climate change.** Some might be further misled to ...
... bill does all of this to address a **climate change.** However, this is far from the truth. In ...
... President established a **climate change** policy to reduce the **greenhouse gas** intensity of our economy by ...
... Cabinet agencies to reduce **greenhouse gas** emissions in the next ...
... long-term comprehensive **climate change** strategy. Sixty-eight ...
... billion for extensive **climate change** technology and science programs and ...
... budget for international **climate change.** The PRESIDING OFFICER. The time of the ...

... Nations Framework Convention on **Climate Change** and the Intergovernmental Panel on **Climate Change.** Also, despite complaints to the contrary, the ...
... Nations Framework Convention on **Climate Change.** Announced by EPA ...
... environmental quality, and reduce **greenhouse gas** emissions throughout the world. The ...
... Energy bill to address **climate change** responsibly and comprehensively. I ...
... conjunction with the whole issue of **climate change.** Someone said the other day that **climate change** is not a scientific ...
... between manmade gases and **climate change.** Then we have the Oregon Petition and 17,000 ...
... between these anthropogenic gases and **climate change.** If anyone does not believe it, ...
... 5.5 billion for **climate change** programs, energy tax ...
... in this religion called **global warming** to realize maybe this is something ...
... treaty. Jacques Chirac said **global warming** is not about **climate change** but for leveling the ...
... promote responsible progress on **climate change.** What I tried to do here was to say to the ...
... inception, was worried about **climate change** and the gases that have an impact on **climate change** according to scientists in the ...
... carbon that is the principal problem with **global warming.** Having said that, the statement goes into detail. ...
... energy sources that have no **global warming** emissions. Then it says, in ...
... believe is the human contributor to **global warming.** There is another one that is in this ...
... carbon in the atmosphere and **global warming.** I think my ...
... things to move ahead with **global warming** contributors that will come from ...
... Energy Bill Addresses **Climate Change** Support for the provisions ...
... promote responsible progress on **climate change.** HIGHLIGHTS The Bingaman RPS ...
... in developing countries where **greenhouse gas** emissions are growing most ...
... Long-term zero-**greenhouse gas** (GHG) and low-GHG ...
... energy efficiency and reduce **greenhouse gas** emissions throughout the economy. ...
... significant actions on potential **climate change.** Critical Research, Development and ...
... trends in the nation's **greenhouse gas** emissions. (Title IX: ...
... summarize the Hagel-Pryor **climate change** amendment. This amendment offers ...
... approach to addressing the issue of **climate change** by connecting domestic and ...
... technology-based approach to **climate change** by using public- ...
... will offer a **climate change** amendment along with his cosponsor, ...
... about what a myth **climate change** was. Now, obviously, we have, by ...
... a majority of the Senate_that **climate change** is real and action needs to be ...
... evidence, scientific evidence, that **climate change** is real, it is happening, and as we speak we ...
... acting to reduce the effects of **greenhouse gas** emissions in the world. ...
... in order to reduce **greenhouse gas** emissions and make energy ...
... already been inflicted by **greenhouse gas** emissions, but also will ...
... requirements to address the issue of **greenhouse gas** emissions. It is something that we believe is ...
... effects generated by **greenhouse gas** emissions? How much is it ...
... come down and say all this **climate change** is just a myth, the ...
... body of evidence that dictates that **climate change** is real and its effects are already ...
... strong evidence that significant **global warming** is occurring. This comes from the National ...
... India. The scientific understanding of **climate change** is now sufficiently clear to ...
... in net global **greenhouse gas** emissions. Remember, this is from the U.S. ...
... action to reduce the causes of **climate change,** adapt to its impact, and ensure that the ...
... world because of our enormous contributions to the **greenhouse gas** emissions which are causing such devastating ...
... manifestation of the terrible effects of what **climate change** is doing to our Earth. The problem is ...
... devastating will be the effects of **climate change** on this Earth on which we live? I am very ...
... Innovation Act to combat **global warming.** Senator McCain has, as is his characteristic ...
... before the worst effects of **global warming** occur, before the most ...

... carbon emissions that cause **global warming.** It will also spur technological ...
... beginning to see the effects of **global warming,** the worst effects are over the ...
... follow from the worst consequences of **global warming.** I will paraphrase ...
... up in the context of **global warming?** Because when Einstein first proposed the ...
... examined the evidence and stated that **climate change** is real. Its cost to our economies ...
... head of the International Panel on **Climate Change,** Dr. Pachauri, whose candidacy ...
... dangerous point when it comes to **global warming.** Immediate and very deep cuts ...
... greenhouse gases that cause **global warming,** what are we doing? Nothing. Literally ...
... doing something about **global warming** but it does not do anything. It ...
... in the Rio conference on **global warming** and recognized the reality of **global warming,** supported measures to deal with it, and ...
... stop to the increase in **greenhouse gas** emissions by America. ...
... social and economic costs of **global warming.** And this amendment, the Climate Stewardship and ...
... for energy-efficient **greenhouse gas**-resistant technologies. Let me ...
... market price for **greenhouse gas** emissions, it exposes the true ...
... both the fight against **global warming** and the battle for energy ...
... carbon, low/zero **greenhouse gas**-emitting products to be filled ...
... reduction in total **greenhouse gas** emissions across our society. ...
... standards for reducing **global warming** but will lead us to the ...
... products we need to halt **global warming,** achieve energy independence and ...
... real start to reduce **global warming.** I was one who voted ...
... buck. This is the first real **global warming** bill this body will ...
... one-fourth of all global **greenhouse gas** emissions. In a ...
... American produces the same **greenhouse gas** emissions as 4.5 people ...
... see, as temperature rises, **global warming** takes place, and carbon ...
... dioxide is the No. 1 **global warming** gas. We have already begun to ...
... Lieberman have said, the real impacts of **global warming.** Glaciers are beginning to disappear ...
... Nations Intergovernmental Panel on **Climate Change** predicts that by the next ...
... end of this century if the current **global warming** trends continue. That increase is ...
... strong action to curb **greenhouse gas** emissions, 27 percent of the ...
... percent. If we do nothing to reduce our **greenhouse gas** emissions, only 11 ...
... sea level, due to **global warming,** is slowly swallowing these beaches and ...
... million to $3.5 billion. **Global warming** is California's No. 1 ...
... enact policies to reduce **greenhouse gas** emissions, and they have agreed to urge us to ...
... legislation that will reduce **greenhouse gas** emissions from vehicle tailpipes. It is ...
... achieve real, significant **greenhouse gas** reductions. If Members of the U.S. ...
... will come to the conclusion that **global warming** is real. It is real, and we now have the ...
... people who are talking about **global warming** and all of the catastrophic things are the same ...
... greenhouse gases and the observed **climate change** in the 20th century ...
... report of the International Panel on **Climate Change** of the United Nations. Summary ...
... give an impression that the science of **global warming** is settled, even though ...
... Talking about it has nothing to do with **climate change,** he said that Kyoto represents the first ...
... Lieberman amendment on global **climate change,** there are now a number of ...
... debates dealing with the issue of **climate change.** Passage of an amendment like the ...
... staunch opposition to that amendment. **Climate change** is a topic that we have debated ...
... about where the Senate stands on **climate change** and to make clear that the proposal we are ...
... stated position on global **climate change.** I took advantage of the ...
... Kyoto for the global **climate change** conference that was held there. At that conference, the ...
... believe that a global **climate change** policy would "result in ...
... science behind global **climate change** remains uncertain. The modeling that many used to "prove" that **climate**

change exists remains fatally ...
... Kyoto Protocol when comparing **greenhouse gas** intensity reductions. We also ignore the fact that **climate change** is a global problem. ...
... not have to do anything to address **climate change;** and, just as importantly, at what point they ...
... Heads Coalition: The risks of **global warming** are speculative; the risks of **global warming** policy are all too real. The proposal ...
... even without a **climate change** amendment, the conference with the House ...
... a science-based **climate change** document that was significantly altered at ...
... scientific study or report on **climate change** that has been modified to reflect comments ...
... debate on the McCain-Lieberman **climate change** amendment, there be 3 additional ...
... prices, to SUVs and the continuation of the **climate change** debate. Having said that, I remind ...

134. CONGRESSIONAL RECORD -- SENATE, Monday, June 20, 2005 , 151 Cong Rec S 6785, Vol. 151, No. 82, RECOGNITION OF MINORITY LEADER
Senate
Mr. REID; **Mr.** FRIST; **Mr.** DOMENICI.
... filter out with reference to **global warming.** Whether it is one, two, or whatever, there ...

135. CONGRESSIONAL RECORD -- SENATE, Monday, June 20, 2005 , 151 Cong Rec S 6786, Vol. 151, No. 82, ENERGY POLICY ACT OF 2005
Senate
Mr. DOMENICI; **Mr.** WYDEN; **Mr.** WYDEN. ; **Mr.** BINGAMAN; **Mr.** DORGAN; **Mr.** BUNNING; **Mr.** JEFFORDS; **Mr.** VOINOVICH; **Mr.** ALEXANDER; **Mr.** BAUCUS; **Mr.** LUGAR
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety. This amendment is ...
... Subcommittee on Clean Air, **Climate Change** and Nuclear Safety, Washington, ...
... Subcommittee on Clean Air, **Climate Change** and Nuclear Safety, Washington, ...

136. CONGRESSIONAL RECORD -- SENATE, Monday, June 20, 2005 , 151 Cong Rec S 6802, Vol. 151, No. 82, ENERGY POLICY ACT OF 2005_Continued
Senate
Mr. NELSON of Florida; **Mr.** MARTINEZ; **Mr.** HARKIN; **Mr.** SCHUMER; **Mr.** DOMENICI
... vital part of combating **climate change.** Now, the biorefineries that produce this ...
... will not add to **climate change and global warming,** that will not pollute the ...
... products generates less **greenhouse gas** than traditional petroleum-based ...
... important contributions to reducing our **global warming** pollution and the air and water ...
... in place with reference to **global warming** and some agreements and understanding regarding them. ...

137. CONGRESSIONAL RECORD -- SENATE, Thursday, June 16, 2005 , 151 Cong Rec S 6671, Vol. 151, No. 80, ENERGY POLICY ACT OF 2005
Senate
Mr. DURBIN; **Mr.** BINGAMAN; **Mr.** DOMENICI; **Mr.** ALEXANDER; **Mr.** FRIST; **Mrs.** CLINTON; **Mr.** JEFFORDS; **Mr.** CRAIG; **Mr.** SALAZAR; **Mr.** DORGAN; **Mr.** NELSON of Florida; **Mr.** TALENT; **Mr.** BROWNBACK; **Mr.** McCAIN; **Mr.** OBAMA; **Ms.** CANTWELL; **Mr.** LEVIN; **Mr.** BURR; **Mr.** BAUCUS; **Mr.** KOHL; **Mr.** DODD; **Mr.** DODD. ; **Mr.** REID; **Mr.** SESSIONS; **Mr.** CHAMBLISS; **Mr.** SMITH; **Mr.** AKAKA; **Mr.** CORZINE; **Mr.** LAUTENBERG
... a start on reducing **greenhouse gas** emissions. It would increase our energy ...

... most strongly about **global warming** and about low-carbon and ...
... Kyoto standards, stop the **global warming** that people are concerned about, you are ...
... worried about in **global warming** as solar. It may end ...
... floor of the Senate about **global warming,** about CO This amendment ...
... For those who care about **global warming**_and I am one Senator who does_ ...
... trade program for **greenhouse gas** reduction and let the market ...
... will effectively address **global warming.** The national energy policy that we ...
... fuels contributes to global **climate change,** air pollution, and acid ...
... oil, address the issue of **climate change,** and breathe cleaner air. ...
... in major scope, is the **global warming** issue. A number of ...
... days ahead, and that is the issue of **climate change. Climate change** is happening. The scientists of America agree that **climate change** is here and that we must address it. The business ...
... issue of carbon emissions and **global warming.** In conclusion, let me ...

138. CONGRESSIONAL RECORD -- SENATE, Thursday, June 16, 2005 , 151 Cong Rec S 6712, Vol. 151, No. 80, GUANTANAMO
Senate
Mr. WARNER; **Mr.** McCONNELL; **Mr.** MARTINEZ; **Mr.** DURBIN
... talk about anymore because **global warming** does not exist in the ...

139. CONGRESSIONAL RECORD -- SENATE, Thursday, June 16, 2005 , 151 Cong Rec S 6742, Vol. 151, No. 80, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. VOINOVICH; **Mr.** BIDEN; **Mr.** SPECTER; **Mr.** CHAMBLISS; **Mr.** ALEXANDER; **Mr.** FRIST; **Mrs.** CLINTON; **Mr.** OBAMA; **Mr.** BOND; **Mr.** CORZINE; **Mr.** BINGAMAN
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety to introduce ...

140. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 15, 2005 , 151 Cong Rec S 6599, Vol. 151, No. 79, SCHEDULE
Senate
Mr. FRIST; **Mr.** REID
... electricity, we have a number of **global warming** issues, and there are other issues. If we ...
... Cantwell amendment decided and we do the **global warming** amendments and electricity standards, ...

141. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 15, 2005 , 151 Cong Rec S 6601, Vol. 151, No. 79, ENERGY POLICY ACT OF 2005
Senate
Mr. SCHUMER; **Mr.** DOMENICI; **Mr.** REID; **Mr.** NELSON of Nebraska; **Mr.** THOMAS; **Mr.** OBAMA; **Mrs.** FEINSTEIN; **Mr.** SALAZAR; **Mr.** JEFFORDS; **Mr.** DURBIN
... assume that with all the work done on **global warming,** there are several amendments around, some of which are ...
... DOMENICI. I think **global warming** is going to wait until ...
... ethanol reportedly reduced **greenhouse gas** emissions by 3.6 ...
... in the U.S. reduced **greenhouse gas** emissions by approximately ...
... biofuels, being essentially **greenhouse gas** neutral, will also contribute to ...

142. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 15, 2005 , 151 Cong Rec S 6614, Vol. 151, No. 79, ENERGY POLICY ACT OF 2005_Continued
Senate
Mr. DOMENICI; **Ms.** CANTWELL; **Mr.** DURBIN. ; **Mr.** ALEXANDER; **Mr.** BOND; **Ms.** LANDRIEU; **Ms.** LANDRIEU. ; **Mr.** SALAZAR; **Mr.** FRIST
... issues, issues related to **global warming and greenhouse gas** emissions. We are going to have proposals ...
... contentious issues, such as MTBE, **global warming,** CAFE standards, and the size of the ...
... oil security and reduce **climate change** risks in the next ...
... tangible benefits. 7. **Global warming** gas emissions from manmade ...
... create at least the risk of **climate change.** Although the point is not ...
... scientific opinion suggests that **global warming** gases (GWG) produced ...
... important component of potential **climate change.** Oil products used ...
... share of U.S. manmade **global warming** gas emissions. THREE ...
... not substantially reduce **global warming** gas emissions. The production and ...

143. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 14, 2005 , 151 Cong Rec S 6439, Vol. 151, No. 78, ENERGY POLICY ACT OF 2005
Senate
Mr. DOMENICI; **Mr.** BINGAMAN; **Mr.** NELSON of Florida; **Mr.** REID; **Mr.** DORGAN
... view, than in the case of **global warming.** Mr. President, 98 ...
... environment and respond to challenges such as **global warming;** and, finally, by our ability to ...
... need to deal responsibly with **global warming.** The electric industry and many ...
... increasingly concerned about **global warming.** There is a need for ...
... investments to ameliorate the threat of **global warming.** Under our current voluntary ...

144. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 14, 2005 , 151 Cong Rec S 6445, Vol. 151, No. 78, ENERGY POLICY ACT OF 2005_Continued
Senate
Mr. DORGAN; **Mr.** DOMENICI; **Mr.** CRAIG; **Mr.** ALEXANDER; **Mr.** MARTINEZ; **Mr.** NELSON of Florida; **Mr.** THUNE; **Mr.** TALENT; **Mrs.** BOXER; **Mr.** INHOFE; **Mr.** SCHUMER; **Mr.** REID; **Mr.** CORZINE; **Mr.** BINGAMAN
... talking about carbon and **global warming.** There are a great many ...
... for biodiesel_reduces **greenhouse gas** emissions by 12 to ...
... renewable energy, biofuels, **climate change,** and fuel economy. We must ...
... Continental Shelf; address **global warming;** and promote energy efficiency. The ...
... Finally, we can reduce **greenhouse gas** emissions and other pollution and ...
... confronts the serious problem of **global warming.** Increasing CAFE standards ...
... in reducing harmful **greenhouse gas** emissions. I was a ...
... in the Energy bill the **greenhouse gas** registry amendment that Senator ...
... foreign oil, cutting **global warming** emissions, and saving consumers ...
... can start reducing **greenhouse gas** emissions is by promoting ...

145. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 14, 2005 , 151 Cong Rec S 6590, Vol. 151, No. 78, RENEWABLE FUEL STANDARD
Senate
Mr. HARKIN; **Mr.** DURBIN
... main gas contributing to **global warming.** A lot of people ...

... want to address the issue of **climate change.** Yet some fail to see ...
... biofuels are an essential component of any **greenhouse gas** emissions reduction strategy. ...
... not concede the fact that there is **global warming,** the same administration which last ...
... look as if there is no threat of **global warming.** This same administration says they ...

146. CONGRESSIONAL RECORD -- SENATE, Monday, June 13, 2005 , 151 Cong Rec S 6392, Vol. 151, No. 77,
CBO REPORT
Senate
Mr. DOMENICI
... production technologies that reduce **greenhouse gas** emissions and employ new or ...

147. CONGRESSIONAL RECORD -- SENATE, Monday, June 13, 2005 , 151 Cong Rec S 6407, Vol. 151, No. 77,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Ms. COLLINS; **Mr.** AKAKA; **Mrs.** STABENOW; **Ms.** SNOWE
... fuel emissions linked to **global warming,** air pollution that contributes to ...
... promote reductions in **greenhouse gas** emissions. By including ...
... States, effectively eliminating the **greenhouse gas** equivalent of 233 million ...

148. CONGRESSIONAL RECORD -- SENATE, Thursday, June 09, 2005 , 151 Cong Rec S 6245, Vol. 151, No. 76,
EXECUTIVE SESSION
Senate
Mr. SESSIONS; **Mr.** ISAKSON; **Mr.** DOMENICI; **Mr.** GREGG; **Mr.** GREGG. ; **Mr.** ALEXANDER; **Mr.** McCONNELL; **Mr.** DURBIN; **Mr.** SHELBY; **Mr.** CHAMBLISS; **Mr.** SCHUMER; **Mr.** HARKIN; **Mr.** HATCH; **Mr.** GRASSLEY; **Mr.** KENNEDY; **Mr.** SPECTER; **Mr.** JEFFORDS; **Mrs.** CLINTON; **Mr.** KOHL; **Mr.** REID; **Mr.** LEAHY. ; **Mr.** FRIST
... cause of childhood asthma, **global warming,** and rising interest rates. ...

149. CONGRESSIONAL RECORD -- SENATE, Thursday, June 09, 2005 , 151 Cong Rec S 6301, Vol. 151, No. 76,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. ALEXANDER; **Mr.** GREGG; **Mr.** HARKIN; **Ms.** STABENOW; **Mr.** SMITH; **Ms.** SNOWE; **Mr.** REID; **Mr.** CORZINE; **Mr.** BINGAMAN; **Mr.** KENNEDY; **Mr.** BURNS; **Mr.** DODD; **Mr.** STEVENS; **Mrs.** BOXER
... world, the growing threat of **global warming,** and record-high prices ...
... local air pollution, **greenhouse gas** emissions, and dependence on imported ...
... products generates less **greenhouse gas** than traditional petroleum-based ...
... important contributions to reducing our **global warming** pollution and the air and water ...

150. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 08, 2005 , 151 Cong Rec S 6228, Vol. 151, No. 75,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. OBAMA; **Mr.** STEVENS; **Mr.** CORZINE; **Mr.** BIDEN; **Mr.** LEAHY; **Mr.** KENNEDY; **Ms.** STABENOW; **Mr.** LEVIN; **Mr.** BURNS; **Mr.** ALLARD; **Mr.** DODD; **Mr.** INHOFE
... dioxide. The science underlying the **climate change** theory does not justify the ...

151. CONGRESSIONAL RECORD -- SENATE, Monday, June 06, 2005 , 151 Cong Rec S 6094, Vol. 151, No. 73,
NOMINATION OF JOHN BOLTON TO BE UNITED STATES AMBASSADOR TO THE UNITED NATIONS
Senate
Mr. CORZINE
... address, from genocide to global **climate change.** Protecting our national security ...

152. CONGRESSIONAL RECORD -- SENATE, Thursday, May 26, 2005 , 151 Cong Rec S 5962, Vol. 151, No. 72,
NOMINATION OF JOHN ROBERT BOLTON TO BE THE REPRESENTATIVE OF THE UNITED STATES OF AMERICA TO THE UNITED NATIONS_Continued
Senate
Mr. KYL; **Mr.** KENNEDY; **Mr.** McCAIN; **Mr.** OBAMA; **Mr.** MARTINEZ; **Mr.** REED; **Mr.** ALLEN; **Mr.** FEINGOLD; **Mr.** ALEXANDER; **Mr.** KERRY; **Mr.** KERRY. ; **Mr.** GRAHAM; **Mr.** VOINOVICH; **Mr.** DODD; **Mr.** HATCH; **Mr.** BYRD; **Mr.** BIDEN; **Mr.** ISAKSON; **Mr.** KOHL; **Ms.** MIKULSKI; **Mr.** LEAHY; **Mrs.** FEINSTEIN; **Mr.** CORZINE; **Mr.** LAUTENBERG; **Mr.** BUNNING; **Mr.** STEVENS; **Mr.** DURBIN; **Mr.** REID; **Mr.** McCONNELL; **Mr.** FRIST; **Mr.** WYDEN
... need to be concerned about **global warming** persuades more and more ...
... greenhouse gases linked to **global warming.** Since that plant opened, however, ...
... advantage_the ability to control **greenhouse gas** emissions_is not winning ...
... future of coal and the success of **greenhouse gas** mitigation policies may ...
... carbon before combustion. If **greenhouse-gas** limits are enacted, that job ...
... Pew Center on Global **Climate Change,** "and if we do get serious about **climate change,** they are going to be on the list of things to do ...
... in the crusade against **climate change.** Only weeks into his new ...
... need to protect the landscape from **global warming** and defending Britain's countryside from the ...
... reliable energy supply and **global warming.** Britain currently stands ...
... fledgling industry. If Britain's **climate change** targets are not met, ...
... option for tackling **climate change.** 'We seem to be running away from the ...
... need it most to combat **global warming** is madness,' he said. 'The anti-nuclear ...
... HIV/AIDS pandemic, and **global warming,** just to name a ...
... address, from genocide to global **climate change.** Protecting our national security ...
... war on terror, curb **global warming** or succeed in the international ...

153. CONGRESSIONAL RECORD -- SENATE, Thursday, May 26, 2005 , 151 Cong Rec S 6023, Vol. 151, No. 72,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. LUGAR; **Mr.** CRAIG; **Mr.** COLEMAN; **Mr.** BYRD; **Mr.** BENNETT; **Mr.** GRASSLEY; **Mr.** SANTORUM; **Mr.** DURBIN; **Mr.** COCHRAN; **Mr.** PRYOR; **Mr.** CHAMBLISS; **Ms.** LANDRIEU; **Mr.** KENNEDY; **Mr.** SMITH; **Mrs.** BOXER; **Mr.** ROCKEFELLER; **Ms.** MIKULSKI; **Mr.** ISAKSON; **Mrs.** CLINTON; **Mr.** McCAIN; **Mr.** LIEBERMAN; **Ms.** SNOWE; **Ms.** COLLINS; **Mr.** BROWNBACK; **Mr.** HATCH; **Mr.** BAUCUS; **Mr.** WYDEN; **Mr.** SUNUNU
... program to accelerate the reduction of **greenhouse gas** emissions in the United ...
... market-driven system of **greenhouse gas** tradeable allowances, to limit **greenhouse gas** emissions in the United ...
... support the deployment of new **climate change**-related technologies, and ensure ...
... regarding the development and deployment of **climate change** reduction technologies. This new ...
... can significantly reduce **greenhouse gas** emissions, mitigate the impacts of **climate change,** and increase the Nation's energy ...
... public's concern about **climate change,** the economic interests of business and ...
... evidence of human-induced **climate change** has grown even more ...

... recent data indicating that **climate change** in the Arctic is occurring ...
... Union to do more to fight **global warming** and to consider giving aid to their ...
... way of life is at risk. **Global warming** is said to be causing the arrival in the ...
... doing its part to slow **climate change.** The efforts taking place globally to address **climate change** have gained even greater ...
... Tony Blair has made **climate change** one of his top two ...
... Blair's commitment to addressing **climate change** should be commended. He has chosen to take ...
... Blair has chosen to deal with are **climate change** and poverty in Africa. It is ...
... tackling our planet's problem of **global warming.** In an introductory piece, ...
... Alaska to Bangladesh, a **global warming** trend is altering habitats, with ...
... a very different world. **Global warming** demands urgent action on all ...
... begin to address the urgent **global warming** crisis that is upon us. This effort ...
... include zero and low **greenhouse gas** emitting power generation, such as ...
... technological innovation to address **global warming.** These new directives include: ...
... partnerships to promote the commercialization of **climate change** technologies by working with ...
... NRC that would produce zero **greenhouse gas** emissions; three advanced ...
... Energy, a representative from the **Climate Change** Credit Corporation, as would be created ...
... emission allowances through the **Climate Change** Credit Corporation under the ...
... staggering cost of inaction on **global warming.** I think we will ...
... reduce, eliminate, or sequester **greenhouse gas** emissions. The "reverse auction" ...
... allowances conducted by the **Climate Change** Credit Corporation under the ...
... address this urgent and growing **global warming** crisis. The "cap and trade" ...
... atmosphere with the ever-increasing volume of **greenhouse gas** emissions. Our dividend is continued energy dependence and **global warming** that places our nation and the globe at ...
... threat posed by **global warming** which most regard as the greatest ...
... will skyrocket, intensifying the **greenhouse effect and the global warming** it produces. As nuclear plants are ...
... about addressing the problem of **global warming.** I would like to submit ...
... threat we face is actually **global warming** and that leads to a corollary: ...
... source does not cause **global warming,** and that is nuclear energy. I have ...
... by air pollution and **greenhouse gas** emissions to the environment and human ...
... risk posed by **global warming,** I believe that providing ...
... serious about the problem of **global warming** are serious about finding ...
... word regarding the magnitude of the **global warming** problem. Consider the National ...
... asteroid, or an incurable plague, **global warming** may be the single largest ...
... John Marburger who says that, **Global warming** exists, an we have to do something about it, and what we have to do ...
... United States says that **global warming** exists, and what we have to do about it is to reduce ...
... dioxide. The road ahead on **climate change** is a difficult and challenging ...
... next to nothing, about **global warming** because we don't know how ...
... many of the worst effects of **climate change** are expected to occur in the ...
... threat we face is actually **global warming,** and that leads to a corollary: ...
... source that doesn't contribute to **global warming** and that can quickly become ...
... source does not cause **global warming,** and that is nuclear energy." Mr. ...
... Let me start with the basics. **Climate change** is real and its costs to the economy ...
... going to meet the challenge of **climate change,** while making sure that our ...
... business and industry to cut their **greenhouse gas** pollution; the pull from giving them ...
... important for both **climate change** and energy independence, our bill ...
... head of the international panel on **climate change,** Dr. R. Pachauri, said that "we are ...
... dangerous point when it comes to **global warming.** . . . Immediate and very deep cuts ...
... words are so clear and strong. **Global warming** is truly one of the great ...

154. CONGRESSIONAL RECORD -- SENATE, Thursday, May 26, 2005 , 151 Cong Rec S 6059, Vol. 151, No. 72, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. ENSIGN
... subcommittee on clean air, **climate change,** and nuclear safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

155. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 24, 2005 , 151 Cong Rec S 5828, Vol. 151, No. 70, NOMINATION OF PRISCILLA RICHMAN OWEN TO BE UNITED STATES CIRCUIT JUDGE FOR THE FIFTH CIRCUIT_Continued
Senate
Mr. BYRD; **Mr.** REED; **Mr.** BROWNBACK; **Mr.** FEINGOLD; **Ms.** CANTWELL; **Mr.** KYL; **Mr.** CORNYN; **Mr.** INHOFE; **Mr.** HARKIN
... Without objection, it is so ordered. **GLOBAL WARMING** Mr. INHOFE . Mr. ...
... scientific consensus about **global warming.** The claim there is consensus rests on ...
... Sciences believes the science of **climate change** is settled. In fact, the ...
... uncertainties associated with claims of **global warming.** Yet advocates continue to ...
... future climates." Thousands of **climate changes** studied rely on computer ...
... in their projections of some of the features of **climate change,** they are all in agreement that the world ...
... assorted and potentially dangerous **climate changes** over the next century. ...
... severe, and so do the projected impacts of **climate change,** rising sea levels, ...
... deal with the serious issue of **global warming.** This fact should temper the enthusiasm of those who ...
... vapor content and therefore total **greenhouse-gas** forcing, precipitable water, and ...
... simulation results to future **climate-change** assessment activities and to attributions ...
... 98 percent of the current **greenhouse effect.** But according to Dr. ...
... causing anthropogenic gases and **global warming** temperatures, look at what happened ...
... uncertainty about future **climate change.**" Further, the Strategic Plan of the U.S. **Climate Change** Science Program, CCSP, which was ...
... in the ability to project **climate changes.**" Climate researcher and IPCC ...
... growth, population growth, **greenhouse gas** emissions, and other factors. However, as with the ...
... 2003, scientists with the Federal **Climate Change** Science Program agreed that ...
... simulations cannot prove that **greenhouse gas** emissions will cause catastrophic **global warming.** Again, here's the National Academy of ...
... Kyoto is not about **climate change,** it is "about leveling the playing ...

156. CONGRESSIONAL RECORD -- SENATE, Thursday, May 19, 2005 , 151 Cong Rec S 5453, Vol. 151, No. 67, EXECUTIVE SESSION
Senate
Mr. BINGAMAN; **Ms.** MIKULSKI; **Mr.** BAUCUS; **Mr.** NELSON of Florida; **Mr.** KYL; **Mr.** FRIST; **Mr.** CORNYN; **Mr.** CORZINE; **Mr.** DURBIN; **Mr.** VOINOVICH; **Mr.** ALLEN
... gas prices, combating **global warming;** or building affordable housing_all ...

157. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 17, 2005 , 151 Cong Rec S 5292, Vol. 151, No. 65, ENERGY POLICY
Senate
Ms. LANDRIEU
... America's environment. The cost of **global warming** will be truly staggering when ...

158. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 17, 2005 , 151 Cong Rec S 5368, Vol. 151, No. 65,
AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. INHOFE
... Subcommittee on Clean Air, **Climate Change** and Nuclear Safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

159. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 17, 2005 , 151 Cong Rec S 5369, Vol. 151, No. 65,
ENERGY
Senate
Mr. ALEXANDER
... in this body about **global warming** and carbon. Mr. President, ...
... years, if we are serious about **global warming,** reducing the amount of carbon ...
... many are worried about **global warming** and carbon in the air, and we have ...

160. CONGRESSIONAL RECORD -- SENATE, Thursday, May 12, 2005 , 151 Cong Rec S 5073, Vol. 151, No. 62,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. JEFFORDS; **Mr.** KENNEDY; **Mrs.** FEINSTEIN; **Mr.** CORNYN; **Ms.** SNOWE; **Mr.** DeMINT; **Mr.** CHAFEE; **Mr.** SARBANES; **Mr.** DURBIN; **Mr.** COLEMAN
... per year, and cutting **global warming** pollution by 420 ...

161. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 10, 2005 , 151 Cong Rec S 4849, Vol. 151, No. 60,
TRANSPORTATION EQUITY ACT: A LEGACY FOR USERS_Resumed
Senate
Mr. SARBANES; **Mr.** SHELBY; **Mr.** STEVENS; **Mr.** INHOFE; **Mr.** GRASSLEY; **Mr.** BAUCUS; **Mr.** McCONNELL; **Mrs.** HUTCHISON; **Mr.** NELSON of Nebraska; **Mr.** BURNS; **Mr.** VOINOVICH; **Mrs.** FEINSTEIN; **Mr.** HARKIN; **Mr.** SESSIONS
... chairman of the Clean Air, **Climate Change,** and Nuclear Safety Subcommittee, and the ...

162. CONGRESSIONAL RECORD -- SENATE, Thursday, April 28, 2005 , 151 Cong Rec S 4549, Vol. 151, No. 54,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. NELSON of Nebraska; **Mr.** FEINGOLD; **Mrs.** FEINSTEIN; **Mr.** LEAHY; **Mr.** CORNYN; **Ms.** COLLINS; **Mr.** WARNER; **Mr.** KENNEDY; **Mr.** BIDEN; **Mr.** ROCKEFELLER; **Mr.** WYDEN; **Mr.** CORZINE; **Mr.** BROWNBACK; **Mr.** FRIST; **Mr.** GRASSLEY; **Mr.** BUNNING; **Mr.** SARBANES; **Mr.** ENZI; **Mr.** ALEXANDER; **Ms.** LANDRIEU; **Mr.** SMITH; **Mrs.** BOXER; **Mr.** OBAMA; **Mr.** HATCH; **Mr.** BINGAMAN; **Mr.** DURBIN; **Mr.** LIEBERMAN
... clean air requirements and **climate change** goals. The Administration has asserted that ...
... voluntary goals that address **climate change** and support President Bush in his efforts to reduce the **greenhouse gas** (GHG) emission intensity of the ...
... major contributor to global **climate change.** While I believe our ...

163. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 27, 2005 , 151 Cong Rec S 4399, Vol. 151, No. 53,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

Senate
Mr. CONRAD; **Mr.** FEINGOLD; **Mr.** DOMENICI; **Mr.** BINGAMAN; **Mr.** ALLARD; **Mr.** REID; **Mr.** AKAKA; **Mr.** OBAMA; **Mr.** BURNS; **Mr.** ROCKEFELLER; **Mr.** CORNYN; **Mrs.** MURRAY; **Mr.** DURBIN; **Mr.** SANTORUM; **Mr.** CORZINE; **Mr.** INHOFE; **Mrs.** LINCOLN; **Mr.** ALLEN; **Mr.** GRASSLEY; **Mr.** DODD; **Mr.** KENNEDY
... energy security and reduction of **greenhouse gas** emissions; to the Committee on Finance. ...
... especially with regard to the reduction of **greenhouse gas** emissions from the national on-road ...

164. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 27, 2005 , 151 Cong Rec S 4438, Vol. 151, No. 53, NOMINATION OF STEPHEN JOHNSON
Senate
Mr. CARPER; **Mr.** SANTORUM
... carbon dioxide leads to **global warming** and that we are actually seeing a ...
... a world where the threat of **global warming** has been reduced a little ...

165. CONGRESSIONAL RECORD -- SENATE, Monday, April 25, 2005 , 151 Cong Rec S 4162, Vol. 151, No. 51, TRANSPORTATION EQUITY ACT; A LEGACY FOR USERS_MOTION TO PROCEED
Senate
Mr. INHOFE; **Mr.** JEFFORDS; **Mr.** DORGAN; **Mr.** KERRY
... mischaracterized a major **climate change** report from the National Academy of ...
... report showed conclusively that **global warming** due to man is occurring. ...
... s Intergovernmental Panel on **Climate Change,** known also as the IPCC, which I ...
... flagship of the IPCC's claims that **global warming** is real, has been thoroughly discredited ...
... Arctic is experiencing unprecedented **climate change,** caused, in large ...
... entirely, by manmade **greenhouse gas** emissions, while projections ...
... appear to be an exercise in **global warming** propaganda. The release of the report ...
... again, that the scientific consensus on **global warming** had been reaffirmed. Here is the Chicago Tribune's ...
... a deceptive picture of **climate changes** that have occurred in the Arctic ...
... pop culture version of **global warming,** there is no greater attraction than ...
... stemming from man-made **greenhouse gas** emissions. Warnings abound that this ...
... ice. This is one reason why **climate change** is more rapid in the ...
... organization convinced of the validity of the **global warming** consensus, noted that, "Glaciers and ...
... pack, produced by **global warming.**" So what causes these variations in ...
... results make connecting '**global warming**' to Arctic ice thinning very ...
... in their projections of some of the features of **climate change,** they are all in agreement that the world ...
... underlying claims of catastrophic **global warming** would undermine their agenda. What is the agenda? ...
... serves as compelling proof that **greenhouse gas** emissions are causing unprecedented ...
... people who are talking about **global warming** today were the ones who, in the ...
... write a novel on **global warming** and the terrible things that could happen. ...
... will tell you, the idea of **global warming** very well may be the greatest ...

166. CONGRESSIONAL RECORD -- SENATE, Thursday, April 21, 2005 , 151 Cong Rec S 4110, Vol. 151, No. 49, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mrs. HUTCHISON; **Mr.** SANTORUM; **Mr.** CORZINE; **Mr.** FEINGOLD; **Mr.** DORGAN; **Mr.** DURBIN; **Mr.** BINGAMAN; **Mr.** HATCH; **Mrs.** FEINSTEIN; **Mr.** DOMENICI; **Ms.** MURKOWSKI; **Mrs.** BOXER; **Ms.** CANTWELL; **Mr.** McCAIN; **Mr.** SALAZAR; **Ms.** SNOWE

... carbon dioxide_the top **greenhouse gas** and biggest single cause of **global warming** from entering the atmosphere each ...
... in the fight against **global warming.** We have already seen the potential destruction that **global warming** can cause in the ...
... predicting how the impact of **global warming** will be felt around the ...
... carbon monoxide emissions_the **greenhouse gas** linked to global **climate change.** To put this in perspective, the ...
... stated, "Because of the concerns about **greenhouse gas** emissions and the level of oil ...

167. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 12, 2005 , 151 Cong Rec S 3475, Vol. 151, No. 42, GLOBAL CLIMATE CHANGE
Senate
Mr. INHOFE; **Mr.** McCONNELL
... first pillar, the 2001 **climate change** report by the National ...
... IPCC. That is the Intergovernmental Panel on **Climate Change.** It supposedly provides irrefutable evidence of the **global warming** consensus. Simply put, it does ...
... Nations Intergovernmental Panel on **Climate Change** (IPCC), hundreds of the world's ...
... unqualified support to the view that **global warming** is real and that the release of manmade ...
... give an impression that the science of **global warming** is settled, even though ...
... ironclad proof that manmade **greenhouse gas** emissions are warming the planet at an ...
... stick, the poster-child of the **global warming** community, turns out to be an ...
... body, the Intergovernmental Panel on **Climate Change,** IPCC. This handicapped all that research which ...
... years shows that natural **climate change** may be larger than generally ...
... 100 years' worth of **greenhouse gas** emissions. Predicting emissions ...
... fact-based understanding of **climate change.** As a result, he resigned from the ...
... causal link between **global warming** and extreme weather events. The ...
... way: Experts to warn **global warming** likely to continue spurring ...
... come up on what they consider to be **global warming.** As Dr. Landsea explained, the ...
... hurricane activity has been due to **global warming.** What is the real state of the science on this ...
... impact in the future from **global warming** upon hurricanes will ...
... perception that there is consensus about **climate change.** We know the costs of this would be enormous. ...
... fledged debate over **global warming** would undermine their agenda. And what is that agenda? ...
... science are showing that the catastrophic **global warming** consensus does not exist. The ...
... flagship of the IPCC's claims that **global warming** is real, has now been thoroughly ...
... case for catastrophic **global warming** is a house of cards that ...
... perhaps it is not. Unfortunately, to some **global warming** advocates, the science is irrelevant. As ...
... thing we did was study this because it was assumed that **global warming** is taking place and anthropogenic ...
CLIMATE CHANGE (90%); **GLOBAL WARMING** (59%); TALKS & MEETINGS (...

168. CONGRESSIONAL RECORD -- SENATE, Monday, April 11, 2005 , 151 Cong Rec S 3416, Vol. 151, No. 41, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. DURBIN; **Mr.** BYRD; **Mrs.** FEINSTEIN; **Mr.** LEVIN; **Mr.** KYL; **Mr.** LAUTENBERG; **Mr.** FEINGOLD; **Mr.** KENNEDY; **Mr.** BENNETT; **Mr.** SCHUMER; **Mr.** Inouye; **Mr.** HATCH; **Mr.** CONRAD
... sustainable energy use and **climate change** actions, and for other ...
... seek globally binding **climate change** agreements that would include commitments from the ...
... between our mutual energy and **climate change** challenges. Additionally, such engagement ...
... up so does energy use, **greenhouse gas** emissions, and that global change. ...
... advance developing country **climate change** engagement, increases international ...

... energy services, reduce **greenhouse gas** emissions, increase energy ...
... future binding, international **climate change** agreement. Those principles were that a ...
... Senate resolution directed that any **climate change** treaty include commitments ...
... surpass the U.S. in **greenhouse gas** emissions by 2025. These ...
... international forum, his own **climate change** program is a strong ...
... emissions. While global **climate change** is long-term problem, it does ...
... reconcile numerous environmental and **climate change** concerns, stimulate technology ...
... broader foreign policy and **climate change** efforts around the world. ...
... energy needs and global **climate change;** (2) to promote sustainable ...
... energy services, reduce **greenhouse gas** emissions, and strengthen energy ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... geological formation of a **greenhouse gas** from an energy producing facility, which ...
... gases into the atmosphere. "(5) **Greenhouse gas.**_The term '**greenhouse gas**' means_ "(A) carbon ...
... technology deployment and reduced **greenhouse gas** emissions in developing ...
... 736(b)(2) of the **greenhouse gas** emission impacts of clean ...
... reduce, avoid, or sequester **greenhouse gas** emissions; "(C) establish ...
... implementing clean energy and **greenhouse gas** reduction strategies; "(3) ...
... result in a **greenhouse gas** emission reduction (when compared to the ...
... 7)) the quantity of annual **greenhouse gas** emissions reduced, avoided, or ...
... reduced energy-related **greenhouse gas** emissions and specific goals ...
... increased use of lower **greenhouse gas**-emitting fossil fuel- ...

169. CONGRESSIONAL RECORD -- SENATE, Thursday, April 07, 2005 , 151 Cong Rec S 3346, Vol. 151, No. 39,
FOUR PILLARS OF CLIMATE ALARMISM
Senate
Mr. INHOFE; **Mr.** BOND
... people, and that is this thing called **global warming.** As I noted in ...
... reached a consensus on **global warming.** As Sir David King, the ...
... scientific community on the problems of **global warming** and our use of fossil fuels. Those ...
... caused by the ever-increasing **greenhouse gas** emissions. The alarmists confidently ...
... about gloom and doom on **global warming** are the same ones, just ...
... question the science of catastrophic **global warming** is considered illegitimate. Consider ...
... nonsense about the uncertainty of **global warming** and start talking seriously ...
... right approach to address it. **Global warming,** then, is no longer an issue ...
... stating that fears of catastrophic **global warming** are groundless. These and other scientists who do ...
... summarizing the latest science of **climate change,** requested by the Bush ...
... Nations Intergovernmental Panel on **Climate Change,** the IPCC_we have heard a ...
... in the atmosphere and the observed **climate changes** in the 20th century ...
... addressed the relationship between **climate change** and aerosols, which are particles from processes such as ...
... uncertainty about future **climate change.**" By any conceivable standard, this and ...
... affirmations that man-made **global warming** is a threat, or that man- ...
... important factor driving **climate change.** It certainly cannot provide the ...
... economically harmful reductions of **greenhouse gas** emissions. It would be a grand ...
... much of the uncertainty about **climate change** stems from those models, which researchers ...
... projections about future **climate changes.** These models, as the NAS wrote, ...
... assumptions. Projecting future **climate change** first requires projecting the ...
... strategies for dealing with **climate change.** For this reason, simulations ...
... between anthropoenic emissions and **global warming.** The fact that the magnitude of the observed ...
... UN's Intergovernmental Panel on **Climate Change,** another of the Four Pillars. The ...

... give an impression that the science of **global warming** is settled, even though ...
... development, including some that allow **greenhouse gas** emission reductions. However, there are large ...
... Scenarios for future **greenhouse gas** amounts, especially for ...
... high latitudes, and they are sensitive to **climate change.** Their projection into the future is highly ...
... presentation of the uncertainties about **climate change** as well as those areas in which ...
... horrible things could happen with **global warming.** After he researched it, he came to the ...
... overwhelming factor causing **global warming,** and that urgent action was needed. ...
... a unanimous decision that **global warming** is real, is getting worse, and is ...
... report reaffirmed "the threat of **global warming,** declaring fearlessly that human ...
... now, proving a **global warming** consensus. However, the second part of the ...
... no wiggle room" that "**global warming** is due to man." Dr. ...
... basic assertions about **global warming** is considered "nonsense." I ...
... But for the alarmists, **global warming** has nothing to do with science or scientific ...
... Minister of the European Union. She said: **Global warming** is not about climate. It is ...
CLIMATE CHANGE (79%); EMISSIONS (79%); ...
... SCIENCE NEWS (59%); **GLOBAL WARMING** (59%);

170. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 06, 2005 , 151 Cong Rec S 3337, Vol. 151, No. 38, NOTICES OF HEARINGS/MEETINGS
Senate
Mr. DOMENICI; **Mr.** LUGAR
... adoption of technologies that reduce **greenhouse gas** intensity, provide credit- ...
... establish a national **greenhouse gas** registry. Because of the limited time ...

171. CONGRESSIONAL RECORD -- SENATE, Thursday, March 17, 2005 , 151 Cong Rec S 2998, Vol. 151, No. 33, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BUNNING; **Mr.** HARKIN; **Mr.** JOHNSON; **Mr.** OBAMA; **Mr.** REID; **Mr.** SPECTER; **Mr.** LEAHY; **Mr.** KENNEDY; **Mr.** ENSIGN; **Mr.** BROWNBACK; **Mr.** HATCH; **Mr.** BAUCUS; **Ms.** COLLINS; **Mr.** CARPER; **Mr.** GREGG. ; **Mr.** BINGAMAN; **Mr.** DORGAN; **Mr.** AKAKA; **Mr.** DeWINE
... will lead to catastrophic **climate change** is substantially increased by the ...

172. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 16, 2005 , 151 Cong Rec S 2759, Vol. 151, No. 32, CONGRESSIONAL BUDGET FOR THE UNITED STATES GOVERNMENT FOR THE FISCAL YEAR 2006
Senate
Mrs. FEINSTEIN. ; **Mr.** WYDEN; **Mr.** CONRAD; **Mr.** REID; **Mr.** SPECTER; **Mr.** SPECTER. ; **Mr.** ENZI; **Mr.** ENSIGN; **Mr.** DOMENICI; **Mr.** GREGG; **Ms.** CANTWELL; **Mr.** KERRY; **Ms.** MURKOWSKI; **Mr.** ALLEN; **Mr.** INOUYE; **Mr.** THUNE; **Mrs.** BOXER; **Mr.** LOTT; **Mr.** FEINGOLD; **Mr.** LEAHY; **Ms.** STABENOW; **Ms.** COLLINS; **Mr.** KOHL; **Mr.** LAUTENBERG; **Mr.** BUNNING; **Mr.** AKAKA; **Mr.** STEVENS; **Mr.** LIEBERMAN; **Mr.** CRAIG; **Mrs.** MURRAY; **Mr.** OBAMA; **Mr.** JEFFORDS; **Ms.** MIKULSKI; **Mr.** SALAZAR; **Mr.** BYRD; **Mr.** BIDEN; **Mr.** McCONNELL; **Mr.** KYL; **Mr.** VOINOVICH; **Ms.** SNOWE; **Mr.** CHAFEE; **Mr.** CORNYN; **Mr.** FRIST
... security, would not fight **climate change,** and would not save consumers ...
... a result of the worsening **global warming** problem, as more fossil ...

173. CONGRESSIONAL RECORD -- SENATE, Tuesday, March 08, 2005 , 151 Cong Rec S 2246, Vol. 151, No. 26, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

Senate
Mr. THOMAS; **Mr.** CORZINE; **Mr.** AKAKA; **Mrs.** FEINSTEIN; **Mr.** DeWINE; **Mr.** KOHL; **Mr.** McCAIN; **Mr.** BIDEN; **Mr.** LUGAR; **Mr.** ROCKEFELLER; **Ms.** SNOWE
... greenhouse gases that lead to **global warming.** Burning less gas ...

174. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 02, 2005 , 151 Cong Rec S 1889, Vol. 151, No. 22, PRESIDENT BUSH'S TRIP TO EUROPE
Senate
Mr. McCONNELL; **Mr.** CHAMBLISS; **Mrs.** HUTCHISON
... efficient energy policies and on **climate change,** which will include: Joint ...
... address air-pollution and **greenhouse gas** emissions. With regard to Iran, the ...

175. CONGRESSIONAL RECORD -- SENATE, Thursday, February 17, 2005 , 151 Cong Rec S 1625, Vol. 151, No. 18, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. McCONNELL; **Mr.** BOND; **Mr.** DAYTON; **Mr.** ROCKEFELLER; **Mr.** DORGAN; **Mr.** SHELBY; **Mr.** ENZI; **Mr.** KYL; **Mr.** NELSON of Florida; **Mr.** KOHL; **Mr.** KENNEDY; **Mr.** JEFFORDS; **Mr.** TALENT; **Mr.** LIEBERMAN; **Ms.** CANTWELL; **Mr.** DeWINE; **Mr.** ALLEN; **Mr.** AKAKA; **Mr.** LEVIN; **Mr.** ENSIGN; **Mrs.** BOXER; **Mr.** BUNNING; **Ms.** MIKULSKI; **Mr.** SANTORUM; **Mr.** LEAHY; **Mr.** FEINGOLD; **Ms.** STABENOW; **Mr.** CORZINE; **Mr.** DOMENICI; **Ms.** MURKOWSKI; **Mrs.** CLINTON; **Mr.** SMITH; **Mr.** COLEMAN
... dioxide emissions are the primary **greenhouse gas,** contributing to harmful **climate change.** A 20 percent ...

176. CONGRESSIONAL RECORD -- SENATE, Wednesday, February 16, 2005 , 151 Cong Rec S 1448, Vol. 151, No. 17, GLOBAL WARMING
Senate
Mr. BINGAMAN
... force of the Kyoto Protocol on **Climate Change.** Following President Bush's ...
... binding treaty. The basic **climate change** problem is well understood. We have been ...
... skeptical of the science that has informed us of the **climate change** problem. But the mainstream of the ...
... temperatures. If human-induced **global warming** continues on its present path, the ...
... international basis, to stem **global warming** is further highlighted by ...
... policy steps related to **global warming.** California and New York are ...
... industry economist called **climate change** a "wild card" that could ...
... my colleagues on the issue of **global warming.** In past Congresses, we have ...
... McCain and Lieberman or the abrupt **climate change** bill by Senator ...
... large legislation, such as the bipartisan **climate change** titles in past ...
... Senate understand the importance of **global warming.** I hope that we will ...
... way to continue to integrate **global warming** concerns in energy ...
... appropriate place to deal with **global warming.** I have said many times that **climate change** is so closely related to energy ...
... analysis of the implications of potential **greenhouse gas** regulations. They conclude that neither their ...
... face of a modest **greenhouse gas** emissions policy that includes ...
... countries in terms of **greenhouse gas** emissions. At the same time, these ...
... by the international community. **Climate change** is important to the international community. It is ...
... scientific community's consensus on **climate change.** But even if they don't ...
... realpolitik, reason to rejoin the **climate change** debate: "If America wants the ...
... for the administration's energy and **climate change** policies and for the administration's ...

... indicated an interest in **climate change** legislation. Indeed, any new ...
... seek another vote on their **climate change** bill, which would establish a ...
... system for controlling the **greenhouse gas** emissions that contribute to **global warming.** If domestic politics could prompt the ...
... year; if so, the relaunching of a **climate change** policy_almost any **climate change** policy_would be widely interpreted as ...
... make it sound as if no **climate change** compromise is feasible, several ...
... Pew Center on Global **Climate Change** got a number of ...
... surrounding the problem of global **climate change,** and is something that virtually all economists_ ...
... important, the benefits from reduced **greenhouse gas** emissions have little to do with emission ...
... adverse events. To summarize, the **climate change** problem is a marathon, ...
... Congress addresses various **climate change** policies in the coming ...
... none has been approved. We anticipate the **climate change** debate will continue into the ...
... Stalemate: Reducing Risks From **Climate Change** To address the risks of **climate change** resulting from energy-related **greenhouse gas** emissions without disrupting the ...
... addressing its contribution to the risks of **climate change,** but must do so in ...
... growth in domestic **greenhouse gas** emissions as a first ...
... issuing permits for **greenhouse gas** emissions based on an annual ...
... reduction in the average **greenhouse gas** emissions intensity of the economy (where ...
... action, annual U.S. **greenhouse gas** emissions are expected to grow from ...
... impact of the Commission's proposed **greenhouse gas** tradeable-permits program on ...
... projections. Overall, the Commission's **greenhouse gas** recommendations are estimated to cost the ...
GLOBAL WARMING (89%); **CLIMATE CHANGE** (79%); AIR QUALITY ...

177. CONGRESSIONAL RECORD -- SENATE, Wednesday, February 16, 2005 , 151 Cong Rec S 1498, Vol. 151, No. 17, KYOTO PROTOCOL AND CLIMATE CHANGE
Senate
Mr. JEFFORDS
... today to acknowledge that the international **global warming** pact known as the Kyoto ...
... Nation that contributes the most **greenhouse gas** emissions to the world atmosphere ...
... international community to curb the **global warming** threat. I assume it was ...
... actually would increase this country's **greenhouse gas** emissions more than no ...
... but that also addresses our Nation's **greenhouse gas** emissions. Yesterday, on the eve of the ...
... commitment to reduce the growth of **greenhouse gas** emissions in a ...
... TREATIES & AGREEMENTS (91%); **CLIMATE CHANGE** (90%); LEGISLATION (90%); **GLOBAL WARMING** (90%); TREATIES & AGREEMENTS (...

178. CONGRESSIONAL RECORD -- SENATE, Wednesday, February 16, 2005 , 151 Cong Rec S 1515, Vol. 151, No. 17, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. LAUTENBERG; **Mr.** LEVIN; **Mr.** AKAKA; **Mr.** CORNYN; **Mr.** LEAHY; **Mr.** FEINGOLD; **Mr.** CRAIG; **Mr.** Thune. ; **Mr.** SANTORUM; **Mr.** COLEMAN; **Mrs.** FEINSTEIN; **Mr.** HARKIN; **Mr.** SPECTER; **Mr.** REID; **Ms.** SNOWE; **Mr.** BOND; **Mr.** DeWINE; **Mr.** McCAIN; **Mrs.** MURRAY; **Mr.** DORGAN
... States should act to reduce **greenhouse gas** emissions; to the Committee on Foreign ...
... negotiations and actively reduce our **greenhouse gas** emissions that contribute to **global warming.** The Kyoto Protocol goes into ...
... believed responsible for **global warming,** has refused to ratify the treaty. ...
... mistake. There is emerging consensus that **global warming** is real. According to the National ...

... main Facts about **global warming.** Fact 1: The Earth is ...
... begun to see the impacts of **climate change:** four hurricanes of significant ...
... strong action to reduce **greenhouse gas** emissions, there will be 27 ...
... century. However, if we do nothing to reduce our **greenhouse gas** emissions, there will only be ...
... later this week showing that **global warming** will likely have serious ...
... concern about the effects of **climate change** is mounting around the world. ...
... glaciers as a result of **global warming.** Glaciers in West ...
... Pew Center for **Climate Change** reports strong evidence of **global warming** in the United States. The ...
... contracted. According to the International **Climate Change** Taskforce, of which Senator Snowe is ...
... destroy the world's forests. **Climate change** is real. Its impacts are already ...
... discussions on post-Kyoto **greenhouse gas** reductions. Calls upon the ...
... largest emitter and contributor to **global warming** refuses to participate in ...
... government has refused to acknowledge **global warming,** many States have recognized that ...
... legislation that will reduce **greenhouse gas** emissions from vehicle tailpipes_it is ...
... achieve real, significant **greenhouse gas** reductions. As the world's largest **greenhouse gas** emitter, we must act now to reduce the impacts of **climate change** and save the environment for ...
... term reductions in **greenhouse gas** emissions. I ask ...
... Nations Framework Convention on **Climate Change** with the intent of reducing global ...
... Nations Framework Convention on **Climate Change** was signed by President ...
... Nations Framework Convention on **Climate Change** conference of the parties, the Kyoto ...
... for reductions in the **greenhouse gas** emissions of industrialized countries, was ...
... for reducing or limiting the **greenhouse gas** emissions of those countries, an international ...
... 2001, the Intergovernmental Panel on **Climate Change** estimated that global average ...
... Changing Planet: The U.S. **Climate Change** Science Program for ...
... Kingdom have estimated that manmade **climate change** has already doubled the risk of ...
... entitled "Avoiding Dangerous **Climate Change**", held in Exeter, ...
... entitled "Avoiding Dangerous **Climate Change**" predicted that an increase in ...
... entitled "Avoiding Dangerous **Climate Change**" predicted that an increase in ...
... entitled "Avoiding Dangerous **Climate Change**" predicted that an increase in ...
... carry out mitigation of **climate change,** sequestration activities in ...
... risks posed by **climate change** by_ (1) carrying ...
... policies and programs to address all **greenhouse gas** emissions to promote sustained ...
... Nations Framework Convention on **Climate Change** to achieve significant, long- ...
... reductions in global **greenhouse gas** emissions; and (4) supporting the ...
... negotiations to mitigate impacts of **global warming.**

179. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 15, 2005 , 151 Cong Rec S 1415, Vol. 151, No. 16, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. CRAIG; **Mrs.** HUTCHISON; **Mr.** LIEBERMAN; **Mr.** BIDEN; **Ms.** MIKULSKI; **Ms.** COLLINS; **Mr.** SMITH; **Mr.** McCAIN; **Mr.** GRASSLEY; **Mr.** HAGEL; **Mr.** ALEXANDER; **Mr.** DURBIN; **Mr.** DODD; **Mr.** BUNNING
... adoption of technologies that reduce **greenhouse gas** intensity in developing ...
... for the investment in **greenhouse gas** intensity reduction projects, and ...
... adoption of technologies that reduce **greenhouse gas** intensity and to provide credit- ...
... establishment of a national **greenhouse gas** registry, and for other ...
... significantly cut manmade **greenhouse gas** emissions by 2012. ...
... domestic and international consensus on **climate change.** This legislation builds upon ...
... energy policies; and the employment of **greenhouse gas** intensity as the best measurement ...
... cosponsor these bills, which are titled: The **Climate Change** Technology Deployment in Developing Countries Act;

The **Climate Change** Technology Deployment Act; and, The **Climate Change** Technology Tax Incentives ...
... in policy are interconnected. **Climate change** does not recognize national ...
... kind of action we should take. **Climate change** initiatives should include commitments to ...
... energy and resources. My **climate change** legislation authorizes new ...
... incentives to address the reduction of **greenhouse gas** emissions. It focuses on the role of ...
... policy. I believe that **greenhouse gas** intensity, or the amount of carbon ...
... measurement for dealing with **climate change. Greenhouse gas** emission intensity is the measurement of ...
... environment. The first bill, the **Climate Change** Technology Deployment in ...
... projects and technologies that reduce **greenhouse gas** intensity. It supports the development of ...
... partnerships, and encourage the deployment of **greenhouse gas** reducing technologies in ...
... State to engage global **climate change** as a foreign policy ...
... related barriers to the export of **greenhouse gas** intensity reducing technologies, and ...
... group to promote the export of **greenhouse gas** intensity reducing technologies and ...
... expertise and knowledge to reduce **greenhouse gas** intensity in their countries. ...
... international approaches to global **climate change** overlook the role of developing ...
... legally binding obligations on **greenhouse gas** emission reductions unless ...
... developed countries to address **greenhouse gas** emissions. Developing nations are ...
... nations cannot achieve. **greenhouse gas** reductions until they achieve ...
... unrealistic. Any reduction in **greenhouse gas** emissions by the United ...
... technologies. Our second bill, the **Climate Change** Technology Deployment Act, ...
... demonstration projects that employ **greenhouse gas** intensity reduction technologies. Our ...
... projects. Our third bill, the **Climate Change** Technology Tax Incentives ...
... for investment in **climate change** technology. It also expresses our support ...
... growing interest because it could curb **global warming** more quickly than switching to ...
... results in reducing **greenhouse gas** emissions. My legislation would ...
... better understand global **climate change,** its connections to our economic and energy ...
... Achieving reductions in **greenhouse gas** emissions is one of the important ...
... America's allies on achievable **climate change** policy. By harnessing our ...
... importance to deal with the issue of **climate change,** a issue in which he and ...
... engage in the debate of **climate change** outside and well beyond the ...
... reduce increases in **greenhouse gas** now and in the future would have to ...
... rate of improvement in **greenhouse gas** intensity relative to the improvements ...
... I just used, "**greenhouse gas** intensity," is defined in legislation as the ratio of **greenhouse gas** emissions to economic output. This is ...
... will not meet the **greenhouse gas** reduction targets by the ...
... leading investments in **climate change** science technology. The United ...
... body about so-called **global warming.** I believe, of course, there is **global warming.** Our grandparents can tell us that. The ...
... need to know about **global warming;** and, two, maybe more ...
... energy, we have some jurisdiction over **global warming** as well as energy technology ...

180. CONGRESSIONAL RECORD -- SENATE, Monday, February 14, 2005 , 151 Cong Rec S 1346, Vol. 151, No. 15, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. KENNEDY; **Mr.** LEAHY; **Mr.** HARKIN; **Mr.** THUNE; **Mr.** CONRAD
... oil, despite evidence of **global warming** and concerns about the quality of our ...
... local air pollution, **greenhouse gas** emissions, and oil imports ...
... local air pollution, **greenhouse gas** emissions, and oil imports; (...
... in criteria pollutants, **greenhouse gas** emissions, and oil imports, ...

... local air pollution and **greenhouse gas** emissions; (B) improve the ...

181. CONGRESSIONAL RECORD -- SENATE, Thursday, February 10, 2005 , 151 Cong Rec S 1261, Vol. 151, No. 14, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

Senate

Mr. REID; **Mr.** DURBIN; **Mr.** McCAIN; **Mr.** LIEBERMAN; **Mr.** WYDEN; **Mrs.** MURRAY; **Ms.** STABENOW; **Mr.** NELSON of Florida; **Mr.** SANTORUM; **Ms.** MIKULSKI; **Mr.** DOMENICI; **Mr.** LUGAR; **Mrs.** BOXER; **Mr.** KENNEDY; **Mr.** WARNER; **Mr.** JEFFORDS; **Ms.** COLLINS; **Mr.** SARBANES; **Mr.** CONRAD; **Mr.** DORGAN; **Mr.** BINGAMAN; **Mrs.** HUTCHISON; **Mr.** CRAIG; **Ms.** SNOWE; **Mr.** INOUYE; **Mr.** COLEMAN; **Mr.** LAUTENBERG

... scientific research on abrupt **climate change,** to accelerate the reduction of **greenhouse gas** emissions in the United ...

... market-driven system of **greenhouse gas** tradeable allowances, to limit **greenhouse gas** emissions in the United ...

... greatest environmental challenge_**climate change.** The National Academy of Sciences ...

... proposal for addressing **climate change** for Senate consideration. We had ...

... friends, you will find that **climate change**/Kyoto treaty are major ...

... scientific evidence shows that **climate change** is real, that it is happening as we speak. The ...

... Antarctic are the "miner's canary" of **climate change,** and profound and terrible things are ...

... cover season has been shrinking; that **greenhouse gas** concentration continues to rise; and ...

... Much larger projected **climate changes** will result in ...

... global implications. Amplified **global warming,** rising sea levels, and ...

... coral reefs from the effects of **climate change.** To date, studies indicate that the ...

... conservation in the face of **climate change** is to limit the temperature increase. . . . ...

... Ocean Policy, testified that **climate change** impacts every topic ...

... environmentalist, went on to say **climate change** is a serious problem, and it could ...

... come to this floor and say that **climate change** is a myth; it is not ...

... Tony Blair, who has made **climate change** one of the two issues he ...

... s Intergovernmental Panel on **Climate Change,** stated that he personally believes that the ...

... atmosphere." He went on to say: **Climate change** is for real. We have just ...

... moment to lose. The International **Climate Change** Task Force, chaired ...

... 10 recommendations concerning **climate change** that "all developed countries introduce ...

... Antarctic are the miner's canary of **global warming** because of the thinness of the atmosphere there. This chart is ...

... percent of its capacity. The signs of **climate change** are all around us. We need to act. We ...

... reduce and bring into check the **greenhouse gas** emissions in the world. We ...

... Arid Arizona Points to **Global Warming** as Culprit," and a response to ...

... Arid Arizona Points to **Global Warming** as Culprit (By Juliet ...

... I believe in **global warming?** Absolutely." Dramatic weather ...

... skeptics to reevaluate their views on **climate change.** A number of scientists, and some Westerners, are now convinced that **global warming** is the best explanation for the ...

... forefront of demanding action on **global warming** because we're at the forefront of the impacts of **global warming.** . . . In the West we're ...

... drought and higher temperatures to **global warming.** Sherwood Idso, president of the ...

... carbon dioxide emissions and **climate change,** declined to say who funds his ...

... habitats, Turner said, and now **climate change** threatens to push these populations " ...

... predict that by 2090 **global warming** will reduce the Sierra ...

... just begun to consider **climate change** in their long-term ...

... much of the change attributed to **global warming.** A separate recent ...

... like rolling the dice, and **climate change** is like loading the dice." ...

... divided on how to address **global warming.** Sen. John McCain (...

... year to establish a **climate change** study committee, said he wants to ...
... Miller, Environmental Justice and **Climate Change** Initiative. For more ...
... concerning post-Kyoto **climate change** commitments" at the recent UNFCCC ...
... world's largest emitter of **greenhouse gas** pollution, would join post- ...
... in opposing any mandatory **greenhouse gas** reductions, now or in the ...
... in opposing any mandatory **greenhouse gas** reductions, now or in the ...
... three additional resolutions on **climate change**_all of which clearly state that **climate change** is happening and that the United States should ...
... role in combating **global warming**_including by re-engaging in the international **climate change** negotiations. Paula Dobriansky, when ...
... pieces of evidence that ties **global warming** to human-caused emissions of ...
... figure. Projections of future **climate changes,** however, are based on the well-known ...
... by floods due to **global warming.** Such claims are completely out of ...
... claimed in most **global warming** scenarios.'" (1) Research and ...
... especially the poor and minorities. **Global warming** is already hurting Americans, ...
... even more vulnerable to **climate change** related respiratory ailments, ...
... Susan Joy Hassol, **global warming** analyst and author of the Arctic ...
... act now to slow **global warming,** L.A. residents will ...
... Whites, by 2090. **Climate change** will likely raise ...
... annual cost of gradual **climate change** with no adaptation may be as ...
... long past the point where **global warming** is considered a myth. We are ...
... about longterm solutions to **global warming."**_Rep. William Jefferson, (...
... learn, through this report, that **global warming** will expose these communities to ...
... Taking action to slow **global warming** protects low-income, ...
... cooperation in mitigating **climate change.** Policies to reduce **global warming** can boost job ...
... resulting from air pollution and **climate change.** We must mobilize and energize our ...
... mitigate the unjust effects of **global warming."**_Rev. Jesse L. ...
... see with our eyes the effects of **global warming** already. The planet is warming. The ...
... yield to the inevitable. The evidence that **climate change** is real and dangerous keeps ...
... Nations Intergovernmental Panel on **Climate Change,** Dr. R. K. ...
... dangerous point" when it comes to **global warming,** and "immediate and very deep cuts ...
... leading candidate. To call **global warming** simply an environmental challenge is ...
... environmental challenges that we face. **Global warming** is both a moral and an ...
... listed as an endangered species. Why? Because **global warming** is removing their habitat. It is wreaking ...
... garden. The challenge of solving **global warming** also presents our Nation with untold ...
... a world with limited **greenhouse gas** emissions, and the United States ...
... Looking at the recommendations of the International **Climate Change** Task Force, the National ...
... colleagues grappling with the challenge of **global warming.** So many of them seem to be of the same ...
... placing a price on **greenhouse gas** emissions, which is what our legislation will do. Our ...
... for carbon and other **greenhouse gas** emissions. We know it is not the ...
... think it is too moderate and holds **greenhouse gas** emissions at today's levels. ...
... in the direction of dealing with **global warming,** reasserting our world environmental ...
... country to do something about **global warming** while we still can, ...
... 2005.] Michael Crichton and **Global Warming** (By David B. ...
... people learn about **global warming?** That_more than the merits of any scientific ...
... scientific evidence for **global warming** is weak. Crichton rejects ...
... argues that concern about **global warming** is best understood as a ...
... people concerned about **global warming** follow a herd ...
... scientific evidence regarding **global warming.** First, he highlights the "urban ...
... growth, not rising **greenhouse gas** concentrations. This issue has been examined ...

... centers. The Intergovernmental Panel on **Climate Change,** using only peer- ...
... scientific conclusions with respect to **global warming.** Since concentrations of greenhouse ...
... question the link between **greenhouse gas** concentrations and temperatures. Crichton is ...
... in the decades ahead? Hardly. **Greenhouse gas** concentrations are now well ...
... Navacerrada (Spain). But **global warming** is an increase in global ...
... in the next century if **greenhouse gas** concentrations continue to climb. ...
... www.realclimate.org.) **Climate change** science is a complex ...
... warming and the rate with which it occurs." **Climate Change** Science: An Analysis of Some Key ...
... impact on public understanding of **global warming.** 2. Climate Fad This ...
... argues that concern about **global warming** has become a fad ...
... sorted through the minutiae of **climate change** science than have opinions on the topic. In this regard, **global warming** is like Social Security ...
... applies as well to the economics of **climate change.** The perception is widespread in many circles that reducing **greenhouse gas** emissions will be ruinously ...
... 1988, the Intergovernmental Panel on **Climate Change** has convened thousands of scientists, ...
... reviewed literature on the science on **global warming.** The IPCC has produced three ...
... drumbeat of scary news on **global warming** is especially hard to fathom. ...
... times more often than **global warming** in the Lexis-Nexis ...
... without ever seeing a **global warming** story. Furthermore, the print ...
... convention tilts many **global warming** stories strongly toward ...
... world's scientists believe that **global warming** is happening as a result of ...
... activities and that the consequences of rising **greenhouse gas** emissions could be very serious. Still, many news stories on **global warming** include not just this ...
... a very small minority of **climate change** skeptics, giving roughly ...
... assertion that many critics of **global warming** are retired professors no ...
... serious to say on the science of **climate change,** he should say so in a ...
... Cattle, 2004. Arctic **climate change:** observed and modelled temperature and ...
... assessment of polar amplification of **global warming.** Geophysical Research Letters, ...
... data on contemporary global **climate changes** (temperature and precipitation). Journal of ...
... State of Fear is about **global-warming** hysteria ginned up ...
... Regardless, the message of the book is that **global warming** is a non-problem. ...
... since the 1970s). "There's your **global warming,**" one of Crichton's good ...
... Well, not exactly. **Global warming** is defined by the global ...
... doing. That's way they call it **global warming.** Tall, Dark, and Hansen ...
... Dr. Hansen overestimated [**global warming**] by 300 percent," ...
... indeed spread awareness of **global warming,** but not because he exaggerated the ...
... napkin estimate for the **global warming** that will occur over the ...
... train of logic to compare **global warming** to the 19th century eugenics ...
... charitable foundations. Today, **global warming** is studied in prestigious ...
... by the Intergovernmental Panel on **Climate Change** did not stir his senses ...
... Blair, who announced that action on **global warming** will be his first priority as ...
... greatest environmental challenge, **climate change.** By Mr. WYDEN (...
... predicting weather and global **climate change,** improving ocean health and ...
... 9) Tracking and understanding **climate change** and the ocean and Great Lakes' ...
... chemicals, and human-induced **climate change,** the problem of the trash produced ...
... many cases, preventable. **Global warming,** disease, and toxic contamination of our ...

182. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 01, 2005 , 151 Cong Rec S 740, Vol. 151, No. 8, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

Senate

Mr. KENNEDY; **Mr.** STEVENS; **Mr.** DeWINE; **Mr.** BINGAMAN; **Mr.** ROBERTS; **Mr.** NELSON of Nebraska; **Mr.** LAUTENBERG; **Ms.** SNOWE; **Mr.** WYDEN; **Mrs.** FEINSTEIN; **Mr.** KERRY; **Mrs.** HUTCHISON; **Mr.** THOMAS; **Ms.** COLLINS; **Mr.** BUNNING; **Mr.** DeMINT; **Mr.** REID; **Mr.** GRASSLEY

... natural processes of abrupt **climate change;** to the Committee on Commerce, Science, and ...
... rise to introduce the Abrupt **Climate Change** Research Act of 2005. This ...
... conduct research on abrupt **climate change.** The subject of **climate change** remains controversial. Nevertheless, ...
... potential risk of abrupt **climate change.** Understanding and predicting **climate change** are enormous scientific challenges. The ...
... other places. An abrupt **climate change** triggered by the ongoing ...
... understanding of what triggers abrupt **climate changes.** Both the National Academy of Sciences and the Administration's Strategic **Climate Change** Science Plan identify abrupt **climate change** as a key priority ...
... stated that "Large, abrupt **climate changes** have repeatedly affected much or all of the ...
... report stated that "abrupt **climate changes** are not only possible ...
... even the threat of abrupt **climate change.** My bill would lay the ...
... understand and address abrupt **climate change.** One reason this funding is so ...
... glaciers. The University of Maine's **Climate Change** Institute has one of the best abrupt **climate change** research programs in the world. The **Climate Change** Institute uses ice ...
... way we think about **climate change.** Unfortunately, numerous glaciers ...
... ice sheets to understand **climate change.** In August, I ...
... economic disruption resulting from **climate change** is already evident in ...
... changes were to be compounded with an abrupt **climate change** on the scale seen in our ...
... about how Arctic **climate changes** are affecting his State. I ...
... order to understand future **climate changes.** I look forward to ...
... today to cosponsor the Abrupt **Climate Change** Research Act of 2005, ...
... needed for abrupt **climate change.** In the 108th, this legislation was ...
... natural processes of abrupt **climate change.** The abrupt **climate change** research issue is one that the ...
... goes back to a **Climate Change** Conference in Maine ...
... State who have been active in **climate change** issues for a ...
... climate in response to **global warming.** And that's also why, back in May of ...
... need for abrupt **climate change** studies, and the Admiral agreed this is ...
... chair of the independent International **Climate Change** Taskforce, I was pleased to ...
... developing solutions to address **climate change.** Indeed, our first recommendation ...
... extent and magnitude of the impacts of **climate change** if all countries take various ...
... crucial to the debate on abrupt **climate change** because, if the earth goes beyond the ...
... report stated_"runaway" **climate change** increases, a "tipping ...
... enable us to examine past **climate change** patterns. This information will ...
... policymakers to improve their understanding of **climate change** through, for instance, the ...
... greater understanding of abrupt **climate change.** There have also been other, newer scientific ...
... environmental and societal significance of **global warming."** There is scientific observational evidence that ...
... will improve our understanding of **climate change** by calling for ...
... records of past abrupt **climate change,** through the study of ice ...
... understanding of the mechanisms of abrupt **climate change,** and incorporate this knowledge into current ...
... prevailing scientific opinion on the **climate change** issue, this bill should hold the ...
... will allow us to gauge **climate change** secrets of the past, so we in ...
... policymakers in understanding **climate change.** The reality is, there is no doubt our ...
... limit the extent and magnitude of **climate-change** impacts. 2. A ...
... part of concerted action on **climate change** at the global level in the ...
... vulnerable countries adapt to **climate change,** including the commitments made at the ...
... Governments committed to action on **climate change** raise public awareness of the ...

183. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 26, 2005 , 151 Cong Rec S 515, Vol. 151, No. 6, EXECUTIVE SESSION
Senate
Mr. LUGAR; **Mr.** BIDEN; **Mrs.** BOXER. ; **Mr.** LIEBERMAN; **Mr.** DOMENICI; **Mr.** JEFFORDS; **Mr.** BUNNING; **Mrs.** CLINTON; **Mr.** LEAHY; **Mr.** ENZI; **Mr.** DORGAN; **Mr.** CORZINE; **Mr.** DODD; **Ms.** COLLINS; **Mr.** KOHL; **Ms.** MIKULSKI; **Mr.** LAUTENBERG; **Mr.** REID; **Mr.** FRIST; **Mr.** FRIST.
... in addressing global **climate change.** Almost every day, ...

184. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 26, 2005 , 151 Cong Rec S 557, Vol. 151, No. 6, RULES OF PROCEDURE_COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
Senate
Mr. CHAFEE
... Infrastructure; Clean Air, **Climate Change,** and Nuclear Safety; Fisheries, ...

185. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 26, 2005 , 151 Cong Rec S 612, Vol. 151, No. 6, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. CRAIG
... subcommittee on clean air, **climate change** and nuclear safety Mr. ...
... Subcommittee on Clear Air, **Climate Change,** and Nuclear Safety be authorized to ...

186. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 25, 2005 , 151 Cong Rec S 376, Vol. 151, No. 5, ISSUES FACING THE SENATE
Senate
Mr. THOMAS
... time in Argentina at the **global warming** meeting and I got some ...

187. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 25, 2005 , 151 Cong Rec S 450, Vol. 151, No. 5, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. KOHL; **Mr.** STEVENS; **Mr.** NELSON of Florida; **Mr.** INOUYE; **Mr.** AKAKA; **Mr.** McCAIN; **Mr.** JEFFORDS; **Ms.** COLLINS; **Ms.** SNOWE; **Mr.** COLEMAN; **Mrs.** FEINSTEIN; **Mr.** HATCH; **Mr.** BINGAMAN; **Mr.** LIEBERMAN; **Mr.** KYL; **Mr.** ROCKEFELLER; **Mr.** BENNETT; **Mr.** SMITH
... chairman of the International Panel on **Climate Change,** who was placed at the request of the Bush ...
... dioxide, a major **greenhouse gas** causing **global warming;** and "(B) the quantity of carbon ...
... pollution, mercury contamination, and **greenhouse gas** emissions in the Nation. ...
... Carbon dioxide is causing **climate change** that threatens to alter Maine's ...
... one of the largest contributors of **greenhouse gas** emissions in the United ...
... cause of man-made **global warming.** I recently had the opportunity to ...
... firsthand some of the dramatic impacts of **global warming.** In August, I ...
... step in addressing **global warming** by reducing powerplant ...
... not solve the problem of **global warming,** it is an important first step. ...
... rain, mercury pollution, and **global warming** than any other bill. Our bill ...
... mercury pollution, reduce **global warming,** and eliminate the smog that drifts ...
... effect a comprehensive **climate change** law, other states from the ...
... taking, actions to address **climate change** at the state or regional level. The ...

188. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 04, 2005 , 151 Cong Rec S 18, Vol. 151, No. 1, GLOBAL WARMING DEBATE

Senate

Mr. INHOFE; **Mr.** McCONNELL

... much of the debate over **global warming** is predicated on fear rather than ...
... case is the hoax referred to as "**global warming.**" I called the threat of catastrophic **global warming** the greatest hoax ever perpetrated on the ...
... groups, the issue of catastrophic **global warming** is not just a ...
... simply, man-induced **global warming** is an article of religious faith to the ...
... I have insisted all along that the **climate change** debate should be based on fundamental ...
... Since my detailed **climate change** speech in 2003, so- ...
... Nations Intergovernmental Panel on **Climate Change,** IPCC, one of the major ...
... 10_to the Framework Convention on **Climate Change** met in Buenos ...
... selling author. This is all premised on the **global warming** debate. I am happy to ...
... presentation of the scientific facts of **climate change**_with ample footnotes and documentation ...
... designed to bring some sanity to the **global warming** debate. In the author's ...
... 10th round of the international **climate change** negotiations. I am happy to ...
... concerning post-Kyoto **climate change** commitments. With the ink barely ...
... not to mention what the science of **climate change** is telling us, Ms. Dobriansky was ...
... in opposing any mandatory **greenhouse gas** reductions now or any time ...
... believes in catastrophic **global warming**_it does not_but because ratification was ...
... a new crop of **global warming** lawsuits now being ...
... U.S., because of its supposed contribution to **global warming,** is causing environmental degradation ...
... particular companies have contributed to **climate change.** How is it, one might ...
... most everyone familiar with the **climate change** debate knows about the ...
... supposedly confirm the "consensus" on **global warming.** "The Arctic Climate Impact ...
... controversial scientific consensus that **global warming** is caused mainly by ...
... blames the Sumatra tsunami on **global warming.** Are we to believe now that **global warming** is causing earthquakes? The tsunami, of ...
... tsunami risks associated with **global warming.**" There is something inhumane about that, that they would ...
... a hoax like **global warming.** To address this, let's ask some simple questions: Is **global warming** causing more extreme ...
... devastated parts of Florida to **global warming.** But this is patently false. ...
... Plainly: "This isn't a **global-warming** sort of thing. . . It's a ...
... by floods due to **global warming.** Such claims are completely out of ...
... claimed in most **global warming** scenarios." What I have outlined ...
... happen to America and the cost of **global warming.** If we should sign on to Kyoto, what would it cost? They ...
... real story about **global warming** is being told and, judging ...
... look at this whole issue of **global warming** and what the real motives are of these people who are ...
... models for the enhanced **greenhouse effect.** The highest temperatures since the ...
... second phase of contemporary **global warming** (after 1975) is, at most, ...
... variations. Topic: Recent **climate change** in Alaska As a ...
... specifics about observed **climate changes** there. On each and every occasion, you ...
... listener to believe that anthropogenic **global warming** was responsible for the large ...
... responsible for the observed **climate changes** in Alaska. Below is ...
... Quote or Synopsis "The topic of **climate change** has attracted widespread attention ...
... analysis of long-term **climate change** in Alaska." Scientists ...
... sensitive indicator of global **climate change.** Recent research, using ...
... trends induced by **greenhouse gas** warming most difficult." ...
... Nova Scotia Paper **Global Warming** and the Greenland Ice Sheet, ...

... elevations does not follow the **global warming** trend either. "A ...
... may defy the global **climate change.** This possibility should be considered in ...
... Sea, in contrast to **global warming** (+0.53 C over the ...
GLOBAL WARMING (90%); **CLIMATE CHANGE** (89%); GAS & ELECTRIC ...

189. CONGRESSIONAL RECORD -- SENATE, !!!!!!date error? The date is:. Proper format:YYYYMMDD , x , ,
Cong Rec S 6776, Vol. , No., INTERNATIONAL POLAR YEAR
Senate
Ms. MURKOWSKI
... events in the Arctic. From **climate change** and the development of our natural resources, to ...
... War had just ended. **Climate change** was barely being considered as an ...
... K-12 about **climate change** data collection and scientific ...
... SYSTEMS & INSTITUTIONS (63%); **CLIMATE CHANGE** (62%);

190. CONGRESSIONAL RECORD -- SENATE, !!!!!!date error? The date is:. Proper format:YYYYMMDD , x , ,
Cong Rec S 6788, Vol. , No., STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. ROCKEFELLER; **Mr.** BINGAMAN; **Mr.** DOMENICI; **Mr.** HARKIN; **Mr.** BUNNING; **Mr.** LEVIN; **Mr.** OBAMA; **Mr.** ALLARD; **Mr.** KOHL; **Mrs.** CLINTON; **Mr.** SPECTER; **Mr.** SCHUMER; **Mr.** SMITH; **Mrs.** DOLE; **Mr.** REID; **Mr.** CORNYN; **Ms.** LANDRIEU; **Ms.** SNOWE
... addition, reduction in **greenhouse gas** emissions would be 330 million ...
... dioxide emissions, a **climate change**-causing **greenhouse gas,** from entering the atmosphere. Certainly, we ...

108th Congress

LexisNexis *Congressional Record* search results for "climate change" or "global warming" or "greenhouse gas" or "greenhouse effect"

1. CONGRESSIONAL RECORD -- SENATE, Wednesday, December 08, 2004 , 150 Cong Rec S 12045, Vol. 150, No. 139, SPEECH BY PRIME MINISTER TONY BLAIR

Senate

Mr. McCAIN

... Blair states that he believes that **climate change** is the world's greatest environmental ...
... address the causes and effects of **climate change** by reaching three ...
... agreements on the basic science on **climate change** and the threat it poses; a ...
... threat posed by **climate change;** and ways to meet the growing ...
... prime minister's speech on **climate change** be printed in the Record. There ...
... Tony Blair Speech on **Climate Change** The 10th anniversary of His Royal ...
... greatest environmental challenge: **climate change.** Our effect on the environment, and in particular on **climate change,** is large and growing. To summarise ...
... 200 years, is causing **global warming** at a rate that began as ...
... evidence to measure the danger of **climate change,** so it can help us find ...
... itself. The scientific evidence of **global warming and climate change:** UK leadership in ...
... Tyndall centres for **climate change** research. And from Arnold Schwarzenegger's ...
... estimated that the economic costs of **global warming** could double to $150 billion ...
... wave was influenced by **global warming.** It resulted in 26,000 ...
... event. On the latest modelling **climate change** means that as soon as the 2040s at ...
... people are concerned about **climate change.** But people are confused ...
... targets for reducing **greenhouse gas** emissions. We are on track to meet our ...
... latest estimates suggest that **greenhouse gas** emissions in 2003 were ...
... In 2000, we published our **Climate Change** Programme, which set out ...
... policies aimed at reducing our **greenhouse gas** emissions. Tomorrow, we'll be ...
... contribution towards tackling **climate change,** the UK needed to reduce our ...
... 36 percent, while **greenhouse gas** emissions fell by ...
... will succeed. Tackling **climate change** will take leadership, ...
... isolated examples. Understandably, **climate change** focuses minds on big, ...
... confront and overcome the challenge of **climate change;** and that above all can show us ...
... can help tackle **global warming.** The government is now developing ...
... due to flooding and other **climate change** effects. It is the poorest countries ...
... UN Framework Convention on **Climate Change,** and the US National Academy of Sciences ...
... damage to the planet through **global warming. Climate change** will be a top ...
... announced that together with Africa, **climate change** would be our top priority for ...
... agreement as to the basic science on **climate change** and the threat it poses. Such an agreement would be ...
... 50 percent of global **greenhouse gas** emissions, it is vital that we also engage with ...
... science tells us about **climate change** is correct, then unabated it will ...
... children to listen to their parents. On **climate change,** it is parents who should listen to their children. ...

CLIMATE CHANGE (90%); EMISSIONS (89%); SUSTAINABLE DEVELOPMENT (79%); **GLOBAL WARMING** (79%); ECONOMIC DEVELOPMENT (...

2. CONGRESSIONAL RECORD -- SENATE, Friday, November 19, 2004 , 150 Cong Rec S 11625, Vol. 150, No. 134, NEW WAKE UP CALLS ON GLOBAL WARMING

Senate

Mr. LEAHY; **Mr.** DORGAN

... around the world due to **global warming.** Unfortunately, the Bush administration is ...
... deride or ignore the signs of **global warming.** It's even more astonishing that some ...
... even touting the benefits of **global warming.** Better access to oil and ...

... campaign pledge to cut **greenhouse gas** emissions. In **fact**, the ...
... two new assessments of **global warming** by saying caps on ...
... greater **than** it sounds. That is greater than any **climate change** experienced in our region ...
... drivers in Vermont. **Global warming** threatens the revenues generated ...
... anglers will decline. **Climate changes** will also affect the heart of ...
... get the sap to run. **Climate changes** have already shortened the tapping ...
GLOBAL WARMING (93%); SKIING (90%); ...
... SUGAR FARMING (90%); **CLIMATE CHANGE** (90%); EMISSIONS (90%);

3. CONGRESSIONAL RECORD -- SENATE, Thursday, November 18, 2004 , 150 Cong Rec S 11483, Vol. 150, No. 133, COUNCIL ON OCEANS POLICY AWARENESS
Senate
Mrs. DOLE
... prediction, tsunami warning; **climate change** and its effects, e.g. interannual variability ...

4. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 16, 2004 , 150 Cong Rec S 11384, Vol. 150, No. 131, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. WARNER
... 9:30 a.m., on Global **Climate Change:** Arctic Climate Global ...

5. CONGRESSIONAL RECORD -- SENATE, Monday, October 11, 2004 , 150 Cong Rec S 11191, Vol. 150, No. 130, AMERICAN JOBS CREATION ACT OF 2004_CONFERENCE REPORT
Senate
Mr. GRASSLEY; **Mrs.** BOXER; **Ms.** LANDRIEU; **Ms.** LANDRIEU. ; **Mr.** NICKLES; **Mr.** LOTT; **Mr.** LEVIN; **Mr.** FEINGOLD; **Mrs.** FEINSTEIN; **Ms.** SNOWE; **Mr.** DURBIN; **Mr.** LEAHY; **Mr.** BUNNING; **Mr.** ROCKEFELLER; **Mr.** REED; **Mr.** McCAIN; **Mr.** BAUCUS; **Mr.** McCONNELL; **Mr.** DODD
... a means to reduce **greenhouse gas** emissions and increase energy ...

6. CONGRESSIONAL RECORD -- SENATE, Monday, October 11, 2004 , 150 Cong Rec S 11291, Vol. 150, No. 130, THE SCIENCE OF CLIMATE CHANGE
Senate
Mr. INHOFE
... discuss the issue of so-called **global warming.** I have taken a ...
... posters that quoted me as saying **global warming** is "the greatest hoax ever perpetrated on the ...
... uncharacteristically quoting me correctly. **Global warming** is the greatest hoax ever perpetrated on the ...
... life by limiting **greenhouse gas** emissions, we will cause catastrophic **global warming.** This is simply a false ...
... justify controls of anthropogenic **greenhouse gas** emissions. Over 17,000 ...
... far from the truth." He also wrote that the **global warming** theory has hardened into orthodoxy that ...
... uncertainties surrounding claims of **global warming.** I described real ...
... by man-made **greenhouse gas** emissions. We cannot afford to forget that **climate change** alarmists' visions have been with us for ...
... living to avoid cataclysmic **global warming.** From the scientific literature, I ...
... age caused by **global warming.** First it was an ice age. Then it was **global warming.** Now it is an ice age caused within days because of **global warming.** Seems they can't make ...
... shifting away from those who subscribe to **global warming** alarmism. IPPC incorrectly ...

... station temperature rise to **climate change** instead of local activity. One of the areas that has caused **global warming** advocates the most heartburn has been the ...
... stations. The Intergovernmental Panel on **Climate Change,** or IPCC, report published ...
... temperatures are rising due to **climate change.** The IPCC has become increasingly ...
... house of cards upon which the **global warming** hysteria is built. Moreover, the ...
... relied upon by **global warming** advocates_the famous, or perhaps ...
... a detailed look at **climate changes** that occurred in different ...
... affect temperature readings to **climate change.** Yet even so, the IPCC ...
... level is rising, and that this is due to **climate change.** It has been claimed for years that ...
... debate_the reliance by **global warming** advocates on faulty models that ...
... become flooded due to **global warming.** Such claims are, to be blunt, completely ...
... claimed in most **global warming** scenarios." Something else ...
... violent hurricanes to prove that **global warming** is occurring. In response to the ...
... severe droughts is to prove **global warming,** it would have to be true that the number and severity of these ...
... gall to claim it is due to **global warming.** Credible meteorologists have been quick to ...
... understand: This isn't a **global-warming** sort of thing. . . . It's a ...
... Pew Center on Global **Climate Change**_a green activist organization that promotes the **global warming** theory echoed his sentiments, ...
... link between hurricanes and **global warming:** The general consensus is that it's unlikely. . . . We ...
... writers who have been quick to implicate **global warming** should be dismissed as the opportunists they are. Weather ...
... a result of anthropogenic **climate change,** but from natural climate ...
... link between hurricanes and **global warming.** A team led ...
... rest the unsubstantiated claim that **global warming** is leading to more severe and ...
... flatly refutes that claim. **Global warming** advocates will often ...
... examples really say about **global warming?** Scientists know very little ...
... pack, produced by **global warming.** But if **global warming** is not the cause, what is? In ...
... Kilimanjaro have to do with man-induced **global warming?** Not much. On November ...
... interesting insights into Kilimanjaro and **global warming.** Here's what the Times had to say: The glaciers on ...
... Although it is tempting to blame **global warming,** the most likely culprit is ...
... Conjuring up fears of **global warming** because of Kilimanjaro's glaciers_to my ...
... hysterical claims of catastrophic **global warming** is thin, the analyses showing the ...
... my last speech on **global warming** examining the consequences of unilaterally ...
... NASA scientist who popularized the **global warming** theory, admits, it would take ...
... emissions to have any appreciable impact on **climate change.** And, of course, his views are based on the ...
... precipitous action to combat **global warming** is unjustified, alarmists often ...
... learned about the subject of **global warming,** I believe that the safest ...
... economy to avert it. The science of **global warming** is uncertain, the costs of capping our ...
... not challenge the validity of **global warming's** existence and its consequences in its ...
... taking action to mitigate **global warming.** In essence, the study ...
... avert or otherwise mitigate **global warming** or whether humanity would better off ...
... concluded was remarkable. Even if **global warming** were real, money spent to combat **global warming** would do comparatively little_as a ...
... diverting the money spent on **global warming** and using the monies to directly ...
... rather than attempted to combat **global warming.** And at far less cost, ...
... but sorry. And that is assuming **global warming** is happening. How much ...
... in conflict with his aims on **global warming.** His Science Advisor, Sir ...
... not support catastrophic **global warming** claims, well-designed, ...
... a press conference on **global warming** and the Kyoto Protocol, Russian ...
... share with you what he says is driving the **global warming** debate. Illarionov stated: There have been ...

... color of ideology_[and he is speaking of **global warming** here_again, another type, ...
... **high** degree of uncertainty that **global warming** is caused by anthropogenic ...
... sense to take action on **climate change** when the costs are so profound and the benefits are ...
... state of science regarding the **global warming** debate. And today, I have ...
... information on the science about **global warming**_or more to the point_the lack of ...
... now concentrate on what to do to stop **global warming** from happening. I, for ...
... can have some beneficial effect. **Global warming** ideology has no place ...
... website for rejecting the **global warming** treaty, stating: Dropping ...
... nations when you turn away from the **global warming** treaty, for instance, or when you ...
CLIMATE CHANGE (90%); **GLOBAL WARMING** (90%); SCIENCE & TECHNOLOGY (...

7. CONGRESSIONAL RECORD -- SENATE, Monday, October 11, 2004 , 150 Cong Rec S 11310, Vol. 150, No. 130, SUBMITTED RESOLUTIONS
Senate
Ms. MURKOWSKI
... including the impact on global **climate change,** as the polar regions have profound ...

8. CONGRESSIONAL RECORD -- SENATE, Monday, October 11, 2004 , 150 Cong Rec S 11323, Vol. 150, No. 130, CELEBRATING THE ANNIVERSARIES OF THE INTERNATIONAL POLAR YEARS AND INTERNATIONAL GEOPHYSICAL YEAR
Senate
Mr. FRIST; **Mr.** McCAIN
... including the impact on global **climate change,** as the polar regions have profound ...

9. CONGRESSIONAL RECORD -- SENATE, Sunday, October 10, 2004 , 150 Cong Rec S 11019, Vol. 150, No. 129, AMERICAN JOBS CREATION ACT OF 2004_CONFERENCE REPORT
Senate
Mr. BUNNING; **Mr.** GRASSLEY; **Mr.** DeWINE; **Mr.** REID; **Ms.** LANDRIEU; **Ms.** LANDRIEU. ; **Mr.** GRAHAM of Florida; **Mr.** KENNEDY; **Mr.** BYRD; **Mr.** BYRD. ; **Mr.** STEVENS; **Mr.** NICKLES; **Mr.** NELSON of Florida; **Mr.** KYL; **Mr.** SANTORUM; **Mr.** SANTORUM. ; **Mr.** BAUCUS; **Mr.** BAUCUS. ; **Mr.** DORGAN; **Mr.** WARNER; **Mr.** HARKIN; **Mr.** COCHRAN; **Mr.** AKAKA; **Mr.** TALENT; **Mr.** FRIST; **Mr.** DASCHLE; **Mr.** SESSIONS
... protect our environment and reduce **global warming.** And we know it can help ...

10. CONGRESSIONAL RECORD -- SENATE, Sunday, October 10, 2004 , 150 Cong Rec S 11087, Vol. 150, No. 129, MORNING BUSINESS
Senate
Mr. FRIST; **Mrs.** DOLE; **Mr.** INHOFE
... vehicle for regulating **greenhouse gas** emissions . . . Limits on carbon ...
... forge a new **global warming** agreement, but the question ...
... policy measures to curb **global warming,** from stricter CAFE standards to mandatory **greenhouse-gas** regulations. I want ...

11. CONGRESSIONAL RECORD -- SENATE, Saturday, October 09, 2004 , 150 Cong Rec S 10900, Vol. 150, No. 128, INTELLIGENCE COMMITTEE REORGANIZATION
Senate

Mr. FRIST; **Mr.** REID; **Mr.** McCONNELL; **Mr.** HARKIN; **Mr.** CONRAD; **Mr.** DASCHLE; **Mr.** JOHNSON; **Mr.** VOINOVICH; **Mr.** NICKLES; **Mrs.** HUTCHISON; **Mr.** HATCH
... long term; there is some kind of **climate change,** but for the western ...

12. CONGRESSIONAL RECORD -- SENATE, Friday, October 08, 2004 , 150 Cong Rec S 10847, Vol. 150, No. 127, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. WYDEN; **Mr.** CORZINE; **Mr.** AKAKA; **Mr.** HATCH; **Mrs.** CLINTON; **Mr.** Bennett; **Mr.** BOND; **Mr.** KYL; **Mr.** GRAHAM of Florida; **Mr.** LEAHY; **Mr.** CRAIG; **Ms.** SNOWE; **Mr.** KENNEDY
... harmful byproduct, thus reducing **greenhouse gas** emissions. I could continue, ...
... against human-induced **global warming,** the multiple benefits of green ...

13. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 05, 2004 , 150 Cong Rec S 10423, Vol. 150, No. 124, GRANT DOLLARS AT EPA
Senate
Mr. INHOFE
... asthma, ozone depletion, **global warming,** the workings of a power ...
... oceans and ecosystems, and curb **global warming."** Environmental Defense is represented ...
... pollution, over-fishing and **climate change."** The WWF advocates for ...
... Act, advocating for **global warming** legislation, and arguing that the Bush ...
... Samoa to assess the impacts of **climate change** on coral reef systems. ...
... proposal begins with the foundation that **global warming** due to anthropogenic effects is ...
... enterprise and opportunity; reverse **global warming."** In IRS reporting ...
... advocating for national **global warming** legislation and characterizing the Bush ...

14. CONGRESSIONAL RECORD -- SENATE, Monday, October 04, 2004 , 150 Cong Rec S 10290, Vol. 150, No. 123, KYOTO PROTOCOL
Senate
Mr. BINGAMAN
... ratifying the Kyoto Protocol on **global warming.** Russia's ratification is the crucial ...
... willing to sign any agreement on **global warming** that did not include scheduled ...
... forward on the issue of global **climate change** without U.S. participation. ...
... up with a viable **climate change** policy of its own. Relying ...
... measures as the basis for our **climate change** strategy has proven to be ineffective ...
... slowing the growth of our own **greenhouse gas** emissions. These voluntary actions have been ...
... a national registry on **greenhouse gas** emissions and a national registry on **climate change.** The science of **climate change** is clear. The potential losses to our ...
... companies want to take **climate change** seriously because they are fearful of losing ...
... contrast to our weak policy on **climate change,** the Europeans and the Japanese have already ...
... national registry for **greenhouse gas** emissions. With respect to the registry, if the ...
... TREATIES & AGREEMENTS (92%); **CLIMATE CHANGE** (91%); EMISSIONS (90%); **GLOBAL WARMING** (89%); DEVELOPING COUNTRIES (...

15. CONGRESSIONAL RECORD -- SENATE, Monday, October 04, 2004 , 150 Cong Rec S 10296, Vol. 150, No. 123, NATIONAL INTELLIGENCE REFORM ACT OF 2004
Senate

Ms. COLLINS; **Mr.** SESSIONS; **Mr.** LIEBERMAN. ; **Mr.** SPECTER; **Mr.** REID; **Mr.** INHOFE; **Mr.** LEVIN; **Mr.** COLEMAN; **Mr.** JEFFORDS
... environmental priorities include **global warming** and wilderness protection. Pew has ...
... oceans and ecosystems, and curb **global warming.**" Environmental Defense is represented ...
... additional listings, and reversing **global warming.** Environmental Defense is involved with ...
... environmental priorities include **global warming,** protecting ocean life, and ...
... priorities in particular, **global warming** and wilderness protection, Pew has ...
... Pew Center on Global **Climate Change.** The Pew Center reports, "the ...
... involved in the issues of **global warming** and overpopulation, and supports the work of its " ...

16. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 28, 2004 , 150 Cong Rec S 9768, Vol. 150, No. 119, SENATOR KERRY AND AMERICA'S CHALLENGES
Senate
Mr. LOTT; **Mr.** KENNEDY
... other issues, like **global warming.** They're concerned about ...

17. CONGRESSIONAL RECORD -- SENATE, Thursday, September 23, 2004 , 150 Cong Rec S 9558, Vol. 150, No. 116, ALTERNATIVE ENERGY TAX CREDITS
Senate
Mr. REID; **Mr.** BINGAMAN
... protect our environment and reduce **global warming,** and we know it can help ...

18. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 15, 2004 , 150 Cong Rec S 9268, Vol. 150, No. 110, ENERGY
Senate
Mr. CRAIG; **Ms.** LANDRIEU
... engines, in relation to **greenhouse gas** emissions. Here is the diesel hybrid that we are all ...

19. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 15, 2004 , 150 Cong Rec S 9305, Vol. 150, No. 110, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. FRIST
... 10 a.m., on "Impacts of **Climate Change.**" The PRESIDING OFFICER. Without ...

20. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 14, 2004 , 150 Cong Rec S 9176, Vol. 150, No. 109, DEPARTMENT OF HOMELAND SECURITY APPROPRIATIONS ACT, 2005_Continued
Senate
Mr. COCHRAN; **Mr.** COCHRAN. ; **Ms.** MIKULSKI; **Mr.** DORGAN; **Mr.** NELSON of Florida; **Mr.** CORZINE; **Mr.** REID; **Mr.** DeWINE; **Mr.** JEFFORDS; **Mr.** DAYTON; **Mrs.** CLINTON; **Mr.** INOUYE; **Mr.** ENSIGN; **Mr.** DODD; **Mr.** Bingaman; **Mr.** BINGAMAN; **Mr.** BAUCUS; **Mr.** CONRAD; **Mrs.** BOXER; **Mr.** CARPER; **Mr.** COLEMAN; **Mr.** NELSON of Nebraska; **Mr.** BURNS; **Mr.** ROBERTS; **Mr.** NICKLES; **Mr.** BROWNBACK; **Mr.** TALENT; **Mr.** HATCH; **Mr.** LEAHY; **Mr.** BYRD; **Mr.** DASCHLE; **Mr.** STEVENS; **Mr.** GRAHAM of Florida; **Mr.** SCHUMER; **Mr.** McCAIN; **Mr.** KENNEDY; **Mr.** AKAKA; **Mr.** BIDEN; **Mr.** BOND; **Mr.** FRIST
... State. Some have suggested that global **climate change** is affecting the severity of the weather. ...

21. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 20, 2004 , 150 Cong Rec S 8438, Vol. 150, No. 101, EXECUTIVE SESSION
Senate
Mr. LEAHY; **Mr.** DURBIN; **Mr.** SCHUMER; **Mr.** HATCH; **Mr.** THOMAS; **Mr.** CRAIG; **Mr.** BIDEN; **Mr.** BIDEN. ; **Mr.** WYDEN; **Mrs.** FEINSTEIN; **Mr.** FEINGOLD; **Mr.** JEFFORDS; **Mr.** CHAFEE; **Ms.** CANTWELL
... air pollution and reduce **global warming.** We should pass standards to improve ...

22. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 20, 2004 , 150 Cong Rec S 8469, Vol. 150, No. 101, IGNORING THE ENVIRONMENT
Senate
Mr. LEAHY
... air pollutants, combat **climate change,** clean up toxic ...
... economic evidence of the toll **climate change** is and will take on this country, the ...
... HAZARDOUS WASTE (90%); **CLIMATE CHANGE** (90%); NUCLEAR ENERGY (...

23. CONGRESSIONAL RECORD -- SENATE, Monday, July 19, 2004 , 150 Cong Rec S 8412, Vol. 150, No. 100, ENERGY POLICY
Senate
Mr. REID
... pollute the air or contribute to **global warming.** After the Arab oil ...

24. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 13, 2004 , 150 Cong Rec S 8031, Vol. 150, No. 96, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. ENZI; **Mr.** WYDEN; **Mr.** DURBIN; **Mr.** McCAIN; **Mr.** HOLLINGS
... ocean and atmosphere, including **climate change** activities. Efforts to understand and ...
... linkage of those systems with respect to **climate change;** (2) protect life and ...
... made hazards including **climate change.** (2) partnering with and supporting ...
... environments (including with respect to **climate change);** (b) current and foreseeable ...
... B) improving predictions of **climate change** and variability (weather), including their ...
... C) atmospheric monitoring and **climate change;** (D) marine ecosystems, ...
... atmospheric policy (including **climate change**), conservation and management of ocean ...
... recreation and tourism); (5) **climate change;** (6) atmospheric or coastal ...

25. CONGRESSIONAL RECORD -- SENATE, Thursday, July 08, 2004 , 150 Cong Rec S 7829, Vol. 150, No. 93, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. LEAHY; **Mr.** JEFFORDS; **Mr.** LAUTENBERG; **Mr.** GRAHAM; **Mr.** BINGAMAN; **Mr.** DOMENICI; **Mr.** SMITH; **Mr.** KOHL; **Mr.** WYDEN; **Mr.** AKAKA; **Ms.** COLLINS
... consumption; 30 percent of **greenhouse gas** emissions; 30 percent of ...
... carbon dioxide (the primary **greenhouse gas** associated with **climate change**), 49 percent of the sulfur ...
... dioxide emissions, the primary **greenhouse gas** associated with **climate change.** And they account for 49 ...

26. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 16, 2004 , 150 Cong Rec S 6878, Vol. 150, No. 83, TENTH ANNIVERSARY OF U.N. CONVENTION TO COMBAT DESERTIFICATION

Senate
Mr. JEFFORDS
... degradation. Disruptions associated with **climate change** will likely make ...

27. CONGRESSIONAL RECORD -- SENATE, Thursday, June 03, 2004 , 150 Cong Rec S 6425, Vol. 150, No. 76, NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2005_Continued
Senate
Mr. Kennedy; **Mr.** KENNEDY; **Mrs.** FEINSTEIN; **Mr.** KYL; **Mr.** DORGAN; **Mr.** REID; **Mrs.** DOLE; **Ms.** SNOWE; **Mr.** LAUTENBERG; **Mr.** NELSON of Florida; **Mr.** CRAPO
... Kyoto Treaty against **global warming** to misguided occupation of Iraq. This ...

28. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 02, 2004 , 150 Cong Rec S 6349, Vol. 150, No. 75, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. INOUYE; **Ms.** CANTWELL; **Mr.** CONRAD
... chemicals, and human-induced **climate change,** the problem of the trash produced ...
... discarded fishing net. **Global warming,** disease, and toxic contamination of our ...

29. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 01, 2004 , 150 Cong Rec S 6267, Vol. 150, No. 74, U.S. INVESTMENT IN INTERNATIONAL ENERGY EFFICIENCY
Senate
Mr. JEFFORDS
... in the atmosphere, contributing to **global warming.** In addition, fuel ...

30. CONGRESSIONAL RECORD -- SENATE, Thursday, May 20, 2004 , 150 Cong Rec S 6016, Vol. 150, No. 72, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. ALLARD
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety Mr. ...
... subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

31. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 19, 2004 , 150 Cong Rec S 5767, Vol. 150, No. 71, NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2005
Senate
Mr. WARNER; **Mr.** KYL; **Mr.** REID; **Mr.** LAUTENBERG; **Mr.** BYRD; **Mr.** BYRD. ; **Mr.** DOMENICI; **Mr.** INHOFE; **Mrs.** FEINSTEIN; **Mr.** BIDEN; **Mr.** LEVIN; **Mr.** McCONNELL; **Mr.** ENSIGN; **Mr.** FEINGOLD; **Mrs.** BOXER; **Mr.** SHELBY; **Ms.** COLLINS; **Mr.** HOLLINGS; **Mr.** LEAHY; **Mr.** SARBANES; **Ms.** SNOWE
... reconcile numerous environmental and **climate change** concerns, stimulate technology ...

32. CONGRESSIONAL RECORD -- SENATE, Thursday, May 13, 2004 , 150 Cong Rec S 5454, Vol. 150, No. 67, COMPUTING AND SCIENCE
Senate
Mr. ALEXANDER; **Mr.** HOLLINGS
... in this Chamber about **global warming and climate change.** We base a lot of ...

... policy decisions about **global warming.** High-performance computing is also ...
... REGULATORY AGENCIES (59%); **CLIMATE CHANGE** (59%); **GLOBAL WARMING** (59%);

33. CONGRESSIONAL RECORD -- SENATE, Thursday, May 06, 2004 , 150 Cong Rec S 5008, Vol. 150, No. 62,
AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. COLEMAN
... 9:30 a.m. on Impacts of **Climate Change** and States' Actions. The PRESIDING ...

34. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 04, 2004 , 150 Cong Rec S 4825, Vol. 150, No. 60,
WORLD ASTHMA DAY
Senate
Mr. JEFFORDS
... research by linking **global warming** gases to increased incidence of ...
... ozone-forming pollution and **global warming** gases in order to ...
... ENVIRONMENTAL LAW (90%); **GLOBAL WARMING** (90%); DISEASES & DISORDERS (...

35. CONGRESSIONAL RECORD -- SENATE, Monday, May 03, 2004 , 150 Cong Rec S 4728, Vol. 150, No. 59,
ENSURING AMERICA'S FUTURE COMPETITIVENESS
Senate
Mr. BINGAMAN
... Consider the administration's response to **global warming.** Even though the scientific ...
... production and consumption has contributed to **global warming,** the White House deleted that finding from its 2001 report on **Global Warming,** and in its place inserted ...

36. CONGRESSIONAL RECORD -- SENATE, Thursday, April 29, 2004 , 150 Cong Rec S 4635, Vol. 150, No. 57,
INTERNET TAX NONDISCRIMINATION ACT
Senate
Mr. DOMENICI; **Mr.** DASCHLE; **Mr.** WYDEN; **Mr.** CARPER; **Mr.** DORGAN; **Mr.** McCAIN; **Mr.** ALEXANDER; **Mr.** CRAIG; **Mr.** LAUTENBERG; **Mr.** JEFFORDS; **Mr.** LEVIN; **Mr.** ALLEN; **Mr.** KOHL; **Mr.** SMITH; **Mr.** FRIST; **Mrs.** LINCOLN; **Mr.** DODD; **Mr.** BYRD. ; **Mr.** REID; **Mr.** BURNS; **Mrs.** BOXER; **Mr.** LOTT; **Mr.** BOND; **Mrs.** FEINSTEIN; **Mr.** VOINOVICH; **Mr.** KENNEDY; **Mr.** BAUCUS; **Mr.** LEAHY; **Mr.** ENZI
... focus will increase **greenhouse gas** emissions and keep us on the wrong path that increases the risks from **global warming and climate change.** This amendment also continues to include ...

37. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 28, 2004 , 150 Cong Rec S 4453, Vol. 150, No. 56,
INTERNET TAX NONDISCRIMINATION ACT
Senate
Mr. McCAIN; **Mr.** REID; **Mr.** DORGAN; **Mr.** WYDEN; **Mr.** ALLEN; **Mr.** ALLEN. ; **Mr.** CARPER; **Ms.** MURKOWSKI
... a debate on the issue of **climate change.** Senator Lieberman and I said: ...

38. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 28, 2004 , 150 Cong Rec S 4476, Vol. 150, No. 56,
HONORING OUR ARMED FORCES

Senate
Mr. PRYOR; **Mrs.** MURRAY; **Mr.** SMITH; **Mr.** BINGAMAN; **Mr.** WYDEN; **Mr.** FRIST
... ducks the important issue of **climate change. Climate change** is closely related to energy ...
... mitigate the possibility of global **climate change** comes up with a ...
... production technologies with lower **greenhouse gas** emissions. Because of this connection, much of the energy policy and much of the **climate change** policy has to be discussed together. To do ...
... provisions to ensure that we integrate **climate change** strategy with energy policy, develop better **climate change** science, and that we focus on breakthrough ...
... put forward. Leaving **climate change** out of the energy legislation is ...

39. CONGRESSIONAL RECORD -- SENATE, Monday, April 26, 2004 , 150 Cong Rec S 4339, Vol. 150, No. 54, ENVIRONMENTAL POLICY
Senate
Mr. LEAHY; **Mr.** JOHNSON
... avoid any mention of evidence of **climate change.** Just recently, the New ...

40. CONGRESSIONAL RECORD -- SENATE, Thursday, April 22, 2004 , 150 Cong Rec S 4238, Vol. 150, No. 53, EARTH DAY
Senate
Mr. FRIST
... partners to address global **climate change** and assist developing countries with ...

41. CONGRESSIONAL RECORD -- SENATE, Thursday, April 22, 2004 , 150 Cong Rec S 4244, Vol. 150, No. 53, EARTH DAY
Senate
Mr. BURNS
... recent findings in **climate-change** science also give reason ...

42. CONGRESSIONAL RECORD -- SENATE, Thursday, April 22, 2004 , 150 Cong Rec S 4289, Vol. 150, No. 53, CELEBRATING EARTH DAY 2004
Senate
Mrs. FEINSTEIN; **Mr.** DURBIN; **Mr.** FEINGOLD; **Mr.** THOMAS
... environment and ultimately, our health_**global warming. Climate change** is the most important environmental ...
... a likely impact of **climate change** that has not received very much ...
... supplies. The evidence is growing that **climate change** threatens water supplies ...
... Cruz analyzed the impact of **global warming** on Arctic Sea ice. What they ...
... catastrophic. The evidence is also mounting that **climate change** threatens not only our ...
... lifetimes. It is time to take **global warming** seriously and reduce our **greenhouse gas** emissions. The consequences of delaying and ...
CLIMATE CHANGE (79%); **GLOBAL WARMING** (59%); US ENVIRONMENTAL LAW (...

43. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 21, 2004 , 150 Cong Rec S 4175, Vol. 150, No. 52, EARTH DAY
Senate
Mrs. BOXER; **Mr.** JEFFORDS. ; **Mr.** REID

... refuses to act to reduce the **greenhouse gas** emissions. This Bush administration has ...
... national strategy to minimize **global warming,** and they will seek volunteer ...
... a major cause of **climate change.** The Commerce Department says, ...
... though the scientists say this is **global warming** and we have had hearings that show that slopes where ...
... look at mercury, whether you look at **global warming,** whether you look at deep cuts ...

44. CONGRESSIONAL RECORD -- SENATE, Thursday, April 08, 2004 , 150 Cong Rec S 4026, Vol. 150, No. 49,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. EDWARDS; **Mr.** HAGEL; **Mr.** LIEBERMAN; **Mr.** McCAIN; **Mr.** GRASSLEY; **Mr.** CORZINE; **Mr.** DORGAN; **Mrs.** FEINSTEIN; **Ms.** SNOWE; **Mr.** GRAHAM of Florida; **Mrs.** CLINTON; **Mr.** BURNS; **Ms.** MURKOWSKI
... needless emission of more **greenhouse gas** pollution than comes from our Nation's ...
... debate about reducing **greenhouse gas** emissions, an effort we believe ...
... legislation will reduce **greenhouse gas** pollution in an amount ...

45. CONGRESSIONAL RECORD -- SENATE, Thursday, April 01, 2004 , 150 Cong Rec S 3523, Vol. 150, No. 44,
APRIL FOOLS' ON US
Senate
Mrs. CLINTON
... something about global **climate change** and carbon dioxide in the ...
... forget it. April Fools': **climate change,** no such thing is going ...

46. CONGRESSIONAL RECORD -- SENATE, Thursday, April 01, 2004 , 150 Cong Rec S 3594, Vol. 150, No. 44,
AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. GRASSLEY
... subcommittee on clean air, **climate change** and nuclear safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

47. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 31, 2004 , 150 Cong Rec S 3407, Vol. 150, No. 43,
PERSONAL RESPONSIBILITY AND INDIVIDUAL DEVELOPMENT FOR EVERYONE ACT
Senate
Mr. NICKLES; **Mr.** BAUCUS; **Mr.** GRASSLEY; **Mr.** KENNEDY; **Mr.** HARKIN; **Mr.** HARKIN. ; **Mr.** CRAIG; **Mr.** NELSON of Nebraska; **Mr.** ALEXANDER; **Mr.** BINGAMAN; **Ms.** CANTWELL; **Mr.** DODD; **Mr.** CORNYN; **Mr.** FEINGOLD; **Mr.** REID; **Mr.** McCONNELL; **Mr.** INHOFE; **Mr.** CARPER; **Mr.** TALENT; **Mr.** LAUTENBERG; **Mr.** DURBIN; **Mr.** ENZI; **Mr.** JOHNSON; **Ms.** MIKULSKI; **Mr.** SARBANES
... a supporter of drastic **climate change** legislation that would cripple our economy and ...
... a supporter of drastic **climate change** legislation that we have talked about that would be ...
... under the auspices of global **climate change.** Again, the Senator seeks to ...

48. CONGRESSIONAL RECORD -- SENATE, Tuesday, March 30, 2004 , 150 Cong Rec S 3347, Vol. 150, No. 42,
IRAQI AND AFGHANISTAN LIBERATION MEDALS
Senate
Mr. GREGG; **Mr.** ENSIGN; **Mr.** BAUCUS; **Mr.** MILLER; **Mr.** ENZI; **Mr.** SANTORUM; **Mr.** REID; **Mr.** FRIST;

Mr. DORGAN; **Mr.** CORNYN; **Mr.** DeWINE
... Kerry voted for **climate change** legislation which would have imposed a ...

49. CONGRESSIONAL RECORD -- SENATE, Monday, March 29, 2004 , 150 Cong Rec S 3278, Vol. 150, No. 41,
ENERGY POLICY
Senate
Mr. DURBIN
... conservation, we are undoubtedly adding to **global warming,** air pollution, and serious ...

50. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 24, 2004 , 150 Cong Rec S 3110, Vol. 150, No. 38,
OCEANS AND HUMAN HEALTH ACT
Senate
Mr. FRIST; **Mr.** HOLLINGS
... events associated with global **climate change.** Over the past 2 ...

51. CONGRESSIONAL RECORD -- SENATE, Monday, March 22, 2004 , 150 Cong Rec S 2938, Vol. 150, No. 36,
COLLEGE BASKETBALL
Senate
Mr. DURBIN
... key portions of reports on **global warming,** health disparities, and racism ...

52. CONGRESSIONAL RECORD -- SENATE, Thursday, March 11, 2004 , 150 Cong Rec S 2700, Vol. 150, No. 31,
SCIENCE AND TECHNOLOGY
Senate
Mr. DASCHLE
... House's 2001 report on **global warming** is another troubling case ...
... production and consumption contributes to **global warming,** the White House deleted that ...

53. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 03, 2004 , 150 Cong Rec S 2170, Vol. 150, No. 26,
AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. HATCH
... 9:30 a.m. on Impact of **Climate Change,** in SR-253. The ...

54. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 24, 2004 , 150 Cong Rec S 1515, Vol. 150, No. 20,
LESSONS FROM A CLEAN AIR LISTENING TOUR
Senate
Mr. JEFFORDS
... carbon dioxid_the greatest **greenhouse gas.** Our Nation's utilities alone ...
... part, responsible for the **global warming** that is occurring today and will continue into the future. **Global warming** will seriously affect the ...

55. CONGRESSIONAL RECORD -- SENATE, Thursday, February 05, 2004 , 150 Cong Rec S 614, Vol. 150, No. 13,

SAFE, ACCOUNTABLE, FLEXIBLE, AND EFFICIENT TRANSPORTATION EQUITY ACT OF 2003
Senate
Mr. REID; **Mr.** INHOFE; **Mr.** GRASSLEY; **Mr.** BOND; **Mr.** SHELBY; **Mr.** SARBANES; **Mr.** REED; **Mr.** JEFFORDS; **Mr.** CARPER; **Mr.** KENNEDY; **Mr.** ALLARD; **Mr.** WYDEN; **Mr.** FRIST; **Mr.** BAUCUS; **Mr.** DASCHLE; **Mr.** DORGAN; **Mr.** KYL; **Ms.** COLLINS; **Mr.** DODD; **Ms.** MURKOWSKI; **Mr.** VOINOVICH; **Mr.** NELSON of Florida
... will agree to disagree that **global warming** is a growing concern. ...

56. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 21, 2004 , 150 Cong Rec S 66, Vol. 150, No. 2, AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION, AND RELATED AGENCIES APPROPRIATIONS ACT, 2004_CONFERENCE REPORT
Senate
Mr. DORGAN; **Mr.** BOND; **Mr.** REED; **Mr.** McCONNELL; **Mr.** DOMENICI; **Mr.** REID; **Mr.** BYRD. ; **Mr.** DURBIN; **Mr.** DURBIN. ; **Mr.** HARKIN; **Mr.** GRAHAM; **Mr.** LAUTENBERG; **Mr.** GREGG; **Mr.** GRAHAM of Florida; **Mr.** SPECTER; **Mr.** KENNEDY; **Mr.** NICKLES; **Ms.** MIKULSKI; **Mr.** NELSON of Nebraska
... Polarimeter Sensor of the Global **Climate Change** Research Initiative by $ ...
... concerned about the impacts of **climate change** on our environment and economy. Although the ...
... take action to reduce **greenhouse gas** emissions, we are in agreement on the ...

57. CONGRESSIONAL RECORD -- SENATE, Tuesday, December 09, 2003 , 149 Cong Rec S 16110, Vol. 149, No. 176, WILLIAM JOHNSON'S RETIREMENT
Senate
Mr. CARPER
... hopes of determining the effects of **global warming.** Mr. Johnson is a ...

58. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 25, 2003 , 149 Cong Rec S 15882, Vol. 149, No. 174, MEDICARE PRESCRIPTION DRUG, IMPROVEMENT, AND MODERNIZATION ACT OF 2003_CONFERENCE REPORT
Senate
Mr. REID; **Mr.** KENNEDY; **Mr.** KENNEDY. ; **Mr.** GRASSLEY; **Mr.** SCHUMER; **Mr.** McCAIN; **Mr.** McCAIN. ; **Mr.** BAUCUS; **Mr.** CONRAD; **Mrs.** FEINSTEIN; **Mr.** BROWNBACK. ; **Ms.** LANDRIEU; **Mr.** DORGAN; **Mr.** HOLLINGS; **Mr.** SPECTER; **Mr.** LEAHY; **Mr.** DOMENICI; **Mr.** JEFFORDS; **Mrs.** SNOWE; **Mrs.** CLINTON; **Mr.** KYL; **Mr.** BIDEN; **Mr.** BREAUX; **Mr.** SARBANES; **Mr.** DODD; **Mr.** DURBIN; **Mrs.** HUTCHISON; **Mr.** DASCHLE; **Mr.** FRIST
... not including a **climate-change** provision. Gratifying, as well, is that the ...

59. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 25, 2003 , 149 Cong Rec S 15959, Vol. 149, No. 174, AIR POLLUTION CLOSE TO HOME
Senate
Mr. JEFFORDS
... later each year? **Global warming** will threaten more than ...
... in the very near future. **Global warming** and rising sea levels could ...

60. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 25, 2003 , 149 Cong Rec S 15962, Vol. 149, No. 174, CENTER FOR AMERICAN PROGRESS'S NEW AMERICAN STRATEGIES FOR SECURITY AND PEACE

CONFERENCE
Senate
Mr. LEAHY
... address the global problem of **climate change and global warming.** The biological weapons enforcement ...

61. CONGRESSIONAL RECORD -- SENATE, Monday, November 24, 2003 , 149 Cong Rec S 15813, Vol. 149, No. 173, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BAUCUS; **Mr.** GRASSLEY; **Mr.** CORZINE; **Mr.** ENSIGN; **Mr.** REID; **Mr.** BIDEN
... operations aggravate global **climate change** by_ (A) decreasing the ...

62. CONGRESSIONAL RECORD -- SENATE, Friday, November 21, 2003 , 149 Cong Rec S 15326, Vol. 149, No. 170, ENERGY POLICY ACT OF 2003_CONFERENCE REPORT
Senate
Mr. CRAIG; **Mr.** DOMENICI; **Mr.** DOMENICI. ; **Mr.** BINGAMAN; **Mr.** JEFFORDS; **Mr.** THOMAS; **Ms.** LANDRIEU; **Ms.** LANDRIEU. ; **Mr.** McCAIN; **Ms.** CANTWELL; **Mr.** DASCHLE; **Mr.** SCHUMER; **Mr.** GRASSLEY; **Mr.** DURBIN. ; **Mr.** BURNS; **Mr.** FRIST
... consensus that the threat of global **climate change** is real and, unless we act, ...
... will significantly reduce **greenhouse gas** emissions. And it will save $ ...
... toward dealing with the reality of **global warming.** It did not undercut the National ...

63. CONGRESSIONAL RECORD -- SENATE, Friday, November 21, 2003 , 149 Cong Rec S 15335, Vol. 149, No. 170, INTELLIGENCE AUTHORIZATION ACT FOR FISCAL YEAR 2004_CONFERENCE REPORT
Senate
Mr. FRIST; **Mr.** REID; **Mr.** DASCHLE; **Mr.** INOUYE; **Mr.** BAUCUS; **Mr.** COCHRAN; **Mr.** CAMPBELL; **Mr.** NELSON of Florida; **Mr.** ENZI; **Mr.** BURNS; **Mr.** HATCH; **Mr.** CONRAD; **Mrs.** LINCOLN; **Mr.** BIDEN; **Mrs.** MURRAY; **Mr.** LEVIN; **Mr.** LIEBERMAN; **Ms.** SNOWE; **Mr.** DORGAN; **Mr.** ROBERTS; **Mr.** ROCKEFELLER; **Mr.** SHELBY; **Mr.** SARBANES.
... dependence on foreign oil, **climate change** policy, and technology_have been dropped from the ...
... oil saving provisions or **climate change** provisions. I do support the ...
... authorizing research on global **climate change,** was eliminated. This bill prefers ...
... fossil fuels that have contributed to **global warming.** This is not just irresponsible; it is ...
... legislation. We could have finally tackled **global warming**_the greatest environmental challenge of our ...
... thousands of Americans. Second, **climate change. Greenhouse gas** emissions from the burning of fossil ...
... provisions of any kind to address **climate change.** Third, fuel economy ...
... dioxide emissions_the major **greenhouse gas** linked to global **climate change.** To put this in perspective, the ...
... motor vehicles, its contribution to **global warming** is also rising faster than any other ...
... fuel economy rules, and that **global warming** has received little attention. " ...
... carbon dioxide, the major **greenhouse gas** that the vast majority of international ...
... believe is causing global **climate change.** And, it is interesting to note that there is not one mention of **climate change** in the entire conference ...
... different titles addressing **climate change,** including research on abrupt **climate change.** Also, the administration's National Energy ...
... U.S. man-made **greenhouse gas** emissions representing about ...

64. CONGRESSIONAL RECORD -- SENATE, Thursday, November 20, 2003 , 149 Cong Rec S 15212, Vol. 149, No.

169, ENERGY POLICY ACT OF 2003_CONFERENCE REPORT
Senate
Mr. REID; **Mrs.** FEINSTEIN
... bill does not deal with **global warming,** does not deal with fuel ...
... bill. The largest contributor to **global warming** is carbon dioxide. The largest ...
... single shot at reducing **global warming.** Yet we refuse to do it. Earlier this ...
... carbon dioxide, the top **greenhouse gas,** as I have said, from entering the atmosphere ...
... not address global **climate change.** We are 5 percent of the world's ...
... produce the world's most **greenhouse gas** emissions. We are the most significant culprit driving **global warming.** Despite the fact that **climate change** threatens our environment and our economy, this ...
... peril. The scientific evidence of **global warming** is real. The problem is getting ...
... level earlier this year. **Climate change** is also affecting some of our most treasured ...
... clear and visible sign of **climate change** in America and the rest of the ...
... Sciences, the Intergovernmental Panel on **Climate Change,** and the Congressional Budget Office. ...
... in substantially more **greenhouse gas** emissions and further warming ...
... upstream. Even without **climate change,** it would be a struggle to supply ...
... after report indicates that **climate change** will further threaten ...
... Concerned Scientists all indicate that **climate change** is likely to increase winter ...
... best interest to address **climate change.** Our environment is clearly at risk. Our ...

65. CONGRESSIONAL RECORD -- SENATE, Thursday, November 20, 2003 , 149 Cong Rec S 15217, Vol. 149, No. 169, ENERGY POLICY ACT OF 2003_CONFERENCE REPORT_Continued
Senate
Mr. BINGAMAN; **Mr.** THOMAS; **Mr.** JEFFORDS; **Mr.** CRAIG; **Mr.** CRAIG. ; **Mr.** CORNYN; **Mr.** DOMENICI; **Mr.** BREAUX; **Mr.** LEAHY; **Mr.** NICKLES; **Mr.** GREGG; **Mr.** GREGG. ; **Mr.** REID; **Mrs.** BOXER; **Mr.** BUNNING; **Mr.** DURBIN; **Mrs.** HUTCHISON; **Mr.** BYRD; **Mr.** INHOFE; **Mr.** FEINGOLD; **Mr.** WYDEN; **Mr.** BURNS
... renewable portfolio standard or **climate change.** The bill contains waivers of ...
... didn't put in the **global warming** provision that would have greatly increased ...

66. CONGRESSIONAL RECORD -- SENATE, Thursday, November 20, 2003 , 149 Cong Rec S 15255, Vol. 149, No. 169, ENERGY POLICY ACT OF 2003_CONFERENCE REPORT_Continued
Senate
Mr. SUNUNU; **Mr.** LAUTENBERG; **Ms.** MURKOWSKI; **Ms.** CANTWELL; **Mr.** NELSON of Florida; **Mr.** KYL; **Mr.** REID; **Mr.** SCHUMER; **Mr.** GRAHAM of Florida; **Mr.** VOINOVICH; **Mr.** FRIST
... Middle East. We see **global warming** caused by fossil ...
... United States reduced **greenhouse gas** emissions by 4.3 ...

67. CONGRESSIONAL RECORD -- SENATE, Wednesday, November 19, 2003 , 149 Cong Rec S 15108, Vol. 149, No. 168, ENERGY
Senate
Mr. SMITH; **Mrs.** HUTCHISON; **Mr.** LOTT
... People worried about **global warming** ought to be very interested in this ...
... abundant electricity without **global warming.** The bill also contains important ...

68. CONGRESSIONAL RECORD -- SENATE, Wednesday, November 19, 2003 , 149 Cong Rec S 15111, Vol. 149,

No. 168, ENERGY POLICY ACT OF 2003_CONFERENCE REPORT
Senate
Mr. FRIST; **Mr.** DOMENICI; **Mr.** GREGG. ; **Mr.** WYDEN; **Mr.** CRAIG; **Mr.** BINGAMAN; **Mr.** BINGAMAN. ; **Mr.** THOMAS
... issue of greenhouse gases and **climate change,** a product of burning of ...
... goes more toward **climate change** and improving our environment than any **climate change** bill we ever had on the floor of the Senate, and here is the ...
... environmental policy, including **global warming,** to which my colleague, Senator ...
... coal-fired generation to **global warming** increases. This conference report ...

69. CONGRESSIONAL RECORD -- SENATE, Wednesday, November 19, 2003 , 149 Cong Rec S 15140, Vol. 149, No. 168, ENERGY POLICY ACT OF 2003_CONFERENCE REPORT_Continued
Senate
Mr. DURBIN; **Mr.** DURBIN. ; **Mr.** DOMENICI; **Mr.** REID; **Mr.** KENNEDY; **Ms.** CANTWELL; **Mr.** SCHUMER; **Mr.** McCAIN; **Mr.** DORGAN; **Ms.** COLLINS; **Mr.** INHOFE; **Mr.** AKAKA; **Mr.** REED; **Ms.** STABENOW; **Mrs.** CLINTON; **Mr.** SESSIONS; **Mr.** SESSIONS. ; **Mr.** TALENT. ; **Mr.** FRIST
... increases air pollution and **global warming** with huge new incentives, ...
... a leading source of **global warming** and should not be subsidized with scarce ...
... oil dependency, not **global warming,** more efficient cars should ...
... costs on to them. The legislation would also increase **greenhouse gas** emissions, waste natural ...
... bill's failure to address **climate change** is yet another disappointment. It ...
... a near certainty that **greenhouse gas** emissions will increase ...
... legislation. Yet the entire **climate change** title has been stripped from this bill. If we are ...
... projects that will increase **greenhouse gas** emissions, then at least we should determine whether such an ...
... climate. Unfortunately, the abrupt **climate change** provisions that I authored were also ...
... saves energy, reduces **greenhouse gas** emissions, increases energy ...
... seriously address the issue of **climate change,** and breathe cleaner air. ...

70. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 18, 2003 , 149 Cong Rec S 14996, Vol. 149, No. 167, DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT AND INDEPENDENT AGENCIES APPROPRIATIONS ACT, 2004
Senate
Mr. KERRY; **Mr.** McCAIN; **Mr.** BOND; **Mr.** REID; **Ms.** MIKULSKI; **Mr.** SESSIONS; **Mr.** GRAHAM of Florida
... funding for the Global **Climate Change** Research Initiative by $ ...

71. CONGRESSIONAL RECORD -- SENATE, Monday, November 17, 2003 , 149 Cong Rec S 14924, Vol. 149, No. 166, MORNING BUSINESS
Senate
Mr. JEFFORDS
... 4 million tons of **greenhouse gas** emissions annually. States that have ...
... in 2001 reduced **greenhouse gas** emissions by 94,000 ...
... Vermont and 4.5 percent of **greenhouse gas** emissions. To me, those savings sound ...

72. CONGRESSIONAL RECORD -- SENATE, Monday, November 17, 2003 , 149 Cong Rec S 14925, Vol. 149, No. 166, ENVIRONMENTAL PROVISIONS IN THE CONFERENCE REPORT ON H.R. 6
Senate

Mr. JEFFORDS; **Mr.** KENNEDY
... oil, and adoption of sensible **climate change** policy, have been dropped. While ...

73. CONGRESSIONAL RECORD -- SENATE, Wednesday, November 12, 2003 , 149 Cong Rec S 14683, Vol. 149, No. 164, Senate
Senate
Mr. GRASSLEY; **Mr.** WARNER; **Mr.** WARNER. ; **Mr.** CARPER; **Mr.** LEAHY; **Mr.** SESSIONS; **Mr.** CAMPBELL; **Mr.** ENZI; **Mr.** BURNS; **Mr.** ALLEN; **Ms.** STABENOW; **Mr.** HATCH; **Mr.** COLEMAN. ; **Mr.** ALLARD. ; **Ms.** COLLINS. ; **Mr.** CRAIG; **Mr.** CRAIG. ; **Mr.** NELSON of Nebraska; **Mr.** ROCKEFELLER; **Mrs.** DOLE; **Mrs.** HUTCHISON. ; **Mr.** CRAPO. ; **Mr.** CORZINE. ; **Mr.** SCHUMER; **Mr.** GRAHAM of South Carolina; **Mr.** GRAHAM. ; **Mr.** DAYTON; **Mr.** LAUTENBERG; **Mr.** LEVIN
... carbon dioxide, causing **global warming.** We should be addressing those issues. We had a ...

74. CONGRESSIONAL RECORD -- SENATE, Wednesday, November 12, 2003 , 149 Cong Rec S 14807, Vol. 149, No. 164, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Ms. STABENOW; **Ms.** MURKOWSKI; **Mr.** SPECTER; **Mr.** LOTT; **Mr.** COCHRAN; **Mr.** HARKIN; **Mr.** DURBIN; **Mr.** HATCH; **Mr.** BIDEN; **Mr.** GRASSLEY; **Mr.** LUGAR; **Mr.** JEFFORDS; **Mr.** AKAKA; **Mr.** BROWNBACK
... 4 million tons of **greenhouse gas** emissions annually. States that have ...
... in 2001 reduced **greenhouse gas** emissions by 94,000 ...
... Vermont and 4.5 percent of **greenhouse gas** emissions. To me, those savings sound ...

75. CONGRESSIONAL RECORD -- SENATE, Monday, November 10, 2003 , 149 Cong Rec S 14287, Vol. 149, No. 162, DEPARTMENT OF COMMERCE, JUSTICE, AND STATE, THE JUDICIARY AND RELATED AGENCIES APPROPRIATIONS ACT, 2004
Senate
Mr. REID; **Mr.** LEAHY; **Mr.** SCHUMER; **Mr.** DURBIN; **Mr.** DURBIN. ; **Mr.** ROBERTS. ; **Mr.** LEVIN
... provisions in this bill is **global warming.** One of the agencies funded ...
... funds critical research into **climate change or global warming.** As we consider this bill today, ...
... few words about **global warming** and this administration's stewardship of the environment ...
... greenhouse gases contributing to **global warming.** Then when we thought it couldn't get any ...
... polluting our air and contributing to **global warming. Global warming** is real. I so admire the ...
... strength of his convictions is what he has done on **global warming.** But for John ...
... for 2 days **global warming.** He forced us to do that. I, of course, would ...
... majority of Americans know, that **global warming** is upon us. We saw that with the graphs, ...
... know. We talked about **global warming.** I hope the issue is ...
... enough that we should be talking about **global warming.** I would like to start this ...
... decision to ignore the problems of **global warming.** I spread all over the ...
... I appreciate his bringing **global warming** before our eyes. Ignoring **global warming** isn't merely a ...
... reduce the gases that cause **global warming** but also help us break our ...
... atmosphere, carbon that contributes to **global warming.** As Nevada and other States ...
... America because it will slow **global warming.** The work that is being funded ...
... includes convincing evidence that **global warming** is real. What more is needed is ...
... frog, we take notice of **global warming** before it is too late. **Global warming** is here. It is not only like the ...

76. CONGRESSIONAL RECORD -- SENATE, Friday, November 07, 2003 , 149 Cong Rec S 14244, Vol. 149, No.

161, AN INFINITE MIRAGE AND A BOUNDLESS FACADE
Senate
Mr. BYRD; **Mr.** DeWINE
... for all, realize that our energy and **climate change** policies are two sides of the ...
... address either global **climate change** or advanced clean energy ...
... powerplant as an experiment to address **climate change.** My support for this ...
... will support my **climate change** and international technology transfer ...
... administration is still around. **Global warming** is an Achilles' heel for this ...

77. CONGRESSIONAL RECORD -- SENATE, Friday, November 07, 2003 , 149 Cong Rec S 14248, Vol. 149, No. 161, AIR QUALITY AND THE BUSH ADMINISTRATION
Senate
Mr. JEFFORDS; **Mr.** ALEXANDER
... for the increase in **global warming,** for the smog-blocking ...

78. CONGRESSIONAL RECORD -- SENATE, Monday, November 03, 2003 , 149 Cong Rec S 13751, Vol. 149, No. 157, EMERGENCY SUPPLEMENTAL APPROPRIATIONS ACT FOR DEFENSE AND FOR THE RECONSTRUCTION OF IRAQ AND AFGHANISTAN, 2004_CONFERENCE REPORT
Senate
Mr. STEVENS; **Mr.** DURBIN; **Mr.** DORGAN; **Mr.** GREGG; **Mr.** GRASSLEY; **Mr.** ALLEN; **Mr.** REID; **Ms.** COLLINS; **Mr.** LEVIN; **Mr.** HOLLINGS; **Mr.** HOLLINGS. ; **Mr.** DAYTON; **Mr.** BYRD; **Mrs.** BOXER; **Mr.** REED; **Mrs.** FEINSTEIN; **Mr.** HARKIN; **Mr.** EDWARDS; **Ms.** SNOWE; **Mr.** FEINGOLD; **Mr.** NICKLES; **Mr.** FRIST; **Mr.** AKAKA; **Mr.** KENNEDY; **Mr.** LEAHY; **Mr.** WARNER. ; **Mr.** BURNS
... other core functions, such as **climate change,** deforestation, et cetera. This is because the ...
... EPA Administrator should negotiate **climate change** treaties on behalf of the United ...
... lumber imports, and global **climate change.** What is the root of the committee's frustration with the ...

79. CONGRESSIONAL RECORD -- SENATE, Friday, October 31, 2003 , 149 Cong Rec S 13699, Vol. 149, No. 156, SCHEDULE
Senate
Mr. FRIST
... day, the Senate considered the **climate change** bill and failed to invoke ...

80. CONGRESSIONAL RECORD -- SENATE, Thursday, October 30, 2003 , 149 Cong Rec S 13535, Vol. 149, No. 155, SCHEDULE
Senate
Mr. LOTT
... debate on S. 139, the **climate change** legislation. There will be 2 ...

81. CONGRESSIONAL RECORD -- SENATE, Thursday, October 30, 2003 , 149 Cong Rec S 13556, Vol. 149, No. 155, EXECUTIVE SESSION
Senate
Ms. CANTWELL; **Mr.** FEINGOLD; **Mr.** KOHL; **Mr.** LEAHY; **Mr.** KENNEDY; **Mr.** HATCH; **Mr.** COCHRAN; **Mr.** FRIST; **Mr.** REID; **Mr.** LOTT
... going to have a vote on the **global warming** issue. It would have been about 12:45 ...

... issue prior to voting on the **global warming** issue, which I hope ...

82. CONGRESSIONAL RECORD -- SENATE, Thursday, October 30, 2003 , 149 Cong Rec S 13572, Vol. 149, No. 155, CLIMATE STEWARDSHIP ACT OF 2003

Senate

Mr. REID; **Mr.** LIEBERMAN; **Mrs.** MURRAY; **Mrs.** FEINSTEIN; **Mr.** INHOFE; **Mr.** NELSON of Florida; **Mr.** CRAIG; **Mr.** LAUTENBERG; **Mr.** VOINOVICH; **Mr.** BINGAMAN. ; **Mr.** SUNUNU; **Mr.** McCAIN; **Mr.** BYRD; **Mr.** CARPER; **Mr.** HARKIN; **Mr.** JEFFORDS; **Mr.** FEINGOLD; **Mr.** KOHL; **Ms.** CANTWELL; **Mr.** BUNNING; **Mr.** CONRAD; **Mr.** LEVIN; **Mr.** ENZI; **Mr.** ALLEN; **Mr.** SPECTER; **Mrs.** LINCOLN; **Mr.** BAUCUS; **Mrs.** BOXER

... research on abrupt bankrupt **climate change,** to accelerate the reduction of **greenhouse gas** emissions in the United ...

... market-driven system of **greenhouse gas** tradeable allowances that could be used ...

... standard credits, to limit **greenhouse gas** emissions in the United ...

... Mr. President, we are now on **global warming.** Because of scheduling problems, the managers of the ...

... aggressive plan to fight **global warming.** When President Bush walked ...

... plan that will cut **greenhouse gas** emissions. I want to ...

... will require mandatory **greenhouse gas** emissions reductions in the ...

... air pollutants that contribute to **climate change.** Many of my colleagues are ...

... administration's approach to global **climate change** has been to focus on reducing **greenhouse gas** intensity. That is the ratio of carbon ...

... says he wants to reduce **greenhouse gas** intensity by 18 ...

... administration really wants to do to reverse **global warming.** According to CRS, **greenhouse gas** intensity is projected to fall ...

... Federal Government's primary **climate change** goal should be to encourage voluntary measures to reduce **greenhouse gas** intensity by only ...

... utterly irresponsible approach to **global warming.** Our country should be taking an aggressive ...

... help our economy. The threat of **global warming** is real. The Pacific Northwest stands to lose much from **climate change** from increasing severe storms to ...

... got together to curb **greenhouse gas** emissions by promoting ...

... in efforts to combat **global warming** even as mandatory programs on the ...

... half of the States are addressing **global warming,** whether through legislation, lawsuits ...

... greatest role in **global warming.** While few of the State ...

... acting partly because of predictions that **global warming** could damage local economies ...

... things which may be linked to **global warming** here in the state," Mr. ...

... Climate Solutions, which works on **global warming** issues in the Pacific ...

... nongovernment organizations working on **global warming,** doubled its membership of state and ...

... linking their agricultural practices to **global warming.** Nebraska, Oklahoma and Wyoming have all ...

... in anticipation of future **greenhouse-gas** emission trading, hoping they ...

... Liddy Bourne, who does research on **global warming** for the American Legislative ...

... significant rise in **greenhouse-gas**-related legislation two ...

... shared strategies to address **global warming.** To be sure, some states have decided ...

... embrace policies to combat **global warming.** Six_Alabama, Illinois, ...

... mandatory reductions in **greenhouse gas** emissions. "My concern," said ...

... a patchwork quilt of **greenhouse-gas** regulations across the country. We ...

... decision not to regulate **greenhouse-gas** pollutants under the Clean ...

... under the Clinton administration. "**Global warming** cannot be solely addressed at the ...

... real action against **climate change.** The science is solid. It is time to ...

... needed to track and trade **greenhouse gas** emissions and require the U.S. to ...

... forward. As the world's largest **greenhouse gas** emitter, the U.S. has a ...
... 20 percent of the world's **greenhouse gas** emissions. Much of the world is already reducing their **greenhouse gas** emissions. The world is counting on us to do the ...
... getting stronger and stronger that **climate change** will be very expensive. According to the ...
... California extremely vulnerable to **global warming.** Frankly, the models predicting the impacts of **global warming** on California are frightening. **Climate change** threatens the agricultural and natural ...
... 2020. Even without **climate change,** it would be a struggle to supply ...
... after report indicates that **climate change** will further threaten ...
... Concerned Scientists all indicate that **climate change** is likely to increase winter ...
... California's water supply. **Climate change** threatens even to make those ...
... seeing other effects of **climate change** throughout the world: The Union of ...
... continue to warm due to **climate change,** the number and intensity of extreme ...
... a predicted result of **climate change. Climate change** is also affecting some of our most treasured ...
... clear and visible sign of **climate change** in America and the rest of the ...
... even more. The evidence that **climate change** is real is overwhelming: including ...
... Science, the Intergovernmental Panel on **Climate Change,** and even the Congressional Budget ...
... in substantially more **greenhouse gas** emissions and further warming ...
... emissions." The Intergovernmental Panel on **Climate Change** estimates that the Earth's average ...
... latest evidence also indicates that **climate change** is likely to lead to more ...
... act. Not addressing **climate change** will cost us dearly. ...
... taken action against **climate change.** Not only are we not ...
... obstacle_when it comes to combating **global warming.** In his speech to the joint ...
... now. Mr Blair said: **Climate change,** deforestation, the voracious drain on ...
... agree that we should continue to study **climate change.** But we also need to start ...
... gases and the vast majority of our **greenhouse gas** emissions. The amendment is low ...
... a national solution to **climate change.** So far, we have placed all of the burden on the ...
... created a registry of **greenhouse gas** emissions that will be a ...
... groundbreaking regulation affecting **greenhouse gas** emissions from automobiles. Many ...
... Americans support this approach to **global warming**_including solid majorities from ...
... listen. We know that agreement on **climate change** is possible in the Senate. The ...
... doing something about **climate change.** I believe we can ...
... 20,000, who refute the science on which **global warming** is based. Only two ...
... States response to global **climate change.** How our Nation addresses global **climate change** may prove to be one of the ...
... prosperous world. The debate on **climate change,** however, has moved beyond the Kyoto ...
... practical policies to deal with **climate change.** The McCain-Lieberman bill would ...
... Information Administration projects the **greenhouse gas** emission levels in ...
... action would best address the **climate change** challenge we face now and into the ...
... in addressing our national **climate change** policy: The establishment of a ...
... emissions reductions; and research into **climate change** science and carbon sequestration. ...
... will have to be in the future. **Global warming** does not recognize national ...
... United States, but our **global warming** policy must be broader. The ...
... nations cannot achieve **greenhouse gas** reductions until they achieve ...
... energy use and reduce their **greenhouse gas** emissions. Industrialized nations ...
... participate in workable **climate change** policies. It is the only way to ensure both global **climate change** success and global prosperity. ...
... for Swiss Re said, "**Climate change** driven natural disasters are ...
... in the sand and saying **global warming** is not a problem. We ...
... awed by the complexity of the **climate change** issue for quite some ...
... times on the floor of the Senate that **climate change** is one of the most significant ...

... legislatively address the issue of **climate change** and to object to the manner in which they have ...
... attention to the developing science on **global warming.** Indeed, I have organized and ...
... discuss the state of the science on **global warming.** That conference, held on June ...
... discuss the state of science on **climate change.** Again, I could tweak the ...
... term threat to the environment from **climate change.** This is not true. One of the ...
... in the atmosphere and the observed **climate changes** during the 20th Century ...
... a role in **climate change,** and so it is not correct to say that this ...
... most comprehensive reports on **climate change** science entitled: "Research ...
... analysis of the current state of our **climate change** knowledge is what makes the Pathways ...
... Nations Framework Convention on **Climate Change** does not define what is meant ...
... a "dangerous" level of **greenhouse gas** concentrations. To my knowledge, ...
... a "dangerous" level of **greenhouse gas.** We simply don't know! ...
... trend can be attributed to the **greenhouse effect** and how much to other factors. In **climate change,** we have only a limited ...
... Strategic Plan for **climate change** research is a valuable ...
... rest of the world on this issue. **Climate change** is as much an economic issue as it is an ...
... discuss and debate the issue of **climate change.** Many of us engaged in this ...
... believe to be the cause of producing **greenhouse gas.** I suggest that probably the ...
... economy for the sake of **climate change.** He went away from that meeting ...
... Analysis of Some Key Questions," of **climate change** science by the National ...
... Anyone who wants to be the advocate of **climate change** darn well better ...
... single statement to suggest that the **global warming** we are experiencing can be in any ...
... clearly the product of the production of **greenhouse gas** around this globe and as a ...
... economy, all in the name of **climate change.** That is what the President understood. That is why the President ...
... scientific plan for **climate change** research is a valuable ...
... approach to addressing the problem of **global warming.** It establishes a **greenhouse gas** "cap and trade" system which is ...
... I saw the effects of **global warming** firsthand. The Antarctic Peninsula ...
... heating up! Yes, **global warming** is real and America should be leading the ...
... behind. The scientific discoveries on **climate change** are nothing short of astonishing. ...
... own programs to reduce **greenhouse gas** emissions. According to David ...
... soon begin to reduce **greenhouse gas** emissions. The Federal Government should be ...
... capacity and the skill to confront **global warming?** I for one, do ...
... skills and tackle global **climate change.** I have to ask: What is there about the facts of **global warming** that makes the administration duck ...
... way out of the impacts of **global warming.** But that is the strategy the opponents of this ...
... urging his side to call it "**climate change**" not **global warming, because** "**climate change**" is "lessfrightening." The implication here is that people ...
... years. The ominous impacts of **Global Warming** affect our health, affect our ...
... Council reported on the science of **global warming.** It said: Greenhouse gases are accumulating ...
... Council, who can we believe? **Global warming** poses a clear and present danger to us all. The **global warming** bandwagon is getting full_and the ...
... BP_which has already reduced its **greenhouse gas** emissions 10 percent ...
... correct when he said concerns about **climate change** and atmospheric concentrations of carbon are ...
... phase objective of limiting **greenhouse gas** emissions in 2016 to ...
... stated that the first phase of **greenhouse gas** reductions in their bill would " ...
... percent reduction from today's **greenhouse gas** levels." However, the Energy Information ...
... summer of 2000. Addressing the **climate change** issue does not have to come at the ...
... argument is there is no such thing as **climate change. Climate change** is a reality if we are to believe the ...
... even if there is such a thing as **climate change,** there is no real proof human activity is the cause of that **climate**

change. Again, I point ...
... a recognition of the importance of **climate change,** and we should include in a ...
... provision for dealing with **climate change** issues. Unfortunately, I am ...
... include any language related to **climate change,** even though the bill the ...
... percent reduction in **greenhouse gas** intensity over the next ...
... aggressive than business as usual. **Greenhouse gas** pollution intensity in the ...
... change the trend in **greenhouse gas** emissions over what is likely to ...
... almost a decade, and **greenhouse gas** emissions have actually increased ...
... international framework to address **global warming** continue for the next ...
... no domestic framework on **greenhouse gas** emissions that would guide or even ...
... no longer about whether **climate change** is a reality, which is what we have been talking ...
... must show leadership on **climate change.** The PRESIDING OFFICER. The Senator's ...
... discussions about the science of **climate change.** The science is important, and over ...
... assume the full impact of the **Climate Change** Commission, the IPCC and the Kyoto ...
... massive study of polar **climate change.** Dr. Robert Corell, who ...
... in the journal Nature that **global warming** is forcing species around the ...
... School: Concerns about **climate change** are often mistakenly placed into the ...
... future but as the rate of **climate change** increases, so do the biological responses and ...
... allergies and asthma, demonstrate that **global warming** has come into our backyards. Finally, ...
... devastation wrought by **climate change** so far has been remarkable. There is a ...
... Nations Intergovernmental Panel on **Climate Change,** the National Academy of Sciences, ...
... in the Northeast to reduce **greenhouse gas** emissions_10 States. The ...
... not related to (global) **climate change."** This was just in this morning's ...
... discuss the very critical issue of **global warming** and to summarize events of recent ...
... climate. The primary contributor to **global warming** is the burning of fossil fuels that ...
... challenge posed by **global warming,** let me state at the outset that ...
... a strong critic of **climate change** policies that are not in the ...
... effective approach to dealing with **climate change.** As the coauthor, along with Senator ...
... Nations Framework Convention on **Climate Change,** also known as the Rio Convention, ...
... part of any binding global **climate change** treaty. Another point that has been ...
... global strategy to deal on **climate change** than we were in 1997. The blame ...
... administration's unilateral approach to **climate change.** Thus, S. Res. 98 was an ...
... in the global negotiations on **climate change,** this administration has left the U.S. ...
... international response to global **climate change.** Yet, we will all suffer from the consequences of **global warming** in the long run because we are all ...
... know-nothing policies on **climate change,** and I strongly object to that. The ...
... isolationist approach to deal with **climate change.** And what will happen in ...
... hand is doing regarding its **climate change** policies. The White House does ...
... challenge posed by **global warming?** The critics of the amendment before us ...
... for effective action on **global warming.** The Senate should not be put ...
... devoid of provisions to address **climate change.** The Senate should be considering our nation's ...
... a global response to **climate change** and the international politics of energy. ...
... in seriously dealing with **climate change.** We have certainly witnessed this in the ...
... problem of increasing levels of **greenhouse gas** emissions and **global warming** about which Senator Byrd and ...
... shows that not only **greenhouse gas** emissions are increasing but also that those ...
... steps toward addressing **greenhouse gas** emissions. But over the ...
... Federal Government with regard to **climate change** policy. Half the States, ...
... taken steps to address **global warming.** On the one hand, I ...
... debate on how to address **climate change.** They think it is particularly noteworthy ...
... taken steps to reduce **greenhouse gas** emissions not because they have to but because they ...

... efficient and thereby avoid increasing **greenhouse gas** emissions. If a company such as ...
... majority of scientists, that global **climate change** is occurring, and is due in ...
... international process to address **global warming,** and meaningful U.S. domestic ...
... greenhouse gases that cause **climate change.** Two of these resolutions were included ...
... enough leadership on combating **global warming,** either domestically or abroad. And we are ...
... continue to warm due to **climate change,** the number and intensity of extreme ...
... predicting would occur with unmitigated **global warming.** These events should not come as ...
... system to begin to reduce our **greenhouse gas** emissions, to begin to take ...
... environment by reducing **greenhouse gas** emissions. I support those ...
... less fossil-fuel and **greenhouse gas** intensive future, while ...
... agricultural practices to reduce **greenhouse gas** emissions, including clean, ...
... role in mitigating **global warming,** and can provide valuable ...
... for years_not because of **global warming,** but because of the associated environmental ...
... thoroughly understand the issue of **climate change,** and that they can benefit from an emerging ...
... utilization of existing centers on **climate change.** This is a win-win ...
... honest discussion about **climate change,** greenhouse emissions, **global warming** and their effects on the Nation and the world. It is ...
... pass this important legislation. **Climate change and global warming** could cause grave problems to our ...
... about the negative effects of **global warming** that he has joined a lawsuit ...
... without assessing their impact on **global warming** as required by law. The ...
... assess their programs' contributions to **global warming.** Vermont also relies on revenue from the ...
... doing their part to slow **global warming.** Four ski resorts ...
... adopted a policy on **climate change** to address the problem of **global warming.** Mount Snow Resort has ...
... today and do our part to reduce **global warming.** I have two grandchildren ...
... took action to curb our **greenhouse gas** emissions. We can no ...
... current administration ignores **global warming.** Mr. JEFFORDS . Mr. ...
... plan to address the threat of **global warming.** I would prefer that we were debating ...
... actions now to reduce **greenhouse gas** emissions. There are those who say that **climate change** is a hoax, a ...
... maybe the whitehouse effect. **Global warming** has been documented by hundreds and ...
... Union, and the International Panel on **Climate Change.** To ignore and dismiss the threat of **climate change** to the economy and the environment is like ...
... systems that will reduce **greenhouse gas** emissions. This legislation gives ...
... binding treaty to reduce **greenhouse gas** emissions. We have been ignored. The administration has ...
... control emissions that cause **global warming.** Senators can lead ...
... blamed further for the **climate change** that is already occurring and for the ...
... supporting the McCain-Lieberman **climate change** legislation, and I want to ...
... party to the Framework Convention on **Climate Change.** As a Member of the Senate, ...
... despite these efforts, U.S. **greenhouse gas** emissions have increased by ...
... top officials acknowledged that **climate change** was a concern years ...
... statewide plan to address **global warming.** Numerous signs suggest that the ...
... in April 2003 on **climate change** in the Great Lakes ...
... away from our current commitments on **climate change** and has not recognized state efforts on **climate change.** I too shared concerns ...
... negotiation process to reduce **climate change** from developing countries such as China and ...
... current and future sources of **climate change** worldwide. That vote was not ...
... world. The administration's approach to **global warming** is one such area. Though the ...
... affected badly by **climate change,** the Bush Administration has shown ...
... implement the Framework Convention on **Climate Change,** and we need legislation to do just that. ...
... toward expanding the debate on **global warming.** Greenhouse gasses and **global warming** are a real threat to our ...
... scientific evidence backing **global warming.** And the private sector is facing the real world impact of **global**

warming as they contemplate the insurance costs of ...
... science backing claims of **global warming.** Today, the fog has lifted and we ...
... burning fossil fuels has had on **the climate. The changes** to our environment are real. Our job ...
... practical effort to reverse **global warming.** If our unilateral efforts convince ...
... begun seriously to struggle with **climate change.** And ultimately, inevitably, we need to ...
... tough decisions about **climate change.** We must reduce greenhouse ...
... articulated, the scientific conclusion that **greenhouse gas** emissions are contributing to an accelerated ...
... defer to their expertise on this matter. **Climate change** is an existing and scientifically supported ...
... highest per capita **greenhouse gas** emissions in the world and ...
... human activities cause **climate change.** Last year, in its ...
... vast array of consequences **climate change** would inflict across our country. ...
... same principle is true of **climate change.** We may save some money ...
... dramatically impacted by **climate change.** There is no way to deny that ...
... right about this issue and that **greenhouse gas** emissions are causing **global warming.** Perhaps the climate skeptics would ...
... support the McCain-Lieberman **climate change** bill and two-thirds ...
... Like the threat of terrorism, **climate change** is too alarming and disturbing a ...
... weather patterns that result from **global warming** would be devastating to the economies of my ...
... scientific evidence on global **climate change.** And we can debate that science all ...
... policies to control so-called "**global warming**". We need more evidence that the ...
... recognize the challenge of global **climate change,** I must oppose this ...
... for each ton of **greenhouse gas** emissions for which they are responsible. These ...
... not be subject to strict **greenhouse gas** emissions controls. Moreover, ...
... acknowledge the reality of global **climate change.** We need only to look to the ...
... real effects of global **climate change.** Human activity since the ...
... creative solutions to global **climate change.** We need to carefully consider ...
... important issue. The issue of **climate change and global warming** demands our attention. We live ...
... about our environment, about **climate change and global warming.** The proposal we are voting on today is ...
... will hurt our economy. **Climate change** is not something we can ...
... role in addressing **climate change,** but that leadership must ...
... take steps to reduce **global warming,** so that there is no incentive to move ...
... low environmental standards. **Climate change** cannot be addressed unilaterally. It ...
... environment to push down **greenhouse gas** emissions in one ...
... standards. That does nothing to reduce **greenhouse gas** emissions and does damage to U.S. ...
... not a solution to **climate change.** It would just be another economic ...
... countries with no limits on **greenhouse gas** emissions, as this bill would promote, is ...
... sound policy. Global **climate change** is just that: global and it needs to be ...
... effort to reach an international **climate change** agreement. By a ...
... Senate would not support any **climate change** agreement that did not include all ...
... raised that a global **climate change** policy could be imposed on the United ...
... American jobs, and global **climate change** is still a global ...
... Hagel and insist our global **climate change** policy does not harm ...
... a major source of **greenhouse gas** emissions. I wonder, if this ...
... most common and prevalent **greenhouse gas** of all. Of all the gasses found in our ...
... economics, particularly because that's what the entire **global warming** debate is about. Kyoto was an ...
... meeting the demands of global **climate change.** They, and all other developing nations have ...
... obligation to participate in any **climate change** agreement. They don't even ...
... in responding to global **climate change** concerns, we cannot agree to any ...
... Hagel and insist our global **climate change** policy does not harm ...
... first raised the spectre of **global warming** caused by carbon ...

... may have exaggerated the threat of **global warming** for political science ...
... policymakers were relatively unaware of the **global warming** issue." Moreover, according to ...
... Senate about past **climate change,** little has been said about the remarkable ...
... agree that human affect on any **climate change** would warm the coldest air of ...
... strive to profit politically from **climate change** scare tactics. Then, one ...
... reduction in global **greenhouse gas** emissions. According to an analysis ...
... increase in global **greenhouse gas** emissions as companies formerly ...
... legislation establishes a "**Climate Change** Credit Corporation" for " ...
... address the issue of global **climate change.** It is based on the recognition that only ...
... growth in global **greenhouse gas** emissions. Because of its negative impacts on ...
... anthropogenic_man made_**greenhouse gas** emissions. Dr. Richard ...
... international efforts to control **greenhouse gas** emissions. By the way, ...
... still disagreeing about whether **global warming** is a problem. The fact is, the ...
... about the growing threat of **global warming.** This group comprises CEOs and ...
... concern about the specter of **global warming** and potentially devastating effects of **climate change.** We urge you to take appropriate ...
... alarmed by the reality of **global warming.** Schooled in science and ...
... recognize that the risks and complexities of **climate change** are significant, but strongly ...
... sufficient to avert dangerous **climate change** will be long term, the ...
... ingenuity to solve the problem of **global warming** while continuing to prosper. ...
... debate about the levels of **greenhouse gas** reductions necessary to stabilize the ...
... Leaders Taking Action on **Climate Change.** Mr. LIEBERMAN . Mr. ...
... administration to do something about **global warming.** This inaction, lack of leadership, ...
... jobs. I believe that **global warming** is a matter of great ...
... means to address global **climate change.** I support his efforts and those of the ...
... reductions under this legislation do to **climate change?** What are the anticipated costs? Who would pay the ...
... impetus to action to deal with **global warming.** I look forward to ...
... extremely concerned about **global warming,** I voted in ...
... seek a solution to **global warming.** But at this time, when our economy is ...
... approach taken to global **climate change** sent a message to the ...
... stated that compelling evidence of **global warming** does not exist. I ...
... my belief that global **climate change** is a serious problem, ...
... itself from the world on global **climate change.** I echo the concerns of the ...
... a handle on rising **greenhouse gas** emissions. Small reductions ...
... but solving the problem of **global warming** is a life-time ...
... issue that it should, involve mandatory **greenhouse gas** reductions by all nations. ...
... reductions in U.S. **greenhouse gas** emissions without threatening the ...
... address human-caused **climate change.** I voted against ...
... significantly reduce global **greenhouse gas** emissions. It will only ...
... toward reducing our Nation's **greenhouse gas** emissions and would have helped address the problem of **global warming.** There is no question that **climate change** is one of the most serious ...
... nation and the world. We know that **climate change** is real. The overwhelming weight of ...
... opinion supports the idea that **climate change** is occurring, that it is human-induced, that it ...
... steps to halt and reverse **climate change.** My State enjoys ...
... in the Central Valley. **Climate change** is a very real threat to those ...
... indicate that human-induced **global warming** may produce a ...
... In light of the threat **global warming** poses to my State, the ...
... take steps to reduce our **greenhouse gas** emissions. The Climate Stewardship ...
... manufacturing sectors to reduce their **greenhouse gas** emissions to 2000 levels ...
... greenhouse gases and addressing **global warming.** I am extremely disappointed that the ...

CLIMATE CHANGE (90%); LEGISLATION (90%); **GLOBAL WARMING** (90%); AIR QUALITY ...

83. CONGRESSIONAL RECORD -- SENATE, Thursday, October 30, 2003 , 149 Cong Rec S 13613, Vol. 149, No. 155, Senate
Senate
Mr. COCHRAN; **Mr.** DOMENICI; **Mr.** THOMAS; **Mr.** REID; **Mr.** LAUTENBERG; **Mr.** LOTT; **Mr.** CRAPO; **Mr.** BINGAMAN; **Mrs.** BOXER; **Mr.** CRAIG; **Mr.** STEVENS; **Mrs.** MURRAY; **Mrs.** LINCOLN; **Mr.** TALENT; **Ms.** CANTWELL; **Ms.** CANTWELL. ; **Mr.** WYDEN; **Mr.** HARKIN; **Mrs.** FEINSTEIN; **Mr.** CORZINE; **Mr.** FEINGOLD; **Mr.** JOHNSON; **Mr.** ENZI; **Mr.** BURNS; **Mr.** BAUCUS; **Mr.** DORGAN; **Mr.** McCONNELL
... mitigate the effects of flooding and **global warming.** Finally, these forests have great ...

84. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 29, 2003 , 149 Cong Rec S 13423, Vol. 149, No. 154, SCHEDULE
Senate
Mr. FRIST
... execute the order with respect to the **climate change** bill. That agreement from July ...
... aisle is to address the issue of the **climate change** bill and the agreement from July ...
... through that bill and move on to the **global warming** bill which, of course, is very important ...

85. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 29, 2003 , 149 Cong Rec S 13435, Vol. 149, No. 154, HEALTHY FORESTS RESTORATION ACT OF 2003
Senate
Mr. COCHRAN; **Mr.** DASCHLE; **Mr.** BOND; **Mr.** WYDEN; **Mr.** CRAPO; **Mr.** SMITH; **Mr.** HARKIN; **Mr.** CRAIG; **Mrs.** FEINSTEIN; **Mrs.** FEINSTEIN. ; **Mr.** REID; **Mr.** DOMENICI; **Mr.** BINGAMAN. ; **Ms.** MURKOWSKI; **Mr.** ENSIGN; **Mrs.** MURRAY; **Mr.** BENNETT; **Mrs.** LINCOLN; **Mr.** KYL; **Mrs.** BOXER
... over greenhouse gases and **global warming,** is phenomenal. To give one ...
... go from the broad issues of **global warming** to the narrow issues of a ...
... issue as are those who are battling over **global warming** issues. It is for that reason this ...

86. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 29, 2003 , 149 Cong Rec S 13483, Vol. 149, No. 154, ORDER OF PROCEDURE
Senate
Mr. FRIST; **Mr.** REID
... 3 hours tonight on the **climate change** bill and then 2 hours ...
... I just mentioned, to the **climate change** bill, with the 3 hours ...
... morning. We will then resume the **climate change** bill for 2 ...

87. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 29, 2003 , 149 Cong Rec S 13484, Vol. 149, No. 154, CLIMATE STEWARDSHIP ACT OF 2003
Senate
Mr. INHOFE; **Mr.** ALLARD; **Mr.** LIEBERMAN; **Mr.** BOND; **Mr.** McCAIN; **Mr.** VOINOVICH; **Ms.** SNOWE; **Mr.** AKAKA; **Mr.** SESSIONS; **Mrs.** CLINTON. ; **Ms.** COLLINS; **Mr.** BENNETT; **Mr.** KYL
... research on abrupt bankrupt **climate change,** to accelerate the reduction of **greenhouse gas** emissions in the United ...
... market-driven system of **greenhouse gas** tradeable allowances that could be used ...

... standard credits, to limit **greenhouse gas** emissions in the United ...
... citizens who are worried about **global warming. Global warming** is one of the great challenges of our ...
... in many ways. **Greenhouse gas** emissions from the burning of fossil ...
... unabated our current rate of **greenhouse gas** pollution, we threaten to disrupt the ...
... lives and our livelihoods depend. **Global warming** is not just a ...
... reason to fear the effects of **global warming.** Scientists predict that rising ...
... sea levels through **global warming** will lead to damaged ...
... more personal way, **global warming** will spell higher ...
... physical and biological impacts of **global warming.** I want to tell ...
... language of science and statistics that **climate change and global warming** is occurring, it is in the language of ...
... failure of responsible leadership on **global warming.** President Bush and his Environmental ...
... meaningful proposals to deal with **global warming,** they have tried to deny the very existence of the ...
... study. This time it focused on whether **global warming** is caused by human ...
... developed around this topic [**climate change**] is rare in science. . . . There is ...
... study and not action on **global warming.** I cannot resist ...
... out would allow emissions of **global warming** pollutants to continue to grow at ...
... meeting the real threat of **global warming** is no longer acceptable. It is an ...
... bill limits emissions of **global warming** pollutants by electric ...
... percent of U.S. emissions of **global warming** pollutants. The amendment does not ...
... for the global problem of **global warming.** That is the full extent of national ...
... long the national dialog on **global warming** has seemed to be deadlocked, pitting ...
... Measured steps to curb **global warming** in a business- ...
... prepares to consider several **global warming** amendments that may be offered to the ...
... substantive program to reduce **greenhouse gas** emissions in the U.S. would ...
... potential policies to reduce **greenhouse-gas** emissions for which the total ...
... policy options that would slow **climate change** without harming American ...
... doing. Properly constructed, **global warming** policies that incorporate market mechanisms can reduce **greenhouse gas** emissions while promoting ...
... based program to limit **global warming** emission from U.S. industry. ...
... growth. The economic risks that **climate change** poses to the U.S. economy are ...
... ratified the Framework Convention on **Climate Change** (the "Rio Climate treaty") ...
... manmade emissions that contribute to **global warming.** Yet, in the time ...
... States, which produces more **global warming** emissions than any other nation, has ...
... respond to the threat that global **climate change** poses to the planet's environmental and ...
... result, U.S. emissions of **global warming** gases have grown steadily and ...
... disruption posed by **climate change.** Without a national ...
... for addressing the issue of **global warming,** American businesses continue to ...
... investments that commit us to ever increasing **greenhouse gas** emissions. New buildings, ...
... for the need to reduce **global warming** emissions. The large capital ...
... risks to the American economy from **global warming.** The threats to our economy from **climate change** may well include, ...
... control the growth in **global warming** emissions from America's principal ...
... inherent in addressing **global warming** reach far beyond ...
... meet our needs with reduced **global warming** emissions, and energy systems that ...
... market in limiting **global warming** emissions is the policy step ...
... recognize that the risks and complexities of **climate change** are so important that we must work ...
... sufficient to avert dangerous **climate change** will be long term, ...
... how to solve the problem of **global warming** while continuing to prosper. ...
... pledge to reduce their companies' **greenhouse gas** emissions. We recognize that there is still debate about the levels of **greenhouse gas** reductions necessary to stabilize the ...

... models of companies that are dealing with **global warming** and, I believe, profiting from ...
... accepted targets for **greenhouse gas** pollution reduction that meet or ...
... a proactive stance on **climate change** makes good business ...
... new corporate mindset on **global warming** come from American Electric ...
... enforceable obligations to reduce **greenhouse gas** emissions to levels that are below what our ...
... environmental standards and curb their **greenhouse gas** emissions. That is why we must pass this ...
... taking action to combat **global warming** is not without cost, ...
... Center for Global **Climate Change** has examined this analysis and believes the ...
... stocks caused by **global warming,** all represent real costs, ...
... costly side effects of **global warming,** insurers are now charging ...
... leading reinsurer, says that "**global warming** is a fact" which "has the potential to ...
... reinsurance company projects that **climate-change**-driven natural disasters could ...
... market-based approach to **global warming** that is part of our amendment.There is also an opportunity ...
... products that will respond to the **global warming** challenge, and in that sense to be ...
... cash-strapped farmers. **Global warming** is, of course, about more than the ...
... for action now on **global warming.** I cite the National ...
... until the consequences, the effects of **global warming,** were so serious that it was too late? It was certainly too ...
... validity of the entire issue of **climate change?** Mr. LIEBERMAN. I ...
... widespread agreement on the occurrence of **global warming** and the human source of the observed and ...
... by the Intergovernmental Panel on **Climate Change.** A third assessment ...
... human activity is causing **climate change** in the world, and that is an irrefutable ...
... problem because of the manifestations of it. The manifestations of **climate change** are occurring, as we see on the west ...
... developed around the topic of **climate change** is rare in science. There is ...
... 1999 is overwhelmingly on the side that **global warming,** in fact, is not ...
... can debate the science of **climate change** here on the floor until we are all blue ...
... way to fight global **climate change.** What they didn't want to talk ...
... issues involved in this **climate change** bill. The McCain-Lieberman ...
... ensure that we do not pass **climate change** legislation that will significantly ...
... carbon, it is clear the science of **climate change** is far from settled. We need ...
... causes, effects and extent of **climate change,** we are in fact making ...
... July 7, 2003] **Climate Change:** The Science Isn't Settled (...
... causes, effects and extent of **climate change,** we are in fact making ...
... raging controversies over **global warming.** What has concerned me in recent years is that belief in the **greenhouse effect,** persuasive as it is, has been transmuted into the dominant forcing mechanism affecting **climate change**_more or less to the exclusion of ...
... trend can be attributed to the **greenhouse effect** and how much to other factors. In **climate change,** we have only a limited ...
... by the International Panel on **Climate Change,** recent **climate change** is attributed primarily to human ...
... either attribute past **climate changes** to changes in CO We ...
... trend can be attributed to the **greenhouse gas** effect and how much to other factors. **In climate change,** we have only a limited ...
... year to address the issue of **climate change** by capping carbon_such as the ...
... today, the McCain-Lieberman **climate change** bill. Passage of any of these bills ...
... reduction in global **greenhouse gas** emissions. According to an analysis ...
... increase in global **greenhouse gas** emissions as companies formerly ...
... legislation establishes a "**Climate Change** Credit Corporation" for " ...
... address the issue of global **climate change.** It is based on the recognition that only ...
... growth in global **greenhouse gas** emissions. Because of its negative impacts on ...
... understanding of the underlying science of **climate change,** President Bush has moved ...

... steps the administration is taking on **climate change.** I would like to make ...
... Congress have hardened their positions on **climate change** to the point that voting for ...
... little or nothing to solve the **global warming** problem. I yield ...
... level by 2010 of **greenhouse gas** emissions. No EIA ...
... researchers in the fields of **climate change** and its impacts. The body of research ...
... time to debate global **climate change** here in the Senate. Chairman ...
... addressing, domestic reduction of **greenhouse gas** emissions, specifically carbon ...
... international scientists to be the cause of **global warming.** The legislation before us today, the ...
... delay in acting on **climate change** will lead the U.S. ...
... Science report called "**Climate Change** Science: Analysis of Some Key ...
... I have from the Intergovernmental Panel on **Climate Change** should give us all great pause. The ...
... upwards as to why we should be attempting to reduce our **greenhouse gas** emissions now. What is there not to ...
... alone? Addressing global **climate change** is an issue that cuts across ...
... Dupont and BP, realizing **climate change's** effect on their bottom line, have ...
... unless you consider the implications of **climate change** on a number of ecosystems that could be ...
... addition, at a recent "**Climate Change** and Horticulture" symposium at Cornell ...
... reductions in manmade **greenhouse gas** emissions. The green States with the ...
... bipartisan support [that address **global warming.**] But it is not just the ...
... Maine to develop a **climate change** action plan by ...
... Maryland-to-Maine cap on **global warming** pollution from powerplants and announced ...
... coordinated strategy to reduce **global warming.** In the Midwest, 10 ...
... future Federal and State **greenhouse gas** programs. These grassroots efforts are ...
... United States at the effects of **climate change,** scientists tell us that the snows of ...
... coral reefs concluded that **climate change** will continue to render ...
... climate in response to **global warming.** I am pleased the Senate ...
... million for abrupt **climate change** research that I and Senator ...
... for the study of abrupt **climate change.** There is no doubt we will ...
... doing something about **global warming** is truly nonpartisan. Mr. ...
... Senator from Hawaii with the evidence of **global warming** is real. It goes beyond ...
... addressing the serious issue of **climate change.** As was mentioned by Senator ...
... Pacific, is certainly subject to **climate change.** I also support the proposed ...
... reporting database, provides **climate change** research grants, and requires ...
... freeze on current levels of **greenhouse gas** emissions using a ...
... chart. The Intergovernmental Panel on **Climate Change,** IPCC, a premier ...
... 2100. The Panel also predicts that **climate change** will likely affect the ...
... levels of greenhouse gases and **climate change** is obvious in my home State. The **global warming** debate began in ...
... 1 percent of global **greenhouse gas** emissions. Major population ...
... vulnerable to increased impacts of **climate change.** Scientists predict an increase of extreme **climate change** events such as hurricanes, floods, and ...
... reefs. The costs of inaction on **climate change** far outweigh the costs of this ...
... Today, the global issue of **climate change** extends beyond our borders and threatens the livelihoods of these nations. **Climate change** is an important challenge and high ...
... stabilizing total U.S. **greenhouse gas** emissions. Although program ...
... Pew Center on Global **Climate Change,** total **greenhouse gas** emissions have increased approximately ...
... States needs to address **climate change** in a significant ...
... reasonable policy to stop **greenhouse gas** emissions from rising. Under the ...
... Federal program to stabilize **greenhouse gas** emissions. The amendment would require all ...
... 10,000 metric tons of **greenhouse gas** per year to take ...
... practical approaches to stop **greenhouse gas** emissions from rising. The U.S. has ...

... lead in reducing **greenhouse gas** emissions. BP, British ...
... U.S., has pledged to reduce its **greenhouse gas** emissions by 5 ...
... Exchange. This marketplace trades **greenhouse gas** emissions with a target of ...
... developed a regional **greenhouse gas** trading program because of the lack of national leadership on **climate change.** Their program requires a ...
... critical step to stabilize **greenhouse gas** emissions in the United ...
... fail to address the issue of **climate change** now, the U.S. may have to ...
... effort to reduce future **greenhouse gas** emissions. The Lieberman-McCain ...
... a stabilization of U.S. **greenhouse gas** emissions. The compliance costs of the EU **greenhouse gas** reduction program are expected to ...
... for recognizing the importance of **climate change** and taking the lead on legislation to stabilize **greenhouse gas** emissions. Research shows that our ...
... reduce the total amount of **greenhouse gas** emissions in the United ...
... serious about the impacts of **climate change.** A policy of inaction on **climate change** is not acceptable and will ...
... out and discussing the issue of **global warming.** I remember Dr. ...
... relaxed, and he said: We can debate this **global warming,** but even if we do, the things ...
... models that were supposed to predict **global warming,** those models called for the ...
... about the validity and extent of **global warming.** There is little or no dispute that what the ...
... will have no impact on **global warming** but a significant ...
... floor of the Senate and ask what **climate change** is doing to future generations of ...
... in support of the bipartisan **climate change** legislation offered by ...
... voice my support. **Climate change** is greatest environmental challenge that we ...
... by the Intergovernmental Panel on **Climate Change** and the National Research Council ...
... No. 1, anthropogenic **climate change,** driven by emissions of ...
... initial steps to reduce the **greenhouse gas** emissions that are causing **climate change.** I would add that we are already seeing the effects of **climate change.** Glaciers are retreating all over the ...
... already feeling the effects of **climate change.** And the scientific consensus is that unless we ...
... McCain to address this issue of **climate change.** I have to say I ...
... talk about global **climate change.** There can only be one ...
... by the Intergovernmental Panel on **Climate Change** and by the National Research ...
... results of the Intergovernmental Panel on **Climate Change.** What was the response of the administration? Kill the ...
... information about global **climate change** out of its review of the status of the ...
... initial steps to reduce the **greenhouse gas** emissions that are causing **climate change.** That is what this legislation proposes to do. There are so many facts that support the evidence of **climate change**_whether we talk about the Larsen ...
... effects of 29 years of **global warming.** The scientific consensus is clear: That ...
... evidence and understanding of global **climate change.** I worry about ...
... Simply put, we would stabilize **greenhouse gas** emissions at 2000 levels ...
... market-driven system of **greenhouse gas** tradable allowances would exempt ...
... for the goal of reducing **greenhouse gas** emissions to 2000 levels ...
... proposal would reduce U.S. **greenhouse gas** emissions to 2000 levels ...
... 2010. In light of the **climate changes** observed to date and the potential ...
... can take to reduce **greenhouse gas** emissions. The United States has ...
... averted millions of tons of **greenhouse gas** emissions. With further steps ...
... telling us we must reduce **greenhouse gas,** namely the environmental groups, are the ...
... coal would significantly reduce **greenhouse gas** emissions. Who got very upset at the ...
... see if it did indeed have any impact on **global warming** if I could see the way ...
... commitments to limit or reduce **greenhouse gas** emissions for Developing ...
... Nations' Framework Convention on **Climate Change** calls for a ...
... widely acknowledged that if indeed **global warming** is a serious problem, that ...

... reductions in total **greenhouse gas** emissions." So this precedent-setting ...
... conclude that the ability to stabilize **greenhouse gas** emissions without seriously ...
... ice age_not **global warming,** global cooling. Then along ...
... U.S. government to reject the **global warming** agreement that was written in ...
... justify controls of anthropogenic **greenhouse gas** emissions. Anthropogenic is the term ...
... behind the myth, the hoax of **global warming.** It is important to realize that the IPCC, which is the Intergovernmental Panel on **Climate Change,** came from the United Nations with the ...
... Mann or the the Intergovernmental Panel on **Climate Change.** One is the detail, less ...
... case that this hoax called **greenhouse gas** is a reality. This is what Dr. ...
... used as proof of anthropogenic **global warming,** we've become concerned that such an ...
... reaching study ever made on **climate change.** It examined the results of more than ...
... indicators. They came to the conclusion that **climate change** is not real, that the science is ...
... call it a hoax, of **global warming.** Since I gave ...
... will have to revise their models of **global warming** to accommodate fungi surprisingly ...
... a month ago: The **global warming** models can no ...
... policy is the science is real and **global warming,** in fact, exists. ...
... massive study of polar **climate change.** Dr. Robert Corell, who ...
... in the journal Nature that **global warming** is forcing species around the ...
... implies that these changes are inconsistent with the **global warming** hypothesis and with climate models. This is ...
... cause of global scale **climate change** over the past 50 ...
... by the Intergovernmental Panel on **Climate Change** and the National Research Council on the state of the science of **climate change** and its impacts on the United States and the ...
... by the Intergovernmental Panel on **Climate Change** (IPCC) and the National Research ...
... NRC) on the state of the science of **climate change** and its impacts on the United States and the ...
... findings are that: (1) Anthropogenic **climate change,** driven by emissions of ...
... climate system. Evidence that **climate change** is already underway includes the ...
... due to the increase in **greenhouse gas** concentrations accurately reflects the ...
... researchers in the fields of **climate change** and its impacts. The body of research ...
... climate system. Evidence that **climate change** is already underway includes the ...
... due to the increase in **greenhouse gas** concentrations accurately reflects the ...
... States of America agrees that **climate change** is taking place. How ...
... beginning to addressing the issue of **climate change.** I assure my ...
CLIMATE CHANGE (90%); LEGISLATION (90%); ...

88. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 29, 2003 , 149 Cong Rec S 13533, Vol. 149, No. 154, ORDERS FOR THURSDAY, OCTOBER 30, 2003
Senate
Mr. McCAIN
... consideration of S. 139, the **climate change** bill; provided further that there be ...

89. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 29, 2003 , 149 Cong Rec S 13533, Vol. 149, No. 154, PROGRAM
Senate
Mr. McCAIN
... consideration of S. 139, the **climate change** bill. Under the previous ...

90. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 28, 2003 , 149 Cong Rec S 13325, Vol. 149, No.

153, SCHEDULE
Senate
Mr. FRIST
... expiration of the existing law. On the **climate change** legislation, we have a 6- ...

91. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 28, 2003 , 149 Cong Rec S 13326, Vol. 149, No. 153, EXECUTIVE SESSION
Senate
Mr. INHOFE; **Mr.** JEFFORDS; **Mrs.** BOXER; **Mr.** REID; **Mr.** BOND; **Mrs.** FEINSTEIN; **Mr.** HARKIN; **Mr.** VOINOVICH; **Mr.** DOMENICI; **Mr.** WYDEN; **Mr.** FEINGOLD; **Ms.** MURKOWSKI; **Mr.** NELSON of Florida; **Mr.** HATCH. ; **Mr.** CARPER
... air, land conservation, and **global warming** as the President. I had planned to ...
... House officials insisted that the **global warming** chapter be deleted from EPA's ...
... professor to know what is happening because of **global warming.** We see the trend all over, and we ...
... up this week dealing with **global warming.** The most glaring issue is this administration doesn't believe **global warming** is taking place. So when Mike ...
... in the battle against **climate change.** There is strong evidence that most of the **global warming** that has occurred during the past ...
... thwarting efforts to regulate **greenhouse gas** emissions. And given the overwhelming ...
... U.S. culpability regarding **greenhouse gas** emissions, EPA needs to ...
... in the battle against **climate change.** Voluntary programs are not ...
... work to reduce overall **greenhouse gas** emissions as opposed to merely ...
... vote on the McCain-Lieberman **climate change** bill this week. In ...
... a firm stance on **climate change.** I want to turn ...

92. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 28, 2003 , 149 Cong Rec S 13349, Vol. 149, No. 153, FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS APPROPRIATIONS ACT, 2004_Continued
Senate
Mr. REID; **Mr.** DORGAN; **Mr.** GRAHAM of Florida; **Mr.** McCONNELL; **Mr.** LUGAR; **Mr.** LEAHY; **Mr.** KENNEDY; **Mr.** ALLARD; **Ms.** LANDRIEU; **Ms.** LANDRIEU. ; **Mr.** BYRD; **Mr.** HARKIN. ; **Mr.** FEINGOLD; **Mr.** SESSIONS; **Mr.** CRAIG; **Mr.** DODD; **Mr.** NICKLES
... land-use changes, **climate change** and many other forces. ...

93. CONGRESSIONAL RECORD -- SENATE, Monday, October 27, 2003 , 149 Cong Rec S 13237, Vol. 149, No. 152, EXECUTIVE SESSION
Senate
Mr. JEFFORDS; **Mr.** ALLARD; **Mr.** BENNETT; **Mr.** INHOFE; **Mr.** CORNYN; **Mr.** NELSON of Florida; **Mr.** DURBIN; **Mrs.** CLINTON; **Mr.** REID; **Mr.** HATCH
... omitted an entire section on **climate change** from a White House ...
... Wednesday_this hoax called **global warming.** I will not do that ...
... President has refused to act on **global warming** despite recent reports that ...

94. CONGRESSIONAL RECORD -- SENATE, Monday, October 27, 2003 , 149 Cong Rec S 13260, Vol. 149, No. 152, AIR POLLUTION
Senate

Mr. JEFFORDS
... cause acid rain, **global warming** and toxic contamination. However, they did provide the ...

95. CONGRESSIONAL RECORD -- SENATE, Thursday, October 23, 2003 , 149 Cong Rec S 13135, Vol. 149, No. 150, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. CAMPBELL; **Ms.** MURKOWSKI; **Mr.** BINGAMAN; **Mr.** BIDEN; **Mr.** GRASSLEY; **Mr.** DORGAN; **Mr.** KERRY; **Mr.** SARBANES; **Mrs.** FEINSTEIN; **Mr.** KYL
... per year, and cutting **global warming** pollution by 420 ...

96. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 01, 2003 , 149 Cong Rec S 12303, Vol. 149, No. 137, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. McCAIN
... 2003, at 9:30 a.m. on **Climate Change.** The PRESIDING OFFICER. Without ...

97. CONGRESSIONAL RECORD -- SENATE, Monday, September 29, 2003 , 149 Cong Rec S 12131, Vol. 149, No. 135, A CROSSROADS FOR U.S. ENERGY POLICY
Senate
Mr. REID
... pollute our air and increase **global warming.** Clean, renewable energy should be ...

98. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 24, 2003 , 149 Cong Rec S 11927, Vol. 149, No. 132, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. DeWINE
... subcommittee on clean air, **climate change** and nuclear safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

99. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 23, 2003 , 149 Cong Rec S 11784, Vol. 149, No. 131, DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT, 2004_Continued
Senate
Mrs. BOXER; **Mr.** BURNS; **Mr.** DORGAN; **Mr.** STEVENS; **Mrs.** MURRAY; **Mr.** REID; **Mr.** VOINOVICH; **Mr.** ENZI; **Mr.** THOMAS; **Mr.** CANTWELL; **Mr.** BINGAMAN; **Ms.** MURKOWSKI; **Mr.** LEVIN; **Ms.** COLLINS; **Mr.** McCAIN; **Mr.** DASCHLE; **Mr.** FRIST; **Mr.** SPECTER; **Mr.** SPECTER. ; **Mr.** LEAHY; **Mr.** LEAHY. ; **Mr.** FEINGOLD; **Mr.** LAUTENBERG; **Mr.** NICKLES
... process leading to reduced **greenhouse gas** emissions, a goal we should all ...
... farm income and reduce **greenhouse gas** emissions. In the fiscal ...
... process leading to reduced **greenhouse gas** emissions, a goal we should all ...

100. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 16, 2003 , 149 Cong Rec S 11531, Vol. 149, No. 127, ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT, 2004_Continued
Senate
Mr. REID; **Mrs.** FEINSTEIN; **Mr.** DOMENICI; **Mr.** REED; **Mr.** LEVIN; **Mr.** LAUTENBERG; **Mr.** SARBANES;

Mr. BYRD; **Mr.** BURNS; **Mrs.** BOXER; **Mrs.** BOXER. ; **Mr.** CRAPO; **Mr.** CRAPO. ; **Mr.** COCHRAN; **Mr.** COCHRAN. ; **Mr.** CONRAD; **Mr.** DORGAN; **Mr.** BINGAMAN; **Mr.** JEFFORDS; **Mr.** NICKLES; **Mrs.** MURRAY
... environmental sustainability, including **climate change;** and energy security. Even ...

101. CONGRESSIONAL RECORD -- SENATE, Thursday, July 31, 2003 , 149 Cong Rec S 10469, Vol. 149, No. 116, ENERGY POLICY ACT OF 2003
Senate
Mr. DOMENICI; **Mr.** DASCHLE; **Mr.** DORGAN; **Mrs.** BOXER; **Mr.** LOTT; **Mr.** McCONNELL; **Mr.** FRIST; **Ms.** CANTWELL; **Mrs.** HUTCHISON; **Mr.** REED; **Mr.** BYRD; **Mr.** HOLLINGS; **Mr.** FEINGOLD; **Mr.** BAUCUS; **Mr.** STEVENS; **Ms.** MURKOWSKI; **Mr.** JEFFORDS; **Mr.** JEFFORDS. ; **Mr.** CONRAD; **Mr.** GRASSLEY
... meaningful way; we have to look at **global warming;** we have to pass a renewable ...

102. CONGRESSIONAL RECORD -- SENATE, Thursday, July 31, 2003 , 149 Cong Rec S 10533, Vol. 149, No. 116, ENERGY TAX INCENTIVES_S. 14
Senate
Mr. BAUCUS; **Mr.** GRASSLEY
... potent and long-lived **greenhouse gas.** Therefore, the Committee seeks to encourage ...

103. CONGRESSIONAL RECORD -- SENATE, Thursday, July 31, 2003 , 149 Cong Rec S 10569, Vol. 149, No. 116, ENERGY POLICY ACT OF 2003_Continued
Senate
Mr. LOTT; **Mr.** CRAIG; **Mr.** DASCHLE; **Mr.** SMITH; **Ms.** MURKOWSKI; **Mrs.** LINCOLN; **Mr.** GRASSLEY; **Mr.** NICKLES; **Mr.** VOINOVICH; **Mr.** FEINGOLD; **Mr.** COCHRAN; **Mr.** LEAHY
... Research Center to support **climate change** research and scientific activities. The ...
... technologies needed to reduce **greenhouse gas** emissions. I am pleased the ...

104. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 30, 2003 , 149 Cong Rec S 10173, Vol. 149, No. 115, ENERGY POLICY ACT OF 2003
Senate
Ms. CANTWELL; **Mrs.** MURRAY; **Mrs.** BOXER. ; **Mr.** DORGAN; **Mr.** HARKIN. ; **Mr.** BINGAMAN; **Mr.** DOMENICI; **Ms.** LANDRIEU; **Mr.** WYDEN; **Mr.** REID; **Mrs.** FEINSTEIN
... mileage rules, new **global warming** standards and more incentives ...

105. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 30, 2003 , 149 Cong Rec S 10203, Vol. 149, No. 115, ENERGY POLICY ACT OF 2003_Continued
Senate
Mr. FEINGOLD; **Mr.** REID; **Mr.** DOMENICI; **Mr.** BROWNBACK; **Mr.** BINGAMAN; **Mr.** CRAIG; **Mr.** BYRD; **Mr.** BYRD. ; **Mr.** THOMAS; **Mr.** FRIST; **Mr.** KENNEDY; **Mr.** SARBANES.
... environment and address global **climate change.** But instead of looking ...
... FutureGen, a national **climate change** technology initiative, and more. ...
... including clean coal, **climate change,** international technology transfer, and ...
... direct U.S. global **climate change,** and will oppose any **climate change** amendments that are inconsistent with the President's **climate change** strategy . . . we urge the Senate to ...
... issues involved in **climate change.** The amendment to be offered by ...
... American efforts to address **climate change** issues in our own ...

... need to effectively reduce **greenhouse gas** emissions that contribute to **global warming.** We must develop a ...
... address the problem of global **climate change.** The amendment provides for the ...
... implement a national **climate change** strategy. We cannot continue to ...
... goal of stabilizing atmospheric **greenhouse gas** concentrations by working with ...
... issues outstanding: Electricity; **global warming;** renewable portfolio standard; ...

106. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 29, 2003 , 149 Cong Rec S 10080, Vol. 149, No. 114,
RECOGNITION OF THE ACTING MINORITY LEADER
Senate
Mr. REID
... debate on important issues such as **climate change,** CAFE, electricity, renewable ...

107. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 29, 2003 , 149 Cong Rec S 10100, Vol. 149, No. 114,
ENERGY POLICY ACT OF 2003_Continued
Senate
Mr. CRAIG; **Mr.** FEINGOLD; **Mr.** FEINGOLD. ; **Mr.** REID; **Mrs.** FEINSTEIN; **Mr.** ALLEN; **Mr.** VOINOVICH; **Mr.** LEVIN; **Mr.** BOND; **Mr.** BOND. ; **Ms.** STABENOW; **Mr.** LAUTENBERG; **Ms.** MIKULSKI; **Mr.** DOMENICI; **Mr.** BINGAMAN; **Mr.** DURBIN; **Mr.** DASCHLE; **Mr.** DORGAN; **Mr.** THOMAS; **Ms.** CANTWELL; **Mr.** McCONNELL
... raise CAFE standards is **global warming.** The U.S. transportation sector is ...
... one-third of all U.S. **greenhouse gas** emissions. Since 1975, the ...
... 20 percent of U.S. **global warming** emissions. At a time when ...
... dependence on oil, curb **global warming,** and save consumers money at the ...
... up two amendments that have to do with **climate change.** I have been told the only ...

108. CONGRESSIONAL RECORD -- SENATE, Monday, July 28, 2003 , 149 Cong Rec S 9993, Vol. 149, No. 113,
ENERGY POLICY ACT OF 2003
Senate
Mr. THOMAS; **Mr.** REID; **Mr.** NELSON of Florida; **Mr.** DORGAN; **Mr.** LEVIN; **Mr.** INHOFE; **Mr.** CRAIG
... saves energy, reduces **greenhouse gas** emissions, increases energy ...
... a commitment that we would stabilize our **greenhouse gas** emissions. That was done over ...
... in place a **climate change** policy and a modest ...
... debate over whether or not **global warming** is real. About 98 ...
... upon us. Yet the fact is, **global warming** is upon us. So what should we do? We should be concerned about that ...
... ultraviolet rays, the result of which is that it has this **greenhouse effect** on planet Earth, starting to ...

109. CONGRESSIONAL RECORD -- SENATE, Monday, July 28, 2003 , 149 Cong Rec S 10012, Vol. 149, No. 113,
SCIENCE OF CLIMATE CHANGE
Senate
Mr. INHOFE; **Mr.** VOINOVICH; **Mr.** HARKIN
... appeared. The issue of catastrophic **global warming,** which I will speak ...
... Much of the debate over **global warming** is predicated on fear rather than science. **Global-warming** alarmists see a ...
... caused by manmade **greenhouse gas** emissions. Hans Blix, the ...
... more worried about **global warming** than I am of any major military ...
... American, parroted Blix when he said **global warming** would "threaten fundamental food and ...

... lunacy of the environmental extremists. He said **global warming** would be chaos by any measure, ...
... Aaron Wildavsky called **global warming** alarmism the mother of all environmental ...
... guys who talk about **global warming** today. In a ...
... age. That was the same timeframe that the **global-warming** alarmists are concerned about **global warming.** How quickly things ...
... liberals are talking about **global warming.** They do not care about what is ...
... destruction. They are concerned about **global warming.** That is the in thing to talk ...
... phenomenon is fact and the science of **climate change** is settled. In fact, it is ...
... James Schlesinger on the science of **climate change.** The PRESIDING OFFICER. Without ...
... scientific disagreement over **global warming.** It is controversial. But anyone who ...
... activities are responsible for **global warming** or whether those activities will precipitate ...
... shifting away from those who subscribe to **global-warming** alarmism. After studying the ...
... irrelevant. It is also important to question whether **global warming** is even a problem ...
... manmade_theory of catastrophic **global warmings.** I believe this research ...
... scientists who question "accepted" **global warming** theories than engage on the science. So you have ...
... Kyoto Treaty. The issue of **global warming** garnered significant international ...
... requires signatories to reduce their **greenhouse gas** emissions by considerable ...
... Nations framework convention on **climate change** of 1992, at negotiations in ...
... commitments to limit or reduce **greenhouse gas** emissions for the Annex ...
... commitments to limit or reduce **greenhouse gas** emissions for developing ...
... faith, peddled the notion that **climate change,** as Green Peace put it, is "the ...
... sounding initiatives to deal with **climate change** through increased energy ...
... s Intergovernmental Panel on **Climate Change,** Kyoto will achieve "stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... NASA, considered the father of **global warming**_he is the guy who thought of all this stuff_said the ...
... Nations Intergovernmental Panel on **Climate Change.** I am going to refer to this as the ...
... s Intergovernmental Panel on **Climate Change** which provides the scientific basis ...
... Nations Framework Convention on **Climate Change.** This meeting was premised on the concern that **global warming** was becoming a problem. The ...
... by the Intergovernmental Panel on **Climate Change,** the IPCC. Over the last ...
... human activities were causing **global warming.** In their view, the report ...
... impression that man-induced **global warming** was fact. On August 10, ...
... Human Role in **Global Warming**"_not just inaccurate ...
... account, the IPCC showed that **global warming** "is unlikely to be entirely due to ...
... anthropogenic" means manmade_of **global warming.** The preceding paragraph in which the " ...
... between human actions and **global warming.** Although these global mean ...
... alarmists' conclusion about **global warming.** But even the IPCC is ...
... in the press regarding **climate change** is "inaccurate, incomplete, or viewed ...
... Many of the misconceptions about **climate change** originated from the IPCC's six- ...
... Third Assessment Report on **Climate Change.** In October of 2000, the ...
... October 30: The consensus on **global warming** keeps strengthening. In ...
... most authoritative voice on **global warming,** is now concluding that mankind's ...
... driving case for **climate change:** From the body of the evidence since ...
... separate the contributions to observed **climate change** attributable to individual external ...
... anthropogenic actually contributes to **global warming.** Yet then they have a disclaimer at the very ...
... due to increases in **greenhouse gas** concentrations. Keep in ...
... believer in catastrophic **global warming,** criticized the IPCC's assumptions ...
... article_this is the promoter of the catastrophic **global warming** fear mongers_Schneider ...
... bears repeating: even **global warming** alarmists think the lower ...
... ocean circulation versus **greenhouse gas** increases. Unless and until they ...

... information on two natural **greenhouse gas** factors_water vapor and ...
... edition of Nature that, "Forecasts of **climate change** are inevitably uncertain." They go on to ...
... theories of man-made **global warming**_theories they so desperately want to ...
... carbon at the altar of responding to the **climate change** promotion are not seeking to ...
... satellite data and the rate of **global warming** seen in that data. To ...
... a human-induced **global warming** from the release of CO Some critics of ...
... question anthropogenic theories of **global warming.** First, a strong ...
... saying about manmade **global warming** in the 20th century. ...
... Although there was no link to **global warming,** the Times could not help ...
... related to a buildup of "**greenhouse" gas** emissions that scientists believe are ...
... up or down, we should ask whether **global warming** will actually produce the ...
... gets obscured in the **global warming** debate is the fact that carbon ...
... Numerous studies have shown that **global warming** can actually be beneficial to ...
... CO With regard to the impact of **global warming** on human health, it is assumed that ...
... attributed to industrialization and manmade **greenhouse gas** emissions. The now infamous " ...
... perspective of long-term **climate changes.** Moreover, Mann's conclusions were ...
... used as proof of anthropogenic **global warming,** we've become concerned that such an ...
... repeating: Mann's theory of **global warming** is out of step with most ...
... justify controls of anthropogenic **greenhouse gas** emissions; that is, manmade emissions. ...
... exists to justify controls of **greenhouse gas** emissions, manmade **greenhouse gas** emissions. They agree it is a ...
... States Government to reject the **global warming** agreement that was written in ...
... a detailed look at **climate changes** that occurred in different ...
... history. According to the authors, some of the **global warming** during the 20th century is ...
... Little Ice Age. **Global warming** alarmists, however, vehemently disagree, and ...
... world needs Kyoto because its **greenhouse gas** reduction targets are indispensable. ...
... for further reduction of **greenhouse gas** emissions, as Europe has proven. ...
... blithely assert that the science of **global warming** is settled; that is, fossil fuel ...
... principal, driving cause of **global warming.** In a letter to me ...
... wrote, "The pressing problem of **global warming**" is now "established scientific ...
... favor of those who do not see **global warming** proposing harm to the planet and who do ...
... compelling evidence that catastrophic **global warming** is a hoax. That conclusion is ...
... overwhelming factor influencing **climate change;** satellite data, confirmed ...
... possibly be the motivation for **global warming** alarmism? Since I have ...
... No. 1, the claim that **global warming** is caused by manmade ...
... environmentalists who are hysterical over **global warming** today were just as hysterical ...
... phony science, could it be that manmade **global warming** is the greatest hoax ever perpetrated on the ...
... July 7, 2003] **Climate Change:** The Science Isn't Settled (...
... causes, effects and extent of **climate change,** we are in fact making ...
... raging controversies over **global warming.** What has concerned me in recent years is that belief in the **greenhouse effect,** persuasive as it is, has been transmuted into the dominant forcing mechanism affecting **climate change**_more or less to the exclusion of ...
... trend can be attributed to the **greenhouse effect** and how much to other factors. In **climate change,** we have only a limited ...
... by the International Panel on **Climate Change,** recent **climate change** is attributed primarily to human ...
... conducted official DFO **climate change**/sea level review; ...
... Science and Medicine_focus on **climate change** and CO Dr. Craig ...
... Delusion; a Critique of '**Climate Change** 2001'", Wellington, NZ. ...
... Co-chaired the Regional **Climate Change** Study for the Southeast ...
... Role of the Sun in **Climate Change**". Dr. Gary D. ...
... a Framework Convention on **Climate Change.** Dr. Jarl R. ...

CLIMATE CHANGE (90%); PUBLIC POLICY (...

110. CONGRESSIONAL RECORD -- SENATE, Monday, July 28, 2003 , 149 Cong Rec S 10027, Vol. 149, No. 113, ENERGY POLICY ACT OF 2003_Continued
Senate
Mr. DURBIN; **Mr.** HARKIN; **Mr.** BURNS; **Mr.** DASCHLE
... years if we don't address **global warming.** In fact, scientists ...
... 250 metric tons of **greenhouse gas** emissions by the year ...
... a problem. He argued that **climate change** never exists, and, if it does, it is really not that ...

111. CONGRESSIONAL RECORD -- SENATE, Monday, July 28, 2003 , 149 Cong Rec S 10031, Vol. 149, No. 113, LEGISLATIVE SCHEDULE
Senate
Mr. DASCHLE; **Mr.** SESSIONS
... about it. We have not dealt with **global warming.** That, too, is going to generate controversy and ...

112. CONGRESSIONAL RECORD -- SENATE, Friday, July 25, 2003 , 149 Cong Rec S 9928, Vol. 149, No. 112, TRIBUTE TO COLIN McMILLAN
Senate
Mr. BINGAMAN; **Mr.** DOMENICI
... probably have one or two **climate change** amendments. We probably have, as I ...

113. CONGRESSIONAL RECORD -- SENATE, Thursday, July 24, 2003 , 149 Cong Rec S 9888, Vol. 149, No. 111, ENERGY POLICY ACT OF 2003_Resumed
Senate
Mr. FRIST; **Mr.** DOMENICI; **Mr.** REID; **Mr.** DURBIN; **Mr.** BOND
... afternoon sometime. We think **climate change** will be offered by ...
... fall on deaf ears_that **climate change** doesn't belong in this ...

114. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 22, 2003 , 149 Cong Rec S 9666, Vol. 149, No. 109, SENATE SCHEDULE
Senate
Mr. DASCHLE; **Mr.** REID
... comprehensive framework to address **global warming.** The current bill eliminates those ...

115. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 15, 2003 , 149 Cong Rec S 9401, Vol. 149, No. 104, COMMENDING CHARLES E. "CHUCK" FRANK
Senate
Mr. DURBIN
... problems of air pollution and **global warming.** He believes the technology in his ...

116. CONGRESSIONAL RECORD -- SENATE, Monday, July 14, 2003 , 149 Cong Rec S 9320, Vol. 149, No. 103, CLEAN AIR PLANNING ACT

Senate
Mr. ALEXANDER
... National Academy of Sciences on **Global Warming** and my discussion with scientists, ...
... effect of human activity on **global warming,** specifically that caused by the ...

117. CONGRESSIONAL RECORD -- SENATE, Thursday, July 10, 2003 , 149 Cong Rec S 9162, Vol. 149, No. 101, Amendments Nos. 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, and 1163, en bloc to amendment No. 1136
Senate
Mr. LUGAR; **Mr.** BIDEN; **Mr.** AKAKA; **Mr.** REID; **Mrs.** MURRAY; **Mr.** ALLEN; **Mr.** NICKLES; **Mr.** HARKIN; **Mr.** HARKIN. ; **Mr.** WYDEN; **Mr.** LEAHY; **Mrs.** CLINTON; **Mr.** SANTORUM; **Mr.** SARBANES; **Mr.** KENNEDY; **Mr.** BINGAMAN; **Mr.** BYRD; **Mr.** BYRD. ; **Mr.** DASCHLE; **Mr.** DURBIN. ; **Mr.** REED; **Mr.** FRIST; **Mr.** SCHUMER; **Mr.** DODD; **Mr.** DODD. ; **Mr.** LEVINE; **Mr.** ENSIGN; **Mr.** JEFFORDS
... important provision on global **climate change** in S. 925, as ...
... gases are contributing to global **climate change.** This assertion is supported by ...
... Sciences, the International Panel on **Climate Change,** and testimony before various ...
... heard repeatedly that increasing **greenhouse gas** emissions increase the risks associated with global **climate change** and warming. I believe it is ...
... emissions and thereby reduce the risks of **climate change.** In a December ...
... sequestration, and adaptation to the impacts of **climate change.** AGU believes that the present ...
... mitigation of human-induced **climate change** and/or the adaptation to it." As much as some people would ...
... continue debating whether or not **global warming** is occurring and whether or not man- ...
... Kingdom endorse the position on **climate change** and greenhouse gases taken ...
... concern over future **climate changes,** including increases in ...
... report of the Intergovernmental Panel on **Climate Change** (IPCC) carefully compares ...
... AGU position statement on **climate change** and greenhouse gases and clarify what is ...
... human influence on recent **climate change. Climate Change** and Greenhouse Gases_Adopted ...
... balance, enhancing the natural **greenhouse effect** and thereby exerting a warming ...
... Earth's surface. Although **greenhouse gas** concentrations and their climatic influences are ...

118. CONGRESSIONAL RECORD -- SENATE, Thursday, July 10, 2003 , 149 Cong Rec S 9162, Vol. 149, No. 101, Amendments Nos. 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, and 1163, en bloc to amendment No. 1136
Senate
Mrs. BOXER; **Mr.** ENZI; **Mrs.** FEINSTEIN; **Mr.** NELSON of Florida; **Mr.** FRIST; **Mr.** DASCHLE; **Ms.** LANDRIEU. ; **Mr.** DORGAN; **Mr.** CAMPBELL
... responsible for global **climate change** has greatly improved over the ...
... predictions of local effects of **climate change,** occurrence of extreme weather ...
... caused or will cause **climate change,** and over potential actions to limit and/or respond to **climate change.** It is important that public debate ...
... degree of human-caused **climate change,** and further buildup of **greenhouse gas** concentrations may be expected to ...
... sequestration, and adaptation to the impacts of **climate change.** AGU believes that the present ...
... mitigation of human-induced **climate change** and/or the adaptation to it. Hot Words_ ...
... Claim of Nonhuman-Induced **Global Warming** Sparks Debate (By ...
... struggle over global **climate change,** a recent study ...
... results, proclaiming that the science of **climate change** is inconclusive and that agreements such as the Kyoto ...
... by the Intergovernmental Panel on **Climate Change** (IPCC), are perturbed that the report has ...

... management and oversell of the dangers of **global warming.**" In contrast, the consensus ...
... utility to those groups who want the **global warming** issue to just go ...
... illustrate the polarized nature of the **climate change** debate in the U.S. " ...
... proof that prevailing views of **global warming** are wrong. The scientists who authored the new study contend that the **global warming** of recent decades is not ...
... deeply divided over **climate change,** Topping said. "It was all very shrewdly done," he ...
... Institute takes the position that **climate change** threatens the global environment and ...
... by presenting evidence of **global warming** at a time when fossil ...
... outspoken skeptic about **climate change.** The committee also circulated a ...
... questions about prevailing **climate change** theories. The center had a ...
... industry efforts to discredit **climate change** science, said conclusions that greenhouse ...
CLIMATE CHANGE (89%); **GLOBAL WARMING** (89%); RESEARCH (79%); ...

119. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 08, 2003 , 149 Cong Rec S 9058, Vol. 149, No. 99,
AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. ENZI
... subcommittee on clean air, **climate change,** and nuclear safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

120. CONGRESSIONAL RECORD -- SENATE, Thursday, June 12, 2003 , 149 Cong Rec S 7741, Vol. 149, No. 86,
ENERGY POLICY ACT OF 2003
Senate
Mr. CHAFEE; **Mr.** REID; **Mr.** DOMENICI; **Mrs.** BOXER; **Mr.** CORNYN; **Mr.** THOMAS; **Mr.** INHOFE; **Ms.** CANTWELL; **Ms.** LANDRIEU; **Ms.** COLLINS; **Mrs.** FEINSTEIN; **Mr.** NELSON of Florida; **Mr.** FRIST; **Mr.** DORGAN; **Mr.** DURBIN; **Mr.** CAMPBELL; **Mr.** CAMPBELL.
... dioxide fuel to meet **climate change** targets. However, we have ignored the supply ...

121. CONGRESSIONAL RECORD -- SENATE, Thursday, June 12, 2003 , 149 Cong Rec S 7757, Vol. 149, No. 86,
AVIATION INVESTMENT AND REVITALIZATION VISION ACT
Senate
Mr. LOTT; **Mr.** McCAIN; **Mr.** HOLLINGS; **Mr.** DORGAN; **Mr.** REID; **Mr.** LAUTENBERG; **Mrs.** HUTCHISON; **Mrs.** CLINTON; **Mr.** COCHRAN; **Mr.** COCHRAN. ; **Mr.** THOMAS. ; **Mr.** BYRD; **Mr.** INHOFE; **Mr.** BINGAMAN; **Mr.** PRYOR; **Mr.** BUNNING; **Mr.** BOXER; **Mr.** NELSON of Florida
... engines so as to minimize the effects on **climate change** per unit of production of ...

122. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 10, 2003 , 149 Cong Rec S 7565, Vol. 149, No. 84,
ENERGY POLICY ACT OF 2003
Senate
Mr. DORGAN; **Mr.** REID; **Ms.** LANDRIEU; **Mr.** ALEXANDER; **Mr.** HARKIN; **Ms.** COLLINS; **Mr.** DOMENICI; **Mr.** SPECTER; **Ms.** BUNNING
... added benefit of tackling **global warming,** which many scientists consider the ...
... time, address the problem of **global warming.** 4. Raise Car and ...
... carbon dioxide linked with **global warming.** They also are expensive, and 10 to 20 ...
... pollution, oil spills, and **global warming.** Imagine, though, that in an ...
... through the back door of **climate-change** policy. Already, Europe is ...

... carbon taxes to fight **global warming** and multinationals are experimenting with carbon- ...
... behind efforts to fight **climate change,** it could help push theentire ...

123. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 10, 2003 , 149 Cong Rec S 7576, Vol. 149, No. 84, CHANGE OF VOTE
Senate
Mr. SHELBY; **Mr.** WYDEN; **Mr.** SUNUNU; **Mr.** REID; **Mr.** BINGAMAN; **Mr.** DOMENICI; **Mr.** DOMENICI. ; **Mr.** ALEXANDER; **Ms.** LANDRIEU; **Mr.** SESSIONS; **Mr.** KYL; **Mr.** INHOFE; **Mr.** FEINGOLD; **Mr.** VOINOVICH; **Mrs.** FEINSTEIN; **Mr.** ENSIGN; **Mr.** CAMPBELL; **Mr.** FITZGERALD; **Mr.** EDWARDS
... new nuclear powerplants. And the **greenhouse gas** issue that has been raised will ...
... considered by some to be a **global-warming** gas. We can stop that. We ...

124. CONGRESSIONAL RECORD -- SENATE, Thursday, June 05, 2003 , 149 Cong Rec S 7421, Vol. 149, No. 82, ENERGY POLICY ACT OF 2003
Senate
Mr. REID; **Mrs.** BOXER; **Mr.** DOMENICI; **Mr.** BINGAMAN; **Mr.** DASCHLE; **Ms.** CANTWELL; **Mr.** INHOFE; **Mr.** DORGAN; **Mr.** BOND; **Mrs.** FEINSTEIN; **Mr.** WYDEN; **Mr.** AKAKA; **Mr.** BYRD; **Mr.** BYRD. ; **Mr.** THOMAS; **Mr.** SUNUNU; **Mr.** CRAIG; **Mr.** FEINGOLD; **Mrs.** CLINTON; **Mr.** VOINOVICH; **Mr.** CHAMBLISS; **Mr.** FRIST; **Mr.** GREGG.
... discussed. It can reduce **global warming.** In 2002, ethanol ...
... in the U.S. reduced **greenhouse gas** emissions by 4.3 ...
... over an issue that we call **climate change.** We became involved as a ...
... gases which created a **greenhouse effect** around our globe which was largely ...
... United States reduced **greenhouse gas** emissions by 4.3 ...
... fuels also reduces so-called **greenhouse gas** emissions by 12- ...
... U.S. reduced the so-called **greenhouse gas** emissions by approximately ...

125. CONGRESSIONAL RECORD -- SENATE, Thursday, June 05, 2003 , 149 Cong Rec S 7506, Vol. 149, No. 82, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. DOMENICI
... subcommittee on clean air, **climate change,** AND NUCLEAR SAFETY Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

126. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 03, 2003 , 149 Cong Rec S 7200, Vol. 149, No. 80, ENERGY POLICY ACT OF 2003
Senate
Mr. McCONNELL; **Mrs.** FEINSTEIN; **Mr.** DOMENICI. ; **Mr.** DASCHLE; **Mr.** VOINOVICH; **Mr.** SUNUNU; **Mr.** HARKIN
... United States reduced **greenhouse gas** emissions, something we have talked ...
... fuels also reduces so-called **greenhouse gas** emissions by 12 to ...
... U.S. reduced the so-called **greenhouse gas** emissions by approximately ...
... Pew Center on Global **Climate Change** concluded that: During the next ...
... reducing transportation sector [**greenhouse gas**] emissions. Regarding benzene, there have been ...
... water quality and reducing **greenhouse gas** emissions. They are nontoxic, biodegradable, ...
... Pew Center on Global **Climate Change** finds that ethanol-blended ...

... reducing transportation-related **greenhouse gas** emissions over the next ...

127. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 03, 2003 , 149 Cong Rec S 7237, Vol. 149, No. 80,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BINGAMAN; **Mr.** SPECTER; **Mr.** WYDEN; **Mr.** FRIST; **Mrs.** CLINTON; **Mr.** GRASSLEY; **Ms.** STABENOW; **Mr.** BYRD; **Mr.** HATCH
... lead contributor to global **climate change.** To address these concerns, Congress ...

128. CONGRESSIONAL RECORD -- SENATE, Monday, June 02, 2003 , 149 Cong Rec S 7178, Vol. 149, No. 79,
THE ENERGY POLICY ACT OF 2003
Senate
Mr. DOMENICI; **Mr.** DOMENICI. ; **Mr.** BINGAMAN
... a few areas, such as **climate change** andrenewable portfolio standard, where the ...
... offer amendments related to **climate change** and perhaps CAFE. Senator ...
... regards a consideration of **climate change** issues, along with our energy ...

129. CONGRESSIONAL RECORD -- SENATE, Thursday, May 22, 2003 , 149 Cong Rec S 6972, Vol. 149, No. 77,
OP-ED BY SENATOR GEORGE McGOVERN
Senate
Mr. LEAHY
... support the Kyoto Protocol on **global warming,** the International Criminal Court, the ...

130. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 21, 2003 , 149 Cong Rec S 6855, Vol. 149, No. 76,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. VOINOVICH; **Mr.** LEVIN; **Mr.** CAMPBELL; **Ms.** SNOWE; **Mr.** SUNUNU; **Mrs.** FEINSTEIN; **Mrs.** HUTCHISON; **Mr.** REID; **Mr.** SMITH of Oregon; **Mr.** HATCH; **Mr.** DODD
... Institute of Oceanography predicts that **global warming** could reduce the West's water ...

131. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 13, 2003 , 149 Cong Rec S 6043, Vol. 149, No. 71,
ENERGY POLICY ACT OF 2003_Resumed
Senate
Mr. DOMENICI; **Mr.** VOINOVICH; **Mrs.** FEINSTEIN; **Mrs.** FEINSTEIN. ; **Mr.** NELSON of Florida; **Mr.** REID; **Mr.** McCONNELL
... United States reduced **greenhouse gas** emissions by 4.3 ...
... other gases that contribute to **global warming**_another answer to the problem of ...

132. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 13, 2003 , 149 Cong Rec S 6067, Vol. 149, No. 71,
LETTER FROM DAVID A. HARRIS
Senate
Mrs. CLINTON
... way on everything, be it Iraq, **global warming,** the International Criminal Court, or ...

133. CONGRESSIONAL RECORD -- SENATE, Friday, May 09, 2003 , 149 Cong Rec S 5985, Vol. 149, No. 69, THE ENERGY POLICY ACT OF 2003_Continued
Senate
Mr. DASCHLE; **Mr.** JOHNSON
... United States reduced **greenhouse gas** emissions by 4.3 ...

134. CONGRESSIONAL RECORD -- SENATE, Thursday, May 08, 2003 , 149 Cong Rec S 5888, Vol. 149, No. 68, ENERGY POLICY ACT OF 2003
Senate
Mr. DOMENICI; **Mr.** DASCHLE; **Mr.** BOND; **Mr.** TALENT; **Mr.** HAGEL; **Mr.** COLEMAN; **Mr.** LUGAR; **Mr.** KYL; **Mrs.** FEINSTEIN; **Mr.** INHOFE; **Mr.** CAMPBELL; **Mr.** NELSON of Nebraska
... energy security, reduce **greenhouse gas** emissions, and promote investment and ...
... while substantially reducing **greenhouse gas** emissions. This will have substantial ...
... opportunities to debate things such as **climate change** and CAFE standards. I ...
... blended fuels reduces **greenhouse gas** emissions by 12 to ...
... air and water, reduce **greenhouse gas** emissions, and stimulate rural ...
... protecting our environment and addressing **climate change.** But at this point, the Energy ...
... dioxide, the No. 1 **greenhouse gas** released into our atmosphere, and to save ...
... coasts. Fourth, we should address **global warming** and establish plans to combat **climate change.** Fifth, we must encourage the ...
... carbon dioxide_the top **greenhouse gas** and biggest single cause of **global warming**_from entering the atmosphere each ...
... cannot ignore global **climate change,** yet this bill does nothing to decrease **global warming.** The International Panel on **Climate Change** estimates that the Earth's average ...
... cities, and cause global **climate change.** We are already seeing the effects of ...
... most visible sign of **climate change** in America and the rest of the ...
... leader when it comes to combating **global warming.** I strongly believe that we ...
... 2001 ethanol reduced **greenhouse gas** emissions by 3.6 ...

135. CONGRESSIONAL RECORD -- SENATE, Thursday, May 08, 2003 , 149 Cong Rec S 5977, Vol. 149, No. 68, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. COLEMAN; **Mr.** DeWINE; **Mr.** DeWine
... subcommittee on clean Air, **climate change,** and nuclear safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

136. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 07, 2003 , 149 Cong Rec S 5798, Vol. 149, No. 67, ENERGY POLICY
Senate
Mr. CRAIG
... global concern. It was the issue of **climate change.** I will be speaking to that ...
... moments. But the issue of **climate change** began to be argued by many as a product of **greenhouse gas** emissions, and in part ...
... debate, a debate on **climate change,** an argument that the production of greenhouse ...
... fact creating a **greenhouse effect** that has created **global warming.** There are some who believe that emphatically. Others ...
... continually reducing the amount of **greenhouse gas** produced per capita ...

... economy. So when you examine the amount of **greenhouse gas** produced per capita ...
... concern about the emission of **greenhouse gas** in their building of an economy. ...
... in the debate at the Kyoto **climate change** conference, the interests driving the ...
... gases are creating the kind of **climate change** some would argue is going on, then certainly the ...
... parties at The Hague related to **climate change.** That was the attitude of the rest of the world, that the ...
... go it alone when it came to **climate change,** and it certainly ought not ...
... not political science. The **climate change** debate has been a good ...
... need to get, relating to **climate change.** We are not going to ignore it. We are ...
... environment in the name of **climate change.** Those are awfully important issues, and they are some this ...

137. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 07, 2003 , 149 Cong Rec S 5877, Vol. 149, No. 67,
AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. LUGAR
... 2003, at 9:30 a.m. on **Climate Change** in SR-253. The ...

138. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 06, 2003 , 149 Cong Rec S 5747, Vol. 149, No. 66,
ENERGY POLICY ACT OF 2003
Senate
Mr. DOMENICI; **Mr.** BINGAMAN
... in debate over **climate change.** I know the debate is ...
... centrally related to energy, such as **climate change.** This year, I first ...
... policy are intertwined with the topic of **climate change. Climate change** is so closely related to energy ...
... possibility of global change, **climate change** comes up with a ...
... production technologies with lower **greenhouse gas** emissions. Because of this intimate connection between energy and **climate change,** much of energy policy and much of **climate change** policy have to be discussed together. To do ...
... provisions to ensure we integrate **climate change** strategy with energy policy, that we develop better **climate change** science, that we focus on breakthrough ...
... not propose to address **climate change** in any way in the ...
... I think leaving **climate change** out of an energy bill ...
... others in the world. **Climate change** proposals that I plan to ...
... my view that addressing **global warming** is a major element ...

139. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 06, 2003 , 149 Cong Rec S 5759, Vol. 149, No. 66,
ENERGY POLICY ACT OF 2003_Continued
Senate
Mr. DORGAN; **Mr.** CRAIG
... Nebraska, to say that if there was going to be **climate change** legislation that dealt with the emission of ...
... work through our problems with **climate change.** Our country needs a ...

140. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 06, 2003 , 149 Cong Rec S 5764, Vol. 149, No. 66,
ENERGY POLICY ACT OF 2003_Continued
Senate
Ms. LANDRIEU; **Mr.** McCONNELL
... people talk about **climate change** as something that we can simply ...

... storms could get worse with **global warming,** although the scientific jury is ...

141. CONGRESSIONAL RECORD -- SENATE, Monday, May 05, 2003 , 149 Cong Rec S 5696, Vol. 149, No. 65,
ENERGY POLICY
Senate
Mr. THOMAS; **Mr.** DORGAN
... more clean to help with **climate change.** But we can do even ...

142. CONGRESSIONAL RECORD -- SENATE, Thursday, April 10, 2003 , 149 Cong Rec S 5175, Vol. 149, No. 58,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. ENSIGN; **Mr.** HATCH; **Mr.** DASCHLE; **Mr.** LEAHY; **Ms.** SNOWE; **Mr.** KERRY; **Mr.** COLEMAN; **Mr.** ROCKEFELLER; **Mr.** CORZINE; **Mr.** DURBIN; **Mr.** HOLLINGS; **Mr.** GREGG; **Mr.** EDWARDS; **Mr.** McCAIN; **Mr.** KOHL; **Mr.** BURNS; **Mr.** SMITH; **Mr.** HARKIN; **Mr.** BINGAMAN; **Mr.** TALENT; **Mr.** WYDEN; **Mr.** Bingaman; **Mr.** GRASSLEY
... plants, which can contribute to **global warming.** The science of catalysis can ...
... development of compounds to reduce **global warming.** SEC. 3. DEPARTMENT OF ...
... processes and methods to reduce **global warming.** SEC. 4. AUTHORIZATION OF ...

143. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 09, 2003 , 149 Cong Rec S 5061, Vol. 149, No. 57,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. LEAHY; **Mr.** SARBANES; **Mr.** GRASSLEY; **Mr.** ALLARD; **Ms.** LANDRIEU; **Mr.** ROCKEFELLER; **Mr.** BROWNBACK; **Mr.** REID; **Mr.** HARKIN; **Mr.** KERRY; **Mr.** CARPER; **Mr.** CHAFEE; **Mr.** CRAPO; **Mr.** GRAHAM of Florida; **Mr.** KENNEDY; **Mr.** SMITH; **Mr.** McCAIN; **Mr.** KYL
... energy unit. "(4) **Greenhouse gas.**_The term '**greenhouse gas**' means_ "(A) carbon ...
... a project to reduce the **greenhouse gas** emissions (on a carbon ...
... relationship of fossil fuels to **global warming** is clear and scientifically validated. The " ...

144. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 08, 2003 , 149 Cong Rec S 4958, Vol. 149, No. 56,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. LEVIN; **Mr.** DeWINE; **Mr.** ALLARD; **Ms.** COLLINS; **Mr.** CORZINE; **Mr.** CONRAD; **Mr.** THOMAS; **Mr.** KOHL; **Ms.** SNOWE; **Mr.** KERRY; **Ms.** MIKULSKI; **Mrs.** BOXER; **Mr.** HARKIN; **Mr.** SANTORUM
... development without causing **global warming** and other harmful environmental ...

145. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 08, 2003 , 149 Cong Rec S 4981, Vol. 149, No. 56,
AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. CORNYN
... subcommittee on clear air, **climate change,** and nuclear safety Mr. ...
... subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

146. CONGRESSIONAL RECORD -- SENATE, Monday, April 07, 2003 , 149 Cong Rec S 4899, Vol. 149, No. 55,

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. DURBIN; **Mr.** NELSON of FLORIDA; **Mr.** DORGAN; **Mr.** LEAHY; **Mr.** KENNEDY; **Mr.** SESSIONS
... for policies that reduce **global warming** pollution, reduce our dependence on ...
... help slow down **global warming.** We thank you for your ...
... signed California's landmark **global warming** control bill. Litigation to ...
... emissions are reduced_thereby slowing **global warming.** The automobile manufacturers won't ...

147. CONGRESSIONAL RECORD -- SENATE, Thursday, April 03, 2003 , 149 Cong Rec S 4789, Vol. 149, No. 54,
Senate
Senate
Mr. SPECTER; **Mr.** STEVENS; **Mr.** SCHUMER; **Mrs.** CLINTON; **Mr.** AKAKA; **Mr.** LIEBERMAN; **Mr.** LEAHY; **Mr.** KENNEDY; **Mrs.** BOXER; **Ms.** MIKULSKI; **Ms.** LANDRIEU; **Ms.** LANDRIEU. ; **Mr.** LAUTENBERG; **Mr.** COCHRAN; **Mr.** BAUCUS; **Mr.** McCAIN; **Mr.** BYRD. ; **Mr.** REID; **Mr.** KOHL; **Mr.** NELSON of Florida; **Mr.** GRAHAM of Florida; **Mr.** EDWARDS; **Mrs.** FEINSTEIN; **Mr.** DOMENICI; **Mr.** DOMENICI. ; **Mr.** KERRY; **Mr.** JEFFORDS; **Mr.** WYDEN
... worldwide agreement on the dangers of **global warming.** It has refused to join worldwide ...

148. CONGRESSIONAL RECORD -- SENATE, Thursday, April 03, 2003 , 149 Cong Rec S 4826, Vol. 149, No. 54,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Ms. SNOWE; **Mrs.** FEINSTEIN; **Mr.** CAMPBELL; **Mr.** INHOFE; **Mr.** BAUCUS; **Mr.** HAGEL; **Mr.** JEFFORDS; **Mr.** McCAIN; **Mr.** GRASSLEY; **Mr.** BINGAMAN; **Mr.** LEAHY; **Mr.** HOLLINGS; **Mr.** LUGAR
... day challenges like **global warming** and biodiversity relate to historical ...

149. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 01, 2003 , 149 Cong Rec S 4631, Vol. 149, No. 52,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mrs. CLINTON; **Mr.** McCAIN; **Mr.** DODD; **Mr.** BAUCUS; **Mr.** BINGAMAN; **Mrs.** HUTCHISON; **Mr.** HATCH; **Mr.** LIEBERMAN; **Ms.** SNOWE; **Mr.** DURBIN; **Mr.** GRASSLEY
... dioxide emissions, the major **greenhouse gas** thought to be responsible for **climate change** variability. In fact, ...
... most significant contributor to **climate change.** I am pleased to see that ...

150. CONGRESSIONAL RECORD -- SENATE, Thursday, March 27, 2003 , 149 Cong Rec S 4514, Vol. 149, No. 50,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BINGAMAN; **Ms.** STABENOW; **Mr.** BYRD; **Mr.** ROCKEFELLER; **Mr.** COLEMAN; **Mr.** BIDEN; **Mr.** BAUCUS; **Ms.** SNOWE; **Mr.** KERRY; **Mr.** BOND; **Mr.** ENSIGN; **Mrs.** BOXER; **Mr.** AKAKA; **Mr.** LIEBERMAN; **Mr.** SESSIONS; **Mr.** BROWNBACK
... air pollution, global **climate change** and greenhouse gases, hydrogen is ...
... concerns about global **climate change** and energy security will ...

151. CONGRESSIONAL RECORD -- SENATE, Friday, March 21, 2003 , 149 Cong Rec S 4277, Vol. 149, No. 46,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate

Ms. CANTWELL; **Mr.** DOMENICI; **Mr.** FEINGOLD; **Mr.** SMITH; **Mr.** BINGAMAN; **Mr.** DeWINE; **Mrs.** BOXER; **Mr.** GRAHAM; **Mr.** VOINOVICH; **Mr.** HAGEL
... cleanup, and mitigation of global **climate change.** (2) Consultation._The program ...
... carbon dioxide to counter **global warming,** (C) advancing environmental ...

152. CONGRESSIONAL RECORD -- SENATE, Thursday, March 20, 2003 , 149 Cong Rec S 4221, Vol. 149, No. 45, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. ENZI
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

153. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 19, 2003 , 149 Cong Rec S 3913, Vol. 149, No. 44, CONGRESSIONAL BUDGET FOR THE U.S. GOVERNMENT FOR FISCAL YEAR 2004
Senate
Mrs. BOXER; **Mr.** NICKLES; **Mr.** STEVENS. ; **Mr.** BINGAMAN; **Ms.** STABENOW; **Ms.** STABENOW. ; **Mr.** BURNS; **Mr.** REID; **Mr.** DASCHLE; **Mr.** LAUTENBERG; **Mr.** SUNUNU. ; **Mr.** INHOFE; **Mr.** SARBANES; **Mr.** LEAHY; **Ms.** SNOWE; **Mr.** DOMENICI. ; **Mr.** SESSIONS; **Mr.** CONRAD; **Mr.** GRAHAM of South Carolina; **Mrs.** MURRAY; **Mr.** HOLLINGS; **Mr.** CRAIG; **Ms.** MURKOWSKI. ; **Mr.** FEINGOLD; **Mr.** LIEBERMAN; **Mr.** CHAFEE; **Mr.** CHAFEE. ; **Mr.** BYRD; **Mr.** McCAIN; **Mr.** KENNEDY; **Mr.** GREGG
... discovery, the report finds "**climate changes** during the past several ...
... Slope have been unusually rapid." **Climate changes** can change ice ...
... Persian Gulf, reduce **greenhouse gas** emissions, and save billions ...
... large areas. . . ." Moreover, "**climate changes** during the past several ...
... greenhouse gases impacting **climate change.** As the storm clouds gather ...
... dioxide_the major cause of **climate change**_from going into the atmosphere because less ...
... reproductive success. Predicted **climate change** is likely to have serious effects on ...
... seismic effects on whales). **climate change** and new technologies **Climate change** will continue to affect the ...
... States, and this will accelerate with **climate change.** wilderness Oil development has ...

154. CONGRESSIONAL RECORD -- SENATE, Tuesday, March 18, 2003 , 149 Cong Rec S 3836, Vol. 149, No. 43, CONGRESSIONAL BUDGET FOR THE UNITED STATES GOVERNMENT FOR FISCAL YEAR 2004_Continued
Senate
Mr. NICKLES; **Mr.** HATCH; **Ms.** MIKULSKI; **Mr.** CONRAD; **Mr.** KOHL; **Mr.** REID; **Mr.** CORNYN; **Mr.** CORZINE. ; **Mr.** DODD; **Mr.** ALLARD; **Mr.** FRIST; **Mrs.** BOXER; **Mr.** LIEBERMAN; **Mr.** BYRD; **Mr.** STEVENS. ; **Mr.** KERRY; **Mr.** KERRY. ; **Mr.** DURBIN; **Mr.** THOMAS. ; **Mr.** ALEXANDER. ; **Ms.** CANTWELL; **Ms.** MURKOWSKI. ; **Mr.** HARKIN; **Mr.** FEINGOLD; **Ms.** COLLINS; **Mrs.** FEINSTEIN
... fact, it leads us to increased **global warming** problems, to increased dependency on ...
... Snowe bill would fight **global warming** by preventing about ...
... security and would not fight **climate change.** Because the price of oil is set on the ...

155. CONGRESSIONAL RECORD -- SENATE, Thursday, March 13, 2003 , 149 Cong Rec S 3752, Vol. 149, No. 41, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. McCONNELL

... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

156. CONGRESSIONAL RECORD -- SENATE, Friday, March 07, 2003 , 149 Cong Rec S 3348, Vol. 149, No. 37,
AIR POLLUTION AND GLOBAL WARMING
Senate
Mr. JEFFORDS; **Mr.** WARNER; **Mr.** HATCH; **Mr.** SESSIONS
... plans on air pollution and **global warming.** I am pleased to see that the ...
... smog. They have even acknowledged that **climate change** could have severe and damaging consequences. ...
... serious action to avert **global warming.** They have a right to breathe ...
... long-term threat from **greenhouse gas** pollution. Carbon dioxide is the most significant **greenhouse gas** emitted as a result of ...
... combustion with causing most of the **global warming** problem. In fact, ...
... Nations Framework Convention on **Climate Change** to adopt voluntary measures to reduce **greenhouse gas** emissions to 1990 levels. ...
... NAS and the Intergovernmental Panel on **Climate Change** generally agree that the Earth ...
... cause significant, abrupt **climate changes,** as well as threaten our public ...
... scientific information indicates that if **greenhouse gas** concentrations continue to increase, changes are likely to occur." **Global warming** is expected to have wide-reaching and ...
... sea-level rise from **global warming** will bring on another ...
... Pew Center on Global **Climate Change,** a 20-inch ...
... want to see that happen. Because of **global warming,** our forests will see ...
... strong new evidence of **global warming** impacts on animal and plant ...
... species are already reacting to **global warming** by adjusting their range ...
... Race is running into problems because of **global warming.** Unseasonably warm temperatures have ...
... open rivers. Alaska's **global warming** problems made the news ...
... illustrated that in Alaska, **climate change** is a stark reality, ...
... temperatures, whether caused by **greenhouse gas** emissions or nature in ...
... recently released on how **global warming** will affect the nation, the ...
... hit by global **climate change** than any place in the world," ...
... thermal rise. But it said **climate change** would bring a longer ...
... never realized the extent of **global warming,** but we're living it ...
... fast-forward course of **climate change.** "Mosquitoes, erosion, breakup of the ...
... not going to let **global warming** sneak up on us," said Curtis ...
... Glenn Juday, an authority on **climate change** at the University of Alaska at Fairbanks. " ...
... environmental and economic consequences of **global warming** that may affect our country and our ...
... serious air pollution and **global warming** problems threaten public and ...
... Skies does nothing to address **global warming**_nothing. As you can see from this ...
... worry, we should trust that their voluntary **greenhouse gas** reduction plan will help prevent **climate change.** I am not convinced. ...
... national strategy to prevent **global warming** and its harmful and costly impacts on ...
... percent increase in **greenhouse gas** emissions. Again, I ...
... will reduce the risks of **climate change.** The Administration's voluntary plan ...
... Committee hearing, he confessed: **Greenhouse gas** emissions will rise ...
... AIR QUALITY (90%); **GLOBAL WARMING** (90%); **CLIMATE CHANGE** (89%); US ENVIRONMENTAL LAW (...

157. CONGRESSIONAL RECORD -- SENATE, Thursday, February 27, 2003 , 149 Cong Rec S 2922, Vol. 149, No.

32, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. NICKLES; **Mr.** REID; **Mrs.** HUTCHISON; **Mr.** KOHL; **Mr.** SARBANES; **Mr.** FEINGOLD; **Mr.** THOMAS; **Mr.** EDWARDS; **Mr.** HARKIN; **Mr.** GRASSLEY; **Mr.** ALLEN; **Ms.** COLLINS; **Mr.** LEAHY; **Ms.** SNOWE; **Mr.** INHOFE
... fuel emissions linked to **global warming,** air pollution that contributes to ...
... promote reductions in **greenhouse gas** emissions. By including ...
... States, effectively eliminating the **greenhouse gas** equivalent of 223 million ...

158. CONGRESSIONAL RECORD -- SENATE, Wednesday, February 26, 2003 , 149 Cong Rec S 2724, Vol. 149, No. 31, EXECUTIVE SESSION
Senate
Mr. FRIST; **Mr.** REID; **Mr.** HATCH; **Mr.** DORGAN; **Mr.** SCHUMER; **Mr.** SCHUMER. ; **Mr.** SPECTER; **Mr.** SPECTER. ; **Mr.** BURNS; **Mr.** BURNS. ; **Mr.** DURBIN. ; **Mr.** CRAPO; **Mr.** LEAHY; **Mrs.** CLINTON
... a discussion relating to the **global warming** document that came out ...
... more done regarding **global warming.** It certainly is time we should be talking ...
... far the largest contributor to **global warming.** They sabotaged the International Criminal ...

159. CONGRESSIONAL RECORD -- SENATE, Thursday, February 13, 2003 , 149 Cong Rec S 2458, Vol. 149, No. 27, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. DASCHLE; **Mr.** LUGAR; **Mr.** HAGEL; **Mr.** DORGAN; **Mr.** JOHNSON; **Mr.** NELSON of Nebraska; **Mr.** COLEMAN; **Mr.** CORZINE; **Mrs.** LINCOLN; **Mr.** ROBERTS; **Mr.** LEVIN; **Mr.** REID; **Mr.** McCAIN; **Mr.** ALLEN; **Mr.** GRASSLEY; **Mr.** BAUCUS; **Mr.** ENSIGN; **Mr.** CAMPBELL; **Ms.** LANDRIEU; **Mr.** FEINGOLD; **Mr.** BUNNING; **Mr.** DeWINE; **Mr.** EDWARDS; **Mr.** BINGAMAN; **Mr.** KYL; **Mr.** NICKLES
... while substantially reducing **greenhouse gas** emissions. Ethanol comes from ...
... 2001 ethanol reduced **greenhouse gas** emissions by 3.6 ...
... can help to reduce **global warming.** In 2002 alone, ...
... United States reduced **greenhouse gas** emissions by 4.3 ...

160. CONGRESSIONAL RECORD -- SENATE, Thursday, February 13, 2003 , 149 Cong Rec S 2498, Vol. 149, No. 27, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. SANTORIUM
... subcommittee on clean air, **climate change** and nuclear safety Mr. ...
... Subcommittee on Clean Air, **Climate Change,** and Nuclear Safety be authorized to ...

161. CONGRESSIONAL RECORD -- SENATE, Wednesday, February 12, 2003 , 149 Cong Rec S 2341, Vol. 149, No. 26, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. CORZINE; **Mr.** BINGAMAN; **Mr.** JEFFORDS; **Ms.** COLLINS; **Ms.** SNOWE; **Mr.** ROCKEFELLER; **Mr.** McCAIN; **Mr.** THOMAS; **Mr.** DeWINE; **Mrs.** CLINTON; **Mr.** KENNEDY; **Mr.** BAUCUS; **Mr.** BUNNING; **Mr.** DOMENICI; **Mrs.** LINCOLN; **Ms.** LANDRIEU; **Mr.** DASCHLE; **Mr.** DORGAN; **Ms.** STABENOW
... rain, mercury contamination and **global warming.** They cause death, disease, ...
... risk of abrupt and unwelcome **climate changes.** The nation has made some impressive ...
... international commitment to reduce **greenhouse gas** emissions to 1990 levels ...

... dioxide, a major **greenhouse gas,** have increased by more than ...
... failure increases the risks from **global warming.** It is plainly obvious that we must ...
... progress in reducing **greenhouse gas** emissions. The voluntary approach has ...
... dioxide, a major **greenhouse gas** causing **global warming;** and "(B) the quantity of carbon ...
... pollution, mercury contamination, and **greenhouse gas** emissions in the nation. ...
... Carbon dioxide is causing **climate change** that threatens to alter Maine's ...
... rain, mercury pollution, and **global warming** than any other bill. Our bill ...

162. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 11, 2003 , 149 Cong Rec S 2176, Vol. 149, No. 25, SENATOR LIEBERMAN'S REMARKS TO NATO ALLIES
Senate
Mr. DASCHLE
... Americans agree. Consider **global warming.** America is the single biggest ...
... strong majorities consider **global warming** to be a serious problem. ...

163. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 11, 2003 , 149 Cong Rec S 2188, Vol. 149, No. 25, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BAUCUS; **Mr.** DASCHLE; **Mr.** GREGG; **Mr.** KENNEDY; **Mr.** DODD; **Ms.** MIKULSKI; **Mr.** AKAKA; **Mr.** NELSON of Florida; **Mr.** LEVIN; **Mr.** THOMAS; **Mrs.** FEINSTEIN; **Mr.** SCHUMER; **Mr.** BIDEN; **Ms.** COLLINS; **Mr.** LEAHY; **Mr.** BINGAMAN; **Mrs.** LINCOLN; **Mr.** GRASSLEY
... carbon dioxide as a **greenhouse gas.** Even the large landfills that are ...

164. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 04, 2003 , 149 Cong Rec S 1847, Vol. 149, No. 20, TRIBUTE TO THE SPACE SHUTTLE "COLUMBIA" ASTRONAUTS
Senate
Mr. BOND; **Mr.** REID; **Mrs.** BOXER; **Mr.** LEAHY; **Mr.** SMITH; **Mr.** HATCH; **Mr.** AKAKA; **Mr.** AKAKA. ; **Mrs.** MURRAY; **Mr.** ALLEN; **Mr.** WARNER; **Mr.** DASCHLE; **Mr.** DODD; **Ms.** SNOWE; **Mr.** FEINGOLD; **Mr.** KERRY; **Mr.** CONRAD; **Mr.** CRAIG; **Mrs.** FEINSTEIN; **Mr.** GRAHAM
... more about global **climate change,** research into water conservation and ...
... missions have helped us understand **global warming,** weather patterns, and the effects of ...

165. CONGRESSIONAL RECORD -- SENATE, Thursday, January 30, 2003 , 149 Cong Rec S 1788, Vol. 149, No. 17, CLEAR SKIES LEGISLATION
Senate
Mr. JEFFORDS
... quality standards and it also ignores **global warming.** Worse yet, the President's ...
... commitment to try to reduce **greenhouse gas** emissions to 1990 levels. ...
... start dealing with manmade **global warming.** Most importantly, we want ...

166. CONGRESSIONAL RECORD -- SENATE, Thursday, January 30, 2003 , 149 Cong Rec S 1814, Vol. 149, No. 17, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mrs. CLINTON; **Mr.** DURBIN; **Mr.** CAMPBELL; **Mr.** LEAHY; **Mr.** HATCH; **Mr.** AKAKA; **Mrs.** FEINSTEIN; **Ms.** SNOWE; **Mr.** DOMENICI; **Mr.** HARKIN; **Mr.** BINGAMAN; **Mr.** KERRY; **Ms.** CANTWELL; **Mrs.** MURRAY;

Mrs. BOXER; **Mr.** McCAIN; **Mr.** VOINOVICH; **Mr.** JEFFORDS; **Mr.** ENSIGN; **Mr.** KENNEDY; **Mr.** SMITH; **Mr.** SANTORUM
... carbon dioxide_the top **greenhouse gas** and biggest single cause of **global warming** from entering the atmosphere each ...
... in the fight against **global warming.** The International Panel on **Climate Change,** estimates that the Earth's average ...
... cities, and cause global **climate change.** We are already seeing the effects of ...
... most visible sign of **climate change** in America and the rest of the ...
... leader when it comes to combating **global warming.** The single most effective ...
... foreign oil and reduce **global warming** is to increase the fuel efficiency of our ...
... states that, "Because of concerns about **greenhouse gas** emissions and the level of oil ...
... carbon dioxide emissions, the **greenhouse gas** linked to global **climate change.** To put this in perspective, the ...

167. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 29, 2003 , 149 Cong Rec S 1727, Vol. 149, No. 16, COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS RULES OF PROCEDURE
Senate
Mr. INHOFE
... Infrastructure; Clean Air, **Climate Change,** and Nuclear Safety; Fisheries, ...

168. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 29, 2003 , 149 Cong Rec S 1729, Vol. 149, No. 16, CHARLES KRAUTHAMMER'S "AMERICAN UNILATERALISM"
Senate
Mr. KYL
... skepticism. The Kyoto Protocol on **climate change,** for example, would have had a ...

169. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 28, 2003 , 149 Cong Rec S 1646, Vol. 149, No. 15, STATE OF THE UNION
Senate
Mr. JEFFORDS; **Mrs.** BOXER
... raises the risk and threat of **global warming.** Shortly after being ...

170. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 28, 2003 , 149 Cong Rec S 1647, Vol. 149, No. 15, CONCERNS OF CALIFORNIANS
Senate
Mrs. BOXER. ; **Mrs.** HUTCHISON
... carbon dioxide, which causes **global warming;** 45 million tons of ...

171. CONGRESSIONAL RECORD -- SENATE, Thursday, January 23, 2003 , 149 Cong Rec S 1421, Vol. 149, No. 12, Senate
Senate
Mr. THOMAS; **Ms.** COLLINS; **Mr.** VOINOVICH; **Ms.** MIKULSKI; **Mr.** REID; **Mr.** ALLEN; **Mr.** SPECTER; **Mr.** SARBANES; **Mr.** KENNEDY; **Mr.** KERRY; **Mr.** STEVENS; **Mr.** LAUTENBERG; **Mr.** LAUTENBERG. ; **Mr.** KYL; **Mr.** BINGAMAN; **Mrs.** BOXER; **Mr.** JEFFORDS; **Mr.** INHOFE; **Mr.** BOND; **Mr.** KOHL; **Mr.** HATCH; **Mr.** LEAHY; **Mr.** LEAHY. ; **Ms.** SNOWE; **Mr.** COCHRAN. ; **Ms.** STABENOW; **Mr.** CRAPO; **Mr.** CRAPO. ; **Mr.** BENNETT. ; **Mr.** GREGG; **Mr.** WARNER; **Mr.** LINCOLN; **Mr.** BURNS; **Mr.** BYRD; **Mr.** HOLLINGS; **Mr.**

HOLLINGS. ; **Ms.** LANDREIU; **Mr.** BREAUX; **Ms.** LANDRIEU; **Mr.** DORGAN; **Mr.** DORGAN. ; **Mrs.** CLINTON; **Mr.** DURBIN; **Mr.** McCAIN; **Mr.** LEVIN; **Ms.** CANTWELL; **Mr.** FRIST; **Mr.** COLEMAN; **Mr.** DAYTON
... view on the issue of global **climate change** that we have sufficient information to move ...
... farm income and reducing **greenhouse gas** emissions. On March 18, ...

172. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 22, 2003 , 149 Cong Rec S 1325, Vol. 149, No. 11, MAKING FURTHER CONTINUING APPROPRIATIONS FOR FISCAL YEAR 2003_Continued
Senate
Mr. REED; **Mr.** DURBIN. ; **Mr.** NICKLES; **Mr.** GRASSLEY; **Mr.** KERRY; **Mr.** SARBANES; **Mr.** REID; **Mr.** DASCHLE; **Mr.** COCHRAN; **Mr.** KOHL; **Mr.** HAGEL. ; **Mr.** JOHNSON; **Mrs.** HUTCHISON. ; **Mr.** NELSON of Nebraska; **Mr.** BAUCUS; **Mr.** ROBERTS. ; **Mr.** DORGAN; **Mr.** CRAIG; **Mr.** LEVIN; **Mrs.** CLINTON; **Mr.** ENZI; **Mr.** TALENT; **Mr.** LEAHY; **Ms.** STABENOW; **Mr.** COLEMAN; **Mr.** CONRAD; **Mr.** BURNS; **Mr.** DAYTON; **Mr.** STEVENS; **Mr.** NELSON of Florida; **Mr.** SPECTER; **Mr.** ALLEN; **Mr.** LOTT; **Mr.** ROCKEFELLER; **Mr.** McCAIN; **Mr.** SANTORUM; **Mr.** DOMENICI; **Mr.** FEINGOLD; **Mr.** DeWINE; **Mr.** KENNEDY; **Mr.** KYL; **Mr.** DODD; **Mrs.** MURRAY; **Mr.** SESSIONS; **Ms.** MIKULSKI; **Mr.** AKAKA; **Mrs.** DOLE; **Mrs.** DOLE. ; **Mr.** CAMPBELL; **Mr.** CHAFEE; **Mr.** CHAFEE.
... faces immense challenges_from **global warming** to the threat of nuclear, chemical and ...

173. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 21, 2003 , 149 Cong Rec S 1171, Vol. 149, No. 10, MAKING FURTHER CONTINUING APPROPRIATIONS FOR FISCAL YEAR 2003
Senate
Mr. EDWARDS; **Mr.** LIEBERMAN; **Mr.** JEFFORDS; **Mr.** BOND; **Mr.** REID; **Mr.** DODD; **Mr.** REED; **Mr.** GREGG; **Mrs.** CLINTON; **Mr.** KOHL; **Mr.** SARBANES; **Ms.** CANTWELL; **Ms.** MIKULSKI. ; **Mr.** SESSIONS; **Mr.** DAYTON; **Mr.** THOMAS. ; **Mr.** INHOFE; **Mr.** SANTORUM; **Mr.** SANTORUM. ; **Mr.** BIDEN; **Mr.** DORGAN; **Mr.** VOINOVICH; **Mr.** DURBIN; **Mr.** NELSON of Florida; **Mr.** NICKLES; **Mr.** GRASSLEY; **Mr.** FEINGOLD
... care of that and allow drilling there. On **climate change,** on November 20 the chairman of the ...
... Council on Environmental Quality said: "**Climate change** is a technology issue." He ...
... gases, are the solution to global **climate change.** Snowmobiles, something on which I have ...

174. CONGRESSIONAL RECORD -- SENATE, Friday, January 17, 2003 , 149 Cong Rec S 1145, Vol. 149, No. 9, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. CORZINE; **Mr.** CHAFEE; **Mr.** ALLEN; **Mrs.** BOXER
... voluntary reductions in, **greenhouse gas** emissions; to the Committee on Environment and ...
... posed by global **climate change.** I am pleased to be joined on this ...
... taking action to mitigate **climate change.** I appreciate their help ...
... introducing this legislation today. **Climate change** is a complex issue. ...
... 2001, the Intergovernmental Panel on **Climate Change** released its Third Assessment Report. That report shows that **climate change** science is increasingly clear and ...
... attributed to increased atmospheric **greenhouse gas** levels. We know that without ...
... concerned about other **climate change** impacts across New ...
... companies can register **greenhouse gas** emissions reductions. In ...
... annual report on U.S. **greenhouse gas** emissions. I'd like to ...
... organizations to establish a **greenhouse gas** emission information system. ...
... estimates of other types of **greenhouse gas** emissions, such as process emissions, ...

... important than the reporting system is the **greenhouse gas** registry established by the ...
... requires EPA a **greenhouse gas** registry, which will enable companies to register **greenhouse gas** reductions. Many companies are ...
... reliable inventory of the sources of **greenhouse gas** emissions within our economy. ...
... continue to make voluntary **greenhouse gas** reductions. The reason is that the greenhouse ...
... companies can register their **greenhouse gas** reductions in a ...
... account if a mandatory **greenhouse gas** emission reduction program is ...
... necessary at this time. A **greenhouse gas** reporting system and registry is ...
... publish a U.S. **greenhouse gas** emissions inventory. This will be a national account of **greenhouse gas** emissions for our nation, and ...
... incorporate the information submitted to the **greenhouse gas** information system and registry. ...
... nothing of consequence to address the **climate change** threat. But I ...
... disclose major sources of **greenhouse gas** emissions and recognize early ...
... worked on a bipartisan **greenhouse gas** registry and reporting bill with ...
... up to Congress to lead on **climate change.** I urge my ...
... create a credible **greenhouse gas** reporting and registry system that ...
... may be cited as the "National **Greenhouse Gas** Emissions Inventory and Registry ...
... according to the Intergovernmental Panel on **Climate Change** and the National Research Council_ (...
... impacts from human-induced **climate change** pose a substantial ...
... 4) to begin to manage **climate change** risks, public and private ...
... quantities of United States **greenhouse gas** emissions. (b) Purpose._The ...
... establish a mandatory **greenhouse gas** inventory, registry, and information ...
... design efficient and effective **greenhouse gas** emission reduction strategies; (3) will encourage **greenhouse gas** emission reductions; and (4) ...
... in the event of any future **greenhouse gas** emission reduction requirements ...
... States. SEC. 3. **GREENHOUSE GAS** EMISSIONS. The Clean Air ...
... following: "TITLE VII_**GREENHOUSE GAS** EMISSIONS "SEC. 701. ...
... a threshold quantity of **greenhouse gas** emissions. "(2) Direct ...
... direct emissions' means **greenhouse gas** emissions from a source that is ...
... Federal agency. "(4) **Greenhouse gas.**_The term '**greenhouse gas**' means_ "(A) carbon ...
... sulfur hexafluoride. "(5) **Greenhouse gas** emissions._The term '**greenhouse gas** emissions' means emissions of a **greenhouse gas,** including_ "(A) stationary ...
... airplanes, and vessels. "(6) **Greenhouse gas** emissions record._The term '**greenhouse gas** emissions record' means all of the historical **greenhouse gas** emissions and project reduction ...
... 704(c). "(7) **Greenhouse gas** report._The term '**greenhouse gas** report' means an annual list of the **greenhouse gas** emissions of an entity and the sources of those ...
... indirect emissions' means **greenhouse gas** emissions that are a consequence of the ...
... entity. "(9) National **greenhouse gas** emissions information system._The term 'national **greenhouse gas** emissions information system' ...
... a). "(10) National **greenhouse gas** emissions inventory._The term 'national **greenhouse gas** emissions inventory' means the national inventory of **greenhouse gas** emissions established under ...
... 705. "(11) National **greenhouse gas** registry._The term 'national **greenhouse gas** registry' means the national **greenhouse gas** registry established under ...
... means_ "(A) a **greenhouse gas** emission reduction achieved ...
... carrying out a **greenhouse gas** emission reduction project; and "(...
... quantity for mandatory **greenhouse gas** reporting established by the ...
... independent assessment of whether a **greenhouse gas** report submitted by ...
... entity accurately reflects the **greenhouse gas** impact of the reporting entity. "SEC. 702. NATIONAL **GREENHOUSE GAS** EMISSIONS INFORMATION SYSTEM. "(...
... standards for reporting of **greenhouse gas** emissions, the Administrator shall ...

... administer a national **greenhouse gas** emissions information system to ...
... draft design of the national **greenhouse gas** emissions information system. "(...
... information in the national **greenhouse gas** emissions information system ...
... d) Relationship to Other **Greenhouse Gas** Registries._To the extent practicable, the ...
... coordination between the national **greenhouse gas** emissions information system and ...
... Federal, regional, and State **greenhouse gas** registries. "(e) Integration With ...
... information in the national **greenhouse gas** emissions information system with ...
... SEC. 703. NATIONAL **GREENHOUSE GAS** REGISTRY. "(a) Establishment._ ...
... standards for reporting of **greenhouse gas** emissions, the Administrator shall ...
... administer a national **greenhouse gas** registry to collect information ...
... information in the national **greenhouse gas** registry through the website of the ...
... c) Relationship to Other **Greenhouse Gas** Registries._To the maximum extent ...
... coordination between the national **greenhouse gas** registry and existing and developing Federal, regional, and State **greenhouse gas** registries. "(d) Integration With ...
... information in the national **greenhouse gas** registry with other environmental ...
... Mandatory Reporting to National **Greenhouse Gas** Emissions Information System._ "(...
... inclusion in the national **greenhouse gas** emissions information system, the **greenhouse gas** report of the covered entity with ...
... 2003; and "(ii) each **greenhouse gas** emitted by the covered ...
... Required elements._Each **greenhouse gas** report submitted under ...
... ii) shall express **greenhouse gas** emissions in metric ...
... dioxide equivalent of each **greenhouse gas** emitted; "(iii) shall specify the sources of **greenhouse gas** emissions that are included in the **greenhouse gas** report; "(iv) shall be ...
... shall submit to the Administrator the **greenhouse gas** report of the covered entity with ...
... year; and "(ii) each **greenhouse gas** emitted by the covered ...
... Required elements._Each **greenhouse gas** report submitted under ...
... a description of any adjustments to the **greenhouse gas** emissions record of the covered ...
... a source and a **greenhouse gas** that is subject to the mandatory reporting ...
... Voluntary Reporting to National **Greenhouse Gas** Registry._ "(1) In ...
... inclusion in the national **greenhouse gas** registry, with respect to the preceding calendar year and any **greenhouse gas** emitted by the entity_ "(...
... report activities that reduce **greenhouse gas** emissions or sequester a **greenhouse gas,** including_ "(A) fuel ...
... entity shall adjust the **greenhouse gas** emissions record of the reporting ...
... divestiture) shall adjust its **greenhouse gas** emissions record for ...
... middle of a year, the **greenhouse gas** emissions record of the reporting ...
... Calculation changes and errors._The **greenhouse gas** emissions record of a ...
... greenhouse gases in the **greenhouse gas** emissions record. "(4) Organizational growth or decline._The **greenhouse gas** emissions record of a ...
... statement included in the **greenhouse gas** report of the reporting entity ...
... significant adjustment in the **greenhouse gas** emissions record of the reporting ...
... significant change between the **greenhouse gas** emissions record for the preceding year and the **greenhouse gas** emissions reported for the ...
... for quantification and verification of **greenhouse gas** emissions; "(B) electronic ...
... for quantification and reporting of **greenhouse gas** emissions; and "(C) **greenhouse gas** accounting and reporting standards. "(...
... verify, in accordance with **greenhouse gas** accounting and reporting standards ...
... d)(1)(C), that the **greenhouse gas** report of the reporting entity_ "(...
... actual reductions in **greenhouse gas** emissions or actual increases ...
... SEC. 705. NATIONAL **GREENHOUSE GAS** EMISSIONS INVENTORY. "Not ...
... publish a national **greenhouse gas** emissions inventory that includes_ "(...

... quantity of United States **greenhouse gas** emissions for the second ...
... A) for each **greenhouse gas,** an estimate of the quantity of emissions ...
... sources of United States **greenhouse gas** emissions; and "(C) a ...
... in developing the national **greenhouse gas** emissions inventory; and "(2) ...
... information reported to the national **greenhouse gas** emissions information system and the national **greenhouse gas** registry. "SEC. 706. ...
... accounting, reporting, and verification of **greenhouse gas** emissions. "(c) National **Greenhouse Gas** Emissions Information System._ ...
... necessary to establish the national **greenhouse gas** emissions information system. "(d) National **Greenhouse Gas** Registry._Not later than ...
... necessary to establish the national **greenhouse gas** registry. "(e) Mandatory ...
EMISSIONS (92%); **CLIMATE CHANGE** (89%); LEGISLATION (89%); US ...

175. CONGRESSIONAL RECORD -- SENATE, Thursday, January 16, 2003 , 149 Cong Rec S 999, Vol. 149, No. 8,
MAKING FURTHER CONTINUING APPROPRIATIONS FOR FISCAL YEAR 2003
Senate
Mr. STEVENS; **Mr.** BYRD. ; **Ms.** STABENOW; **Mr.** GREGG. ; **Mr.** SCHUMER; **Mr.** SCHUMER. ; **Mr.** DURBIN. ; **Mr.** DASCHLE; **Mr.** REID; **Mr.** REID. ; **Mrs.** MURRAY; **Mr.** KOHL; **Ms.** MIKULSKI; **Mr.** LEAHY; **Mr.** KENNEDY; **Mr.** SARBANES; **Mrs.** BOXER; **Mr.** LIEBERMAN; **Mr.** KERRY; **Mr.** VOINOVICH; **Mr.** McCONNELL; **Mr.** FRIST; **Mr.** DODD; **Mr.** BINGAMAN; **Mr.** HARKIN; **Mr.** HARKIN. ; **Mr.** JEFFORDS; **Ms.** LANDRIEU; **Mr.** REED; **Mr.** ENZI; **Mr.** CORZINE; **Mr.** SPECTER; **Mr.** SANTORUM
... chairman of the Clean Air, **Climate Change,** and Nuclear Safety Subcommittee to ...

176. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 15, 2003 , 149 Cong Rec S 340, Vol. 149, No. 7,
MAKING FURTHER CONTINUING APPROPRIATIONS FOR FISCAL YEAR 2003
Senate
Mr. STEVENS; **Mr.** BYRD; **Mr.** DORGAN; **Mr.** REID; **Mrs.** MURRAY; **Mr.** HARKIN; **Mr.** HARKIN.
... research project and global **climate change** research recommended in the ...

177. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 15, 2003 , 149 Cong Rec S 848, Vol. 149, No. 7,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. McCAIN; **Mrs.** HUTCHISON; **Mrs.** FEINSTEIN; **Mrs.** LINCOLN; **Mr.** BINGAMAN; **Mr.** KYL; **Mr.** VOINOVICH; **Mr.** DAYTON; **Mrs.** BOXER; **Mr.** DASCHLE; **Mr.** BIDEN
... nation's energy consumption and **greenhouse gas** emissions. The research necessary to ...

178. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 14, 2003 , 149 Cong Rec S 289, Vol. 149, No. 6,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BIDEN; **Ms.** CANTWELL; **Mr.** KOHL; **Mrs.** FEINSTEIN; **Mr.** VOINOVICH; **Mr.** CORZINE; **Ms.** SNOWE; **Mrs.** BOXER; **Mr.** ALLEN; **Mr.** BURNS; **Mr.** BAUCUS; **Mr.** HATCH; **Mr.** HOLLINGS; **Mr.** McCAIN
... Chairman of the Clean Air, **Climate Change,** and Nuclear Safety Subcommittee, to ...

179. CONGRESSIONAL RECORD -- SENATE, Thursday, January 09, 2003 , 149 Cong Rec S 90, Vol. 149, No. 3,
LEGISLATION TO BE PASSED

Senate
Mr. REID; **Mrs.** LINCOLN; **Mr.** GREGG
... legislation that needs to be passed. **Global warming** is S. 17. There is no ...
... sensibly, logically, intellectually_that **global warming** is taking place. It is. The question is, what are we ...

180. CONGRESSIONAL RECORD -- SENATE, Thursday, January 09, 2003 , 149 Cong Rec S 134, Vol. 149, No. 3,
DEMOCRATIC LEADERSHIP PRIORITIES FOR THE 108TH CONGRESS
Senate
Mr. DASCHLE; **Mr.** LEAHY; **Mr.** ALLARD; **Mrs.** CLINTON
... lead the world on the issue of **climate change.** The Global Climate Security ...

181. CONGRESSIONAL RECORD -- SENATE, Thursday, January 09, 2003 , 149 Cong Rec S 153, Vol. 149, No. 3,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mrs. FEINSTEIN; **Mr.** EDWARDS; **Mrs.** HUTCHISON; **Mr.** SHELBY; **Mr.** SARBANES; **Mr.** KYL; **Mrs.** BOXER; **Mr.** FEINGOLD; **Mr.** REID; **Mr.** ROCKEFELLER; **Mr.** NELSON of Nebraska; **Mr.** LIEBERMAN; **Mr.** McCAIN
... scientific research on abrupt **climate change,** to accelerate the reduction of **greenhouse gas** emissions in the United ...
... market-driven system of **greenhouse gas** tradeable allowances that could be used ...
... standard credits, to limit **greenhouse gas** emissions in the United ...
... head in the clouds. **Climate change** is not a new ...
... year's national communication on **climate change** that predicted a warming of ...
... namely, whether human-caused **climate change** is happening. The thermometer mercury is ...
... new research studies said **global warming** is already posing a ...
... anecdotally announced the arrival of **global warming** to human populations. I ...
... view are canaries in the **climate change** coalmine. The first example ...
... in the language of statistics that **climate change** is occurring. It's in the language of ...
... hole of our own making. So too with **global warming.** Today the problem is manageable. ...
... still doubt that human **greenhouse gas** emissions are contributing to **climate change** but even they should understand the ...
... Even they should realize that reducing **greenhouse gas** emissions now is the best ...
... goal of stabilizing levels of **greenhouse gas** emissions that will prevent ...
... meaningful reductions in **greenhouse gas** emissions in a ...
... appropriate that the risks of global **climate change** be addressed in specific ...
... sectors, we ease back on the **greenhouse gas** accelerator, spreading the burden ...
... one hand, they know that, with **climate change** worsening every year, ...
... June 2002 report, "**climate change** is an issue business executives ...
... about Washington's ultimate **global warming** policy plans, and therefore have a ...
... more worried about **climate change** than we in the United States have ...
... plays down the risks of **global warming** and shows no interest ...
... quarter of the world's total **climate change** problem. We should never compromise ...
... in. Regrettably, this Nation's **climate change** policy to date has not ...
... TITLE I_FEDERAL **CLIMATE CHANGE** RESEARCH AND RELATED ACTIVITIES ...
... Sec. 105. Abrupt **climate change** research. Sec. 106. NIST **greenhouse gas** functions. Sec. 107. ...
... TITLE II_NATIONAL **GREENHOUSE GAS** DATABASE Sec. 201. National **greenhouse gas** database and registry established. Sec. 202. Inventory of **greenhouse gas** emissions for covered entities. Sec. 203. **Greenhouse gas** reduction reporting. Sec. ...
... III_MARKET-DRIVEN **GREENHOUSE GAS** REDUCTIONS Subtitle A_ ...

... adequacy. Subtitle C_**Climate Change** Credit Corporation Sec. ...
... baseline" means the historic **greenhouse gas** emission levels of an entity, as ...
... controls a source of **greenhouse gas** emissions in the electric ...
... 10,000 metric tons of **greenhouse gas** per year, measured ...
... 10,000 metric tons of **greenhouse gas** per year, measured ...
... database" means the National **Greenhouse Gas** Database established under ...
... direct emissions" means **greenhouse gas** emissions by an entity from ...
... United States. (8) **Greenhouse gas.**_The term "**greenhouse gas**" means_ (A) carbon ...
... indirect emissions" means **greenhouse gas** emissions that are_ (A) a ...
... means the Inventory of U.S. **Greenhouse Gas** Emissions and Sinks, prepared ...
... Nations Framework Convention on **Climate Change** Decision 3/CP. ...
... registry" means the registry of **greenhouse gas** emission reductions established ...
... TITLE I_FEDERAL **CLIMATE CHANGE** RESEARCH AND RELATED ACTIVITIES. ...
... students studying global **climate change,** including capability in ...
... fiscal year for **climate-change** or energy-efficient technology; "(...
... royalty income for **climate-change** or energy-efficient technology; and". (...
... Incentives for Development of **Climate-change** or Energy-efficient Technology._ ...
... 25 percent for **climate change**-related technologies),"; and (2) ...
... inserting "($250,000 for **climate change**-related technologies)" after "$ ...
... in international environmental **climate change** mitigation efforts and technology ...
... for research and development on **climate change** that are not being addressed ...
... SEC. 105. ABRUPT **CLIMATE CHANGE** RESEARCH. "(a) In ...
... research on potential abrupt **climate change** designed_ (1) to develop ...
... past instances of abrupt **climate change;** (2) to improve understanding of ...
... related to the mechanisms of abrupt **climate change;** (3) to incorporate these mechanisms into advanced geophysical models of **climate change;** and (4) to test the output of these ...
... records of past abrupt **climate changes.** (b) Abrupt **Climate Change** Defined._In this section, the term "abrupt **climate change**" means a change ...
... SEC. 106. NIST **GREENHOUSE GAS** FUNCTIONS. Section 2(...
... greenhouse gases associated with **global warming,** including carbon dioxide, ...
... cover) to calculate_ (1) **greenhouse gas** emissions and reductions from agriculture, ...
... 2) noncarbon dioxide **greenhouse gas** emissions from transportation; (3) **greenhouse gas** emissions from facilities or sources ...
... technology; and (4) any other **greenhouse gas** emission or reductions for which ...
... following: "SEC. 17. **CLIMATE CHANGE** STANDARDS AND PROCESSES. "(a) ...
... support research on global **climate change** standards and processes, with the goal of ...
... grants, a global **climate change** standards and processes research ...
... energy efficiency and reduced **greenhouse gas** emissions into the environment; "(B) ...
... TITLE II_NATIONAL **GREENHOUSE GAS** DATABASE SEC. 201. NATIONAL **GREENHOUSE GAS** DATABASE AND REGISTRY ESTABLISHED. (...
... database, to be known as the "National **Greenhouse Gas** Database", to collect, verify, and analyze information on **greenhouse gas** emissions by entities. (b) National **Greenhouse Gas** Database Components._The database ...
... consist of_ (1) an inventory of **greenhouse gas** emissions; and (2) a registry of **greenhouse gas** emission reductions and increases in **greenhouse gas** sequestrations. (c) Comprehensive ...
... comprehensive system for **greenhouse gas** emissions reporting, inventorying, and ...
... in measuring and reporting **greenhouse gas** emissions; and (B) the regulations ...
... prevent the reporting of some or all of the same **greenhouse gas** emissions or emission reductions ...
... for measuring or calculating **greenhouse gas** emissions; (v) to account ...
... SEC. 202. INVENTORY OF **GREENHOUSE GAS** EMISSIONS FOR COVERED ...
... year, the entity-wide **greenhouse gas** emissions (as reported at the facility ...

... total quantity of direct **greenhouse gas** emissions from stationary sources, ...
... III. SEC. 203. **GREENHOUSE GAS** REDUCTION REPORTING. (a) ...
... entity may register **greenhouse gas** emission reductions achieved ...
... entity may register **greenhouse gas** emission reductions achieved at any ...
... year, the entity-wide **greenhouse gas** emissions (as reported at the facility ...
... total quantity of direct **greenhouse gas** emissions from stationary sources, ...
... purposes of achieving and commoditizing **greenhouse gas** reductions through use of the ...
... i) any entity-wide **greenhouse gas** emission reductions activities of the ...
... before the establishment of the National **Greenhouse Gas** Database, verifiedin accordance with ...
... entity-wide reduction of **greenhouse gas** emissions or an increase in net sequestration of a **greenhouse gas** that is carried out by the ...
... under section 203, that the **greenhouse gas** report of the reporting entity_ (...
... reductions in direct **greenhouse gas** emissions_ (I) relative to ...
... Federal, State, and regional **greenhouse gas** data collection and reporting ...
... for reporting each **greenhouse gas;** (B) the data and information ...
... identify, track, and verify **greenhouse gas** emissions in a ...
... trading and exchanges; (C) the **greenhouse gas** reduction and sequestration methods and ...
... available fossil fuels, **greenhouse gas** emissions, and **greenhouse gas** production and importation data are ...
... 1) describes the total **greenhouse gas** emissions and emission reductions ...
... technically accurate record of **greenhouse gas** emissions, emission reductions, ...
... avoidable of double counting of **greenhouse gas** emissions and emission reductions; (...
... reduce, avoid, or sequester **greenhouse gas** emissions; (D) in ...
... Code, in the areas of **greenhouse gas** measurement, certification, and emission ...
... III_MARKET-DRIVEN **GREENHOUSE GAS** REDUCTIONS Subtitle A_ ...
... allowance for any amount of **greenhouse gas** that would otherwise have been emitted from a ...
... acquired from another entity or the **Climate Change** Credit Corporation established ...
... nation's market in **greenhouse gas** emissions if_ (A) the Secretary ...
... for trading in **greenhouse gas** emissions is complete, accurate, and ...
... adopted enforceable limits on its **greenhouse gas** emissions which the tradeable allowances were ...
... registered in the National **Greenhouse Gas** Database established under ...
... 3) submitting a **greenhouse gas** emissions reduction (other than ...
... registered in the National **Greenhouse Gas** Database by a ...
... section 311. (c) **Climate Change** Credit Organization._The **Climate Change** Credit Corporation established ...
... in such tradeable allowances. The **Climate Change** Credit Corporation shall ...
... total by the amount of **greenhouse gas** emissions that the exempted source ...
... controls a source of **greenhouse gas** emissions in the electric ...
... metric tons or less of **greenhouse gas,** measured in units of ...
... tradeable allowances to be allocated to the **Climate Change** Credit Corporation established ...
... initial allocations and the allocation to the **Climate Change** Credit Corporation established ...
... 351); and (2) allocate to the **Climate Change** Credit Corporation established ...
... efficiency of the processes that produce **greenhouse gas** emissions; (2) minimize the ...
... allowances equivalent to the amount of **greenhouse gas** emissions reductions registered ...
... entity in the national **greenhouse gas** database if_ (A) the covered ...
... agrees to reduce its level of **greenhouse gas** emissions to a level no greater than the level of its **greenhouse gas** emissions for calendar ...
... nation's market in **greenhouse gas** emission under the conditions ...
... registered in the National **Greenhouse Gas** Database established under ...
... C) submitting a **greenhouse gas** emission reduction (other than ...
... registered in the National **Greenhouse Gas** Database by a ...
... Nations' Framework Convention on **Climate Change** of stabilizing levels of **greenhouse gas** emissions at a level that

...
... Commerce. Subtitle C_**Climate Change** Credit Corporation SEC. ...
... a) In General._The **Climate Change** Credit Corporation is established as ...
... consumers as a result of the **greenhouse gas** reduction requirements of this Act. The ...
... held eight hearings on **climate change.** Two the last five ...
... in the journal Nature that **global warming** is forcing species around the ...
... principally caused by **climate change, that climate change** is already affecting living ...
... insurance company has estimated that **global warming** could cost $300 billion ...
... World Bank has estimated that **greenhouse gas** trading will be a $ ...
... actually been accomplished to reduce **greenhouse gas** emissions. The United States ...
... not know or the uncertainties are **climate change.** I prefer a ...
... through the government provided **greenhouse gas** database, which would contain an inventory of ...

182. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 07, 2003 , 149 Cong Rec S 38, Vol. 149, No. 1,
DEMOCRATIC LEADERSHIP PRIORITIES FOR THE 108TH CONGRESS
Senate
Mr. DASCHLE; **Mrs.** HUTCHISON; **Mr.** GRASSLEY; **Mr.** CAMPBELL; **Mr.** FEINGOLD; **Mr.** McCONNELL; **Mr.** LIEBERMAN; **Mr.** WYDEN; **Mr.** SCHUMER; **Ms.** COLLINS; **Mr.** INOUYE
... lead the world on the issue of **climate change.** The Global Climate Security ...

107th Congress

LexisNexis *Congressional Record* search results for "climate change" or "global warming" or "greenhouse gas" or "greenhouse effect"

1. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 19, 2002 , 148 Cong Rec S 11536, Vol. 148, No. 150, TRIBUTE TO SENATOR PAUL WELLSTONE
Senate
Mr. SARBANES; **Mr.** REED; **Mr.** DODD
... air and water, reduced **greenhouse gas** emissions, and renewable energy. He ...

2. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 19, 2002 , 148 Cong Rec S 11543, Vol. 148, No. 150, WE NEED A PLAN TO STOP AIDS
Senate
Mr. LEAHY
... faces immense challenges from **global warming,** to the threat of nuclear, chemical and ...

3. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 19, 2002 , 148 Cong Rec S 11552, Vol. 148, No. 150, THE FAILURE TO PASS AN ENERGY BILL
Senate
Mr. ROCKEFELLER
... mines, and a potent **greenhouse gas** when vented to protect the lives of ...

4. CONGRESSIONAL RECORD -- SENATE, Friday, November 15, 2002 , 148 Cong Rec S 11209, Vol. 148, No. 148, TRIBUTE TO DR. LURA POWELL
Senate
Ms. CANTWELL
... challenges: carbon sequestration and **climate change,** the national security risks ...

5. CONGRESSIONAL RECORD -- SENATE, Thursday, October 17, 2002 , 148 Cong Rec S 10645, Vol. 148, No. 137, THE CLEAN WATER ACT: 30 YEARS
Senate
Mr. LEVIN; **Mr.** LEAHY
... ignoring the warning signs, such as **climate change,** new health problems ...

6. CONGRESSIONAL RECORD -- SENATE, Thursday, October 17, 2002 , 148 Cong Rec S 10659, Vol. 148, No. 137, CONGRESSIONAL-EXECUTIVE CONSULTATION ON TRADE
Senate
Mr. BAUCUS
... Observer Group on U.N. **Climate Change** Negotiations._This is a "bipartisan ...
... status of negotiations on global **climate change** and report[ing] periodically to the ...

7. CONGRESSIONAL RECORD -- SENATE, Thursday, October 17, 2002 , 148 Cong Rec S 10678, Vol. 148, No. 137, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. REED; **Mr.** VOINOVICH; **Mr.** FEINGOLD; **Mr.** BAUCUS; **Mr.** CARPER; **Mr.** CHAFEE; **Mr.** LEAHY; **Mr.** DOMENICI; **Mr.** SESSIONS; **Mr.** DODD; **Mrs.** LINCOLN; **Mr.** DeWINE; **Mr.** GRASSLEY; **Ms.** CANTWELL; **Mr.** LIEBERMAN; **Mr.** HATCH

... energy unit. "(4) **Greenhouse gas.**_The term '**greenhouse gas**' means_ "(A) carbon ...
... a project to reduce the **greenhouse gas** emissions (on a carbon ...
... relationship of fossil fuels to **global warming** is clear and scientifically validated. The ...

8. CONGRESSIONAL RECORD -- SENATE, Thursday, October 10, 2002 , 148 Cong Rec S 10233, Vol. 148, No. 133, AUTHORIZATION OF THE USE OF UNITED STATES ARMED FORCES AGAINST IRAQ
Senate
Mr. McCAIN; **Mr.** BYRD; **Mr.** KENNEDY; **Mr.** LIEBERMAN. ; **Mr.** BIDEN; **Mr.** WARNER; **Mr.** SPECTER. ; **Mr.** LOTT; **Mr.** DASCHLE; **Mr.** DASCHLE. ; **Mr.** REID; **Mr.** DAYTON; **Mr.** NICKLES; **Mr.** THOMPSON; **Mr.** LEVIN; **Mr.** BINGAMAN; **Mr.** SARBANES. ; **Mrs.** BOXER; **Mrs.** BOXER. ; **Mr.** FEINGOLD; **Mr.** CORZINE; **Mr.** AKAKA; **Mr.** JEFFORDS; **Mr.** DURBIN; **Mr.** COCHRAN; **Mr.** COCHRAN. ; **Mr.** KYL; **Mr.** GRAMM
... global solution. The crisis of **climate change** can hardly be addressed by the ...

9. CONGRESSIONAL RECORD -- SENATE, Thursday, October 10, 2002 , 148 Cong Rec S 10233, Vol. 148, No. 133, AUTHORIZATION OF THE USE OF UNITED STATES ARMED FORCES AGAINST IRAQ
Senate
Mr. McCONNELL; **Mrs.** FEINSTEIN; **Ms.** LANDRIEU; **Mr.** SANTORUM; **Mr.** MURKOWSKI; **Mrs.** LINCOLN; **Mr.** KENNEDY; **Mr.** JOHNSON; **Mr.** LIEBERMAN; **Mr.** FITZGERALD; **Mr.** McCAIN; **Mr.** REID; **Mr.** NICKLES
... abandon the Kyoto Protocol on **global warming,** to unilaterally withdraw from the ABM ...

10. CONGRESSIONAL RECORD -- SENATE, Monday, October 07, 2002 , 148 Cong Rec S 10001, Vol. 148, No. 130, IRAQ
Senate
Mr. KENNEDY; **Mr.** SPECTER
... fight terrorism, prevent **global warming,** and deal with many other ...

11. CONGRESSIONAL RECORD -- SENATE, Friday, October 04, 2002 , 148 Cong Rec S 9933, Vol. 148, No. 129, AUTHORIZATION OF THE USE OF UNITED STATES ARMED FORCES AGAINST IRAQ_MOTION TO PROCEED
Senate
Mr. BUNNING; **Mr.** LEVIN; **Mr.** BAUCUS; **Mr.** HARKIN; **Mr.** WYDEN; **Mr.** NICKLES; **Mr.** WARNER; **Mr.** VOINOVICH; **Mr.** DODD; **Mr.** BYRD; **Mr.** BYRD. ; **Mr.** KENNEDY; **Mr.** KENNEDY. ; **Mr.** GRAHAM; **Mr.** MURKOWSKI; **Ms.** STABENOW; **Mr.** REID
... renewable portfolio standards, **climate change,** producing more oil from ...

12. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 30, 2002 , 148 Cong Rec S 7585, Vol. 148, No. 106, STATEMENTS ON SUBMITTED RESOLUTIONS
Senate
Mr. KERRY; **Mr.** JEFFORDS
... atmosphere including global **climate change,** preservation of biological diversity, and ...
... agreements to address global **climate change** consistent with_ (A) United ...
... Nations Framework Convention on **Climate Change** to "achieve . . . stabilization of **greenhouse gas** concentrations at a level that ...
... ecosystems to adapt naturally to **climate change** . . ."; (B) the findings of the Third ...
... Report of the Intergovernmental Panel on **Climate Change,** which the Administration should support in its ...

... C) the Sense of Congress on **Climate Change** approved by the Senate as ...
... Nations Framework Convention on **Climate Change,** UNFCC, and the Convention on Biological ...
... real threat of global **climate change,** as well as agreements to address ...
... Nations Framework Convention on **Climate Change** and the United Nations Convention to ...
... involvement in international **climate change** negotiations. His participation would also strengthen ...
... ECONOMIC DEVELOPMENT (89%); **CLIMATE CHANGE** (79%); TREATIES & AGREEMENTS (...

13. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 24, 2002 , 148 Cong Rec S 7306, Vol. 148, No. 102, EFFECTS OF CLIMATE CHANGE IN ALASKA
Senate
Mr. STEVENS
... another aspect of global **climate change** that has deadly implications in ...
... most visible monuments to **climate change.** On the Kenai, nearly 95 ...
... believes the larger culprit is **global warming,** brought on by increased ...
... Other scientists who work on **global warming** issues are now looking at ...
... beetle infestation is related to **climate change.**" While Dr. Juday did ...
... a recent conference on **climate change** in Oslo, as part of the ...
... early warning indicator of **climate change.** If it warms up enough they ...
CLIMATE CHANGE (90%); SCIENCE & TECHNOLOGY (...

14. CONGRESSIONAL RECORD -- SENATE, Thursday, July 11, 2002 , 148 Cong Rec S 6678, Vol. 148, No. 93, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. REID
... 9:30 a.m., on global **climate change** and the U.S. Climate Action ...

15. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 09, 2002 , 148 Cong Rec S 6444, Vol. 148, No. 91, S.J. RES. 34_APPROVAL OF YUCCA MOUNTAIN DEPOSITORY MOTION TO PROCEED
Senate
Mr. MURKOWSKI; **Mr.** REID; **Mr.** ENSIGN; **Mr.** SPECTER; **Mr.** CRAIG
... States. Some who are concerned about **climate change** and want even cleaner ...

16. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 09, 2002 , 148 Cong Rec S 6451, Vol. 148, No. 91, APPROVAL OF YUCCA MOUNTAIN REPOSITORY_MOTION TO PROCEED_Continued
Senate
Mr. WELLSTONE; **Mr.** MURKOWSKI; **Mr.** REID; **Mr.** DAYTON. ; **Mr.** BINGAMAN; **Mrs.** BOXER; **Mr.** THOMAS; **Ms.** STABENOW; **Mrs.** CARNAHAN; **Mr.** ENSIGN; **Mr.** CARPER; **Mr.** DODD; **Mr.** VOINOVICH; **Mr.** DOMENICI; **Mr.** HATCH; **Mr.** CAMPBELL; **Mr.** KERRY; **Mr.** LIEBERMAN; **Mr.** JEFFORDS; **Mrs.** FEINSTEIN; **Mr.** AKAKA; **Mr.** DURBIN; **Ms.** SNOWE; **Mr.** GRASSLEY; **Mr.** KOHL; **Mr.** FEINGOLD; **Mr.** LEVIN; **Mr.** LEAHY; **Mr.** CRAIG; **Mr.** Knowland; **Mr.** Douglas; **Mr.** Dirksen; **Mr.** INHOFE. ; **Mr.** DASCHLE; **Mr.** LOTT; **Ms.** CANTWELL; **Mr.** BYRD
... releases none of the so-called **greenhouse gas** emissions, such as carbon dioxide. ...
... emissions or talking about **global warming,** clearly the nuclear industry ...
... approve the Kyoto targets on **climate change** without nuclear power. There is ...
... scientists agree is causing **global warming.** When the time came to follow ...

17. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 26, 2002 , 148 Cong Rec S 6052, Vol. 148, No. 87, POWERPLANT POLLUTION
Senate
Mr. JEFFORDS
... emissions have been proven to contribute to **climate change, and this climate change** will have a number of ...
... recognizes the grave impacts that **climate change** will have on our health, economy, and the ...
... about this air pollution and **global warming** crisis? What action is this administration ...
... own report this month that **global warming** is a real problem. ...

18. CONGRESSIONAL RECORD -- SENATE, Friday, June 21, 2002 , 148 Cong Rec S 5887, Vol. 148, No. 84, AMTRAK
Senate
Mr. CARPER; **Mr.** KERRY; **Mr.** DASCHLE
... 1970, certainly with respect to **global warming** and carbon dioxide in our ...

19. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 12, 2002 , 148 Cong Rec S 5443, Vol. 148, No. 77, SOLUTION TO MTBE PROBLEM
Senate
Mr. SMITH of New Hampshire
... efficient and produces superior **greenhouse gas** benefits, would receive 1.5 ...

20. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 11, 2002 , 148 Cong Rec S 5320, Vol. 148, No. 76, ENVIRONMENTAL PROTECTIONS
Senate
Mrs. BOXER; **Mr.** THOMAS; **Mr.** THOMAS.
... Nations where they admitted, yes, there is **global warming** and, yes, it is caused by ...

21. CONGRESSIONAL RECORD -- SENATE, Thursday, June 06, 2002 , 148 Cong Rec S 5207, Vol. 148, No. 73, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. TORRICELLI; **Mr.** REID; **Mr.** CAMPBELL; **Mrs.** BOXER; **Mr.** CHAFEE; **Mr.** CRAIG; **Mr.** LEAHY; **Mr.** DOMENICI
... considering such drastic and damaging **climate changes.** My bill provides the ...
... shall be coordinated with global **climate change** predictive capabilities supported ...

22. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 05, 2002 , 148 Cong Rec S 5033, Vol. 148, No. 72, BROWNBACK-CORZINE AMENDMENT TO THE ENERGY BILL
Senate
Mr. BROWNBACK; **Mr.** CORZINE.
... Commerce in implementing the **greenhouse gas** reporting system and registry that our ...

23. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 22, 2002 , 148 Cong Rec S 4662, Vol. 148, No. 67, ANDEAN TRADE PREFERENCE EXPANSION ACT
Senate

Mr. BAUCUS; **Mr.** GREGG; **Mr.** DASCHLE; **Mr.** NICKLES; **Mr.** GRASSLEY; **Mr.** GRAMM; **Mr.** NELSON of Florida; **Mr.** REID; **Mr.** GRAHAM; **Mr.** WELLSTONE; **Mrs.** BOXER; **Mr.** BROWNBACK; **Mr.** REED; **Mr.** DORGAN; **Mr.** BIDEN
... issues ranging from Iraq to **global warming.** But many concede ...

24. CONGRESSIONAL RECORD -- SENATE, Monday, May 20, 2002 , 148 Cong Rec S 4551, Vol. 148, No. 65, TRIBUTE TO SENATOR JIM JEFFORDS
Senate
Mr. REID; **Mr.** BROWNBACK; **Mrs.** BOXER
... America's commitment to reduce **greenhouse gas** emissions to include carbon ...

25. CONGRESSIONAL RECORD -- SENATE, Thursday, May 16, 2002 , 148 Cong Rec S 4427, Vol. 148, No. 63, THE ENVIRONMENT
Senate
Mrs. BOXER; **Mrs.** BOXER. ; **Mr.** GRASSLEY
... dioxide, the chief contributor to **global warming.** He is not going to go ...

26. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 15, 2002 , 148 Cong Rec S 4346, Vol. 148, No. 62, ANDEAN TRADE PREFERENCE EXPANSION ACT
Senate
Mr. WELLSTONE; **Mr.** GRASSLEY; **Mr.** BAUCUS; **Mr.** EDWARDS; **Ms.** CANTWELL; **Mr.** GREGG; **Mr.** LIEBERMAN; **Mr.** GRAMM; **Mr.** REID; **Mr.** DASCHLE; **Mr.** DURBIN; **Mr.** HATCH. ; **Mr.** DORGAN; **Mrs.** BOXER; **Mrs.** CARNAHAN
... going to do something about **global warming** and not only backed ...

27. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 14, 2002 , 148 Cong Rec S 4297, Vol. 148, No. 61, ANDEAN TRADE PREFERENCE EXPANSION ACT_Resumed
Senate
Mr. BAUCUS; **Mr.** KERRY; **Mr.** GRASSLEY; **Mr.** DAYTON; **Mr.** CRAIG; **Mr.** DORGAN; **Mr.** REID; **Mr.** HOLLINGS
... team at The Hague at a **climate change** conference. The head of the U.S. ...

28. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 08, 2002 , 148 Cong Rec S 3979, Vol. 148, No. 57, FARM SECURITY AND RURAL INVESTMENT ACT OF 2002_CONFERENCE REPORT
Senate
Mr. HARKIN; **Mr.** ROBERTS; **Mr.** DORGAN; **Mr.** BROWNBACK; **Mr.** HUTCHINSON; **Ms.** COLLINS; **Mr.** THOMPSON; **Mr.** LUGAR; **Mr.** GREGG; **Ms.** STABENOW; **Mr.** DAYTON; **Mr.** DAYTON. ; **Mr.** HAGEL; **Mrs.** CARNAHAN; **Mr.** JOHNSON; **Mr.** VOINOVICH; **Mrs.** LINCOLN; **Mr.** COCHRAN; **Mr.** SANTORUM; **Mrs.** HUTCHISON; **Mr.** ALLEN; **Mr.** ALLEN. ; **Mr.** REID; **Mr.** CRAIG; **Mr.** GRASSLEY; **Mr.** WELLSTONE; **Mr.** SARBANES; **Mr.** SARBANES. ; **Mr.** KOHL; **Mr.** MURKOWSKI; **Mr.** GRAHAM; **Mr.** GRAHAM. ; **Mr.** INOUYE; **Mr.** INOUYE.
... in the challenge to reduce **global warming.** However, as I said, it is the commodity title that ...
... most in the debate on **climate change,** and that is time. The Department of Energy ...

29. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 08, 2002 , 148 Cong Rec S 4054, Vol. 148, No. 57,
RAISING EPA TO CABINET-LEVEL STATUS
Senate
Mr. REID
... administration from clean air to **climate change** to snowmobiles in our national ...

30. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 07, 2002 , 148 Cong Rec S 3904, Vol. 148, No. 56,
FARM SECURITY AND RURAL INVESTMENT ACT OF 2002_CONFERENCE REPORT_Continued
Senate
Mr. HARKIN; **Mr.** LUGAR; **Mr.** WELLSTONE; **Mr.** ENZI; **Mrs.** Feinstein; **Mr.** LEAHY
... programs, as well as research on **climate change.** The energy title will ...

31. CONGRESSIONAL RECORD -- SENATE, Thursday, April 25, 2002 , 148 Cong Rec S 3342, Vol. 148, No. 48,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Resumed
Senate
Mrs. BOXER; **Mrs.** MURRAY; **Mr.** GRAHAM; **Mr.** MURKOWSKI; **Mr.** REID; **Mr.** GRASSLEY; **Mr.** HAGEL; **Mrs.** FEINSTEIN; **Mr.** BINGAMAN; **Mr.** NELSON of Nebraska; **Mr.** McCONNELL; **Mr.** LEVIN; **Mr.** CRAIG; **Mr.** DURBIN; **Mr.** COCHRAN; **Mr.** DORGAN; **Mr.** HARKIN; **Ms.** CANTWELL; **Mr.** CARPER; **Mr.** SPECTER; **Mr.** BIDEN; **Mr.** FEINGOLD; **Ms.** STABENOW; **Mr.** LIEBERMAN; **Mr.** BOND; **Mr.** BAUCUS; **Mr.** KYL; **Mr.** HATCH
... title is to establish a **greenhouse gas** inventory, reductions registry, and ...
... design efficient and effective **greenhouse gas** emission reduction strategies; and (...
... will acknowledge and encourage **greenhouse gas** emission reductions. SEC. ...
... baseline" means the historic **greenhouse gas** emission levels of an entity, as ...
... database" means the National **Greenhouse Gas** Database established under ...
... direct emissions" means **greenhouse gas** emissions by an entity from ...
... control of an entity. (8) **Greenhouse gas.**_The term "**greenhouse gas**" means_ (A) carbon ...
... emissions with significant ascertainable **global warming** potential, as_ (i) recommended ...
... indirect emissions" means **greenhouse gas** emissions that_ (A) are a ...
... registry" means the registry of **greenhouse gas** emission reductions established as ...
... Director of the Office of National **Climate Change** Policy, shall direct the ...
... collection of data relating to **greenhouse gas** emissions and effects; and (C) are ...
... collection and analysis of data on **greenhouse gas** emissions relating to product ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... standards for measuring **greenhouse gas** emission reductions or offsets. (...
... Director of the Office of National **Climate Change** Policy, shall publish ...
... SEC. 1104. NATIONAL **GREENHOUSE GAS** DATABASE. (a) Establishment._As ...
... database, to be known as the "National **Greenhouse Gas** Database", to collect, verify, and analyze information on **greenhouse gas** emissions by entities. (b) National **Greenhouse Gas** Database Components._The database ...
... consist of_ (1) an inventory of **greenhouse gas** emissions; and (2) a registry of **greenhouse gas** emission reductions. (c) ...
... comprehensive system for **greenhouse gas** emissions reporting, inventorying, and ...
... in measuring and reporting **greenhouse gas** emissions; and (B) the regulations ...
... prevent the reporting of some or all of the same **greenhouse gas** emissions or emission reductions ...
... for measuring or calculating **greenhouse gas** emissions; and (v) to account ...
... for the purpose of reducing **greenhouse gas** emissions. SEC. 1105. **GREENHOUSE GAS** REDUCTION REPORTING. (a) ...
... baseline (including all of the entity's **greenhouse gas** emissions on an entity-wide ...

... year, the entity-wide **greenhouse gas** emissions (as reported at the facility ...
... total quantity of each **greenhouse gas** emitted, expressed in ...
... equivalent; (B) an estimate of the **greenhouse gas** emissions from fossil fuel ...
... purposes of achieving and commoditizing **greenhouse gas** reductions through use of the ...
... information is submitted, and with respect to any **greenhouse gas** emitted by the entity_ (...
... emissions; (ii) with respect to **greenhouse gas** emission reductions activities of the ...
... date of enactment of this Act, any **greenhouse gas** emission reductions that have been reported or ...
... Federal or State voluntary **greenhouse gas** reduction program; and (iii) any ...
... activity for the reduction of **greenhouse gas** emissions or sequestration of a **greenhouse gas** that is carried out by **the** ...
... methane recovery; (IX) **greenhouse gas** offset investment; and (X) any ...
... practice for achieving **greenhouse gas** reductions as recognized by ...
... Director of the Office of National **Climate Change** Policy determines under ...
... Act_ (i) the total **greenhouse gas** emissions of at least 1 ...
... under section 1106, that the **greenhouse gas** report of the reporting entity_ (...
... reductions in direct **greenhouse gas** emissions_ (I) relative to ...
... Federal, State, and regional **greenhouse gas** data collection and reporting ...
... for reporting each **greenhouse gas;** (B) the data and information ...
... identify, track, and verify **greenhouse gas** emission reductions in ...
... trading and exchanges; (C) the **greenhouse gas** reduction and sequestration methods and ...
... available fossil fuels, **greenhouse gas** emissions, and **greenhouse gas** production and importation data are ...
... individually or collectively, to reduce **greenhouse gas** emissions, Congress will be ...
... 1) describes the total **greenhouse gas** emissions and emission reductions ...
... technically accurate record of **greenhouse gas** emissions, emission reductions, ...
... avoidance of double counting of **greenhouse gas** emissions and emission reductions; and (...
... reduce, avoid, or sequester **greenhouse gas** emissions; (C) in ...
... Code, in the areas of **greenhouse gas** measurement, certification, and emission ...
... technically accurate record of **greenhouse gas** emissions, emission reductions, and ...
... forcing emissions with significant **global warming** potential described in ...
... Director of the Office of National **Climate Change** Policy shall determine whether the ...
... national aggregate anthropogenic **greenhouse gas** emissions. (b) Increased ...
... Director of the Office of National **Climate Change** Policy determines under ...
... aggregate national anthropogenic **greenhouse gas** emissions are being reported to the ...
... Director of the Office of National **Climate Change** Policy makes the determination ...
... Director of the Office of National **Climate Change** Policy makes the determination ...
... Director of the Office of National **Climate Change** Policy under subsection (...
... entity that is required to report **greenhouse gas** emissions under section ...
... accurate and reliable reports of **greenhouse gas** emissions, and to further encourage ...
... TITLE XI_NATIONAL **GREENHOUSE GAS** REGISTRY SEC. 1101. ...
... a new national **greenhouse gas** registry_ (1) to further ...
... projects and measures that reduce **greenhouse gas** emissions; (2) to encourage such ...
... monitor and voluntarily report **greenhouse gas** emissions, direct or indirect, from their ...
... establish and report voluntarily **greenhouse gas** emission baselines in ...
... Secretary, to report annually **greenhouse gas** emissions from their facilities; (6) to ...
... feasible to reduce the risk of **climate change** and its impacts; and (7) to provide ...
... greenhouse gases; (5) "**greenhouse gas**" means_ (A) an anthropogenic ...
... establish a National **Greenhouse Gas** Registry to be administered by the ...
... United States of data on **greenhouse gas** emissions and emissions reductions ...
... inadvertently or otherwise, of some or all of the same **greenhouse gas** emissions or reductions by ...
... local, or private voluntary **greenhouse gas** emissions reporting or reduction ...

... Code, in the areas of **greenhouse gas** measurement, certification, and emissions ...
... Federal or State voluntary **greenhouse gas** reduction programs may be ...
... feasible to reduce the risk of **climate change** and its impacts. (b) Public ...
... accurate measurement and verification of **greenhouse gas** emissions reductions. Such standards and ...
... avoidance of double-counting of **greenhouse gas** emissions and emissions reductions; and (...
... reduce, avoid or sequester **greenhouse gas** emissions; (3) in ...
... Director of the Office of National **Climate Change** Policy shall determine whether the ...
... percent of the national aggregate **greenhouse gas** emissions as inventoried in the official U.S. Inventory of **Greenhouse Gas** Emissions and Sinks published ...
... Director of the Office of National **Climate Change** Policy determines under ...
... 60 percent of such aggregate **greenhouse gas** emissions are being reported to the ...
... a complete inventory of **greenhouse gas** emissions (as reported at the facility ...
... total quantity of each **greenhouse gas** emitted by such person or ...
... Director of the Office of National **Climate Change** Policy makes the determination ...
... Director of the Office of National **Climate Change** Policy makes determination ...
... title_ (A) the total **greenhouse gas** emissions of at least 1 ...
... carbon dioxide equivalent **greenhouse gas** (or such greater quantity as may be ...
... B) the total quantity of **greenhouse gas** produced, distributed, or imported ...
... carbon dioxide equivalent **greenhouse gas** (or such greater quantity as may be ...
... Director of the Office of National **Climate Change** Policy made under ...
... entity that is required to report **greenhouse gas** emissions under this section ...
... Director of the Office of National **Climate Change** Policy made under ...
... object, but we have an amendment on **climate change** issues that I did not ...
... oil, which is troublesome, and the notion that we have **global warming,** and one-quarter of the carbon ...
... contribute to air pollution, **global warming,** and the degradation that often goes ...

32. CONGRESSIONAL RECORD -- SENATE, Thursday, April 25, 2002 , 148 Cong Rec S 3390, Vol. 148, No. 48, NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Continued
Senate
Mr. REID; **Mr.** SPECTER; **Mr.** LEVIN; **Mr.** BOND; **Mr.** CARPER; **Mr.** BINGAMAN; **Mr.** KYL; **Mr.** HATCH; **Mr.** GRAHAM; **Mr.** BREAUX; **Mrs.** HUTCHISON; **Mr.** FEINGOLD; **Mr.** NICKLES; **Mr.** BROWNBACK; **Mr.** CORZINE; **Mr.** HAGEL; **Mr.** VOINOVICH; **Mr.** McCAIN. ; **Mr.** WELLSTONE; **Mr.** MURKOWSKI; **Mr.** KENNEDY; **Mr.** KERRY. ; **Mr.** ROCKEFELLER. ; **Mr.** DASCHLE. ; **Mr.** HOLLINGS; **Mr.** HARKIN; **Mr.** BAUCUS; **Mr.** DURBIN; **Mr.** DURBIN. ; **Mrs.** BOXER; **Mr.** CAMPBELL; **Mr.** SMITH of New Hampshire; **Mr.** BIDEN; **Mr.** NELSON of Nebraska; **Mrs.** FEINSTEIN; **Mr.** BUNNING; **Mr.** JEFFORDS; **Mr.** LOTT
... for the reductions in **greenhouse gas** emissions. Under this type of ...
... participation, the mandatory reporting of **greenhouse gas** emissions will never ...
... necessary. The mandatory reporting of **greenhouse gas** emissions has no true ...
... for the mandatory reporting of **greenhouse gas** emissions is to create the mechanism ...
... structuring a voluntary **greenhouse gas** emissions registry were discussed ...
... new and enhanced national **greenhouse gas** registry to record and recognize voluntary reductions of **greenhouse gas** emissions. That registry was supported ...
... favor of dealing with the reporting of **greenhouse gas** emissions in a ...
... implementation of a voluntary **greenhouse gas** emissions registry. Exhibit ...
... effective national registry of **greenhouse gas** emissions and a more ...
... mandate to track and report **greenhouse gas** emissions on large and small ...
... compiles an annual inventory of **greenhouse gas** emissions in compliance with our ...
... UN Framework Convention on **Climate Change.** The draft amendment would establish ...
... taken to reduce or avoid **greenhouse gas** emissions and provide transferable ...

... improve the voluntary reporting of **greenhouse gas** emissions and the reporting of actions ...
... rejected the concept of mandating **greenhouse gas** reports at this time. While the ...
... get the full picture on **climate change** with real incentives for ...
... obligations to address global **climate change.** The amendment I propose ...
... plans to address global **climate change.** These other provisions would advance ...
... create a national **greenhouse gas** emissions database and registry at the ...
... a lot to lose from **global warming.** While we have much to lose, we also have ...
... reducing the problem of global **climate change** and gain in the process. If ...
... challenges in addressing **climate change,** but it is an important complement to ...
... effective program for **greenhouse gas** emissions control. This research ...
... Technology Assessment on such issues as **climate change** and homeland security is sorely ...
... steps toward cutting **greenhouse gas** emissions. I am voting ...
... foreign oil and also reduced **greenhouse gas** emissions. Had we adopted an increase of ...
... consumption of oil, we could also have reduced **greenhouse gas** emissions by 25 ...
... third, we wanted to address **global warming** by quantitatively and measurably ...
... not only to combat **global warming,** but to become more ...
... fuel emissions linked to **global warming,** local and regional air ...
... consensus that the threat of global **climate change** is real and, unless we act, ...
... for our children and grandchildren. The **climate change** provisions in this bill ...

33. CONGRESSIONAL RECORD -- SENATE, Thursday, April 25, 2002 , 148 Cong Rec S 3420, Vol. 148, No. 48, NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mr. DASCHLE; **Mr.** BINGAMAN; **Mr.** MURKOWSKI.
... gas issue, electricity, **climate change,** and ANWR is in the House ...

34. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 24, 2002 , 148 Cong Rec S 3233, Vol. 148, No. 47, NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mr. REID; **Mr.** NELSON of Nebraska; **Ms.** CANTWELL; **Mr.** DAYTON; **Mr.** BINGAMAN; **Mr.** THOMAS; **Ms.** STABENOW; **Mr.** FEINGOLD; **Mrs.** MURRAY; **Mrs.** BOXER. ; **Mr.** CRAIG; **Mr.** CRAIG. ; **Mr.** SMITH of Oregon
... improve the focus of, global **climate change** science research) On page ...
... following: TITLE XIII_**CLIMATE CHANGE** SCIENCE AND TECHNOLOGY Subtitle ...
... model-based projections of **climate change;** and (E) increase the availability and utility of **climate change** simulations to researchers and policy ...
... relationship between energy and **climate change.** (2) Carbon cycle._The ...
... for integrated analyses of the **climate change** system from emissions of aerosols and ...
... effects of human-induced **climate change** on economic and social systems, with ...
... metrics of economic costs of **climate change** and policies for mitigating or adapting to **climate change.** (c) Authorization of Appropriations._From ...
... reduce, avoid, or sequester **greenhouse gas** emissions. SEC. 1302. ...
... solutions to the effective management of **greenhouse gas** emissions in the long ...
... a broader societal **greenhouse gas** emission reduction effort; (...
... net changes in **greenhouse gas** emissions. (B) Benchmark ...
... baselines, carbon or other **greenhouse gas** leakage, and permanence of sequestration. (...
... nexus between global **climate change** mitigation strategies and agriculture, so that ...

... energy production and associated **greenhouse gas** emissions, including through ...
... under the Framework Convention on **Climate Change,** other international agreements, and ...
... result in a **greenhouse gas** reduction per unit of ...
... Nations Framework Convention on **Climate Change,** shall require at least ...
... Nations Framework Convention on **Climate Change**) shall require at least ...
... expended.". Subtitle D_**Climate Change** Science and Information PART ...
... Director of the Office of National **Climate Change** Policy with advice from the Chairman of the ...
... United States Global **Climate Change** Research Program for the ...
... date of enactment of the Global **Climate Change** Act of 2002. The Chairman, ...
... director with responsibility for **climate change** science and technology and shall ...
... communicated to the President and are integrated into the **climate change** action strategy; "(D) ...
... for research and development on **climate change** that are not being addressed ...
... by striking "Weather and **climate change** affect" in paragraph (1) and inserting "Weather, **climate change,** and climate variability affect ...
... redesignated, and inserting "the Global **Climate Change** Act of 2002,"; and (7) ...
... date of enactment of the Global **Climate Change** Act of 2002, the Secretary of ...
... predict regional and local **climate changes** and impacts; "(5) in ...
... impacts of predicted and projected **climate changes** and variations; "(6) a ...
... measure, and verify atmospheric **greenhouse gas** levels, dates, and emissions. Where ...
... consistent with those utilized in the **greenhouse gas** measurement and reporting system ...
... sources covered by the **greenhouse gas** measurement and reporting system ...
... SEC. 1349. ABRUPT **CLIMATE CHANGE** RESEARCH. (a) In ...
... research on potential abrupt **climate change** designed_ (1) to develop ...
... past instances of abrupt **climate change;** (2) to improve understanding of ...
... related to the mechanisms of abrupt **climate change;** (3) to incorporate these mechanisms into advanced geophysical models of **climate change;** and (4) to test the output of these ...
... records of past abrupt **climate changes.** (b) Abrupt **Climate Change** Defined._In this section, the term "abrupt **climate change**" means a change ...
... 2006. Subtitle E_**Climate Change** Technology SEC. 1361. NIST **GREENHOUSE GAS** FUNCTIONS. Section 2(...
... greenhouse gases associated with **global warming,** including carbon dioxide, ...
... cover) to calculate_ (1) **greenhouse gas** emissions and reductions from agriculture, ...
... non-carbon dioxide **greenhouse gas** emissions from transportation; (3) **greenhouse gas** emissions from facilities or sources ...
... technology; and (4) any other **greenhouse gas** emission or reductions for which ...
... following: "SEC. 17. **CLIMATE CHANGE** STANDARDS AND PROCESSES. "(a) ...
... support research on global **climate change** standards and processes, with the goal of ...
... section 4 of the Global **Climate Change** Act of 2002). "(b) ...
... grants, a global **climate change** standards and processes research ...
... energy efficiency and reduced **greenhouse gas** emissions into the environment; "(B) ...
... Commerce a National **Climate Change** Vulnerability and Adaptation Program ...
... vulnerability to phenomena associated with **climate change** and climate variability, including_ (...
... areas to hazards associated with **climate change,** climate variability, sea ...
... compile current information on **climate change,** sea level rise, ...
... coastal impacts. associated with **climate change,** sea level rise, or ...
... affected by the impact of **climate change** or climate variability that are located ...
... Research Center, to support **climate change** and other scientific research ...
... a consequence of global **climate change** or climate variability. (B) ...
... sensitive to the consequences of global **climate change** or climate variability; (2) ...
... changes related to global **climate change** or climate variability; (5) ...

... use consequences of global **climate change** or climate variability. (d) ...
... puts out no **global warming** and provides our people with the most ...
CLIMATE CHANGE (90%); LEGISLATION (90%); ...

35. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 24, 2002 , 148 Cong Rec S 3257, Vol. 148, No. 47, NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Continued
Senate
Mr. CARPER; **Ms.** COLLINS; **Mr.** BINGAMAN; **Mr.** REID; **Mr.** MURKOWSKI; **Mr.** BROWNBACK; **Mr.** DAYTON; **Mr.** NICKLES; **Mr.** BREAUX; **Mr.** VOINOVICH
... acid rain and cut **greenhouse gas** emissions in half. ...
... component of any plan to reduce **greenhouse gas** emissions and is included in the ...
... cogeneration could reduce annual **greenhouse gas** emissions by 44 ...
... title is to establish a **greenhouse gas** inventory, reductions registry, and ...
... design efficient and effective **greenhouse gas** emission reduction strategies; and (...
... will acknowledge and encourage **greenhouse gas** emission reductions. SEC. ...
... baseline" means the historic **greenhouse gas** emission levels of an entity, as ...
... database" means the National **Greenhouse Gas** Database established under ...
... direct emissions" means **greenhouse gas** emissions by an entity from ...
... control of an entity. (8) **Greenhouse gas.**_The term "**greenhouse gas**" means_ (A) carbon ...
... emissions with significant ascertainable **global warming** potential, as_ (i) recommended ...
... indirect emissions" means **greenhouse gas** emissions that_ (A) are a ...
... registry" means the registry of **greenhouse gas** emission reductions established as ...
... Director of the Office of National **Climate Change** Policy, shall direct the ...
... collection of data relating to **greenhouse gas** emissions and effects; and (C) are ...
... collection and analysis of data on **greenhouse gas** emissions relating to product ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... standards for measuring **greenhouse gas** emission reductions or offsets. (...
... Director of the Office of National **Climate Change** Policy, shall publish ...
... SEC. 1104. NATIONAL **GREENHOUSE GAS** DATABASE. (a) Establishment._As ...
... database, to be known as the "National **Greenhouse Gas** Database", to collect, verify, and analyze information on **greenhouse gas** emissions by entities. (b) National **Greenhouse Gas** Database Components._The database ...
... consist of_ (1) an inventory of **greenhouse gas** emissions; and (2) a registry of **greenhouse gas** emission reductions. (c) ...
... comprehensive system for **greenhouse gas** emissions reporting, inventorying, and ...
... in measuring and reporting **greenhouse gas** emissions; and (B) the regulations ...
... prevent the reporting of some or all of the same **greenhouse gas** emissions or emission reductions ...
... for measuring or calculating **greenhouse gas** emissions; and (v) to account ...
... for the purpose of reducing **greenhouse gas** emissions. SEC. 1105. **GREENHOUSE GAS** REDUCTION REPORTING. (a) ...
... baseline (including all of the entity's **greenhouse gas** emissions on an entity-wide ...
... year, the entity-wide **greenhouse gas** emissions (as reported at the facility ...
... total quantity of each **greenhouse gas** emitted, expressed in ...
... equivalent; (B) an estimate of the **greenhouse gas** emissions from fossil fuel ...
... purposes of achieving and commoditizing **greenhouse gas** reductions through use of the ...
... information is submitted, and with respect to any **greenhouse gas** emitted by the entity_ (...
... emissions; (ii) with respect to **greenhouse gas** emission reductions activities of the ...
... date of enactment of this Act, any **greenhouse gas** emission reductions that have been reported or ...
... Federal or State voluntary **greenhouse gas** reduction program; and (iii) any ...
... activity for the reduction of **greenhouse gas** emissions or sequestration of a **greenhouse gas** that is carried out by the

...
... methane recovery; (IX) **greenhouse gas** offset investment; and (X) any ...
... practice for achieving **greenhouse gas** reductions as recognized by ...
... Director of the Office of National **Climate Change** Policy determines under ...
... Act_ (i) the total **greenhouse gas** emissions of at least 1 ...
... under section 1106, that the **greenhouse gas** report of the reporting entity_ (...
... reductions in direct **greenhouse gas** emissions_ (I) relative to ...
... Federal, State, and regional **greenhouse gas** data collection and reporting ...
... for reporting each **greenhouse gas;** (B) the data and information ...
... identify, track, and verify **greenhouse gas** emission reductions in ...
... trading and exchanges; (C) the **greenhouse gas** reduction and sequestration methods and ...
... available fossil fuels, **greenhouse gas** emissions, and **greenhouse gas** production and importation data are ...
... individually or collectively, to reduce **greenhouse gas** emissions, Congress will be ...
... 1) describes the total **greenhouse gas** emissions and emission reductions ...
... technically accurate record of **greenhouse gas** emissions, emission reductions, ...
... avoidance of double counting of **greenhouse gas** emissions and emission reductions; and (...
... reduce, avoid, or sequester **greenhouse gas** emissions; (C) in ...
... Code, in the areas of **greenhouse gas** measurement, certification, and emission ...
... technically accurate record of **greenhouse gas** emissions, emission reductions, and ...
... forcing emissions with significant **global warming** potential described in ...
... Director of the Office of National **Climate Change** Policy shall determine whether the ...
... national aggregate anthropogenic **greenhouse gas** emissions. (b) Increased ...
... Director of the Office of National **Climate Change** Policy determines under ...
... aggregate national anthropogenic **greenhouse gas** emissions are being reported to the ...
... Director of the Office of National **Climate Change** Policy makes the determination ...
... Director of the Office of National **Climate Change** Policy makes the determination ...
... Director of the Office of National **Climate Change** Policy under subsection (...
... entity that is required to report **greenhouse gas** emissions under section ...
... accurate and reliable reports of **greenhouse gas** emissions, and to further encourage ...
... TITLE XI_NATIONAL **GREENHOUSE GAS** REGISTRY SEC. 1101. ...
... a new national **greenhouse gas** registry_ (1) to further ...
... projects and measures that reduce **greenhouse gas** emissions; (2) to encourage such ...
... monitor and voluntarily report **greenhouse gas** emissions, direct or indirect, from their ...
... establish and report voluntarily **greenhouse gas** emission baselines in ...
... Secretary, to report annually **greenhouse gas** emissions from their facilities; (6) to ...
... feasible to reduce the risk of **climate change** and its impacts; and (7) to provide ...
... greenhouse gases; (5) "**greenhouse gas**" means_ (A) an anthropogenic ...
... establish a National **Greenhouse Gas** Registry to be administered by the ...
... United States of data on **greenhouse gas** emissions and emissions reductions ...
... inadvertently or otherwise, of some or all of the same **greenhouse gas** emissions or reductions by ...
... local, or private voluntary **greenhouse gas** emissions reporting or reduction ...
... Code, in the areas of **greenhouse gas** measurement, certification, and emissions ...
... Federal or State voluntary **greenhouse gas** reduction programs may be ...
... feasible to reduce the risk of **climate change** and its impacts. (b) Public ...
... accurate measurement and verification of **greenhouse gas** emissions and emissions reductions. Such ...
... avoidance of double-counting of **greenhouse gas** emissions and emissions reductions; and (...
... reduce, avoid or sequester **greenhouse gas** emissions; (3) in ...
... Director of the Office of National **Climate Change** Policy shall determine whether the ...
... percent of the national aggregate **greenhouse gas** emissions as inventoried in the official U.S. Inventory of **Greenhouse Gas** Emissions and Sinks published ...

... Director of the Office of National **Climate Change** Policy determines under ...
... 60 percent of such aggregate **greenhouse gas** emissions are being reported to the ...
... a complete inventory of **greenhouse gas** emissions (as reported at the facility ...
... total quantity of each **greenhouse gas** emitted by such person or ...
... Director of the Office of National **Climate Change** Policy makes the determination ...
... Director of the Office of National **Climate Change** Policy makes the determination ...
... title_ (A) the total **greenhouse gas** emissions of at least 1 ...
... carbon dioxide equivalent **greenhouse gas** (or such greater quantity as may be ...
... B) the total quantity of **greenhouse gas** produced, distributed, or imported ...
... carbon dioxide equivalent **greenhouse gas** (or such greater quantity as may be ...
... Director of the Office of National **Climate Change** Policy made under ...
... entity that is required to report **greenhouse gas** emissions under this section ...
... Director of the Office of National **Climate Change** Policy made under ...

36. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 24, 2002 , 148 Cong Rec S 3273, Vol. 148, No. 47, NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Continued
Senate
Mr. REID; **Mr.** KYL; **Mr.** BINGAMAN; **Mr.** JEFFORDS; **Mr.** NICKLES; **Ms.** LANDRIEU; **Mr.** MURKOWSKI; **Mr.** HARKIN; **Mr.** DURBIN; **Mr.** FITZGERALD; **Mr.** CORZINE; **Mr.** GRAHAM; **Mr.** LEVIN; **Mr.** CARPER; **Mr.** COCHRAN; **Mr.** GRASSLEY; **Mr.** SESSIONS; **Mr.** SESSIONS. ; **Mr.** HAGEL
... increased energy savings and **greenhouse gas** reduction benefits through the ...
... realize energy savings and **greenhouse gas** emission reduction benefits ...
... requirements, and the energy savings and **greenhouse gas** emission reduction benefits ...
... realization of energy savings and **greenhouse gas** emission reduction benefits, ...
... fully the energy savings and **greenhouse gas** emission reduction benefits ...
... reducing air pollution, **global warming,** reducing price spikes, ...
... coordination of a national **climate change** policy. There remain considerable uncertainties about the causes of **climate change,** which has been noted by the National ...
... strategy to address the challenge of **climate change.** It also creates an interagency task force to better coordinate **climate change** policies with the Executive Branch. This is needed. **Climate change** policy cris-crosses the ...
... needs to be accountability for **climate change** within the Executive Branch. ...
... strategy to take action on **climate change.** His proposal includes: a reasonable goal for **greenhouse gas** emission reductions; a ...
... individuals to track their progress on **greenhouse gas** emissions; increased scientific ...
... mutual efforts to address **climate change.** In crafting this strategy, ...
... engagement and policy development on **climate change** is unprecedented. It can, and should, serve as ...
... a National Office of **Climate Change** Policy with the Executive Office of the ...
... regard to the creation and implementation of **climate change** policy. I understand the ...
... desire for those focused on **climate change** to be in positions subject to ...
... focus solely on the area of **climate change.** There are several options that could be pursued ...
... in international efforts on **climate change.** This language is based on a ...
... inherent with any predictions of future **climate change.** It acknowledges the commitment by the ...
... participation in any international **climate change** treaty should be predicated on participation of all ...
... demonstrate international leadership on **climate change** within our commitment to the United Nations Framework Convention on **Climate Change.** It does not call on the U.S. to ...
... challenge and global commitment of **climate change.** It is only responsible that we balance the ...

37. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 23, 2002 , 148 Cong Rec S 3112, Vol. 148, No. 46,

RENEWABLE FUEL STANDARD
Senate
Mr. NELSON of Nebraska; **Mr.** DASCHLE; **Mr.** DASCHLE. ; **Mr.** BINGAMAN; **Mr.** BAUCUS; **Mr.** BAUCUS.
... about the environment including **climate change.** The RFS is the next sound and ...

38. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 23, 2002 , 148 Cong Rec S 3114, Vol. 148, No. 46,
THE ENERGY BILL
Senate
Mr. MURKOWSKI.
... reach some agreement on the massive **climate change** provision in the bill. We ...
... still have the divisive issues of **climate change** to deal with, but I ...

39. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 23, 2002 , 148 Cong Rec S 3115, Vol. 148, No. 46,
GLOBAL WARMING
Senate
Mr. CARPER; **Mr.** BAUCUS
... in the atmosphere of our Earth: **global warming.** This past Saturday, in ...
... A. Morgan The issue of **global warming** has been vigorously debated for the ...
... wife collaborators who study **climate change and global warming.** They have spent the past 25 ...
... convincing evidence yet that **global warming** is real, and human activity is ...
... globe is crucial to understanding **global warming.** Tropical glaciers, he says, are "the ...
... own remarks: The issue of **global warming** has been vigorously debated for the ...
... wife collaborators who study **climate change and global warming.** They have spent the past 25 ...
... convincing evidence yet that **global warming** is real, and human activity is ...
... globe is crucial to understanding **global warming.** Tropical glaciers, he says, are "the ...
... just this last Saturday; that is, there is **global warming.** The climate of the Earth has changed and is ...
... I used to think **global warming** was a figment of somebody's ...
GLOBAL WARMING (90%); INTERNATIONAL TRADE (59%); **CLIMATE CHANGE** (59%); LEGISLATION (59%); ...

40. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 23, 2002 , 148 Cong Rec S 3120, Vol. 148, No. 46,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Continued
Senate
Mr. REID; **Mr.** MURKOWSKI; **Mr.** SCHUMER; **Mrs.** FEINSTEIN; **Mrs.** FEINSTEIN. ; **Mr.** NELSON of Nebraska; **Mr.** DASCHLE; **Mr.** BINGAMAN; **Mr.** NICKLES; **Mr.** DAYTON. ; **Mr.** DORGAN; **Mr.** WELLSTONE; **Mr.** GRASSLEY; **Mr.** FEINGOLD; **Mr.** JOHNSON
... hope_over global **climate change,** we are being constantly reminded of the ...

41. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 23, 2002 , 148 Cong Rec S 3145, Vol. 148, No. 46,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Continued
Senate
Mr. BINGAMAN; **Mr.** BYRD; **Mr.** McCAIN; **Mr.** REID; **Mrs.** FEINSTEIN; **Mrs.** FEINSTEIN. ; **Mr.** FITZGERALD; **Mr.** MURKOWSKI; **Ms.** CANTWELL
... a common sense **climate change** policy. But, surely, we should ...
... a comprehensive review of **climate change**_their alternative approach to the Kyoto ...
... ideas and approaches to address this **climate change** challenge. In June ...

... I introduced bipartisan **climate change** legislation with Senator Stevens. Our ...
... legislation along with other **climate change** provisions in the larger ...
... term, comprehensive, national **climate change** strategy. I believe that this is the ...
... ways to begin to solve the **climate change** problem. Additionally, I ...
... primary cause of global **climate change** is due to the increase in ...
... Federal Government's response to **climate change** and to examine how the U.S. and ...
... nations can stabilize **greenhouse gas** concentrations over the long ...
... mitigation measures to deal with **climate change** in an economically and environmentally ...
... agencies are engaged in **climate change**-related activities, often ...
... being taken to address **climate change** today and authorizes $4.75 ...
... addressing the long-term **climate change** challenge. Finally, while it is ...
... can better address the **climate change** challenge in a more comprehensive way. **Climate change** policy is no more and ...
... Byrd: "Meeting the Challenge of **Climate Change**"_Testimony Before the Senate ...
... behalf of S. 1008, the **Climate Change** Strategy and Technology Innovation ...
... about the issue of global **climate change.** My desire to discuss this ...
... belief that we can meet the **climate change** challenge if we are willing to make ...
... multifaceted and very complex global **climate change** problem. At the same time, ...
... today. The Byrd/Stevens **climate change** action plan recognizes the ...
... problem posed by **climate change,** and it puts into place a ...
... mistake about it, global **climate change** is a reality. There are some who may have ...
... future binding international **climate change** treaty which failed to include ...
... important components of any future **climate change** treaty, but I do ...
... a solution to the global **climate change** dilemma. At the same time, we should ...
... successful in addressing **climate change** alone. This is a global ...
... while also reducing their pollution and **greenhouse gas** emissions. In the Senate's ...
... discussions on the very complex issue of **climate change.** I applaud their efforts to ...
... toward addressing the problem of **climate change.** I, like other ...
... newly established Office of **Climate Change** Technology in Title ...
... RENEWABLE ENERGY (89%); **CLIMATE CHANGE** (89%); FUEL CELL ...

42. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 23, 2002 , 148 Cong Rec S 3150, Vol. 148, No. 46, LOW-INCOME HOME ENERGY ASSISTANCE PROGRAM

Senate

Mr. REED; **Ms.** COLLINS; **Mr.** BAUCUS; **Mr.** HARKIN; **Mr.** WARNER; **Mr.** GRASSLEY; **Mr.** BINGAMAN
... provision when we go to conference. **climate change** provisions Mr. BINGAMAN . ...
... bipartisan progress on the topic of **climate change** policy. This progress has been reached ...
... rule XXV related to **the climate change** provisions in this bill. There is ...
... Sense of Congress relating to **climate change,** the shared international responsibility to ...
... active interests in **climate change** policy, is an important accomplishment. ...
... development of a National **Climate Change** Strategy, which will be updated ...
... reduce, avoid, and sequester **greenhouse gas** emissions both in the ...
... 1008 is the creation of an Office of **Climate Change** Technology in the Department of ...
... carry out the National **Climate Change** Strategy in other ...
... effect on our ability to meet the **climate change** challenge. The substantial increase ...
... improve the structure of coordination of **climate change** science and monitoring programs ...
... S. 1716, the Global **Climate Change** Act of 2001, introduced ...
... state of scientific knowledge of **climate change** and its impacts and possible technological ...
... measure, understand, and respond to **climate change** and climate variability. The one ...

... House Office of National **Climate Change** Policy, in Section ...
... for the development and implementation of **climate change** policy in the Executive ...
... approach to managing the risk of **climate change** while providing the energy we ...
... Arctic, including on topics of **climate change.** I want to thank ...
... passage of a national **climate change** strategy, along with the improved ...
... White House to oversee **climate change** policy. While I ...
... remaining uncertainties on the causes of **climate change.** Title XIII will ...
... needed scientific research on **climate change** that is already impacting America's ...
... components of S. 1008, the **Climate Change** Strategy and Technology Innovation ...
... bipartisan fashion on the issue of **climate change,** one of the most profound and ...
... a regime of accountability on **climate change**_under the legislation, the administration would be ...
... upon goal of stabilizing **greenhouse gas** concentrations in the atmosphere. ...
... essential to meet the challenge of **climate change.** This legislation is an important step forward on **climate change,** and I thank my ...
... many uncertainties with regard to **climate change.** However, I also believe that the potential risks of **climate change** warrant study, research and ...
... recognizes that there are many contributors to **climate change** beyond CO Mr. ...
... programs like the Global **Climate Change** Act, a coordinated ...
... Sense of the Congress on the international **climate change** negotiations. The resolution originally ...
... for greater coordination of **climate change** policy, I share ...
... progress in advancing **climate change** policy on a bipartisan ...
... various issues relating to **climate change** and what our domestic approach and strategy should be ...
... goals for stabilizing **greenhouse gas** concentrations through U.S. ...
... Nations Framework Convention on **Climate Change** signed by President ...
... Conference is for the stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... for an Office of National **Climate Change** Policy in the White ...
... developed independently of our U.S. **climate change** policy. These policies should be seamlessly ...
... begin to reduce our Nation's **greenhouse gas** emissions in an environmentally and ...
... induced and natural processes of **climate change** and support efforts to restore the ...
... include research on abrupt **climate change** urged in December ...
... climate in response to **global warming.** I look forward to ...

43. CONGRESSIONAL RECORD -- SENATE, Monday, April 22, 2002 , 148 Cong Rec S 2993, Vol. 148, No. 45, EARTH DAY
Senate
Mr. REID
... administration has denied the reality of **global warming** by walking away from the international negotiating table on **climate change.** This administration has threatened to undermine ...

44. CONGRESSIONAL RECORD -- SENATE, Monday, April 22, 2002 , 148 Cong Rec S 2997, Vol. 148, No. 45, EARTH DAY AND GLOBAL WARMING
Senate
Mrs. FEINSTEIN; **Mr.** LIEBERMAN; **Mr.** LIEBERMAN. ; **Mr.** GRASSLEY
... environmental problem; and that is clearly **global warming.** It is also fitting because last week the ...
... dioxide_that is our No. 1 **greenhouse gas**_is 30 percent higher than ...
... time to do something to curb **global warming** is closing fast. One of ...
... particularly vulnerable to global **climate change. Global warming** could make California's water ...
... Sierra forest fires. Because **global warming** will likely increase ...

... in sea level from **climate change** could inundate 3,200 to 7,300 ...
... during times of drought, because **global warming** means more turbulent ...
... patterns brought on by **global warming** could mean a greater ...
... reducing the No. 1 **greenhouse gas,** the No. 1 contributor to **global warming,** is to do something about carbon ...
... waste and pollution that contribute to **global warming,** we also save consumers and businesses ...
... submit the Kyoto Protocol on **climate change** to the Senate and that the Senate should take ...
... States to do anything to combat **global warming** unless developing countries, such as ...
... not. So if we want to reduce **global warming,** if we take this position, I ...
... opportunity to reduce the threat of **global warming.** It is not too much to ask the ...
... necessary leadership to address **global warming** and, one day, to celebrate an ...
GLOBAL WARMING (90%); EMISSIONS (89%); FLOODS & FLOODING (79%); **CLIMATE CHANGE** (79%); WEATHER (59%); ...

45. CONGRESSIONAL RECORD -- SENATE, Monday, April 22, 2002 , 148 Cong Rec S 3009, Vol. 148, No. 45,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mr. DORGAN; **Mr.** REID; **Mr.** GRAHAM; **Mr.** BINGAMAN
... imported oil, reduce **greenhouse gas** emissions, and save consumers ...
... bill which replaces the mandatory **greenhouse gas** reporting requirement in the ...
... based programs to reduce **greenhouse gas** emissions. I also note that it is ...

46. CONGRESSIONAL RECORD -- SENATE, Monday, April 22, 2002 , 148 Cong Rec S 3015, Vol. 148, No. 45,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mrs. FEINSTEIN; **Mr.** JEFFORDS; **Mr.** SMITH of Oregon
... for a reduction of **greenhouse gas** emissions by 4,093,000 ...
... foreign oil, reduce **greenhouse gas** emissions, and conserve natural ...

47. CONGRESSIONAL RECORD -- SENATE, Thursday, April 18, 2002 , 148 Cong Rec S 2871, Vol. 148, No. 44,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mr. REID; **Mr.** DOMENICI; **Mr.** DOMENICI. ; **Mr.** SANTORUM; **Mr.** BINGAMAN; **Mr.** MURKOWSKI; **Mr.** STEVENS; **Mr.** GRAMM; **Mrs.** BOXER; **Mr.** KERRY; **Mr.** THOMAS; **Mr.** LIEBERMAN; **Mr.** LIEBERMAN. ; **Mr.** CORZINE; **Mr.** GREGG; **Mr.** SMITH of New Hampshire; **Mr.** SHELBY; **Mr.** SPECTER; **Ms.** COLLINS; **Mr.** McCAIN; **Mr.** ROCKEFELLER; **Mr.** DASCHLE; **Mr.** LOTT; **Mr.** KYL; **Mr.** SCHUMER; **Mr.** DORGAN; **Mr.** VOINOVICH; **Ms.** LANDRIEU; **Mr.** DAYTON; **Mr.** NELSON of Florida
... morning reports that if we could stop **global warming** in exchange for ...
... foreign oil and also reduce **greenhouse gas** emissions. Had we adopted an increase of ...
... told the environmentalists we would end **global warming** once and for all in ...
... help reduce global **climate change,** and protect our national security ...
... imported oil, reduce **greenhouse gas** emissions and save consumers ...

48. CONGRESSIONAL RECORD -- SENATE, Thursday, April 18, 2002 , 148 Cong Rec S 2908, Vol. 148, No. 44,
RENEWABLE FUELS STANDARD
Senate
Mr. NELSON

... oil-import dependency and **climate change** will begin to loosen. ...

49. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 17, 2002 , 148 Cong Rec S 2763, Vol. 148, No. 43,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mr. BINGAMAN. ; **Mr.** BREAUX; **Mr.** MURKOWSKI; **Mr.** KERRY; **Mr.** STEVENS; **Mr.** WELLSTONE; **Mrs.** HUTCHISON; **Mr.** LIEBERMAN; **Mr.** BOND; **Mr.** LOTT; **Mr.** REID; **Mr.** DURBIN; **Mr.** BURNS; **Mr.** VOINOVICH; **Ms.** CANTWELL; **Ms.** LANDRIEU; **Mr.** FEINGOLD
... doing anything about **global warming,** even though every scientist says **global warming** is a problem; a ...
... fish and wildlife resources of **climate change** in the Arctic. The statement ...
... Capital emits less **global warming** gas than drilling in ...
... I am concerned about **global warming.** In many ways, it is ...
... in air pollution and **greenhouse gas** emissions. The unseen damage of ...

50. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 17, 2002 , 148 Cong Rec S 2799, Vol. 148, No. 43,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Continued
Senate
Ms. STABENOW; **Mrs.** MURRAY; **Mr.** CRAIG; **Mr.** NICKLES; **Mr.** LEVIN; **Mr.** MURKOWSKI; **Mr.** STEVENS; **Mr.** GRAHAM; **Mr.** REID
... base. If we believe in **climate change and global warming,** we are probably going to want ...

51. CONGRESSIONAL RECORD -- SENATE, Thursday, April 11, 2002 , 148 Cong Rec S 2507, Vol. 148, No. 39,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mrs. FEINSTEIN; **Mr.** SCHUMER; **Mr.** MURKOWSKI
... dioxide emissions, adding to **global warming.** David Montgomery, an energy ...

52. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 10, 2002 , 148 Cong Rec S 2425, Vol. 148, No. 38,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mr. STEVENS; **Mr.** GRAVEL; **Mr.** FANNIN; **Mr.** CASE; **Mr.** HUMPHREY; **Mr.** LONG; **Mr.** REID; **Mrs.** FEINSTEIN; **Mr.** GRAMM; **Mr.** GRASSLEY; **Mr.** CORZINE; **Mr.** FITZGERALD. ; **Mr.** BINGAMAN; **Mr.** CRAIG; **Mr.** THOMAS; **Mr.** MURKOWSKI; **Mr.** WELLSTONE; **Mr.** FEINGOLD; **Mr.** SPECTER
... don't need more **global warming.** I come from a ...

53. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 09, 2002 , 148 Cong Rec S 2377, Vol. 148, No. 37,
MOVING ON THE ENERGY BILL
Senate
Mr. MURKOWSKI
... need to reach some agreement on the **climate change** provision in the bill. Of ...

54. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 09, 2002 , 148 Cong Rec S 2379, Vol. 148, No. 37,
MOVING ON THE ENERGY BILL
Senate

Mr. MURKOWSKI
... close out electricity, **climate change,** tax provisions, and increasing our ...

55. CONGRESSIONAL RECORD -- SENATE, Thursday, March 21, 2002 , 148 Cong Rec S 2194, Vol. 148, No. 34,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mr. BINGAMAN; **Mr.** KYL; **Mr.** LEVIN; **Ms.** STABENOW; **Mr.** REID; **Mr.** BYRD; **Mr.** MILLER; **Mr.** ROBERTS; **Mr.** WYDEN; **Mr.** MURKOWSKI; **Mr.** MURKOWSKI. ; **Ms.** COLLINS; **Ms.** COLLINS. ; **Mr.** LEAHY; **Mr.** HATCH; **Mr.** SPECTER; **Mr.** McCONNELL; **Mr.** SCHUMER; **Mr.** KENNEDY. ; **Mr.** NICKLES; **Mr.** SESSIONS; **Mrs.** HUTCHISON; **Mrs.** HUTCHISON. ; **Mr.** LOTT; **Mr.** DASCHLE
... reduction in pollution and **greenhouse gas** emissions. The DOE fossil ...
... global effort to address **climate change. Climate change** and energy policy are two ...
... vast majority of manmade **greenhouse gas** emissions are associated with energy ...
... challenges associated with global **climate change.** We need a **climate change** strategy and we need a **climate change** strategy badly. We need a **climate change** strategy that will not ...
... need a comprehensive **climate change** strategy also that looks 20, ...
... Senator Stevens bipartisan **climate change** legislation. Our bill received ...
... a comprehensive, national **climate change** strategy, including a ...
... current CAFE standard. Their **greenhouse gas** emissions are only one- ...
... contentious issues to address, such as **global warming,** ANWR, the tax proposal, which is ...

56. CONGRESSIONAL RECORD -- SENATE, Thursday, March 21, 2002 , 148 Cong Rec S 2240, Vol. 148, No. 34,
SPRINGTIME JOYS
Senate
Mr. BYRD; **Mr.** REID
DROUGHT (78%); **CLIMATE CHANGE** (73%); **GLOBAL WARMING** (73%); ART & ARTISTS (...

57. CONGRESSIONAL RECORD -- SENATE, Thursday, March 14, 2002 , 148 Cong Rec S 1871, Vol. 148, No. 29,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mr. THOMAS; **Mr.** BINGAMAN; **Mr.** SMITH of Oregon; **Mr.** KENNEDY; **Mr.** REID; **Mr.** DAYTON. ; **Mr.** GRASSLEY; **Mr.** NELSON of Florida; **Mr.** MURKOWSKI; **Ms.** LANDRIEU; **Mr.** CARPER; **Mr.** WYDEN; **Mr.** DURBIN; **Mr.** DOMENICI; **Mr.** JEFFORDS; **Mr.** HELMS; **Mr.** HELMS. ; **Mr.** WELLSTONE; **Mr.** KYL; **Mr.** CRAIG; **Mr.** DASCHLE
... course, if one thinks **climate change** is a problem, which many ...
... energy, to deal with global **climate change** in a responsible ...

58. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 13, 2002 , 148 Cong Rec S 1805, Vol. 148, No. 28,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mr. NELSON of Nebraska; **Mr.** DURBIN; **Mr.** HAGEL. ; **Mr.** DASCHLE; **Mr.** VOINOVICH; **Mr.** LUGAR; **Mr.** CRAIG; **Mr.** HARKIN; **Mr.** DORGAN; **Mr.** DeWINE; **Mrs.** CARNAHAN; **Mr.** JOHNSON; **Mrs.** LINCOLN; **Mr.** GRASSLEY; **Mr.** NELSON of Florida; **Mr.** LEVIN; **Mr.** FEINGOLD; **Mr.** INHOFE; **Ms.** CANTWELL; **Mr.** LOTT; **Mr.** BINGAMAN; **Ms.** COLLINS; **Mr.** BOND; **Mr.** MURKOWSKI; **Mr.** KERRY; **Ms.** STABENOW; **Mr.** REID; **Mr.** MILLER; **Mr.** GRAMM; **Mr.** HELMS; **Mr.** CARPER; **Mr.** McCAIN
... oil import dependency and **climate change** will begin to fade ...

... while substantially reducing **greenhouse gas** emissions. This will have substantial ...
... world. They also help address **climate change.** This is why I have long supported ...
... multiple benefits_from addressing **climate change** to improving our trade balance. ...
... other gases that contribute to **global warming.** S. 517 protects ...
... responsibility to reduce America's **greenhouse gas** and other harmful emissions ...
... dioxide emissions, which contribute to **global warming.** Increasing CAFE can ...
... one-third of U.S. **greenhouse gas** emissions. Clearly, improving the ...
... in the battle to mitigate **greenhouse gas** emissions. Now is the time to ...
... save that and simultaneously contribute to **global warming** problems, as well as health ...
... purchase credits from a **greenhouse-gas**-producing entity of some kind ...

59. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 13, 2002 , 148 Cong Rec S 1866, Vol. 148, No. 28,
AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. REID
... risks associated with increasing **greenhouse gas** emissions. The hearing will be ...

60. CONGRESSIONAL RECORD -- SENATE, Tuesday, March 12, 2002 , 148 Cong Rec S 1743, Vol. 148, No. 27,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Resumed
Senate
Mr. REID; **Mr.** BINGAMAN; **Mr.** CRAIG; **Mr.** MURKOWSKI; **Mr.** THURMOND; **Mr.** DORGAN; **Mr.** BOND; **Mr.** LEVIN; **Ms.** STABENOW; **Ms.** MIKULSKI; **Mr.** KERRY; **Mr.** McCAIN; **Mr.** DURBIN.
... years as we look at issues of **climate change,** weather, and, of course, the unpredictable ...
... security, on environmental issues such as **global warming,** and even it is about whether or not we ...
... add, if we were to do what we are seeking to do, we would cut **global warming** pollution by 176 ...
... being responsible about **global warming.** That is part of what this vote is about. The ...
... reduce pollution, reduce **global warming,** reduce lung cancer, to ...
... account for 20% of US **global warming** emissions. High demand ...
... save oil and slash **global warming** pollution. 6. I have ...

61. CONGRESSIONAL RECORD -- SENATE, Monday, March 11, 2002 , 148 Cong Rec S 1715, Vol. 148, No. 26,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mr. BINGAMAN; **Mr.** THOMAS; **Mr.** DORGAN; **Mr.** MURKOWSKI
... like air pollution and **climate change,** we are going to need these kinds of ...

62. CONGRESSIONAL RECORD -- SENATE, Thursday, March 07, 2002 , 148 Cong Rec S 1621, Vol. 148, No. 24,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mr. REID; **Mr.** SMITH of Oregon; **Mr.** VOINOVICH; **Mr.** BINGAMAN; **Mr.** SMITH of New Hampshire; **Mr.** CRAIG; **Mr.** JEFFORDS; **Mr.** MURKOWSKI; **Mr.** DOMENICI; **Mr.** INHOFE; **Mr.** SESSIONS; **Mr.** McCAIN; **Mrs.** MURRAY; **Ms.** CANTWELL; **Mr.** BREAUX; **Mrs.** FEINSTEIN; **Mr.** WYDEN; **Mr.** FITZGERALD; **Mr.** CORZINE. ; **Ms.** LANDRIEU; **Mr.** GRASSLEY
... concern today about the **climate change** issue and other issues such as ...
... dramatic direction for **climate change** in our country with the bringing ...
... look at concern over **global warming/**emission reductions, the one ...

... a significant source of **greenhouse gas** emissions. On August 24, ...
... people blame for **global warming.** That is a matter I ...
... fear about global **climate change** are, in general_but ...
... a paper regarding **climate change.** In the paper, they made ...
... produce it? What will happen to our **global warming** theorists when they start using ...

63. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 06, 2002 , 148 Cong Rec S 1567, Vol. 148, No. 23, NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Continued
Senate
Mr. JEFFORDS; **Mr.** THOMAS; **Mr.** BINGAMAN; **Mr.** REID
... begin to address global **climate change.** I support many of the ...
... quality issues such as global **climate change,** the use of reformulated fuels, and ...
... D for reducing **greenhouse gas** emissions and promoting efficiency and ...
... seriously address global **climate change.** I am however deeply concerned that administration of the **greenhouse gas** database is not placed with the ...
... considering legislation that would cap **greenhouse gas** emissions from the transportation sector, which is ...
... a major contributor to **global warming,** by almost 19 ...
... Research Group), California **Global Warming** Campaign, California League of ...
... Justice, Interfaith Global **Climate Change** Coalition of WV, Lutheran ...
... Ministry, Maine Interfaith **Climate Change** Initiative, National Coalition of ...
... FUEL VEHICLES (59%); **CLIMATE CHANGE** (59%); NUCLEAR ENERGY (...

64. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 06, 2002 , 148 Cong Rec S 1567, Vol. 148, No. 23, NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Continued
Senate
Mr. JEFFORDS; **Mr.** THOMAS; **Mr.** BINGAMAN; **Mr.** REID
... begin to address global **climate change.** I support many of the ...
... quality issues such as global **climate change,** the use of reformulated fuels, and ...
... D for reducing **greenhouse gas** emissions and promoting efficiency and ...
... seriously address global **climate change.** I am however deeply concerned that administration of the **greenhouse gas** database is not placed with the ...
... considering legislation that would cap **greenhouse gas** emissions from the transportation sector, which is ...
... a major contributor to **global warming,** by almost 19 ...
... Research Group), California **Global Warming** Campaign, California League of ...
... Justice, Interfaith Global **Climate Change** Coalition of WV, Lutheran ...
... Ministry, Maine Interfaith **Climate Change** Initiative, National Coalition of ...
... FUEL VEHICLES (59%); **CLIMATE CHANGE** (59%); NUCLEAR ENERGY (...

65. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 06, 2002 , 148 Cong Rec S 1575, Vol. 148, No. 23, NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Continued
Senate
Mr. REID; **Mr.** LIEBERMAN; **Mr.** NICKLES; **Mr.** MURKOWSKI; **Mr.** BINGAMAN; **Mr.** BROWNBACK; **Mr.** HOLLINGS; **Mr.** MILLER; **Mr.** DOMENICI; **Mr.** STEVENS; **Mr.** KYL.
... environment, but also hastens **global warming.** The overreliance forces us on a ...
... not the place to address **climate change.** I disagree. I see **climate change** as probably the biggest long- ...
... planet face. Some would argue **climate change** is separate from energy, but ...
... promote research and development on **climate change,** to require an office in the ...

... hopefully a national **climate change** policy. I am proud to ...
... mandatory programs to address **climate change**_that debate has been reserved for ...
... thought, the creative thought that **global warming** requires, including a ...
... 1992 Rio Treaty on **Climate Change,** which this body ratified. Finally, ...
... In crafting a **climate change** strategy, the White House ...
... off which other critical **climate change** measures will branch. This is ...
... deeply unsettling signs of **climate change** in the Arctic. Permafrost is ...
... in examining and reacting to the **climate change** crisis. To me, it is one every ...
... efficiency, and addressing global **climate change.** However, I am concerned that the specifics ...
... grow. Whether it is the CAFE issue or **climate change,** we need to focus more on ...

66. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 06, 2002 , 148 Cong Rec S 1575, Vol. 148, No. 23, NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Continued
Senate
Mr. REID; **Mr.** LIEBERMAN; **Mr.** NICKLES; **Mr.** MURKOWSKI; **Mr.** BINGAMAN; **Mr.** BROWNBACK; **Mr.** HOLLINGS; **Mr.** MILLER; **Mr.** DOMENICI; **Mr.** STEVENS; **Mr.** KYL.
... environment, but also hastens **global warming.** The overreliance forces us on a ...
... not the place to address **climate change.** I disagree. I see **climate change** as probably the biggest long- ...
... planet face. Some would argue **climate change** is separate from energy, but ...
... promote research and development on **climate change,** to require an office in the ...
... hopefully a national **climate change** policy. I am proud to ...
... mandatory programs to address **climate change**_that debate has been reserved for ...
... thought, the creative thought that **global warming** requires, including a ...
... 1992 Rio Treaty on **Climate Change,** which this body ratified. Finally, ...
... In crafting a **climate change** strategy, the White House ...
... off which other critical **climate change** measures will branch. This is ...
... deeply unsettling signs of **climate change** in the Arctic. Permafrost is ...
... in examining and reacting to the **climate change** crisis. To me, it is one every ...
... efficiency, and addressing global **climate change.** However, I am concerned that the specifics ...
... grow. Whether it is the CAFE issue or **climate change,** we need to focus more on ...

67. CONGRESSIONAL RECORD -- SENATE, Tuesday, March 05, 2002 , 148 Cong Rec S 1431, Vol. 148, No. 22, NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mr. REID; **Mr.** BINGAMAN; **Mr.** MURKOWSKI
... not worsening the problem of **climate change.** I believe we have achieved that ...
... generation produces more **greenhouse gas** emissions per Btu of ...
... bill that ensure we integrate **climate change** strategy with our energy policy. We ...
... drawn from a bipartisan **climate change** bill sponsored by ...
... strategic plan for **climate change** that can get buy- ...
... announced a new **climate change** policy framework based on reducing the **greenhouse gas** emission intensity of the U.S. ...
... look at this chart we have here entitled "**Greenhouse Gas** Emission Intensity; recent ...
... 2002, shows how **greenhouse gas** emission intensity has been declining in the 1990s. **Greenhouse gas** intensity has been declining because the part of the ...
... change the trend in **greenhouse gas** intensity over what would likely ...
... indicated an interest in **climate change** policy_a policy that does ...
... seen the President's proposal on **climate change,** we must recognize some real ...

68. CONGRESSIONAL RECORD -- SENATE, Tuesday, March 05, 2002 , 148 Cong Rec S 1438, Vol. 148, No. 22, ENERGY POLICY
Senate
Mr. CARPER; **Mrs.** HUTCHISON
... lead to greenhouse gasses and **global warming.** The last topic I ...
... INTERNATIONAL TRADE (59%); **CLIMATE CHANGE** (59%); GOODS & SERVICES ...

69. CONGRESSIONAL RECORD -- SENATE, Tuesday, March 05, 2002 , 148 Cong Rec S 1441, Vol. 148, No. 22, NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Continued
Senate
Mr. BINGAMAN
... INTEGRATION OF ENERGY POLICY AND **CLIMATE CHANGE** POLICY TITLE X_**CLIMATE CHANGE** POLICY FORMULATION Subtitle A_**Global Warming** Sec. 1001. Sense of Congress on **global warming.** Subtitle B_**Climate Change** Strategy Sec. 1011. ...
... 1015. United States **Climate Change** Response Strategy. Sec. 1016. National Office of **Climate Change** Response of the Executive Office of the ...
... implemented through the Office of **Climate Change** Technology of the Department of Energy. ...
... 1019. United States **Climate Change** Response Strategy Review ...
... Sec. 1031. Global **climate change** in the Office of Science and ...
... Director for Global **Climate Change.** Subtitle D_Miscellaneous ...
... review. Sec. 1042. **Greenhouse gas** emissions from federal facilities. TITLE XI_NATIONAL **GREENHOUSE GAS** DATABASE Sec. 1101. ...
... Sec. 1104. National **Greenhouse Gas** Database. Sec. 1105. ...
... activities. TITLE XIII_**CLIMATE CHANGE** RESEARCH AND DEVELOPMENT Subtitle ...
... program. Subtitle D_**Climate Change** Science and Information PART ...
... appropriations. Subtitle E_**Climate Change** Technology Sec. 1361. NIST **greenhouse gas** functions. Sec. 1362. ...
... regulatory authority excessive **greenhouse gas** emissions resulting from the inefficient ...
... reflect the fuel economy and **greenhouse gas** and other emissions consequences of ...
... annual reduction in **greenhouse gas** emissions, properly attributable to the ...
... INTEGRATION OF ENERGY POLICY AND **CLIMATE CHANGE** POLICY TITLE X_**CLIMATE CHANGE** POLICY FORMULATION Subtitle A_**Global Warming** SEC. 1001. SENSE OF CONGRESS ON **GLOBAL WARMING.** (a) Findings. The Congress ...
... gases are contributing to global **climate change.** (2) The Intergovernmental Panel on **Climate Change** (IPCC) has concluded that "there is new and ...
... likely to have been due to the increase of **greenhouse gas** concentrations accurately reflects the ...
... Protection Agency has found that **global warming** may harm the United ...
... Nations Framework Convention of **Climate Change,** done at New York on ...
... ultimate objective of which is the "stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... Nations Framework Convention on **Climate Change** further states that "developed ...
... lead in combating **climate change** and the adverse effects thereof", as these nations are the ...
... in any future, binding **climate change** treaty and such a treaty ...
... a solution to the global **climate change** dilemma. (10) American ...
... will respond to the threat of **global warming.** (11) The United States has ...
... technologies that can mitigate **global warming** and that can make the United ...
... threats posed by **global warming** by: (1) taking ...
... reduce, avoid, and sequester **greenhouse gas** emissions; and (3) participating ...
... other future binding **climate change** agreements in a ...

... objectives of the Framework Convention on **Climate Change,** that protects the economic interests of the ...
... responsibility for addressing **climate change,** including developing country participation. Subtitle B_**Climate Change** Strategy SEC. 1011. ...
... title may be cited as the "**Climate Change** Strategy and Technology Innovation ...
... gases are contributing to global **climate change;** (2) in 1992, the ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... ultimate objective of which is the "stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... dangerous", the current trajectory of **greenhouse gas** emissions will lead to ...
... continued rise in **greenhouse gas** concentrations in the atmosphere, ...
... consequences of poorly designed **climate change** response strategies, or of inaction, ...
... States; (8) stabilization of **greenhouse gas** concentrations in the atmosphere ...
... precipitously and have not been focused on the **climate change** response challenge; and (B) the ...
... progress could be made on the issue of **climate change** if the United States were to adopt ...
... approach for addressing **climate change** that included, as an ultimate long- ...
... goal_ (A) stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... result in stabilization of **greenhouse gas** concentrations; (ii) technology ...
... actions necessary to adapt to **climate change** that may have already occurred; (...
... actions necessary to adapt to **climate change** that may occur under any future **climate change** scenario; (iv) climate ...
... substantial scientific understanding of **climate change** that exists as of the date of enactment of this ...
... focal point for **climate change** response through_ (1) the establishment of the National Office of **Climate Change** Response within the Executive ...
... develop the United States **Climate Change** Response Strategy that_ (A) ...
... make toward addressing the **climate change** response challenge; and (ii) ...
... long-term stabilization of **greenhouse gas** concentrations in the atmosphere; (...
... 3) the establishment of the Office of **Climate Change** Technology within the Department of ...
... long-term stabilization of **greenhouse gas** concentrations in the atmosphere; and (...
... toward the goal of stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... Office" means the Office of **Climate Change** Technology of the Department established ...
... States Code. (5) **Greenhouse gas.**_The term "**greenhouse gas**" means_ (A) an anthropogenic ...
... means the United States **Climate Change** Response Interagency Task ...
... result in stabilization of **greenhouse gas** concentrations; (B) technology ...
... actions necessary to adapt to **climate change** that may have already occurred; (...
... actions necessary to adapt to **climate change** that may occur under any future **climate change** scenario; and (D) climate ...
... substantial scientific understanding of **climate change** that exists as of the date of enactment of this ...
... knowledge that are relevant to addressing the **climate change** response challenge. (B) ...
... science of primary and secondary **climate change** impacts; (ii) energy and ...
... iv) the social dimensions of **climate change;** (v) **climate change** adaptation strategies; (vi) ...
... mechanisms for addressing **climate change;** (xii) risk and decision ...
... xiv) the international implications of **climate change** response strategies. (9) ...
... means the United States **Climate Change** Response Strategy Review ...
... Energy. (11) Stabilization of **greenhouse gas** concentrations._The term "stabilization of **greenhouse gas** concentrations" means the stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... ecosystems to adapt naturally to **climate change,** to ensure that food production is ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... means the United States **Climate Change** Response Strategy developed ...
... means the National Office of **Climate Change** Response of the Executive Office of the ...
... 1015. UNITED STATES **CLIMATE CHANGE** RESPONSE STRATEGY. (a) ...
... develop the United States **Climate Change** Response Strategy, which shall_ (...

... term goal of stabilization of **greenhouse gas** concentrations through actions ...
... by the Intergovernmental Panel on **Climate Change** and those consistent with U.S. treaty ...
... culminate in the stabilization of **greenhouse gas** concentrations; (5) consider the ...
... reduce, avoid, or sequester **greenhouse gas** emissions both within the ...
... reduce, avoid, or sequester **greenhouse gas** emissions; (8) recognize that the **climate change** response strategy is intended to ...
... nation's effort to address **climate change,** but it shall not ...
... conducted to facilitate stabilization of **greenhouse gas** concentrations; (13) in the ...
... overall cost of stabilization of **greenhouse gas** concentrations; and (ii) considering ...
... systems as are necessary to adapt to **climate change** in the short-term and the ...
... accuracy of predictions concerning **climate change** and the economic and social costs and opportunities relating to **climate change;** and (E) changes that should be made to ...
... out a response to **climate change;** (16) promote, to the maximum ...
... understanding of the full range of **climate change**-related issues; (17) ...
... term goal of stabilization of **greenhouse gas** concentrations; (19) include any ...
... a framework for **climate change** response actions by all ...
... developing an international response to **climate change;** and (23) be subject to review ...
... met without compromising the **climate change**-related goals of the Strategy or the ...
... 1016. NATIONAL OFFICE OF **CLIMATE CHANGE** RESPONSE OF THE EXECUTIVE OFFICE OF THE ...
... President, the National Office of **Climate Change** Response. (2) Focus._The ...
... term goal of stabilization of **greenhouse gas** concentrations while minimizing ...
... agencies involved in **climate change** response activities; and (E) ...
... term goal of stabilization of **greenhouse gas** concentrations. (b) Director of the ...
... term goal of stabilization of **greenhouse gas** concentrations; and (II) the extent to which ...
... term goal of stabilization of **greenhouse gas** concentrations. (ii) Tax, ...
... term goal of stabilization of **greenhouse gas** concentrations; and (II) the extent to which ...
... term goal of stabilization of **greenhouse gas** concentrations. (iii) International ...
... components of treaties that have an influence on **greenhouse gas** management; and (II) assesses the ...
... term goal of stabilization of **greenhouse gas** concentrations, while minimizing ...
... understanding of the full range of **climate change**-related issues. (4) ...
... term goal of stabilization of **greenhouse gas** concentrations; (C) assesses progress toward meeting **climate change**-related international obligations; (...
... term goal of stabilization of **greenhouse gas** concentrations; and (E) addresses the ...
... establish the United States **Climate Change** Response Interagency Task ...
... IMPLEMENTED THROUGH THE OFFICE OF **CLIMATE CHANGE** TECHNOLOGY OF THE DEPARTMENT OF ENERGY. (a) Establishment of Office of **Climate Change** Technology of the Department of Energy._ (...
... within the Department, the Office of **Climate Change** Technology. (2) Duties._The ...
... promise of contributing to the national **climate change** policy of long-term stabilization of **greenhouse gas** concentrations by_ (aa) ...
... States to achieve stabilization of **greenhouse gas** concentrations at the lowest possible ...
... make progress on stabilization of **greenhouse gas** concentrations; (iv) making ...
... technology central to addressing **climate change;** and (v) transitioning research and ...
... contribution of all Department programs to **climate change** response; (D) provide ...
... E) advise the Secretary on **climate change**-related issues, including ...
... programs involved in **climate change** response-related activities. (...
... share analyses of alternative **climate change** response strategies with other ...
... understanding_ (I) the scale of the **climate change** response challenge; and (II) ...
... positively or negatively contribute to **climate change** solutions; and (ii) determine ...
... term goal of stabilization of **greenhouse gas** concentrations. (D) Tools, ...
... for evaluating alternative **climate change** response scenarios; and (ii) the ...

... advise the Secretary on all aspects of **climate change** response. (6) Annual ...
... f) Analysis of Strategic **Climate Change** Response._ (1) In ...
... integrated assessment of alternative **climate change** response scenarios and implementation of the ...
... agricultural, forestry, or other **climate change**-related technology. (2) ...
... term goal of stabilization of **greenhouse gas** concentrations. (B) International ...
... scientific knowledge relating to **greenhouse gas** emission reduction, avoidance, and ...
... sharing with industry on individual **climate change** response projects. (B) ...
... 1019. UNITED STATES **CLIMATE CHANGE** RESPONSE STRATEGY REVIEW ...
... branch the United States **Climate Change** Response Strategy Review ...
... United States, with respect to **climate change,** complement or leverage international ...
... term goal of stabilization of **greenhouse gas** concentrations; (C) the funding ...
... term and long-term **greenhouse gas** management goals; and (ii) the ...
... provide recommendations on additional **climate change**-related topics. (B) ...
... SEC. 1031. GLOBAL **CLIMATE CHANGE** IN THE OFFICE OF SCIENCE AND ...
... mitigate, and respond to global **climate change;**". SEC. 1032. ESTABLISHMENT OF ...
... DIRECTOR FOR GLOBAL **CLIMATE CHANGE.** Section 203 of the National ...
... responsible for global **climate change** science and technology under the ...
... in net annual **greenhouse gas** emissions resulting from the proposed ...
... in net annual **greenhouse gas** emissions as a result of the ...
... emissions. SEC. 1042. **GREENHOUSE GAS** EMISSIONS FROM FEDERAL FACILITIES. (...
... estimates of annual net **greenhouse gas** emissions from all Federally owned, ...
... estimate of annual net **greenhouse gas** emissions from all Federally owned, ...
... TITLE XI_NATIONAL **GREENHOUSE GAS** DATABASE SEC. 1101. ...
... title is to establish a **greenhouse gas** inventory, reductions registry, and ...
... design efficient and effective **greenhouse gas** emission reduction strategies; and, (...
... will encourage and acknowledge **greenhouse gas** emissions reductions. SEC. ...
... database" means the National **Greenhouse Gas** Database established under ...
... direct emissions" means **greenhouse gas** emissions by an entity from ...
... same entity. (6) **Greenhouse gas.**_The term "**greenhouse gas**" means_ (A) carbon ...
... indirect emissions' means **greenhouse gas** emissions that are a consequence of the ...
... programs that collect data on **greenhouse gas** emissions and effects and that are necessary for the operation of the National **Greenhouse Gas** Database; (2) distribute ...
... Nations Framework Convention on **Climate Change.** (c) The Chairman shall ...
... SEC. 1104. NATIONAL **GREENHOUSE GAS** DATABASE. (a) Establishment._The ...
... database to be known as the National **Greenhouse Gas** Database to collect, verify, and analyze information on_ (1) **greenhouse gas** emissions by entities ...
... United States; and (2) **greenhouse gas** emission reductions by ...
... States. (b) National **Greenhouse Gas** Database Components._The database shall consist of an inventory of **greenhouse gas** emissions and a registry of **greenhouse gas** emissions reductions. (c) ...
... comprehensive system for **greenhouse gas** emissions reporting, inventorying and ...
... each entity that exceeds the **greenhouse gas** emissions threshold in ...
... inclusion in the National **Greenhouse Gas** Database, the entity-wide ...
... quantities for each **greenhouse gas** emitted, and in terms of ...
... report shall include the **greenhouse gas** emissions per unit of ...
... unless_ (i) the total **greenhouse gas** emissions of at least one ...
... 75 percent of anthropogenic **greenhouse gas** emissions from entities. (3) ...
... preceding calendar year and any **greenhouse gas** emitted by the entity_ (...
... emissions; and (B) with respect to **greenhouse gas** emissions reductions activities ...
... Federal or State voluntary **greenhouse gas** reduction programs. (5) ...
... report projects that reduce **greenhouse gas** emissions or sequester a **greenhouse gas,** including_ (A) fuel ...

... methane recovery; and (I) **greenhouse gas** offset investments. (6) ...
... under Section 1106, that the **greenhouse gas** report of the reporting entity_ (...
... reductions in direct **greenhouse gas** emissions relative to historic ...
... prevent the reporting of some or all of the same **greenhouse gas** emissions or emission reductions ...
... for measuring or calculating **greenhouse gas** emissions; and (E) account ...
... Federal, regional, and state **greenhouse gas** data collection and reporting ...
... for reporting each **greenhouse gas,** and whether to require reporting of emission ...
... B) International consistency._The **greenhouse gas** reduction and sequestration methods and ...
... available fossil fuels, **greenhouse gas** emissions, and **greenhouse gas** production and importation data are ...
... a comprehensive National **Greenhouse Gas** Database. (e) Enforcement._The ...
... 1) describes the total **greenhouse gas** emissions and emission reductions ...
... improve the accuracy or operation of the **Greenhouse Gas** Database and related programs ...
... technically accurate record of **greenhouse gas** emissions, reductions, and atmospheric ...
... use in the national **greenhouse gas** database. The Agency or Agencies ...
... implementation and operation of the National **Greenhouse Gas** Database established in ...
... technically accurate record of **greenhouse gas** emissions, reductions, and atmospheric ...
... part of a national **climate change** strategy, because it can reduce_ (...

70. CONGRESSIONAL RECORD -- SENATE, Tuesday, March 05, 2002 , 148 Cong Rec S 1441, Vol. 148, No. 22, NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001_Continued
Senate
Mr. BINGAMAN; **Mr.** REID; **Mr.** DORGAN; **Mr.** MURKOWSKI; **Mr.** DASCHLE; **Mr.** DOMENICI; **Mr.** BREAUX; **Mr.** BREAUX. ; **Mr.** CRAIG; **Mr.** DURBIN; **Mr.** BURNS
... 2006. TITLE XIII_**CLIMATE CHANGE**-RELATED RESEARCH AND DEVELOPMENT
...
... 2) help mitigate **climate change** from human activities related to ...
... National Framework Convention on **Climate Change,** done at New York on ...
... model-based projections of **climate change;** and (E) increase the availability and utility of **climate change** simulations to researchers and policy ...
... relationship between energy and **climate change.** (2) Carbon cycle._The ...
... for integrated analyses of the **climate change** system from emissions of aerosols and ...
... effects of human-induced **climate change** on economic and social systems, with ...
... metrics of economic costs of **climate change** and policies for mitigating or adapting to **climate change.** (c) Authorization of Appropriations._From ...
... reduce, avoid, or sequester **greenhouse gas** emissions. SEC. 1303. ...
... solutions to the effective management of **greenhouse gas** emissions in the long ...
... a broader societal **greenhouse gas** emission reduction effort; (...
... net changes in **greenhouse gas** emissions. (B) Benchmark ...
... baselines, carbon or other **greenhouse gas** leakage, and permanence of sequestration. (...
... nexus between global **climate change** mitigation strategies and agriculture, so that ...
... energy production and associated **greenhouse gas** emissions, including through ...
... under the Framework Convention on **Climate Change,** other international agreements, and ...
... result in a **greenhouse gas** reduction per unit of ...
... Nations Framework Convention on **Climate Change,** shall require at least ...
... Nations Framework Convention on **Climate Change**) shall require at least ...
... expended.". Subtitle D_**Climate Change** Science and Information PART ...
... United States Global **Climate Change** Research Program for the ...
... date of enactment of the Global **Climate Change** Act of 2002. The Chairman, ...
... director with responsibility for **climate change** science and technology and shall ...

... communicated to the President and are integrated into the **climate change** action strategy; "(D) ...
... by striking "Weather and **climate change** affect" in paragraph (1) and inserting "Weather, **climate change,** and climate variability affect ...
... redesignated, and inserting "the Global **Climate Change** Act of 2002,"; and (7) ...
... date of enactment of the Global **Climate Change** Act of 2002, the Secretary of ...
... predict regional and local **climate changes** and impacts; "(5) in ...
... impacts of predicted and projected **climate changes** and variations; "(6) a ...
... measure, and verify atmospheric **greenhouse gas** levels, dates, and emissions. Where ...
... consistent with those utilized in the **greenhouse gas** measurement and reporting system ...
... sources covered by the **greenhouse gas** measurement and reporting system ...
... 2006. Subtitle E_**Climate Change** Technology SEC. 1361. NIST **GREENHOUSE GAS** FUNCTIONS. Section 2(...
... greenhouse gases associated with **global warming,** including carbon dioxide, ...
... cover) to calculate_ (1) **greenhouse gas** emissions and reductions from agriculture, ...
... non-carbon dioxide **greenhouse gas** emissions from transportation; (3) **greenhouse gas** emissions from facilities or sources ...
... technology; and (4) any other **greenhouse gas** emission or reductions for which ...
... following: "SEC. 17. **CLIMATE CHANGE** STANDARDS AND PROCESSES. "(a) ...
... support research on global **climate change** standards and processes, with the goal of ...
... section 4 of the Global **Climate Change** Act of 2002). "(b) ...
... grants, a global **climate change** standards and processes research ...
... energy efficiency and reduced **greenhouse gas** emissions into the environment; "(B) ...
... technologies to address global **climate change** by significantly reducing **greenhouse gas** emissions and concentrations in the ...
... Commerce a National **Climate Change** Vulnerability and Adaptation Program ...
... vulnerability to phenomena associated with **climate change** and climate variability, including_ (...
... areas to hazards associated with **climate change,** climate variability, sea ...
... compile current information on **climate change,** sea level rise, ...
... coastal impacts associated with **climate change,** sea level rise, or ...
... affected by the impact of **climate change** or climate variability that are located ...
... a consequence of global **climate change** or climate variability. (b) ...
... sensitive to the consequences of global **climate change** or climate variability; (2) ...
... changes related to global **climate change** or climate variability; (5) ...
... use consequences of global **climate change** or climate variability. (d) ...
... nuclear energy; and (E) **climate change** technology, with emphasis on integration, ...
... supported by the Office of **Climate Change** Technology. (2) The Secretary ...
... proposals to address the risk of **climate change,** and there are so many conflicts among these ...
... X, onward, with respect to **climate change** and energy R&D. ...
... emission-free. We look at **global warming** concepts. We look at emission ...
... international leadership on global **climate change**_leadership that the Administration, sadly, has been ...
... links energy policy and **climate change** by creating a ...
... carbon pollution and other **greenhouse gas** emissions. It funds research and ...
... Carbon pollution and other **greenhouse gas** emissions are causing changes ...
... country. If we believe in **climate change,** if we believe there is an environmental problem ...
... complicate or exacerbate that problem of **climate change,** then we ought to be for the cleanest ...
... context of nuclear energy, **climate change.** Senator Hagel and I have ...
... forward thinking national **climate change** policy, ought to be incorporated ...

18, UNANIMOUS CONSENT AGREEMENT_AMENDMENT NO. 2917, AS MODIFIED
Senate
Mr. REID
... INTEGRATION OF ENERGY POLICY AND **CLIMATE CHANGE** POLICY TITLE X_**CLIMATE CHANGE** POLICY FORMULATION Subtitle A_**Global Warming** Sec. 1001. Sense of Congress on **global warming.** Subtitle B_**Climate Change** Strategy Sec. 1011. ...
... 1015. United States **Climate Change** Response Strategy. Sec. 1016. National Office of **Climate Change** Response of the Executive Office of the ...
... implemented through the Office of **Climate Change** Technology of the Department of Energy. ...
... 1019. United States **Climate Change** Response Strategy Review ...
... Sec. 1031. Global **climate change** in the Office of Science and ...
... Director for Global **Climate Change.** Subtitle D_Miscellaneous ...
... review. Sec. 1042. **Greenhouse gas** emissions from federal facilities. TITLE XI_NATIONAL **GREENHOUSE GAS** DATABASE Sec. 1101. ...
... Sec. 1104. National **Greenhouse Gas** Database. Sec. 1105. ...
... activities.-- TITLE XIII_**CLIMATE CHANGE** RESEARCH AND DEVELOPMENT Subtitle ...
... program. Subtitle D_**Climate Change** Science and Information PART ...
... appropriations. Subtitle E_**Climate Change** Technology Sec. 1361. NIST **greenhouse gas** functions. Sec. 1362. ...
... regulatory authority excessive **greenhouse gas** emissions resulting from the inefficient ...
... reflect the fuel economy and **greenhouse gas** and other emissions consequences of ...
... annual reduction in **greenhouse gas** emissions,properly attributable to the ...
... INTEGRATION OF ENERGY POLICY AND **CLIMATE CHANGE** POLICY TITLE X_**CLIMATE CHANGE** POLICY FORMULATION Subtitle A_**Global Warming** SEC. 1001. SENSE OF CONGRESS ON **GLOBAL WARMING.** (a) Findings._The Congress ...
... gases are contributing to global **climate change.** (2) The Intergovernmental Panel on **Climate Change** (IPCC) has concluded that "there is new and ...
... likely to have been due to the increase of **greenhouse gas** concentrations accurately reflects the ...
... Protection Agency has found that **global warming** may harm the United ...
... Nations Framework Convention of **Climate Change,** done at New York on ...
... ultimate objective of which is the "stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... Nations Framework Convention on **Climate Change** further states that "developed ...
... lead in combating **climate change** and the adverse effects thereof", as these nations are the ...
... in any future, binding **climate change** treaty and such a treaty ...
... a solution to the global **climate change** dilemma. (10) American ...
... will respond to the threat of **global warming.** (11) The United States has ...
... technologies that can mitigate **global warming** and that can make the United ...
... threats posed by **global warming** by_ (1) taking ...
... reduce, avoid, and sequester **greenhouse gas** emissions; and (3) participating ...
... other future binding **climate change** agreements in a ...
... objectives of the Framework Convention on **Climate Change,** that protects the economic interests of the ...
... responsibility for addressing **climate change,** including developing country participation. Subtitle B_**Climate Change** Strategy SEC. 1011. ...
... title may be cited as the "**Climate Change** Strategy and Technology Innovation ...
... gases are contributing to global **climate change;** (2) in 1992, the ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... ultimate objective of which is the "stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... dangerous", the current trajectory of **greenhouse gas** emissions will lead to ...
... continued rise in **greenhouse gas** concentrations in the atmosphere, ...

... consequences of poorly designed **climate change** response strategies, or of inaction, ...
... States; (8) stabilization of **greenhouse gas** concentrations in the atmosphere ...
... precipitously and have not been focused on the **climate change** response challenge; and (B) the ...
... progress could be made on the issue of **climate change** if the United States were to adopt ...
... approach for addressing **climate change** that included, as an ultimate long- ...
... goal_ (A) stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... result in stabilization of **greenhouse gas** concentrations; (ii) technology ...
... actions necessary to adapt to **climate change** that may have already occurred; and (...
... actions necessary to adapt to **climate change** that may occur under any future **climate change** scenario; and (iv) climate ...
... substantial scientific understanding of **climate change** that exists as of the date of enactment of this ...
... focal point for **climate change** response through_ (1) the establishment of the National Office of **Climate Change** Response within the Executive ...
... develop the United States **Climate Change** Response Strategy that_ (A) ...
... make toward addressing the **climate change** response challenge; and (ii) ...
... long-term stabilization of **greenhouse gas** concentrations in the atmosphere; (...
... 3) the establishment of the Office of **Climate Change** Technology within the Department of ...
... long-term stabilization of **greenhouse gas** concentrations in the atmosphere; and (...
... toward the goal of stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... Office" means the Office of **Climate Change** Technology of the Department established ...
... States Code. (5) **Greenhouse gas.**_The term "**greenhouse gas**" means_ (A) an anthropogenic ...
... means the United States **Climate Change** Response Interagency Task ...
... result in stabilization of **greenhouse gas** concentrations; (B) technology ...
... actions necessary to adapt to **climate change** that may have already occurred; and (...
... actions necessary to adapt to **climate change** that may occur under any future **climate change** scenario; and (D) climate ...
... substantial scientific understanding of **climate change** that exists as of the date of enactment of this ...
... knowledge that are relevant to addressing the **climate change** response challenge. (B) ...
... science of primary and secondary **climate change** impacts; (ii) energy and ...
... iv) the social dimensions of **climate change;** (v) **climate change** adaptation strategies; (vi) ...
... mechanisms for addressing **climate change;** (xii) risk and decision ...
... xiv) the international implications of **climate change** response strategies. (9) ...
... means the United States **Climate Change** Response Strategy Review ...
... Energy. (11) Stabilization of **greenhouse gas** concentrations._The term "stabilization of **greenhouse gas** concentrations" means the stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... ecosystems to adapt naturally to **climate change,** to ensure that food production is ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... means the United States **Climate Change** Response Strategy developed ...
... means the National Office of **Climate Change** Response of the Executive Office of the ...
... 1015. UNITED STATES **CLIMATE CHANGE** RESPONSE STRATEGY. (a) ...
... develop the United States **Climate Change** Response Strategy, which shall_ (...
... term goal of stabilization of **greenhouse gas** concentrations through actions ...
... by the Intergovernmental Panel on **Climate Change** and those consistent with U.S. treaty ...
... culminate in the stabilization of **greenhouse gas** concentrations; (5) consider the ...
... reduce, avoid, or sequester **greenhouse gas** emissions both within the ...
... reduce, avoid, or sequester **greenhouse gas** emissions; (8) recognize that the **climate change** response strategy is intended to ...
... nation's effort to address **climate change,** but it shall not ...
... conducted to facilitate stabilization of **greenhouse gas** concentrations; (13) in the ...
... overall cost of stabilization of **greenhouse gas** concentrations; and (ii) considering ...

... systems as are necessary to adapt to **climate change** in the short-term and the ...
... accuracy of predictions concerning **climate change** and the economic and social costs and opportunities relating to **climate change;** and (E) changes that should be made to ...
... out a response to **climate change;** (16) promote, to the maximum ...
... understanding of the full range of **climate change**-related issues; (17) ...
... term goal of stabilization of **greenhouse gas** concentrations; (19) include any ...
... a framework for **climate change** response actions by all ...
... developing an international response to **climate change;** and (23) be subject to review ...
... met without compromising the **climate change**-related goals of the Strategy or the ...
... 1016. NATIONAL OFFICE OF **CLIMATE CHANGE** RESPONSE OF THE EXECUTIVE OFFICE OF THE ...
... President, the National Office of **Climate Change** Response. (2) Focus._The ...
... term goal of stabilization of **greenhouse gas** concentrations while minimizing ...
... agencies involved in **climate change** response activities; and (E) ...
... term goal of stabilization of **greenhouse gas** concentrations. (b) Director of the ...
... term goal of stabilization of **greenhouse gas** concentrations; and (II) the extent to which ...
... term goal of stabilization of **greenhouse gas** concentrations. (ii) Tax, ...
... term goal of stabilization of **greenhouse gas** concentrations; and (II) the extent to which ...
... term goal of stabilization of **greenhouse gas** concentrations. (iii) International ...
... components of treaties that have an influence on **greenhouse gas** management; and (II) assesses the ...
... term goal of stabilization of **greenhouse gas** concentrations, while minimizing ...
... understanding of the full range of **climate change**-related issues. (4) ...
... term goal of stabilization of **greenhouse gas** concentrations; (C) assesses progress toward meeting **climate change**-related international obligations; (...
... term goal of stabilization of **greenhouse gas** concentrations; and (E) addresses the ...
... establish the United States **Climate Change** Response Interagency Task ...
... IMPLEMENTED THROUGH THE OFFICE OF **CLIMATE CHANGE** TECHNOLOGY OF THE DEPARTMENT OF ENERGY. (a) Establishment of Office of **Climate Change** Technology of the Department of Energy._ (...
... within the Department, the Office of **Climate Change** Technology. (2) Duties._The ...
... promise of contributing to the national **climate change** policy of long-term stabilization of **greenhouse gas** concentrations by_ (aa) ...
... States to achieve stabilization of **greenhouse gas** concentrations at the lowest possible ...
... make progress on stabilization of **greenhouse gas** concentrations; (iv) making ...
... technology central to addressing **climate change;** and (v) transitioning research and ...
... contribution of all Department programs to **climate change** response; (D) provide ...
... E) advise the Secretary on **climate change**-related issues, including ...
... programs involved in **climate change** response-related activities. (...
... share analyses of alternative **climate change** response strategies with other ...
... understanding_ (I) the scale of the **climate change** response challenge; and (II) ...
... positively or negatively contribute to **climate change** solutions; and (ii) determine ...
... term goal of stabilization of **greenhouse gas** concentrations. (D) Tools, ...
... for evaluating alternative **climate change** response scenarios; and (ii) the ...
... advise the Secretary on all aspects of **climate change** response. (6) Annual ...
... f) Analysis of Strategic **Climate Change** Response._ (1) In ...
... integrated assessment of alternative **climate change** response scenarios and implementation of the ...
... agricultural, forestry, or other **climate change**-related technology. (2) ...
... term goal of stabilization of **greenhouse gas** concentrations. (B) International ...
... scientific knowledge relating to **greenhouse gas** emission reduction, avoidance, and ...
... sharing with industry on individual **climate change** response projects. (B) ...
... 1019. UNITED STATES **CLIMATE CHANGE** RESPONSE STRATEGY REVIEW ...
... branch the United States **Climate Change** Response Strategy Review ...

... United States, with respect to **climate change,** complement or leverage international ...
... term goal of stabilization of **greenhouse gas** concentrations; (C) the funding ...
... term and long-term **greenhouse gas** management goals; and (ii) the ...
... provide recommendations on additional **climate change**-related topics. (B) ...
... SEC. 1031. GLOBAL **CLIMATE CHANGE** IN THE OFFICE OF SCIENCE AND ...
... mitigate, and respond to global **climate change;**". SEC. 1032. ESTABLISHMENT OF ...
... DIRECTOR FOR GLOBAL **CLIMATE CHANGE.** Section 203 of the National ...
... responsible for global **climate change** science and technology under the ...
... in net annual **greenhouse gas** emissions resulting from the proposed ...
... in net annual **greenhouse gas** emissions as a result of the ...
... emissions. SEC. 1042. **GREENHOUSE GAS** EMISSIONS FROM FEDERAL FACILITIES. (...
... estimates of annual net **greenhouse gas** emissions from all Federally owned, ...
... estimate of annual net **greenhouse gas** emissions from all Federally owned, ...
... TITLE1 XI_NATIONAL **GREENHOUSE GAS** DATABASE SEC. 1101. ...
... title is to establish a **greenhouse gas** inventory, reductions registry, and ...
... design efficient and effective **greenhouse gas** emission reduction strategies; and, (...
... will encourage and acknowledge **greenhouse gas** emissions reductions. SEC. ...
... database" means the National **Greenhouse Gas** Database established under ...
... direct emissions" means **greenhouse gas** emissions by an entity from ...
... same entity. (6) **Greenhouse gas.**_The term "**greenhouse gas**" means_ (A) carbon ...
... indirect emissions' means **greenhouse gas** emissions that are a consequence of the ...
... programs that collect data on **greenhouse gas** emissions and effects and that are necessary for the operation of the National **Greenhouse Gas** Database; (2) distribute ...
... Nations Framework Convention on **Climate Change.** (c) The Chairman shall ...
... SEC. 1104. NATIONAL **GREENHOUSE GAS** DATABASE. (a) Establishment._The ...
... database to be known as the National **Greenhouse Gas** Database to collect, verify, and analyze information on_ (1) **greenhouse gas** emissions by entities ...
... United States; and (2) **greenhouse gas** emission reductions by ...
... States. (b) National **Greenhouse Gas** Database Components._The database shall consist of an inventory of **greenhouse gas** emissions and a registry of **greenhouse gas** emissions reductions. (c) ...
... comprehensive system for **greenhouse gas** emissions reporting, inventorying and ...
... each entity that exceeds the **greenhouse gas** emissions threshold in ...
... inclusion in the National **Greenhouse Gas** Database, the entity-wide ...
... quantities for each **greenhouse gas** emitted, and in terms of ...
... report shall include the **greenhouse gas** emissions per unit of ...
... unless: (i) the total **greenhouse gas** emissions of at least one ...
... 75 percent of anthropogenic **greenhouse gas** emissions from entities. (3) ...
... preceding calendar year and any **greenhouse gas** emitted by the entity_ (...
... emissions; and (B) with respect to **greenhouse gas** emissions reductions activities ...
... Federal or State voluntary **greenhouse gas** reduction programs. (5) ...
... report projects that reduce **greenhouse gas** emissions or sequester a **greenhouse gas,** including_ (A) fuel ...
... methane recovery; and (I) **greenhouse gas** offset investments. (6) ...
... under Section 1106, that the **greenhouse gas** report of the reporting entity_ (...
... reductions in direct **greenhouse gas** emissions relative to historic ...
... prevent the reporting of some or all of the same **greenhouse gas** emissions or emission reductions ...
... for measuring or calculating **greenhouse gas** emissions; and, (E) account ...
... Federal, regional, and state **greenhouse gas** data collection and reporting ...
... for reporting each **greenhouse gas,** and whether to require reporting of emission ...
... B) International consistency._The **greenhouse gas** reduction and sequestration methods and ...
... available fossil fuels, **greenhouse gas** emissions, and **greenhouse gas** production and importation data are ...

... a comprehensive National **Greenhouse Gas** Database. (e) Enforcement._The ...
... 1) describes the total **greenhouse gas** emissions and emission reductions ...
... improve the accuracy or operation of the **Greenhouse Gas** Database and related programs ...
... technically accurate record of **greenhouse gas** emissions, reductions, and atmospheric ...
... use in the national **greenhouse gas** database. The Agency or Agencies ...
... implementation and operation of the National **Greenhouse Gas** Database established in ...
... technically accurate record of **greenhouse gas** emissions, reductions, and atmospheric ...
... part of a national **climate change** strategy, because it can reduce_ (...
... 2006. TITLE XIII_**CLIMATE CHANGE**-RELATED RESEARCH AND DEVELOPMENT
...
... 2) help mitigate **climate change** from human activities related to ...
... National Framework Convention on **Climate Change,** done at New York on ...
... model-based projections of **climate change;** and (E) increase the availability and utility of **climate change** simulations to researchers and policy ...
... relationship between energy and **climate change.** (2) Carbon cycle._The ...
... for integrated analyses of the **climate change** system from emissions of aerosols and ...
... effects of human-induced **climate change** on economic and social systems, with ...
... metrics of economic costs of **climate change** and policies for mitigating or adapting to **climate change.** (c) Authorization of Appropriations._From ...
... reduce, avoid, or sequester **greenhouse gas** emissions. SEC. 1303. ...
... solutions to the effective management of **greenhouse gas** emissions in the long ...
... a broader societal **greenhouse gas** emission reduction effort; (...
... net changes in **greenhouse gas** emissions. (B) Benchmark ...
... baselines, carbon or other **greenhouse gas** leakage, and permanence of sequestration. (...
... nexus between global **climate change** mitigation strategies and agriculture, so that ...
... energy production and associated **greenhouse gas** emissions, including through ...
... under the Framework Convention on **Climate Change,** other international agreements, and ...

72. CONGRESSIONAL RECORD -- SENATE, Friday, February 15, 2002 , 148 Cong Rec S 884, Vol. 148, No. 15,
NATIONAL LABORATORIES PARTNERSHIP IMPROVEMENT ACT OF 2001
Senate
Mr. DASCHLE; **Mr.** MURKOWSKI; **Mr.** REED
... between energy policy and **climate change.** To that end, it includes a ...
... confront the rising tide of **global warming.** It has been said that we are all continually faced with a ...

73. CONGRESSIONAL RECORD -- SENATE, Thursday, February 14, 2002 , 148 Cong Rec S 843, Vol. 148, No. 14,
PRESIDENT BUSH'S NEW APPROACH TO CLIMATE CHANGE
Senate
Mr. CRAIG
... a new approach to **climate change** for this Nation, and I ...
... emotionally charged issue of **climate change** and focused us in a ...
... cautious approach to stabilizing **greenhouse gas** emissions is the most prudent ...
... great concern about **climate change,** join with me and seize the opportunity that our ...
... relates to addressing the question of **climate change** in an understandable fashion and ...
EMISSIONS (92%); **CLIMATE CHANGE** (90%); DEVELOPING COUNTRIES (...

74. CONGRESSIONAL RECORD -- SENATE, Thursday, February 14, 2002 , 148 Cong Rec S 843, Vol. 148, No. 14,

ENERGY POLICY
Senate
Mr. BINGAMAN; **Mr.** JEFFORDS
... announced his plan related to **global warming.** The plan appears to endorse some of the ...
... relate to this important issue of **global warming.** Unfortunately, the rest of the plan that the ...
... reporting program for **greenhouse gas** emissions which was established by ...
... begin to pay attention to **greenhouse gas** emissions. It was not to drive ...
... more now about **global warming** and the threat that it could pose to us. According to ...
... energy consumed. Clearly, **climate change** is an energy issue. We need to ...
... under the framework convention on **climate change** that was ratified in the Senate that we would ...
... American people believe **climate change** is a critical issue. They also ...
... administration approach to addressing **climate change,** I fear we are communicating to the ...
... control their own contributions to **greenhouse gas** emissions. It increases the mix of ...
... energy needs and reduce **greenhouse gas** emissions. We need to agree on ...
... know what they can do to affect **greenhouse gas** emissions. They have a much ...
... administration's policy to deal with the **global warming** that threatens the reliability of winter and therefore the ...
... nothing to significantly reduce the **greenhouse gas** emissions that are contributing to **global warming.** Obviously, this is a very serious ...
... taking actions to reduce **greenhouse gas** emissions and increase energy ...
... taking credible action on **global warming** now so winter is around ...
... world. And it is divorced from the reality of **global warming.** Maybe you could call it a ...
... achieve 1990 levels of **greenhouse gas** emissions. That is our commitment to the world. This ...
... efficient technology to reduce **greenhouse gas** emissions. But, without ...
... strong warnings about **climate change** in the past few ...
... already locked in some **global warming** from our profligate use of fossil ...
... serious action to slow **climate change.** Indeed, though Washington is ...
... targets of the Kyoto treaty on **global warming,** and promised that its municipal utility would ...
... power without contributing to the **greenhouse effect.** Voters in San ...
... PUBLIC POLICY (90%); **CLIMATE CHANGE** (89%); ECONOMIC NEWS (...
... ENERGY REGULATION (59%); **GLOBAL WARMING** (59%); ELECTRIC POWER ...

75. CONGRESSIONAL RECORD -- SENATE, Wednesday, February 13, 2002 , 148 Cong Rec S 675, Vol. 148, No. 13, AGRICULTURE, CONSERVATION, AND RURAL ENHANCEMENT ACT OF 2001
Senate
Mr. CONRAD; **Mr.** KYL; **Mr.** NICKLES; **Mr.** REID; **Mr.** GRAMM; **Mr.** LUGAR; **Mr.** HARKIN; **Mr.** BINGAMAN; **Mrs.** FEINSTEIN; **Mr.** DASCHLE; **Ms.** SNOWE; **Mr.** KENNEDY; **Mr.** McCAIN; **Mr.** BROWNBACK; **Mr.** COCHRAN; **Mr.** SARBANES; **Mr.** SARBANES. ; **Mr.** ROBERTS; **Mr.** DAYTON; **Mr.** THURMOND; **Mr.** CORZINE; **Mr.** NELSON of Nebraska; **Mr.** WELLSTONE; **Mr.** KOHL; **Mrs.** LINCOLN; **Mr.** EDWARDS; **Mr.** DOMENICI; **Mr.** HATCH; **Mr.** KERRY; **Ms.** COLLINS
... can not solve the **climate change** dilemma, but as we search ...
... cause and potential effects of **climate change,** it only makes sense that we ...

76. CONGRESSIONAL RECORD -- SENATE, Monday, February 11, 2002 , 148 Cong Rec S 592, Vol. 148, No. 11, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. REID
... Clean Air, Wetlands and **Climate Change** Mr. REID . Mr. ...
... Clean Air, Wetlands, and **Climate Change** be authorized to meet on Monday, ...

77. CONGRESSIONAL RECORD -- SENATE, Friday, February 08, 2002 , 148 Cong Rec S 528, Vol. 148, No. 10, AGRICULTURE, CONSERVATION, AND RURAL ENHANCEMENT ACT OF 2001_Continued
Senate
Mr. REID; **Mr.** BAUCUS; **Mr.** CONRAD; **Mrs.** CARNAHAN; **Mr.** HARKIN; **Mr.** LEAHY; **Mr.** BYRD
... I don't know whether it is **climate change** that is causing this or **global warming.** All I know is that very strange ...

78. CONGRESSIONAL RECORD -- SENATE, Thursday, February 07, 2002 , 148 Cong Rec S 489, Vol. 148, No. 9, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. KERRY; **Mrs.** LINCOLN; **Mr.** JEFFORDS; **Ms.** COLLINS; **Mr.** FRIST; **Mr.** WELLSTONE; **Mr.** NELSON of Florida; **Mr.** CRAIG; **Mr.** HUTCHINSON; **Mr.** McCAIN; **Mr.** DASCHLE
... while significantly reducing **greenhouse gas** emissions over the next ...
... improvements in reducing **greenhouse gas** emissions, fuel consumption, and ...
... critical goal of reducing **greenhouse gas** emissions. At the recent World ...
... out of 142 on reducing **greenhouse gas** emissions, one of the key ...
... address the complex issue of **greenhouse gas** emissions. The bill I am ...
... one of the major industrial **greenhouse gas** emitters, the automotive industry. ...
... for entities to register **greenhouse gas** emissions reductions. The registry would ...
... based Initiatives for **Greenhouse Gas** Reduction Sec. 201. ...
... Act of 2002.". (b) **Greenhouse Gas** Credits Applied to CAFE ...
... end the following: "(g) **Greenhouse Gas** Credits._ "(1) In ...
... BASED INITIATIVES FOR **GREENHOUSE GAS** REDUCTION SEC. 201. ...
... registry system for **greenhouse gas** trading among industry ...
... voluntary actions to reduce **greenhouse gas** emissions and increase energy ...
... entities to record voluntary **greenhouse gas** emissions reductions; in ...
... baselines and to monitor and track **greenhouse gas** emissions; and (B) establishing ...
... Standards and Technology for **greenhouse gas** baselines and reductions generally; and (...
... against any future mandatory **greenhouse gas** reductions required by the ...
... for the implementation of the mandatory **greenhouse gas** emission reduction program, ...
... expert in the field of **greenhouse gas** emissions reduction, certification, or ...
... States Code, for **greenhouse gas** reduction, certification, and trading ...
... measurement, verification, and recording of **greenhouse gas** emissions and **greenhouse gas** emission reductions by ...
... measuring, verifying, and recording **greenhouse gas** emissions and **greenhouse gas** emission reductions proposed to the ...
... new forms of acceptable **greenhouse gas** reduction certification procedures. (...
... registry from_ (A) owning **greenhouse gas** emission reductions recorded ...
... engaged in trading of **greenhouse gas** emission reductions, subject to ...
... measure, verify, and record **greenhouse gas** emissions and **greenhouse gas** emission reductions, taking into ...
... not double-count **greenhouse gas** emission reductions; and (B) if **greenhouse gas** emission reductions are recorded ...
... 3) determining the ownership of **greenhouse gas** emission reductions and recording and tracking the transfer of **greenhouse gas** emission reductions among ...
... assignment of serial numbers to **greenhouse gas** emission reductions); (4) ...
... technologies; (5) measuring **greenhouse gas** emission reductions resulting from ...
... 6) measuring prevented **greenhouse gas** emissions through the rulemaking ...
... projections for prevented **greenhouse gas** emissions in tons ...
... In this title: (1) **Greenhouse gas.**_The term "**greenhouse gas**" includes_ (A) carbon ...
... baseline" means_ (A) the **greenhouse gas** emissions, determined on an entity- ...

... year annual average of **greenhouse gas** emissions prior to the date of ...
... 3-year period, the **greenhouse gas** emissions as of September 30, ...
... shall take into account **greenhouse gas** emission reductions or off- ...
... Secretary of Transportation. (4) **Greenhouse gas** emissions._The term "**greenhouse gas** emissions" means the quantity of ...
... greenhouse gases. (5) **Greenhouse gas** emission reduction._The term "**greenhouse gas** emission reduction" means ...
... difference between_ (A) the **greenhouse gas** emissions of a source ...
... a period; and (B) the **greenhouse gas** emissions of the source during ...
... Nations Framework Convention on **Climate Change** (including the Montreal Protocol to the ...
... recording quantified and verified **greenhouse gas** emissions and emissions reductions of ...
... means a source of **greenhouse gas** emissions. TITLE III_ ...

79. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 29, 2002 , 148 Cong Rec S 255, Vol. 148, No. 5, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. REID
... Clean Air, Wetlands, and **Climate Change** be authorized to meet on Tuesday, ...

80. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 23, 2002 , 148 Cong Rec S 15, Vol. 148, No. 1, NEW YORK'S GROUND ZERO CLEANUP: AHEAD OF SCHEDULE AND UNDER BUDGET
Senate
Mrs. CLINTON; **Mr.** DASCHLE
... Clean Air, Wetlands and **Climate Change** Subcommittee of the Environment and Public ...

81. CONGRESSIONAL RECORD -- SENATE, Thursday, December 20, 2001 , 147 Cong Rec S 13945, Vol. 147, No. 178, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. LUGAR; **Mr.** GRAHAM; **Ms.** MIKULSKI; **Mr.** HUTCHINSON; **Mr.** KERRY; **Mr.** JEFFORDS; **Mr.** FRIST; **Mr.** KENNEDY; **Mr.** LIEBERMAN; **Mrs.** BOXER; **Mr.** McCAIN; **Mr.** BIDEN; **Mr.** CORZINE; **Mr.** ROCKEFELLER; **Mr.** SESSIONS; **Mr.** HATCH; **Mr.** SMITH of Oregon; **Mr.** HARKIN; **Mrs.** HUTCHISON; **Mr.** MURKOWSKI; **Mr.** WELLSTONE; **Mr.** DODD; **Mr.** DeWINE; **Ms.** SNOWE; **Mr.** SPECTER
... system of United States **greenhouse gas** emissions to inform the public and ...
... posed by global **climate change.** I am pleased to be joined on this ...
... taking action to mitigate **climate change.** I appreciate their help ...
... introducing this legislation today. **Climate change** is an enormously complex issue ...
... year, the Intergovernmental Panel on **Climate Change** recently released its Third ...
... attributed to increased atmospheric **greenhouse gas** levels. We know that without ...
... sea levels due to **climate change.** I am concerned about this ...
... concerned about other **climate change** impacts across New ...
... companies can register **greenhouse gas** emissions reductions. In ...
... annual report on U.S. **greenhouse gas** emissions. I'd like to ...
... organizations to establish a **greenhouse gas** emission information system. ...
... estimates of other types of **greenhouse gas** emissions, such as process emissions, ...
... important as the reporting system is the **greenhouse gas** registry established by the ...
... set of actors to establish this **greenhouse gas** registry, which will enable companies to register **greenhouse gas** reductions. Many companies are ...

... reliable record of the sources of **greenhouse gas** emissions within our economy. This ...
... effective ways to reduce **greenhouse gas** emissions. Perhaps more ...
... continue to make voluntary **greenhouse gas** reductions. By requiring ...
... increased scrutiny with respect to their **greenhouse gas** emissions. But they will also have ...
... place where they can register their **greenhouse gas** reductions project in ...
... credits if a mandatory **greenhouse gas** emission reduction program is ever ...
... annually publish a **greenhouse gas** emissions inventory. This will be a national account of **greenhouse gas** emissions for our Nation, and ...
... incorporate the information submitted to the **greenhouse gas** information system and registry. ...
... challenges associated with measuring **greenhouse gas** emissions and reductions. But ...
... steps to address the threat of **climate change.** I ask unanimous ...
... may be cited as the "National **Greenhouse Gas** Emissions Inventory and Registry ...
... according to the Intergovernmental Panel on **Climate Change** and the National Research Council_ (...
... impacts from human-induced **climate change** pose a substantial ...
... 4) to begin to manage **climate change** risks, public and private ...
... quantities of United States **greenhouse gas** emissions. (b) Purpose._The ...
... establish a mandatory **greenhouse gas** inventory, registry, and information ...
... design efficient and effective **greenhouse gas** emission reduction strategies; and (3) will encourage **greenhouse gas** emission reductions. SEC. 3. **GREENHOUSE GAS** EMISSIONS. The Clean Air ...
... following: "TITLE VII_**GREENHOUSE GAS** EMISSIONS "SEC. 701. ...
... a threshold quantity of **greenhouse gas** emissions. "(2) Direct ...
... direct emissions' means **greenhouse gas** emissions from a source that is ...
... Federal agency. "(4) **Greenhouse gas.**_The term **greenhouse gas**' means_ "(A) carbon ...
... sulfur hexafluoride. "(5) **Greenhouse gas** emissions._The term **greenhouse gas** emissions' means emissions of a **greenhouse gas,** including_ "(A) stationary ...
... airplanes, and vessels. "(6) **Greenhouse gas** emissions record._The term **greenhouse gas** emissions record' means all of the historical **greenhouse gas** emissions and project reduction ...
... 704(c). "(7) **Greenhouse gas** report._The term **greenhouse gas** report' means an annual list of the **greenhouse gas** emissions of an entity and the sources of those ...
... indirect emissions' means **greenhouse gas** emissions that are a consequence of the ...
... entity. "(9) National **greenhouse gas** emissions information system._The term national **greenhouse gas** emissions information system' ...
... a). "(10) National **greenhouse gas** emissions inventory._The term national **greenhouse gas** emissions inventory' means the national inventory of **greenhouse gas** emissions established under ...
... 705. "(11) National **greenhouse gas** registry._The term national **greenhouse gas** registry' means the national **greenhouse gas** registry established under ...
... means_ "(A) a **greenhouse gas** emission reduction achieved ...
... carrying out a **greenhouse gas** emission reduction project; and "(...
... quantity for mandatory **greenhouse gas** reporting established by the ...
... independent assessment of whether a **greenhouse gas** report submitted by ...
... entity accurately reflects the **greenhouse gas** impact of the reporting entity. "SEC. 702. NATIONAL **GREENHOUSE GAS** EMISSIONS INFORMATION SYSTEM. "(...
... standards for reporting of **greenhouse gas** emissions, the Administrator shall ...
... administer a national **greenhouse gas** emissions information system to ...
... draft design of the national **greenhouse gas** emissions information system. "(...
... information in the national **greenhouse gas** emissions information system ...
... d) Relationship to Other **Greenhouse Gas** Registries._To the extent practicable, the ...
... coordination between the national **greenhouse gas** emissions information system and ...
... Federal, regional, and State **greenhouse gas** registries. "(e) Integration With ...
... information in the national **greenhouse gas** emissions information system with ...

... SEC. 703. NATIONAL **GREENHOUSE GAS** REGISTRY. "(a) Establishment._ ...
... standards for reporting of **greenhouse gas** emissions, the Administrator shall ...
... administer a national **greenhouse gas** registry to collect information ...
... information in the national **greenhouse gas** registry through the website of the ...
... c) Relationship to Other **Greenhouse Gas** Registries._To the maximum extent ...
... coordination between the national **greenhouse gas** registry and existing and developing Federal, regional, and State **greenhouse gas** registries. "(d) Integration With ...
... information in the national **greenhouse gas** registry with other environmental ...
... Mandatory Reporting to National **Greenhouse Gas** Emissions Information System._ "(...
... inclusion in the national **greenhouse gas** emissions information system, the **greenhouse gas** report of the covered entity with ...
... 2002; and "(ii) each **greenhouse gas** emitted by the covered ...
... Required elements._Each **greenhouse gas** report submitted under ...
... ii) shall express **greenhouse gas** emissions in metric ...
... dioxide equivalent of each **greenhouse gas** emitted; "(iii) shall specify the sources of **greenhouse gas** emissions that are included in the **greenhouse gas** report; "(iv) shall be ...
... shall submit to the Administrator the **greenhouse gas** report of the covered entity with ...
... year; and "(ii) each **greenhouse gas** emitted by the covered ...
... Required elements._Each **greenhouse gas** report submitted under ...
... a description of any adjustments to the **greenhouse gas** emissions record of the covered ...
... a source and a **greenhouse gas** that is subject to the mandatory reporting ...
... Voluntary Reporting to National **Greenhouse Gas** Registry._ "(1) In ...
... inclusion in the national **greenhouse gas** registry, with respect to the preceding calendar year and any **greenhouse gas** emitted by the entity_ "(...
... report activities that reduce **greenhouse gas** emissions or sequester a **greenhouse gas,** including_ "(A) fuel ...
... entity shall adjust the **greenhouse gas** emissions record of the reporting ...
... divestiture) shall adjust its **greenhouse gas** emissions record for ...
... middle of a year, the **greenhouse gas** emissions record of the reporting ...
... Calculation changes and errors._The **greenhouse gas** emissions record of a ...
... greenhouse gases in the **greenhouse gas** emissions record. "(4) Organizational growth or decline._The **greenhouse gas** emissions record of a ...
... statement included in the **greenhouse gas** report of the reporting entity ...
... significant adjustment in the **greenhouse gas** emissions record of the reporting ...
... significant change between the **greenhouse gas** emissions record for the preceding year and the **greenhouse gas** emissions reported for the ...
... for quantification and verification of **greenhouse gas** emissions; "(B) electronic ...
... for quantification and reporting of **greenhouse gas** emissions; and "(C) **greenhouse gas** accounting and reporting standards. "(...
... verify, in accordance with **greenhouse gas** accounting and reporting standards ...
... d)(1)(C), that the **greenhouse gas** report of the reporting entity_ "(...
... actual reductions in **greenhouse gas** emissions or actual increases ...
... SEC. 705. NATIONAL **GREENHOUSE GAS** EMISSIONS INVENTORY. "Not ...
... publish a national **greenhouse gas** emissions inventory that includes_ "(...
... quantity of United States **greenhouse gas** emissions for the second ...
... A) for each **greenhouse gas,** an estimate of the quantity of emissions ...
... sources of United States **greenhouse gas** emissions; and "(C) a ...
... in developing the national **greenhouse gas** emissions inventory; and "(2) ...
... information reported to the national **greenhouse gas** emissions information system and the national **greenhouse gas** registry. "SEC. 706. ...
... accounting, reporting, and verification of **greenhouse gas** emissions. "(c) National **Greenhouse Gas** Emissions

Information System._ ...
... necessary to establish the national **greenhouse gas** emissions information system. "(d) National **Greenhouse Gas** Registry._Not later than ...
... necessary to establish the national **greenhouse gas** registry. "(e) Mandatory ...
... carbon dioxide, an important **greenhouse gas.** This struck me as a return to ...
... Nations Framework Convention on **Climate Change** and the Kyoto Protocol has created ...
... contains a significant **climate change** title that does just that. This subject ...
... national commitment to reduce **greenhouse gas** emissions to 1990 levels. ...
... Act to require reporting of **greenhouse gas** emissions from major sources and to ...
... make known the results of its **climate change** policy review and for ...
... issues more compelling than **global warming** and its effects. As many Senators ...
... entire planet through the **greenhouse effect,** according to the National Academy of ...
... includes concerted action on **climate change.** Ignoring that agenda for too ...
... 100 hundreds due to the **global warming** caused by **greenhouse gas** emissions. This would cause sugar ...
... economic effects related to **global warming and climate change.** Effects that will occur ...
... Pew Center on Global **Climate Change,** and the Institute for International ...
... requires reductions in **greenhouse gas** emission from the power generating ...
... complex dangers like **global warming.** It would be irresponsible in the extreme ...
... progress in adapting to the **climate change** we have already caused and on reducing **greenhouse gas** emissions to prevent greater ...
... studies of the possible effects of **global warming** on the Northeast. "In the most ...
... region explore how **global warming** could affect the coastline, economy and ...
... regional panels to examine **global warming,** and how the nation might ...
... in the atmosphere. They conclude that **global warming** is already occurring, noting that, on ...
... skeptical. He agrees that mild **global warming** seems likely to continue_ ...
... United States benefits from **global warming,"** said Mendelsohn, editor of the forthcoming "**Global Warming** and the American Economy." "To have New ...
... lead the battle against **global warming** would be deeply ironic, because it will be ...
... can adapt before **global warming** accelerates. "We will face an ...
... a co-author of the **climate change** report covering the New ...
... england Farther north, **global warming** could change flora and fauna, and ...
... tendency to be alarmist in **global warming** studies," Kinney said. "We could keep ...

82. CONGRESSIONAL RECORD -- SENATE, Tuesday, December 18, 2001 , 147 Cong Rec S 13424, Vol. 147, No. 176, AGRICULTURE, CONSERVATION, AND RURAL ENHANCEMENT ACT OF 2001_Continued
Senate
Mr. HARKIN; **Mr.** DORGAN; **Mr.** COCHRAN; **Mr.** McCAIN; **Mr.** McCAIN. ; **Mrs.** LINCOLN; **Mr.** GRAMM; **Mr.** LOTT; **Mr.** KERRY; **Ms.** SNOWE; **Mr.** SESSIONS; **Mr.** HUTCHINSON; **Ms.** LANDRIEU; **Mr.** GRASSLEY; **Mr.** ROBERTS; **Mr.** ROBERTS. ; **Mr.** CONRAD; **Mr.** BURNS; **Mr.** BURNS. ; **Ms.** STABENOW; **Mr.** WARNER; **Mr.** CAPO; **Mr.** BROWNBACK; **Mr.** ALLARD; **Mr.** SMITH of New Hampshire; **Mr.** REID
... carbon dioxide, a **greenhouse gas** linked to **climate change,** while also improving water and ...

83. CONGRESSIONAL RECORD -- SENATE, Monday, December 17, 2001 , 147 Cong Rec S 13352, Vol. 147, No. 175, ENERGY AND THE ENVIRONMENT
Senate
Mr. JEFFORDS
... emissions, the main cause of **global warming.** We in the Northeast live ...
... about emissions that cause **global warming,** and that harm our natural environment and the ...

... technologies, for reducing **greenhouse gas** emissions, and for promoting ...
... seriously address global **climate change.** The bill directs the development of ...
... development strategy to reduce **greenhouse gas** emissions. it incorporates a ...
... constructively on international negotiations on **climate change.** And, the legislation creates a mandatory **greenhouse gas** emission reporting and registry ...
... must also address global **climate change.** Fossil fuel combustion ...
... 85 percent of U.S. **greenhouse gas** emissions. While the Daschle/ ...
... provisions addressing global **climate change,** I am deeply concerned that administration of the **greenhouse gas** database is not placed with the ...
... consumers money, cut **greenhouse gas** emissions and decrease our dependence on ...
... cutting emissions and addressing **global warming.** As chairman of the Environment Committee, the ...
... considering legislation that would cap **greenhouse gas** emissions from the transportation sector, which is ...

84. CONGRESSIONAL RECORD -- SENATE, Friday, December 14, 2001 , 147 Cong Rec S 13292, Vol. 147, No. 174, ABM TREATY WITHDRAWAL
Senate
Mr. KERRY; **Mr.** HARKIN
... abandoned negotiations on the Kyoto **global warming** accord, gutted the small ...
... nuclear arms control, and **global warming?** Make no mistake, we have ...

85. CONGRESSIONAL RECORD -- SENATE, Thursday, December 13, 2001 , 147 Cong Rec S 13116, Vol. 147, No. 173, AGRICULTURE, CONSERVATION, AND RURAL ENHANCEMENT ACT OF 2001_Continued
Senate
Mr. LEVIN; **Mr.** BROWNBACK
... sequestration is the be-all and end-all of dealing with the **climate change** problem. But it can be ...
... in our toolbox to reduce **global warming.** I happen to think that ...
... jackhammer for those who are fighting the **climate change** issue. I conclude ...
... in addressing the issue of **climate change.** As we set farm policy ...
... by utilities and other **greenhouse gas** producers to offset carbon ...
... can not solve the **climate change** dilemma, but as we search ...
... cause and potential effects of **climate change,** it only makes sense that we ...
... market principles to reduce **climate change.** This is an important first step_which ...

86. CONGRESSIONAL RECORD -- SENATE, Thursday, December 13, 2001 , 147 Cong Rec S 13146, Vol. 147, No. 173, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. MURKOWSKI; **Mr.** DURBIN; **Mr.** BIDEN; **Mr.** CLELAND; **Mr.** ROCKEFELLER; **Mrs.** BOXER; **Mr.** HARKIN; **Mr.** LEAHY
... better understand global **climate change** has placed a high value of studying the Arctic where **climate changes** are most easily detected. ...

87. CONGRESSIONAL RECORD -- SENATE, Monday, December 10, 2001 , 147 Cong Rec S 12770, Vol. 147, No. 170, IN MEMORY OF JAMES CLOEREN AND JERRY NORTON.
Senate
Mr. SARBANES
... gravitational perturbations that reflect **climate changes.** The satellite program is called ...

88. CONGRESSIONAL RECORD -- SENATE, Thursday, December 06, 2001 , 147 Cong Rec S 12552, Vol. 147, No. 168, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. LUGAR; **Mr.** THOMPSON; **Mr.** WARNER; **Mr.** McCAIN; **Mr.** BROWNBACK
... proposed changes to the US Global **Climate Change** Program, USGCRP. It requires ...
... voluntary registry for **greenhouse gas,** GHG, reductions house ...
... take positive action on **climate change** today will be rewarded ...
... verify and prove actual **greenhouse gas** emission reductions. There are those who wonder why such ...
... Department of Energy and the uncertainty on the **climate change** issue. First, the new ...
... keeping track of proven **greenhouse gas** reductions, and will therefore, encourage ...
... certainty with regard to how the **climate change** issue will be handled. This ...
... insurance policy, of sorts, on the **climate change** issue. This is important because we need ...
... still unsettled with regard to the **climate change** issue, and that we should not move ...
... measures that will reduce **greenhouse gas** emissions without unduly ...

89. CONGRESSIONAL RECORD -- SENATE, Wednesday, December 05, 2001 , 147 Cong Rec S 12400, Vol. 147, No. 167, AGRICULTURAL, CONSERVATION, AND RURAL ENHANCEMENT ACT OF 2001_MOTION TO PROCEED
Senate
Mr. CONRAD; **Mr.** HARKIN; **Mr.** LUGAR; **Mr.** GRAMM; **Mr.** WELLSTONE; **Mr.** NELSON of Florida; **Mr.** BOND; **Mrs.** FEINSTEIN; **Mr.** HUTCHINSON; **Mr.** DORGAN; **Mr.** THOMAS; **Mr.** MILLER; **Mr.** MILLER. ; **Mr.** ALLEN; **Mr.** ALLARD; **Mr.** BINGAMAN; **Ms.** LANDRIEU; **Ms.** LANDRIEU. ; **Mr.** WARNER; **Mrs.** LINCOLN; **Mr.** GRAHAM; **Mrs.** CLINTON; **Mr.** REID
... protection of the environment and global-**climate-change**-related issues_keep those ...
... know, produces more **greenhouse gas** emissions per Btu of ...
... dealing with the issue of global **climate change,** a proposal Senators ...
... office to look at global **climate change** to come up with a ...
... integrated energy policy with **climate change** policy, and we have tried very hard to do that. We also have ...

90. CONGRESSIONAL RECORD -- SENATE, Wednesday, December 05, 2001 , 147 Cong Rec S 12448, Vol. 147, No. 167, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. JOHNSON; **Mr.** HOLLINGS; **Mr.** KENNEDY; **Mrs.** FEINSTEIN; **Mr.** LEAHY; **Mrs.** BOXER; **Mr.** CORZINE
... S. 1716, the Global **Climate Change** Act of 2001. These provisions ...
... better able to discern **climate change,** understand its patterns, and manage its ...

91. CONGRESSIONAL RECORD -- SENATE, Wednesday, December 05, 2001 , 147 Cong Rec S 12463, Vol. 147, No. 167, THE DEMOCRATIC ENERGY BILL
Senate
Mr. DASCHLE
... rising tide of global **climate change.** The way we generate and use ...
... prevent the catastrophic impacts of **global warming,** and whether we can make the air we ...
... international community on the issue of **climate change.** This bill includes **climate change** provisions developed by the ...
... included the Byrd-Stevens **climate change** legislation. This is a bipartisan and ...
... Stevens proposal with other **climate change** proposals from members on both ...
... 90%); LEGISLATORS (89%); **CLIMATE CHANGE** (89%); LEGISLATION (89%);

92. CONGRESSIONAL RECORD -- SENATE, Monday, December 03, 2001 , 147 Cong Rec S 12277, Vol. 147, No. 165, ENERGY BILL
Senate
Mr. REID; **Mr.** BURNS
... reduce air pollution, **greenhouse gas** emissions, and save consumers ...

93. CONGRESSIONAL RECORD -- SENATE, Monday, December 03, 2001 , 147 Cong Rec S 12284, Vol. 147, No. 165, SENATE VOTES
Senate
Mr. LIEBERMAN; **Mr.** WELLSTONE; **Mr.** MURKOWSKI. ; **Mr.** STEVENS; **Mr.** STEVENS. ; **Mr.** KERRY; **Mr.** INOUYE. ; **Mrs.** BOXER; **Mrs.** CLINTON
... vehicle that is contributing to the problem of **global warming.** Those products are used and manufactured_ ...
... precisely with the problems we face on **global warming.** Ask any of the leading scientists ...

94. CONGRESSIONAL RECORD -- SENATE, Friday, November 30, 2001 , 147 Cong Rec S 12224, Vol. 147, No. 164, DRILLING IN ANWR
Senate
Mr. LIEBERMAN; **Mr.** MURKOWSKI
... in air pollution and **greenhouse gas** emissions, among other ...

95. CONGRESSIONAL RECORD -- SENATE, Thursday, November 15, 2001 , 147 Cong Rec S 11936, Vol. 147, No. 158, THE REAL NEW WORLD ORDER
Senate
Mr. KYL
... American foreign policy is **global warming,** the internal combustion engine, ...

96. CONGRESSIONAL RECORD -- SENATE, Thursday, November 15, 2001 , 147 Cong Rec S 11941, Vol. 147, No. 158, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BOND; **Mr.** HARKIN; **Mr.** McCONNELL; **Mr.** CAMPBELL; **Mr.** GRASSLEY; **Mr.** KOHL; **Mr.** HATCH; **Mr.** FRIST; **Mr.** KENNEDY; **Mr.** BIDEN; **Mrs.** CARNAHAN; **Mrs.** HUTCHISON; **Mr.** KERRY; **Mr.** HOLLINGS
... action to address global **climate change,** and for other purposes; to the ...
... today to introduce the Global **Climate Change** Act of 2001. I am ...
... for compliance and international **greenhouse gas** emissions trading were reached, were ...
... clear path to reduce **greenhouse gas** emissions across the economy. ...
... examine the science and the solutions to **global warming.** We have heard testimony about the ...
... other technologies. The Global **Climate Change** Act of 2001 would help us ...
... committees for reducing our **greenhouse gas** emissions, as well as legislation to ...
... Commerce Committee. The Global **Climate Change** Act of 2001 will also ...
... bill would endorse the elevation of **climate change** issues in the Administration, ...
... task force on global **climate change** action chaired by the ...
... a multi-faceted **climate change** action strategy, including ...
... reporting, and verifica-tion of **greenhouse gas** emissions, which is essential to any efforts to ...
... reporting system for **greenhouse gas** emissions for entities ...
... system of reporting and trading **greenhouse gas** emissions. It would also require Commerce to ...
... annual reports showing **greenhouse gas** emissions and trends, including ...

... technical expertise in our **climate change** oversight role. The bill would ...
... critical component of reducing **greenhouse gas** emissions: technology innovation. The ...
... role in reducing **greenhouse gas** emissions. Specifically, it would utilize the ...
... admit that even if we stopped all **greenhouse gas** emissions tomorrow, the effects of **climate change** and variability will not ...
... coastal regions, to effects of **climate change,** including drought and sea ...
... national plan to address **climate change:** coordinated research, monitoring, ...
... reduce the threat of global **climate change** now. The **Climate Change** meetings in Marrakesh ...
... a cosponsor of the Global **Climate Change** Act of 2001. The Senate ...
... information possible about **global warming,** as well as other types of **climate changes.** Our investments are bearing fruit and we are ...
... about the potential threat of **global warming** and loss of the ozone layer. ...
... increased understanding of global **climate change,** as well as regional climate ...
... Understanding these and other impacts of **climate change** at the regional level is a ...
... other inevitable results of **climate change.** It is costly in human ...
... interest groups. The Global **Climate Change** Act of 2001 addresses this ...
... asked to review the report of the **Climate Change** Action Task Force. The Global **Climate Change** Act of 2001 demonstrates that the ...
... Transportation is serious about **climate change,** and I commend this Act to you.

97. CONGRESSIONAL RECORD -- SENATE, Thursday, November 08, 2001 , 147 Cong Rec S 11612, Vol. 147, No. 154, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BIDEN; **Mr.** FEINGOLD; **Mr.** SCHUMER; **Mr.** DeWINE; **Mr.** HUTCHINSON; **Mrs.** FEINSTEIN; **Mr.** Feingold; **Mr.** LEAHY; **Mr.** DOMENICI; **Mr.** HOLLINGS; **Mr.** McCAIN
... U.S.C. 7412). (3) **Greenhouse gas.**_The term "**greenhouse gas**" means a natural or ...

98. CONGRESSIONAL RECORD -- SENATE, Friday, November 02, 2001 , 147 Cong Rec S 11413, Vol. 147, No. 150, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. HARKIN
... problems of air pollution and **global warming.** Renewable energy from farms ...

99. CONGRESSIONAL RECORD -- SENATE, Thursday, November 01, 2001 , 147 Cong Rec S 11356, Vol. 147, No. 149, COMBATING INTERNATIONAL TERRORISM
Senate
Mr. LEAHY
... same is true of AIDS, **global warming,** and so many other problems. This ...

100. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 24, 2001 , 147 Cong Rec S 10924, Vol. 147, No. 143, FOREIGN OPERATIONS EXPORT FINANCING AND RELATED PROGRAMS APPROPRIATIONS ACT, 2002_Continued
Senate
Mr. LEAHY; **Mr.** SMITH of Oregon; **Mr.** SPECTER; **Mr.** SPECTER. ; **Mr.** REID; **Mr.** GRAHAM; **Mr.** WELLSTONE; **Mr.** McCONNELL; **Mr.** FEINGOLD; **Mr.** FEINGOLD. ; **Mr.** DURBIN; **Mr.** DODD; **Mr.** FRIST; **Mr.** BROWNBACK; **Mr.** KYL; **Mrs.** HUTCHISON; **Mr.** SANTORUM; **Mr.** THOMPSON; **Mr.** THOMPSON. ; **Mr.**

KERRY; **Mr.** KERRY. ; **Mr.** VOINOVICH; **Mr.** HELMS; **Mr.** CONRAD; **Mr.** KENNEDY; **Mr.** McCAIN; **Mr.** CRAIG; **Mr.** DASCHLE
... Traditionally, GEF's focus has been on **global warming,** biodiversity, international waters, and the ...
... nation acting alone, such as **global warming.** Poor nations which struggle to ...

101. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 23, 2001 , 147 Cong Rec S 10879, Vol. 147, No. 142, FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS APPROPRIATIONS ACT, 2002
Senate
Mr. REID; **Mr.** LEAHY; **Mr.** McCONNELL; **Mr.** STEVENS; **Mrs.** CLINTON
... report, verify, and reduce **greenhouse gas** emissions; increase carbon sequestration activities; and enhance **climate change** mitigation programs. cyprus Of the ...
... for the International Panel on **Climate Change,** the United Nations Framework Convention on **Climate Change,** the World Conservation Union, the ...
... programs aimed at reducing **greenhouse gas** emissions: Provided, That such assistance ...
... security forces to justice. **greenhouse gas** emissions report Sec. ...
... domestic and international, for **climate change** programs and activities in ...
... each agency identifying **climate change** activities and associated costs ...
... report, verify, and reduce **greenhouse gas** emissions, and to meet their responsibilities under the Framework Convention on **Climate Change;** (3) all funds requested ...
... reporting, verification, and reduction of **greenhouse gas** emissions reductions, to promote the ...
... assessments of the vulnerability to impacts of **climate change** and response strategies; and (4) all ...
... International Development for **climate change** programs and activities by ...

102. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 23, 2001 , 147 Cong Rec S 10899, Vol. 147, No. 142, TERRORISM WILL NOT WIN
Senate
Mr. DASCHLE
... swamp all these positive developments. **Climate change,** the water shortage, the deterioration of ...
... no, long before **global warming** gets us, the public health ...

103. CONGRESSIONAL RECORD -- SENATE, Thursday, October 18, 2001 , 147 Cong Rec S 10836, Vol. 147, No. 141, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. REID; **Mr.** ENZI; **Mr.** HATCH; **Ms.** COLLINS
... States, effectively eliminating the **greenhouse gas** equivalent of 233 million ...

104. CONGRESSIONAL RECORD -- SENATE, Monday, October 15, 2001 , 147 Cong Rec S 10674, Vol. 147, No. 138, HOMELAND ENERGY SECURITY
Senate
Mr. MURKOWSKI
... reduce air pollution and **greenhouse gas** emissions. Defense groups ...

105. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 09, 2001 , 147 Cong Rec S 10380, Vol. 147, No. 134, THE U.S. ROLE IN OCEAN EXPLORATION

Senate
Mr. AKAKA
... oceans in global **climate change,** weather patterns and carbon ...

106. CONGRESSIONAL RECORD -- SENATE, Thursday, October 04, 2001 , 147 Cong Rec S 10262, Vol. 147, No. 132, AFTER SEPTEMBER 11
Senate
Mr. DURBIN
... deeper and angrier. We could defeat **climate change** if we chose to. Kyoto is right. We ...
... lesson of the financial markets, **climate change,** international terrorism, nuclear ...

107. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 26, 2001 , 147 Cong Rec S 9846, Vol. 147, No. 127, ENERGY SECURITY
Senate
Mr. MURKOWSKI
... international efforts to combat **global warming.** Delegates from around 180 ...
... gases blamed for **global warming.** They are due to try again ...
... global issues, including **global warming,** which cannot simply be ignored. . . . We have ...

108. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 26, 2001 , 147 Cong Rec S 9851, Vol. 147, No. 127, NATIONAL ENERGY POLICY
Senate
Mr. JEFFORDS; **Mr.** INHOFE; **Mr.** DURBIN.
... necessary to address global **climate change.** The amendments will dramatically increase U.S. **greenhouse gas** emissions. That further violates our ...
... U.N. Framework Convention on **Climate Change** begins in late ...
... U.S. leadership to combat **global warming.** Whatever the administration may ...
... ratified commitment to reduce **greenhouse gas** emissions. The underlying bill ...
... ENERGY REGULATION (90%); **CLIMATE CHANGE** (90%); EMISSIONS (90%);

109. CONGRESSIONAL RECORD -- SENATE, Monday, September 10, 2001 , 147 Cong Rec S 9209, Vol. 147, No. 116, DEPARTMENTS OF COMMERCE, JUSTICE, AND STATE, THE JUDICIARY, AND RELATED AGENCIES APPROPRIATIONS ACT, 2002
Senate
Mr. HOLLINGS; **Mr.** GREGG; **Mr.** CRAIG; **Mr.** SMITH of New Hampshire; **Mr.** HARKIN; **Mr.** INOUYE; **Mr.** REID; **Mrs.** FEINSTEIN; **Mr.** NELSON of Florida; **Mr.** BYRD; **Mr.** HAGEL; **Mr.** DORGAN; **Mr.** DODD; **Mr.** DODD. ; **Mr.** ALLEN; **Mr.** LEAHY; **Mr.** CONRAD; **Mr.** LEVIN; **Ms.** STABENOW; **Mr.** CLELAND; **Mr.** CLELAND. ; **Mr.** EDWARDS
... diversity," marine resources and **climate change)** and family life (conventions on ...
... use of marine resources, and **climate change.** They include claims over ...
... flatly rejected the Kyoto **global warming** convention. It is no less ...

110. CONGRESSIONAL RECORD -- SENATE, Thursday, September 06, 2001 , 147 Cong Rec S 9156, Vol. 147, No. 115, ENERGY POLICY
Senate

Mr. BINGAMAN
... connection between energy and **global warming** is something that is becoming a ...
... challenges of the 21st century, and that is **climate change. Climate change** policy and energy policy are ...
... better information and policy on **greenhouse gas** emissions. Energy policy is ...

111. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 05, 2001 , 147 Cong Rec S 9091, Vol. 147, No. 114, EXPORT ADMINISTRATION ACT OF 2001
Senate
Mr. REID; **Mr.** SARBANES; **Mr.** THOMPSON. ; **Mr.** KYL; **Mr.** ENZI; **Mr.** BENNETT
... conditions as a result of **global warming.** Using two projected ...
... see Stone SouperComputer's **Global Warming** Forecast the future of clusters The ...

112. CONGRESSIONAL RECORD -- SENATE, Friday, August 03, 2001 , 147 Cong Rec S 8887, Vol. 147, No. 112, U.S. PARTICIPATION IN GLOBAL CLIMATE CHANGE RESPONSE
Senate
Mr. BYRD
... worldwide response to global **climate change.** I am disappointed, however, that the United ...
... serious problem of global **climate change.** While I believe that the ...
... under which a treaty on **climate change** may be ratified. Developing ...
... no difference if a **greenhouse gas** is released from a factory ...
... carbon dioxide, which is a **greenhouse gas,** and attempting to improve the compliance ...
... next round of negotiations on **climate change** will begin in ...
... multilateral plan to address **climate change** before that conference, I ...
... world agrees that any treaty on **climate change** will be of limited use ...
... will help us to reduce our **greenhouse gas** emissions in a ...
... rejoining the negotiations on global **climate change,** and directing those negotiations toward ...
... upon the Senate's position on **climate change.** Sponsored by Senator ...
... States must address **climate change** both domestically and internationally, and ...
... other, future binding **climate change** agreement, that includes developing ...
... Formulating an international response to **climate change** is an ambitious goal. It is a ...
... a multilateral treaty on **climate change.** I yield the floor. The ...
CLIMATE CHANGE (92%); DEVELOPING COUNTRIES (...

113. CONGRESSIONAL RECORD -- SENATE, Friday, August 03, 2001 , 147 Cong Rec S 8894, Vol. 147, No. 112, CAP AND TRADE APPROACH TO CLIMATE CHANGE
Senate
Mr. McCAIN; **Mr.** LIEBERMAN
... issues of global concern, **climate change.** The science surrounding this issue has ...
... curb our growing problem of **global warming** without seriously harming our ...
... Science and the International Panel on **Climate Change,** IPCC. These reports conclude that ...
... climate, there are no boundaries. Therefore, **climate change** is an global problem and must be ...
... going to be part of it. The risks that **climate change** poses for businesses have ...
... risk of unpredictable impacts of **global warming,** and of unpredictable regulation of **greenhouse gas** emissions, American companies ...
... American approach to the threat of **climate change.** In 1994, the Arizona ...
... commitment to DOE to reduce **greenhouse gas** emissions. After receiving the ...
... comprehensive cap on America's **greenhouse gas** emissions, paired with an allowance ...

... value per unit of **greenhouse gas.** This can be especially helpful as ...
... system for addressing **climate change** is evolving. Only a ...
... global marketplace for **greenhouse gas** cap-and-trade is beginning. ...
... in the emerging global **greenhouse gas** marketplace. I think it is ...
... address this problem of global **climate change.** Mr. LIEBERMAN . Mr. ...
... historic action against **global warming** by agreeing to the Kyoto ...
... general scientific agreement that **climate change** is a problem we must ...
... Nation's Intergovernmental Panel on **Climate Change** released its Third Assessment Report on **global warming.** According to this panel of expert ...
... find ways to stop **global warming,** the Earth's average temperature ...
... due to the increase in **greenhouse gas** concentrations accurately reflects the ...
... worldwide market in **greenhouse gas** reductions, using market ...
... efficiency gains_and therefore reducing its **greenhouse gas** emissions. Those credits will be ...
... next international meeting on **climate change** in Marrakesh, Morocco ...
... treaty, the Kyoto Protocol on **global warming.** Japan and Europe appear ...
... EMISSION CREDITS (90%); **CLIMATE CHANGE** (90%); TREATIES & AGREEMENTS (...
... TREATIES & AGREEMENTS (59%); **GLOBAL WARMING** (59%);

114. CONGRESSIONAL RECORD -- SENATE, Thursday, August 02, 2001 , 147 Cong Rec S 8629, Vol. 147, No. 111, DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT, AND INDEPENDENT AGENCIES APPROPRIATIONS ACT, 2002
Senate
Mr. NELSON of Florida; **Ms.** MIKULSKI; **Mr.** BOND; **Mrs.** CLINTON; **Mr.** KENNEDY; **Mr.** SMITH of New Hampshire; **Mr.** KYL; **Mr.** JEFFORDS; **Mr.** ALLEN; **Mr.** ALLEN. ; **Mr.** REID; **Mr.** SCHUMER; **Mr.** SCHUMER. ; **Mr.** McCAIN; **Mr.** McCAIN. ; **Mr.** BAUCUS; **Mr.** CRAIG; **Mr.** HATCH; **Mr.** FITZGERALD; **Mr.** DASCHLE; **Mr.** SESSIONS; **Mr.** MIKULSKI; **Mr.** HARKIN; **Mr.** HARKIN. ; **Mrs.** HUTCHISON; **Mr.** SPECTER; **Mr.** NELSON. ; **Mr.** ROCKEFELLER; **Mr.** TORRICELLI; **Mr.** LEVIN; **Mr.** Cleland; **Mr.** CLELAND. ; **Mr.** BROWNBACK; **Mr.** DORGAN; **Mr.** REED
... Space Telescope, global **climate change** research by remotely ...

115. CONGRESSIONAL RECORD -- SENATE, Thursday, August 02, 2001 , 147 Cong Rec S 8709, Vol. 147, No. 111, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BINGAMAN; **Mr.** KERRY; **Mr.** GRAHAM; **Mr.** BAUCUS; **Mr.** VOINOVICH; **Mr.** DOMENICI; **Mr.** REID; **Mr.** LEAHY; **Mr.** BROWNBACK; **Mr.** KENNEDY; **Mr.** NELSON of Florida; **Mr.** MURKOWSKI; **Mr.** HATCH; **Mr.** KOHL; **Mr.** INHOFE; **Mr.** NICKLES; **Mr.** LIEBERMAN; **Mr.** LUGAR; **Ms.** LANDRIEU; **Mr.** JEFFORDS; **Mr.** HARKIN; **Mr.** TORRICELLI; **Mr.** WARNER; **Mr.** DeWINE; **Ms.** CANTWELL
... air pollution, including **greenhouse gas** emissions. They are not subject to ...

116. CONGRESSIONAL RECORD -- SENATE, Wednesday, August 01, 2001 , 147 Cong Rec S 8505, Vol. 147, No. 110, DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS ACT, 2002_Resumed
Senate
Mrs. MURRAY; **Mr.** McCAIN; **Mr.** GRAMM; **Mrs.** HUTCHISON; **Mr.** ALLARD; **Mr.** REID; **Mr.** HOLLINGS; **Mr.** LOTT; **Mr.** DORGAN; **Mr.** ALLEN; **Ms.** MIKULSKI; **Mr.** WARNER; **Mr.** SARBANES; **Ms.** MURRAY; **Mr.** NELSON of Florida; **Mr.** NELSON. ; **Mr.** BINGAMAN; **Mr.** BINGAMAN. ; **Mr.** WYDEN. ; **Mr.** GRAHAM; **Mr.** BAYH; **Mr.** LUGAR; **Mrs.** FEINSTEIN; **Mrs.** FEINSTEIN. ; **Ms.** COLLINS. ; **Mr.** WELLSTONE; **Ms.**

STABENOW; **Mr.** LEVIN; **Mr.** SCHUMER; **Mr.** SHELBY; **Mr.** FRIST; **Mr.** THOMPSON; **Ms.** SNOWE. ; **Mr.** DASCHLE
... international efforts to limit **global warming,** small arms, biological ...

117. CONGRESSIONAL RECORD -- SENATE, Wednesday, August 01, 2001 , 147 Cong Rec S 8579, Vol. 147, No. 110, Senate
Senate
Mr. LOTT; **Mr.** SHELBY; **Mr.** SNOWE; **Mr.** GRASSLEY; **Mr.** HATCH; **Mrs.** CARNAHAN; **Mr.** EDWARDS; **Mr.** CRAIG; **Mr.** HAGEL; **Mr.** LEVIN; **Mr.** THOMAS; **Mr.** DODD; **Mr.** DURBIN; **Mr.** HARKIN; **Mr.** DOMENICI; **Mr.** BOND
... reduction, avoidance, and sequestration of **greenhouse gas** emissions and to advance global ...
... manage the risk of potential **climate change,** ensure long-term ...
... 1974 with respect to potential **climate change;** to the Committee on Energy and Natural ...
... a path forward on the **climate change** issue that will meet the ...
... needs. The first bill is the **Climate Change** Tax Amendments of 2001 which is ...
... understanding of the science available on **climate change,** I remain convinced that it is ...
... deployment. Although the science of **climate change** has progressed rather dramatically ...
... happening to our climate system. However, the **climate change** issue is at a crossroads. We ...
... scientific issues associated with **climate change.** While pursuing answers to those ...
... reducing, avoiding, or sequesting **greenhouse gas** emissions. That program is manifest ...
... reduce, avoid, or sequester **greenhouse gas** emissions. To bolster and strengthen the ...
... reduce, avoid, or sequester **greenhouse gas** emissions without creating ...
... legislation. The companion bill is the **Climate Change** Risk Management Act of ...
... solve the remaining mysteries of **climate change.** A strong and consistent ...
... a comprehensive package on **climate change** before the end of the 107th ...
... shape and implement policy on **climate change.** It is a responsible effort to ...
... for assessing the effects of **greenhouse gas** emissions; 2. accelerate ...
... U.S. technology to mitigate **climate change** to the developing world; 4. ...
... future government response to **climate change** depends on that more than anything ...
... Act may be cited as the "**Climate Change** Tax Amendments of 2001". ...
... RESEARCH AND DEVELOPMENT REGARDING **GREENHOUSE GAS** EMISSIONS REDUCTION, AVOIDANCE, OR ...
... reducing, avoiding, or sequestering of **greenhouse gas** emissions, and "(B) has been reported to the ...
... take effect unless the **Climate Change** Risk Management Act of ...
... TAX CREDIT FOR **GREENHOUSE GAS** EMISSIONS FACILITIES. (a) Allowance of **Greenhouse Gas** Emissions Facilities Credit._ ...
... end the following: "(4) the **greenhouse gas** emissions facilities credit.". (...
... 48A. CREDIT FOR **GREENHOUSE GAS** EMISSIONS FACILITIES. "(a) ...
... purposes of section 46, the **greenhouse gas** emissions facilities credit ...
... investment in a **greenhouse gas** emissions facility for such taxable year. "(b) **Greenhouse Gas** Emissions Facility._For ...
... subsection (a), the term **greenhouse gas** emissions facility' means ...
... reduces, avoids, or sequesters **greenhouse gas** emissions on a per ...
... reduction, avoidance, or sequestration of **greenhouse gas** emissions described in ...
... year, the basis of a **greenhouse gas** emissions facility placed ...
... will qualify as a **greenhouse gas** emissions facility which is being ...
... D) Only construction of **greenhouse gas** emissions facility to be taken into ...
... Special rules relating to **greenhouse gas** emissions facility._For ...
... years with respect to a **greenhouse gas** emissions facility (as defined ...

... depreciate under this title the **greenhouse gas** emissions facility disposed of, and whose ...
... sentence, the year of disposition of the **greenhouse gas** emissions facility property ...
... expenditures for a **greenhouse gas** emissions facility under ...
... 38 regarding a **greenhouse gas** emissions facility." (d) ...
... iv) the portion of the basis of any **greenhouse gas** emissions facility attributable to any ...
... 48A. Credit for **greenhouse gas** emissions facilities." (e) ...
... Reduction, Avoidance, or Sequestration of **Greenhouse Gas** Emissions._ (1) In ...
... reduction, avoidance, or sequestration of **greenhouse gas** emissions. For purposes of this ...
... reduction, avoidance, or sequestration of **greenhouse gas** emissions and to ensure that the incentives ...
... economic incentives for **greenhouse gas** emissions facilities comparable to those ...
... for legislative action. The **Climate Change** Tax Amendments of 2001_ ...
... reduction avoidance, and sequestration of **greenhouse gas** emissions and to advance global ...
... designates the short title as the "**Climate Change** Tax Amendments." Section ...
... R & D involving **climate change.** In order for ...
... becomes law, and only if the **Climate Change** Risk Management Act of ...
... tax credits for **greenhouse-gas**-emission reduction facilities. **Greenhouse Gas** Emissions Facility Credit The ...
... based upon the amount of **greenhouse gas** emission reductions reported and ...
... in a "reduced **greenhouse gas** emissions facility." For ...
... efficient one that reduced **greenhouse gas** emissions by 18 ...
... investment in that "reduced **greenhouse gas** emissions facility". Such facility is ...
... facility of the taxpayer; which reduces **greenhouse gas** emissions (on a per ...
... relating to voluntary reporting of **greenhouse gas** emission reductions). Only that ...
... qualify as a reduced **greenhouse gas** emission facility. Election ...
... in tax equal to the **greenhouse gas** emissions facility investment ...
... for Voluntary Reduction of **Greenhouse Gas** Emissions The Secretary of Energy and the ...
... recoupable expenditures on the reduction of **greenhouse gas** emissions. An expenditure qualifies if it is ...
... economic incentives for **greenhouse gas** emission reductions comparable to the ...
... Act may be cited as the "**Climate Change** Risk Management Act of ...
... ultimately contribute to global **climate change** beyond that resulting from natural ...
... although the science of global **climate change** has been advanced in the past ...
... years, the timing and magnitude of **climate change**-related impacts on the United ...
... Research Council review of **climate change** science suggests that without an ...
... degree of uncertainty regarding **climate change** and its impacts, decision-makers could ...
... ways to manage the risk of **climate change;** (4) despite this uncertainty, the ...
... impacts from human-induced **climate change** pose a substantial ...
... 5) given that the bulk of **greenhouse gas** emissions from human activities ...
... influence the extent and timing of any **climate change** and resultant impacts from **climate change** later this century; (6) the ...
... require that stabilization of atmospheric **greenhouse gas** concentrations at any future level ...
... capital suggest that effective **greenhouse gas** management efforts will ...
... constitute the major source of **greenhouse gas** emissions in the 21st ...
... program to address the risks of **climate change** that does not fully include ...
... security and manage the risk of **climate change** is needed, and should be promoted by the ...
... geosphere and their interactions. "(c) **Climate Change.**_The term **climate change'** means a change ...
... account any reductions due to **greenhouse gas** sequestration. "(e) Greehouse ...
... mechanism which removes a **greenhouse gas** or its precursor from the atmosphere or from emissions ...
... SEC. 4. NATIONAL **CLIMATE CHANGE** STRATEGY. "(a) In ...
... SEC. 1601. NATIONAL **CLIMATE CHANGE** STRATEGY. "(a) In ...
... posed by potential **climate change.** "(b) Goal._The strategy ...

... Nations Framework Convention on **Climate Change,** done at New York on ...
... U.S. leadership with respect to **climate change**-related scientific research, ...
... ratio that the net U.S. **greenhouse gas** emissions bears to the U.S. ...
... natural and human-induced **climate change,** including the role of climate ...
... modeling, analysis and prediction of **climate change** and its impacts, and the economic, social and ...
... reduce, avoid, or sequester **greenhouse gas** emissions; "(4) develop and ...
... reduce, avoid or sequester **greenhouse gas** emissions, including_ "(i) ...
... Nations Framework Convention on **Climate Change;** "(5) advance areas where ...
... reduce, avoid or sequester **greenhouse gas** emissions; "(6) identify ...
... natural and human-induced **climate change;** "(7) recommend specific ...
... ratio that the net U.S. **greenhouse gas** emissions bears to the U.S. ...
... necessary to mitigate or adapt to **climate change** and its impacts in the short- ...
... a description of the national **climate change** strategy and its goals and Federal ...
... light of new knowledge of **climate change** and its impacts and costs or benefits, or ...
... description of all Federal spending on **climate change** for the current fiscal ...
... directly or indirectly attributable to **greenhouse gas** emissions reduction activities; and "(...
... in metric tons, of **greenhouse gas** emissions reduced, avoided or ...
... a review of the national **climate change** strategy and implementation plan ...
... contained in the national **climate change** strategy report in ...
... scientific knowledge regarding **climate change** and its impacts; "(B) new ...
... social and economic responses to **climate change,** and responses of natural ecosystems to **climate change;** "(C) advancements in ...
... otherwise mitigate the risks of **climate change;** "(D) new or revised ...
... quantitative technology goals and **greenhouse gas** emission reduction targets that ...
... sequester, avoid, or capture **greenhouse gas** emissions; "(iii) access to ...
... solutions to address anthropogenic **climate change;** and "(3) evaluates the quantitative ...
... in this section, and the technology and **greenhouse gas** emission reduction, avoidance or ...
... solutions to the effective management of **greenhouse gas** emissions in the long ...
... result in a **greenhouse gas** reduction per unit of ...
... Nations Framework Convention on **Climate Change,** shall require at least ...
... Nations Framework Convention on **Climate Change)** shall require at least ...
... SEC. 7. NATIONAL **GREENHOUSE GAS** EMISSIONS REGISTRY. Section ...
... annual reductions or avoidance of **greenhouse gas** emissions and carbon sequestration ...
... use of vehicles with reduced **greenhouse gas** emissions, methane recovery, ...
... reductions in, or avoidance of, **greenhouse gas** emissions achieved as a ...
... 5) Recognition of voluntary **greenhouse gas** emissions reduction, avoidance, or ...
... accuracy and reliability of reports of **greenhouse gas** reductions and related information. "(...
... inadvertently or otherwise, of some or all of the same **greenhouse gas** emissions reductions by ...
... reduce, avoid or sequester **greenhouse gas** emissions, or sequester greenhouse ...
... accuracy and reliability of reported **greenhouse gas** reductions and related information, are ...
... farmers in addressing **greenhouse gas** emission reductions and reporting such ...
... engaging in voluntary **greenhouse gas** emissions reduction measures and having the ...
... APPLIED ENERGY TECHNOLOGY AND **GREENHOUSE GAS**-MANAGEMENT. Section 1603 of the ...
... APPLIED ENERGY TECHNOLOGY AND **GREENHOUSE GAS** MANAGEMENT. "(a) Establishment._There is ...
... Applied Energy Technology and **Greenhouse Gas** Management. "(b) Function._The ...
... goals are consistent with any national **climate change** strategy; "(2) manage ...
... reduce, avoid, or sequester **greenhouse gas** emissions; and "(5) coordinate ...
... for the Department regarding **climate change** and related energy matters ...
... policy discussions of global **climate change,** including the activities of the Committee on ...

... for their effects on any kind of **climate change** globally and domestically and on the generation, ...
... program on_ "(A) potential **climate change,** including any known adverse and ...
... significant adverse effects of **climate change** and, where appropriate, to adapt, to the greatest extent practicable, to **climate change;** "(4) provide, consistent with ...
... public access to all information on **climate change,** effects of **climate change,** and adaptation to **climate change;** and "(5) in accordance with all ...
... United Nations FrameworkConvention on **Climate Change_** "(i) identify for, and ...
... assess the potential consequences of **climate change** on the United States; (5) ...
... uncertainty in assessments of **climate change** and its impacts on the United States; (...
... Program Working Groups. **Climate Change** Risk Management Act of ...
... Section 4_National **Climate Change** Strategy Amends Section ...
... posed by potential **climate change.** The goal of such strategy would be to implement the UN Framework Convention on **Climate Change** in a manner that ...
... net reductions of U.S. **greenhouse gas** emissions as measured against the ...
... science, technology, or economics of **climate change.** Section 5_Climate ...
... reduce, avoid or sequester **greenhouse gas** emissions. Authorizes $2 ...
... development goals with fewer **greenhouse gas** emissions. Authorizes $1 ...
... efficiency and reductions in **greenhouse gas** emissions relative to existing ...
... Section 7_National **Greenhouse Gas** Emissions Registry Amends ...
... development of national registry of **greenhouse gas** emissions baselines and actions to ...
... Applied Energy Technology and **Greenhouse Gas** Management Amends Section ...
... interagency activities with respect to **climate change** research and technology programs. ...
... reports on the state of U.S. **climate change** research. Authorizes $50 ...
... approach to domestic efforts on **climate change.** This legislation provides a ...
... approach to address the challenge of **climate change.** There's a lot we can do, and this ...
... approach that will reduce **greenhouse gas** emissions without damaging the ...
... reduce, sequester or avoid **greenhouse gas** emissions. These technologies are the long ...
... in this area. Specifically, the **Climate Change** Risk Management Act of ...
... for: a national **climate change** strategy; new funding to ...
... reduce, avoid or sequester **greenhouse gas** emissions $2 billion ...
... reduce, avoid or sequester **greenhouse gas** emissions; a pilot ...
... efforts in the area of **climate change.** I am pleased that Senators ...

118. CONGRESSIONAL RECORD -- SENATE, Monday, July 30, 2001 , 147 Cong Rec S 8373, Vol. 147, No. 108, ENERGY CRISIS
Senate
Mr. MURKOWSKI
... motor vehicles to reduce **global warming** pollution. Clean and renewable ...
... significantly cut emissions of **global warming** pollutants by setting ...

119. CONGRESSIONAL RECORD -- SENATE, Friday, July 27, 2001 , 147 Cong Rec S 8324, Vol. 147, No. 107, EXECUTIVE SESSION
Senate
Mr. REID; **Mr.** CRAIG; **Mr.** CRAIG. ; **Mr.** KYL
... critical to us and to our country as it relates to **climate change** and that whole debate, along with the ...

120. CONGRESSIONAL RECORD -- SENATE, Thursday, July 26, 2001 , 147 Cong Rec S 8282, Vol. 147, No. 106,

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mrs. CARNAHAN; **Mr.** LEAHY; **Ms.** SNOWE; **Ms.** COLLINS; **Mr.** SARBANES; **Mr.** WYDEN; **Mrs.** FEINSTEIN
... voluntary approach to combat **global warming.** It's not regulatory, and it's not ...
... in the battle against **global warming.** The legislation is entirely voluntary and ...
... afford to be a bystander on the **climate change** issue, and yet two ...
... in the Cold;" "Isolated on **Global Warming;**" "178 Nations Reach ...
... enormous issue of global **climate change.** But we believe this approach, this ...
... reduce the negative effects of **climate change.** Investing in healthy ...
... win strategy to slow **global warming.** The forestry component of this bill ...
... voluntary accounting and verification of **greenhouse gas** reductions from forestry and agricultural ...
... report real and credible **greenhouse gas** reductions. These guidelines are absolutely ...
... 2404(b) of the Global **Climate Change** Prevention Act of 1990 to ...
... for accurate reporting of **greenhouse gas** sequestration from soil carbon and ...
... land to the adverse effects of **climate change**). "(c) Membership._The Carbon ...
... accurate voluntary reporting of **greenhouse gas** sequestration from tree planting, ...
... for calculating net **greenhouse gas** reductions from biomass energy ...
... fossil fuels) on the displacement of **greenhouse gas** emissions from fossil fuels. "(...
... STORAGE AND SEQUESTRATION. The Global **Climate Change** Prevention Act of 1990 is ...
... available to the agency for **climate change** initiatives or **greenhouse gas** emission reductions.".
SEC. ...
... 2404(b) of the Global **Climate Change** Prevention Act of 1990 and ...
... b)(1) of the Global **Climate Change** Prevention Act of 1990; (...
... b)(1) of the Global **Climate Change** Prevention Act of 1990, and ...
... map for dealing with **climate change** through independent carbon ...

121. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 25, 2001 , 147 Cong Rec S 8155, Vol. 147, No. 105,
DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS ACT, 2002
Senate
Mrs. MURRAY; **Mr.** DORGAN; **Mr.** GRAHAM; **Mr.** REID; **Mr.** CLELAND; **Mr.** GRAMM; **Mr.** McCAIN; **Mr.** DASCHLE; **Mr.** BINGAMAN; **Mr.** BAUCUS; **Mr.** NELSON of Florida; **Mr.** TORRICELLI; **Mrs.** BOXER; **Mr.** SHELBY
... not concerned about **global warming?** Are we not getting ready to ...
... try to do something about **global warming?** Here we are about to address an amendment that is ...

122. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 25, 2001 , 147 Cong Rec S 8198, Vol. 147, No. 105,
RULES OF PROCEDURE OF THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
Senate
Mr. JEFFORDS
... Clean Air, Wetlands, and **Climate Change:** Transportation, Infrastructure, and Nuclear ...

123. CONGRESSIONAL RECORD -- SENATE, Thursday, July 19, 2001 , 147 Cong Rec S 7906, Vol. 147, No. 101,
NOMINATION OF JOHN D. GRAHAM OF MASSACHUSETTS TO BE ADMINISTRATOR OF THE OFFICE OF INFORMATION AND REGULATORY AFFAIRS, OFFICE OF MANAGEMENT AND BUDGET_Resumed
Senate
Mr. THOMPSON; **Mr.** DURBIN; **Mr.** DURBIN. ; **Mr.** WELLSTONE; **Mr.** NICKLES; **Mr.** LEVIN; **Mr.** LIEBERMAN; **Mr.** REID; **Mr.** VOINOVICH; **Mr.** GRAMM; **Mr.** KERRY; **Mrs.** CARNAHAN; **Mr.** SMITH of New

Hampshire; **Mr.** FEINGOLD; **Ms.** COLLINS; **Mr.** DASCHLE
... in drinking water, **global warming** emissions, ergonomics_or repetitive ...
... done a study on **global warming.** They pointed out certain ...
... atmosphere. We are all concerned about **global warming,** and this has a cooling effect. Does this ...

124. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 18, 2001 , 147 Cong Rec S 7839, Vol. 147, No. 100, ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT, 2002_Resumed
Senate
Mr. THOMAS; **Mr.** MURKOWSKI; **Mr.** REID; **Mr.** VOINOVICH
... express our concerns about **global warming.** One of the answers to **global warming,** of course, is nuclear energy. On the ...
... many questions associated with **global warming,** but the reality is that this industry ...
... remarks. There is the realization, as we look at **global warming,** there is definitely a place, ...
... gas, we have concerns about **global warming** and emissions. We do not have that particular ...
... making is significant to reducing **global warming.** We have had hearings on nuclear energy ...
... about which many of us are concerned, and that is **climate change.** Nuclear power is a ...

125. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 18, 2001 , 147 Cong Rec S 7884, Vol. 147, No. 100, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. REID
... regarding S. 1008, the **Climate Change** Strategy and Technology Innovation ...

126. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 17, 2001 , 147 Cong Rec S 7789, Vol. 147, No. 8, ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT, 2002_Continued
Senate
Mr. REID; **Mr.** JEFFORDS; **Mr.** DOMENICI; **Ms.** STABENOW; **Mr.** CONRAD; **Mr.** HUTCHINSON.
... including fine particulates and **global warming,** make it critically important that ...
... air pollution, including **greenhouse gas** emissions. They are not subject to the ...
... air pollution that produces **global warming.** We ought to be able to address some of those ...
... don't have to be worried about **global warming** to the extent that we reduce the very essence of **global warming** pollutants in the basic ...
... truly helps us with reference to **global warming** instead of hurting us. There are a ...
... without concern about **global warming.** This is a pretty big ...
... not bad for **global warming;** I will guarantee you that. If any ...
... committed to solving the problem of **global warming,** let them at least listen to ...
... commensurate with that growth, as far as **global warming** is concerned. Why should that be dismissed when it is that profound and ...
... no longer cause any **global warming,** but we have a problem of ...
... world without any effect on **global warming.** It is very doable. We ought to be excited ...
... causes some problems with reference to **global warming,** then it is an admission that other people ...
... POWER PLANTS (59%); **GLOBAL WARMING** (59%); WIND ENERGY (...

127. CONGRESSIONAL RECORD -- SENATE, Monday, July 16, 2001 , 147 Cong Rec S 7671, Vol. 147, No. 98, ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT, 2002_Continued
Senate

Mr. REID; **Mr.** DOMENICI
... address the possible threat of **global warming.** The policy is so clear on the first ...
... address the possible threat of **global warming.** Once again, those who have read the ...
... provides the tools to combat **global warming.** I'm convinced that we can have ...
... in America without **global warming.** And I'm equally convinced that we ...
... leadership to eliminate the threat of **global warming** by a commitment to ...
... without having any adverse impact on **global warming.** The research may lead to ...
... a major impact on **global warming** in the future. Incidentally, the ...
... powerplants do not contribute to **global warming.** In other words, the future is protected from the **global warming** pollution that comes from many of our ...
... provides tools to combat **global warming.** Further, we should ask the world to ...
... in America without **global warming.** I am equally convinced we ...
... leadership to eliminate the threat of **global warming** by a commitment to ...
... without adversely affecting **global warming.** Last year's energy and ...
... effect, no impact on **global warming.** I can say, it ...
... undeveloped because they cannot contribute to **global warming.** We will say we can all ...
... can do it without affecting **global warming** if we just say let's ...
... world prosper and put **global warming** behind us. Then we can ask, what is ...
... a negative impact on **global warming** and the future of our country and the world's ...

128. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 11, 2001 , 147 Cong Rec S 7441, Vol. 147, No. 96,
DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT, 2002
Senate
Mr. BYRD; **Mr.** BURNS; **Mr.** CONRAD; **Mr.** REID
... Nations Framework Convention on **Climate Change,** which has not been submitted to the Senate ...

129. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 11, 2001 , 147 Cong Rec S 7496, Vol. 147, No. 96,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mrs. FEINSTEIN; **Mr.** CORZINE; **Mr.** CARPER; **Mr.** EDWARDS; **Mr.** BIDEN; **Mr.** KOHL; **Mr.** BINGAMAN
... nation's energy consumption and **greenhouse gas** emission. The research necessary to ...

130. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 10, 2001 , 147 Cong Rec S 7433, Vol. 147, No. 95,
AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. REID
... 2001, at 9:30 a.m. on **climate change.** The PRESIDING OFFICER. Without ...

131. CONGRESSIONAL RECORD -- SENATE, Friday, June 29, 2001 , 147 Cong Rec S 7283, Vol. 147, No. 93,
NOTICES OF HEARINGS
Senate
Mr. BINGAMAN
... proposals related to global **climate change** and measures to mitigate **greenhouse gas** emission, including S. ...

132. CONGRESSIONAL RECORD -- SENATE, Thursday, June 28, 2001 , 147 Cong Rec S 7085, Vol. 147, No. 92,

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BINGAMAN; **Mr.** DOMENICI; **Mr.** LEAHY; **Mr.** DASCHLE; **Mrs.** BOXER; **Mr.** SMITH of Oregon; **Mr.** FEINGOLD; **Mr.** McCONNELL; **Mr.** BROWNBACK; **Mr.** ENZI; **Mr.** WARNER; **Mr.** CRAIG; **Mrs.** FEINSTEIN; **Mr.** CRAPO; **Mr.** LIEBERMAN; **Mr.** GRAHAM; **Mr.** SARBANES
... protect citizens. Emissions of **greenhouse gas** threaten to negatively change the ...
... reductions in future **climate change** implementation programs. Sec. ...
... streams; and (G) global **climate change** that may fundamentally and irreversibly ...
... carbon dioxide, the primary **greenhouse gas;** (9) on average, fossil ...
... owner or operator in any **climate change** implementation program; (8) to ...
... REDUCTIONS IN FUTURE **CLIMATE CHANGE** IMPLEMENTATION PROGRAMS. It is the sense of ...
... generating unit, in any **climate change** implementation program enacted ...
... contamination, help mitigate **climate change,** improve visibility, and safeguard ...
... Reductions in Future **Climate Change** Implementation Programs This section ...
... owner/operator in any **climate change** implementation program enacted ...

133. CONGRESSIONAL RECORD -- SENATE, Thursday, June 28, 2001 , 147 Cong Rec S 7125, Vol. 147, No. 92,
AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. REID
... science and technology studies on **climate change.** The PRESIDING OFFICER. Without ...

134. CONGRESSIONAL RECORD -- SENATE, Friday, June 22, 2001 , 147 Cong Rec S 6657, Vol. 147, No. 88,
ENERGY
Senate
Mr. MURKOWSKI; **Mr.** REID
... concerned about Kyoto, **global warming, climate change.** What particular source of energy ...

135. CONGRESSIONAL RECORD -- SENATE, Thursday, June 21, 2001 , 147 Cong Rec S 6622, Vol. 147, No. 87,
NOTICES OF HEARINGS
Senate
Mr. HARKIN; **Mr.** BINGAMAN; **Mr.** DODD
... science and technology studies on **climate change.** The hearing will take ...

136. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 19, 2001 , 147 Cong Rec S 6387, Vol. 147, No. 85,
PRESIDENT BUSH'S EUROPEAN TRIP
Senate
Mr. KYL
... old days. He then concedes there is **global warming** and promises action. "When President ...
... new research into the causes of **global warming,**" reported the Times just ...

137. CONGRESSIONAL RECORD -- SENATE, Thursday, June 14, 2001 , 147 Cong Rec S 6319, Vol. 147, No. 83,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mrs. HUTCHISON; **Mr.** JEFFORDS; **Mr.** SHELBY; **Mr.** FEINGOLD; **Mr.** INOUYE; **Mr.** REID; **Mr.** SARBANES;

Mr. DeWINE; **Mr.** LEAHY; **Mr.** TORRICELLI; **Mr.** SANTORUM; **Mr.** WARNER; **Mr.** HARKIN; **Mr.** AKAKA; **Mr.** KOHL; **Mrs.** FEINSTEIN; **Mrs.** MURRAY
... in almost no **global warming.** However, the sun, the wind, and even the ...
... pollution, water pollution, and **global warming** could make our earth unlivable. And if ...
... air pollution, global **climate change** and greenhouse gases, hydrogen is ...
... concerns about global **climate change** and energy security will ...

138. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 12, 2001 , 147 Cong Rec S 6078, Vol. 147, No. 81, GLOBAL WARMING
Senate
Mr. KERRY
... in which he addressed the question of **global warming** and our environment. There are many issues on the ...
... yesterday about the subject of **global warming,** and I think it is important to ...
... acceptable concepts with respect to **global warming.** The President did accept science at the ...
... system as complex as global **climate change,** there are uncertainties. Obviously, we have to continue ...
... ability to resolve the challenge of **climate change.** To underscore this point, the National ...
... week assessing our understanding of **climate change.** In addition to reaffirming the scientific consensus that **climate change** is underway and getting worse, the ...
... questioned the underlying science of **climate change** and attempted to reignite the debate ...
... fact of the Intergovernmental Panel on **Climate Change,** a scientific panel ...
... face today with respect to **global warming.** We are being told what the probabilities are, ...
... atmosphere, raising atmospheric **greenhouse gas** concentrations to levels unseen ...
... source of one-third of our **greenhouse gas** emissions. The idea of a ...
... move ahead in **climate change.** But it was rejected out of ...
... position that has an impact on global **climate change.** Further, while the administration ...
... declared the Kyoto Protocol on **climate change** to be dead, and still calls the ...
... efforts to try to deal with **climate change.** Whatever one thinks of the ...
... component of any plan to mitigate **climate change.** The President's budget cuts ...
... consider the threat of global **climate change.** It resurrects an energy policy ...
... efforts will increase our **greenhouse gas** pollution by as much as ...
... acted and is acting on the issue of **climate change** in a counterproductive ...
... not just about **global warming.** People are always talking ...
... alone what we would accomplish with respect to **global warming.** So we have a challenge in ...
... upside of gains on addressing **global warming** while having the upside on our economy. We should ...
... include a reduction of **greenhouse gas** emissions equal to taking ...
GLOBAL WARMING (90%); **CLIMATE CHANGE** (79%);

139. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 12, 2001 , 147 Cong Rec S 6129, Vol. 147, No. 81, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BUNNING; **Mr.** LEVIN; **Ms.** STABENOW; **Mr.** BINGAMAN; **Mr.** DODD; **Mrs.** MURRAY; **Mrs.** FEINSTEIN; **Mr.** HARKIN; **Mr.** LUGAR; **Mr.** BIDEN; **Mr.** WARNER
... essential to mitigating the threat of **climate change.** Worldwide, there is a net ...
... regulate and mitigate the process of **climate change.** They guide global patterns of ...

140. CONGRESSIONAL RECORD -- SENATE, Monday, June 11, 2001 , 147 Cong Rec S 6019, Vol. 147, No. 80, GLOBAL WARMING

Senate
Mr. NELSON of Florida
... arms around the problem of **global warming.** It was in Senator Byrd's ...
... shared was an experience of looking at **global warming** from the perspective of my past ...
... made on Friday about **global warming.** I was struck with the beauty of this ...
... introduced his legislation concerning **global warming; t**hat we better be serious and listen to the ...
... effects upon the consequences of **global warming,** and that we should be better stewards of what we have been given ...
... something about the rise of the **greenhouse effect** on planet Earth, then we better ...
GLOBAL WARMING (91%); PLANETS & ASTEROIDS (...

141. CONGRESSIONAL RECORD -- SENATE, Friday, June 08, 2001 , 147 Cong Rec S 6000, Vol. 147, No. 79,
CLIMATE CHANGE STRATEGY AND TECHNOLOGY INNOVATION ACT OF 2001
Senate
Mr. BYRD; **Mr.** NELSON of Florida; **Mr.** STEVENS; **Mr.** LIEBERMAN
... preparing an alternative to the 1997 **global warming** agreement that President Bush ...
... measures for reducing **greenhouse gas** emissions_an approach unacceptable to ...
... international negotiations on global **climate change.** In particular, I ...
... workable, responsible international **climate change** agreement. So I welcome the ...
... hammer out a **climate change** proposal among various ...
... stated that any international treaty on **climate change** must include binding ...
... recent years concerning **climate change.** But the body of evidence ...
... more moneys because of it_the reality that **global warming** is occurring. Today, Mr. President, I am introducing the **Climate Change** Strategy and Technology Innovation ...
... multifaceted problem of global **climate change.** This legislation also establishes a ...
... need to address the challenge of **climate change.** This legislation is intended to supplement, ...
... complementary proposals to deal with **climate change** in the near term on ...
... goal of stabilizing atmospheric **greenhouse gas** concentrations, and leaves the technology ...
... fundamental causes of global **climate change.** It is virtually indisputable that atmospheric ...
... concentrations drive global **climate change,** and they are growing as a result of ...
... political courage to tackle the **climate change** challenge in innovative ...
... development of a national **climate change** response strategy. The strategy ...
... new paradigm to deal with **climate change.** The first element defines ...
... dates to achieve stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... continuing research on the science of **climate change** to resolve the remaining uncertainties. To ...
... bring an increased focus to the **climate change** problem. To ensure that these goals are ...
... a global solution to the **climate change** challenge that we in Congress and those ...
... addressing the issue of global **climate change** through the Kyoto accords. And because the ...
... for others to say that **global warming** is not upon us. That counters all of the ...
... great deal to lose because **global warming** will cause the riseof the ...
... a part of our life, and **global warming** foretells, for us, an increased ...
... exposed to water. Increased **global warming** also portends, for the entire ...
... STEVENS . Mr. President, the **Climate Change** Strategy and Technology Innovation ...
... better understand global **climate change.** I thank my ...
... AK on the impact of global **climate change** on the arctic environment. Witnesses ...
... Witnesses noted that recent **climate change** activity likely stems from ...
... phenomenon or activity is contributing to **climate change** is not well understood. However, ...
... capabilities to understand global **climate change,** better planning capabilities to react to **climate change** impact, and better energy ...

... seriously and responsibly address the **climate change** issue. I look ...
... Senator Stevens with their introduction of the **Climate Change** Strategy and Technology Innovation ...
... taking action to address **global warming** in such a forthright and ...
... scrutiny and creative thought that **global warming** requires. I hope that it ...
... tree off of which other **climate change** measures will branch. As ...
... released their latest report on **climate change** at the request of the White House. The ...
... questions, and the answer was clear: **global warming** is "real," is caused by ...
... binding measures to address **climate change.** The mandate is clear, we must ...
... address the dire problem of **climate change.** We must accept this challenge and ...
CLIMATE CHANGE (90%); LEGISLATION (90%); **GLOBAL WARMING** (79%); EMISSIONS (79%); ...

142. CONGRESSIONAL RECORD -- SENATE, Friday, June 08, 2001 , 147 Cong Rec S 6009, Vol. 147, No. 79, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. REID; **Mr.** BYRD
... develop the United States **Climate Change** Response Strategy with the goal of stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... toward the goal of stabilization of **greenhouse gas** concentrations, to establish the National Office of **Climate Change** Rsponse within the Executive ...
... Act may be cited as the "**Climate Change** Strategy and Technology Innovation ...
... gases are contributing to global **climate change;** (2) in 1992, the ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... ultimate objective of which is the "stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... dangerous", the current trajectory of **greenhouse gas** emissions will lead to ...
... continued rise in **greenhouse gas** concentrations in the atmosphere, ...
... consequences of poorly designed **climate change** response strategies, or of inaction, ...
... States; (8) stabilization of **greenhouse gas** concentrations in the atmosphere ...
... precipitously and have not been focused on the **climate change** response challenge; and (B) the ...
... progress could be made on the issue of **climate change** if the United States were to adopt ...
... approach for addressing **climate change** that included, as an ultimate long- ...
... goal_ (A) stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... yield stabilized atmospheric **greenhouse gas** concentrations; (ii) a ...
... actions necessary to adapt to **climate change** that may have occurred or may occur under any future **climate change** scenario; and (iv) continued ...
... substantial scientific understanding of **climate change** that exists as of the date of enactment of this ...
... focal point for **climate change** response through_ (1) the establishment of the National Office of **Climate Change** Response within the Executive ...
... develop the United States **Climate Change** Response Strategy (referred to ...
... make toward addressing the **climate change** response challenge; and (ii) ...
... long-term stabilization of **greenhouse gas** concentrations in the atmosphere; (...
... Center for Strategic **Climate Change** Response within the Department of ...
... long-term stabilization of **greenhouse gas** concentrations in the atmosphere; and (...
... toward the goal of stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... 4. UNITED STATES **CLIMATE CHANGE** STRATEGY AND TECHNOLOGY INNOVATION. ...
... B_United States **Climate Change** Strategy and Technology Innovation " ...
... Center for Strategic **Climate Change** Response established by ...
... States Code. "(6) **Greenhouse gas.**_The term **greenhouse gas'** means an anthropogenic gaseous ...
... means the United States **Climate Change** Response Interagency Task ...
... result in stabilization of **greenhouse gas** concentrations; "(B) a ...

... actions necessary to adapt to **climate change** that may have occurred or may occur under any future **climate change** scenario; and "(D) research that ...
... economic uncertainties associated with **climate change** to the extent that those uncertainties bear on ...
... term goal of stabilization of **greenhouse gas** concentrations. "(9) Qualified ...
... knowledge that are relevant to addressing the **climate change** response challenge. "(B) ...
... science of primary and secondary **climate change** impacts; "(ii) energy and ...
... iv) the social dimensions of **climate change;** "(v) **climate change** adaptation strategies; "(vi) ...
... mechanisms for addressing **climate change;** "(xii) risk and decision ...
... xiv) the international implications of **climate change** response strategies. "(10) ...
... means the United States **Climate Change** Response Strategy Review ...
... Energy. "(12) Stabilization of **greenhouse gas** concentrations._The term stabilization of **greenhouse gas** concentrations' means the stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... means the United States **Climate Change** Response Strategy developed ...
... means the National Office of **Climate Change** Response of the Executive Office of the ...
... 1622. UNITED STATES **CLIMATE CHANGE** RESPONSE STRATEGY. "(a) ...
... develop the United States **Climate Change** Response Strategy, which shall_ "(...
... term goal of stabilization of **greenhouse gas** concentrations; "(2) build on the ...
... Nations Framework Convention on **Climate Change,** done at New York on ...
... culminate in the stabilization of **greenhouse gas** concentrations; "(4) incorporate ...
... reduce, avoid, and sequester **greenhouse gas** emissions; "(5) include an ...
... conducted to facilitate stabilization of **greenhouse gas** concentrations; "(9) in the ...
... overall cost of stabilization of **greenhouse gas** concentrations; and "(ii) considering ...
... systems as are necessary to adapt to **climate change** in the short term and the ...
... accuracy of predictions concerning **climate change** and the economic and social costs and opportunities relating to **climate change;** and "(E) changes that should be made to ...
... out a response to **climate change;** "(12) promote, to the maximum ...
... understanding of the full range of **climate change**-related issues; "(13) ...
... a framework for **climate change** response actions by all ...
... developing an international response to **climate change;** and "(17) be subject to review ...
... met without compromising the **climate change**-related goals of the Strategy or the ...
... term goal of stabilization of **greenhouse gas** concentrations. "(2) Effect of ...
... 1623. NATIONAL OFFICE OF **CLIMATE CHANGE** RESPONSE OF THE EXECUTIVE OFFICE OF THE ...
... President, the National Office of **Climate Change** Response. "(2) Focus._The ...
... term goal of stabilization of **greenhouse gas** concentrations while minimizing ...
... agencies involved in **climate change** response activities; and "(E) ...
... term goal of stabilization of **greenhouse gas** concentrations. "(b) Director of the ...
... term goal of stabilization of **greenhouse gas** concentrations; and "(II) the extent to which ...
... term goal of stabilization of **greenhouse gas** concentrations. "(ii) Tax, ...
... term goal of stabilization of **greenhouse gas** concentrations; and "(II) the extent to which ...
... term goal of stabilization of **greenhouse gas** concentrations. "(iii) International ...
... components of treaties that have an influence on **greenhouse gas** management; and "(II) assesses the ...
... term goal of stabilization of **greenhouse gas** concentrations, while minimizing ...
... understanding of the full range of **climate change**-related issues. "(5) ...
... term goal of stabilization of **greenhouse gas** concentrations; "(C) assesses progress toward meeting **climate change**-related international obligations; "(...
... term goal of stabilization of **greenhouse gas** concentrations; and "(E) addresses the ...
... establish the United States **Climate Change** Response Interagency Task ...
... CENTER FOR STRATEGIC **CLIMATE CHANGE** RESPONSE. "(a) Establishment of ...
... long-term stabilization of **greenhouse gas** concentrations; "(II) are not ...

... States to achieve stabilization of **greenhouse gas** concentrations at the lowest possible ...
... make progress on stabilization of **greenhouse gas** concentrations; "(iv) making ...
... technology central to addressing **climate change;** and "(v) transitioning research and ...
... contribution of all Department programs to **climate change** response; "(E) provide ...
... F) advise the Secretary on **climate change**-related issues, including ...
... programs involved in **climate change** response-related activities. "(...
... share analyses of alternative **climate change** response strategies with other ...
... understanding_ "(I) the scale of the **climate change** response challenge; and "(II) ...
... positively or negatively contribute to **climate change** solutions; and "(ii) determine ...
... term goal of stabilization of **greenhouse gas** concentrations. "(C) 10- ...
... for evaluating alternative **climate change** response scenarios; and "(II) the ...
... advise the Secretary on all aspects of **climate change** response. "(6) Annual ...
... Center for Strategic **Climate Change** Response._ "(1) In ...
... Center for Strategic **Climate Change** Response, which shall report to the ...
... integrated assessment of alternative **climate change** response scenarios and implementation of the ...
... agricultural, forestry, or other **climate change**-related technology. "(B) ...
... term goal of stabilization of **greenhouse gas** concentrations; and "(III) in ...
... scientific knowledge relating to **greenhouse gas** emission reduction, avoidance, and ...
... sharing with industry on individual **climate change** response projects. "(ii) ...
... 1626. UNITED STATES **CLIMATE CHANGE** RESPONSE STRATEGY REVIEW ...
... branch the United States **Climate Change** Response Strategy Review ...
... United States, with respect to **climate change,** complement or leverage international ...
... term goal of stabilization of **greenhouse gas** concentrations; "(C) the funding ...
... term and long-term **greenhouse gas** management goals; and "(ii) the ...
... provide recommendations on additional **climate change**-related topics. "(B) ...

143. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 22, 2001 , 147 Cong Rec S 5433, Vol. 147, No. 71,
RETIREMENT OF COMMANDER THOMAS K. RICHEY, UNITED STATES COAST GUARD
Senate
Mr. KERRY
ARMED FORCES (90%); **CLIMATE CHANGE** (90%);

144. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 22, 2001 , 147 Cong Rec S 5461, Vol. 147, No. 71,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. HARKIN
... State; "(10) reduction of **greenhouse gas** emissions and enhancement of carbon ...
... conservation and regeneration; "(E) **greenhouse gas** reduction and carbon sequestration; "(...

145. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 15, 2001 , 147 Cong Rec S 4961, Vol. 147, No. 66,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. HARKIN
... report that-- "(i) describes **greenhouse gas** emission reductions that result from ...

146. CONGRESSIONAL RECORD -- SENATE, Thursday, May 10, 2001 , 147 Cong Rec S 4812, Vol. 147, No. 64,

ENERGY AND CLIMATE CHANGE POLICY
Senate
Mr. HAGEL; **Mr.** BYRD
... particularly in the area of **climate change.** Just one example of where we ...
... task force to review **climate change.** They have been listening to and learning from some of the world's ...
... effective when it exempts some of the largest **greenhouse gas** emitters in the world-- ...
... scheduled commitments to reduce **greenhouse gas** emissions for Developing ...
... international agreement to limit **greenhouse gas** emissions. From the moment it was signed, the ...
... way to move forward on **climate change.** In the meantime, we've ...
... realistic ways to reduce **greenhouse gas** emissions. We have an opportunity now to ...
... consensus that will address **climate change,** and initiate efforts that are realistic and ...
... party to the Framework Convention on **Climate Change** (Rio Treaty), which was signed ...
... flexible measures to reduce **greenhouse gas** emissions, the role of carbon ...
... can demonstrate our commitment to **climate change** and show that meeting this challenge ...
... dual challenges of energy and **climate change.** Senators Murkowski and Breaux have ...
... take now to address **climate change.** A forward-looking ...
... genuinely know abut **climate change,** create more efficient ...
CLIMATE CHANGE (91%); ENERGY POLICY (...

147. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 08, 2001 , 147 Cong Rec S 4500, Vol. 147, No. 62,
THE 20TH ANNIVERSARY OF THE NUCLEAR CONTROL INSTITUTE
Senate
Mr. LEVIN
... electricity-supply shortages and **global warming.** To underscore this point, today's ...
... electricity-supply shortages and **global warming.** I close with a ...

148. CONGRESSIONAL RECORD -- SENATE, Monday, May 07, 2001 , 147 Cong Rec S 4413, Vol. 147, No. 61,
THE NEED FOR CONTROL OF GREENHOUSE GASES
Senate
Mr. AKAKA
... Americans. It is the issue of global **climate change** and the control of greenhouse gases. ...
... century is the problem of global **climate change.** Global **climate change** has the potential to cause widespread ...
... scientific proof of when and how **climate change** will begin. One ...
... for conclusive proof of **global warming.** The proof, we fear, will ...
... deal with the challenge of global **climate change** in a cooperative ...
... state where debate over **global warming** began. The Mauna Loa ...
... effects of major global **climate change** on the U.S. and the rest of the world ...
... describe the possible effects of **climate change** on Hawaii. As an island state with ...
... mass, we are very sensitive to global **climate changes.** The worldwide problem of greenhouse ...
... many species are endangered. **Climate change** would add another threat. ...
... second to the U.S., has reduced its **greenhouse gas** output by 17 ...
... committed to reducing corporate **greenhouse gas** emissions. Fuel cells are on the ...
... avoid the drastic effects of **global warming.** It will not take ...
... address the problem of global **climate change,** and the sooner we start on this the better ...
... effective program to fight **climate change** need not involve ...
... can address global **climate change** and maintain our preeminent economic ...
... catastrophic effects of global **climate change.** Our world cannot afford ...
EMISSIONS (93%); **CLIMATE CHANGE** (92%); SCIENCE & TECHNOLOGY (...

149. CONGRESSIONAL RECORD -- SENATE, Friday, May 04, 2001 , 147 Cong Rec S 4394, Vol. 147, No. 60, THE FUTURE COURSE OF THE INTERNATIONAL CLIMATE CHANGE NEGOTIATIONS

Senate

Mr. BYRD

... explain how domestic **climate change** programs will be reflected ...
... deal with the international aspects of **climate change.** I would like to focus on the ...
... regarding the international negotiations. **Climate change** cannot be discussed in ...
... plan, since the issue of **climate change** must be addressed both ...
... order to solve the challenge of **climate change,** we must develop new ...
... primary, manmade cause of **global warming** is the burning of the very fossil fuels that ...
... world's largest contributor to **global warming.** We must demonstrate our resolve, and ...
... current efforts to reduce our **greenhouse gas** emissions. However, it should also be noted that China ...
... hardest hit by **global warming** during this century--must ...
... discussing solutions to the problem of **climate change.** The United States can ...
... my approach on the issue of **climate change.** First, while some scientific ...
... Nations Framework Convention on **Climate Change,** commonly known as the Rio ...
... meet their obligations to reduce **greenhouse gas** emissions to 1990 levels. With those ...
... nations and, second, any international **climate change** agreement must not ...
... anticipated submission of a **climate change** treaty to the Senate, just what an ...
... July 1997, international **climate change** negotiations have covered a ...
... critical to any future binding **climate change** treaty. Still, an examination ...
... goal, namely, the stabilization of **greenhouse gas** concentrations in the atmosphere. ...
... assessment to formulate the U.S. **Climate Change** Action Plan, which subsequently ...
... toward significantly reducing **greenhouse gas** emissions. In fact, ...
... Clearly then, the next global **climate change** treaty will have to include ...
... in reducing the growth of its **greenhouse gas** emissions. That is good news. That is ...
... A future binding **climate change** agreement could recognize these efforts and ...
... fair share of this global **climate change** burden. Using this approach, the ...
... rather than cripple, the international **climate change** debate by negotiating an ...
... address U.S. energy and **climate change** challenges. So I urge the ...
... areas--addressing our global **climate change** challenges should be front and center.

CLIMATE CHANGE (90%); EMISSIONS (89%); ...

150. CONGRESSIONAL RECORD -- SENATE, Thursday, May 03, 2001 , 147 Cong Rec S 4235, Vol. 147, No. 59, VICE PRESIDENT'S TORONTO SPEECH ON ENERGY POLICY

Senate

Mr. BINGAMAN

... actions related to energy with **climate change** policy. Science has been developed ...
... between human activity and **climate change.** We may not be able to ...
... human causation in the **global warming** that we see, or to model its precise ...
... international framework to address **global warming.** A leadership role ...
... technology both to understand **climate change** and to respond to it. We, as a country, need to have a **climate change** policy. We need to put ...
... States has made to international **climate change** negotiations has been our success in ...
... responding to human- induced **climate change.** But without the United ...
... international framework to address **global warming** continue for the next ...
... no domestic framework on **greenhouse gas** emissions that would guide or even ...
... integrate energy policy and **climate change** policy. They are inextricably linked--to do ...
... how we are going to address **greenhouse gas** emissions before it invests ...

... now and worry about **climate change** later, then we don't have a ...
... answer for what our global **climate change** policy should be, but I ...
... recommendations and how it relates to this **climate change** issue. The third question is to ...

151. CONGRESSIONAL RECORD -- SENATE, Thursday, May 03, 2001 , 147 Cong Rec S 4249, Vol. 147, No. 59,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. WYDEN
... voluntary approach to combat **global warming.** It's not revolutionary, and it's not ...
... in the battle against **global warming.** Investing in healthy ...
... state actions to reduce **greenhouse gas** emissions. I am introducing this ...
... voluntary accounting and verification of **greenhouse gas** reductions from forestry activities. The ...
... report real and credible **greenhouse gas** reductions. These guidelines will be ...
... towards addressing global **climate change.** As in the last Congress, this ...
... dioxide--the most significant **greenhouse gas**--from the atmosphere. The implications are as simple as they are ...
... win strategy to slow **global warming.** This bill takes an important ...
... Nations Framework Convention on **Climate Change** was ratified by the Senate, ...
... commitment to begin reducing **greenhouse gas** emissions. And then-President Bush ...
... accurate voluntary reporting of **greenhouse gas** sequestration from tree planting and ...
... accurate voluntary reporting of **greenhouse gas** sequestration from forest management ...
... forests to adverse effects of **climate change.** "(ii) Membership.--The Advisory ...
... for calculating net **greenhouse gas** reductions from biomass energy ...
... fossil fuels) has on the displacement of **greenhouse gas** emissions from fossil fuels. "(...
... Title XVI ("Global **Climate Change**") of the Energy Policy Act of ...
... Mechanisms for Addressing **Greenhouse Gas** Emissions"). (c) Monitoring and ...
... accurate voluntary reporting of **greenhouse gas** sequestration from forest management ...
... guidance on calculating net **greenhouse gas** reductions from biomass energy ...
... for reductions of atmospheric **greenhouse gas** concentrations resulting from forest ...
... REGULATION & POLICY (79%); **CLIMATE CHANGE** (79%); FRESHWATER ECOSYSTEMS (...
... 59%); LEGISLATION (59%); **GLOBAL WARMING** (59%); ECOSYSTEMS & HABITATS (...

152. CONGRESSIONAL RECORD -- SENATE, Thursday, May 03, 2001 , 147 Cong Rec S 4271, Vol. 147, No. 59,
SENATE CONCURRENT RESOLUTION 36--HONORING THE NATIONAL SCIENCE FOUNDATION FOR 50 YEARS OF SERVICE TO THE NATION
Senate
Mr. HOLLINGS
... changes in global **climate change.** The recent news report on the ...

153. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 02, 2001 , 147 Cong Rec S 4180, Vol. 147, No. 58,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. MURKOWSKI
... due to abiotic factors such as **climate change,** biotic factors such as predator- ...

154. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 02, 2001 , 147 Cong Rec S 4184, Vol. 147, No. 58,
AUTHORITY FOR COMMITTEES TO MEET

Senate
Mr. GREGG
... regarding the science of global **climate change** and issues related to reducing net **greenhouse gas** emissions. The PRESIDING OFFICER. ...
... 86%); EMISSIONS (73%); **CLIMATE CHANGE** (73%); ANTITRUST (71%);

155. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 01, 2001 , 147 Cong Rec S 4115, Vol. 147, No. 57, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mrs. FEINSTEIN
... consumers at the pump, and reduce **global warming.** Today, the U.S. has 4 ...
... single biggest cause of **Global Warming.** Today, the fuel economy ...

156. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 01, 2001 , 147 Cong Rec S 4122, Vol. 147, No. 57, AUTHORITY FOR COMMITTEES TO MEET
Senate
Mr. SANTORUM
... 1, 2001, at 9:30 am on **climate change.** The PRESIDING OFFICER. Without ...

157. CONGRESSIONAL RECORD -- SENATE, Thursday, April 26, 2001 , 147 Cong Rec S 3936, Vol. 147, No. 54, CLIMATE CHANGE
Senate
Mr. LIEBERMAN; **Mr.** LOTT
... speak with colleagues about **global warming,** which quite literally is a ...
... Nation's Intergovernmental Panel on **Climate Change** released its third report on **global warming.** This report was authored by ...
... find ways to stop **global warming,** the Earth's average temperature ...
... Nino, would be aggravated by **global warming** and become, I am afraid, ...
... serious debate about whether **global warming** is a fact. This most ...
... enemy and it is us. That is, unfortunately, the case with **global warming.** Let me quote the scientists ...
... saying that he "takes the issue of **global warming** very seriously." But, unfortunately, thus ...
... work with us to do something about **global warming.** Last month the administration ...
... chief domestic initiative on **climate change,** which was a very hopeful initiative, when it ...
... party lines--to address **global warming.** If we act soon, we can ...
... reestablished funding for all **climate change** programs throughout our Government, ...
... Senate's concern about **climate change,** represented by this amendment, and ...
... scientists' report should be of concern to all of us. **Global warming** is most decidedly not ...
GLOBAL WARMING (91%); **CLIMATE CHANGE** (90%); SCIENCE & TECHNOLOGY (...

158. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 25, 2001 , 147 Cong Rec S 3867, Vol. 147, No. 53, BROWNFIELDS
Senate
Mr. REID; **Mr.** BAYH
... addition to nuclear issues. We have **global warming.** We have the dangers of invasive species. ...
... about the importance and dangers of **global warming** and about needing to do something ...
... going to delay implementation. **Greenhouse gas** emission is a problem. This would have been the ...

... U.S. effort to address **global warming,** and we backed away from it. Next, the ...
... walked away from international **climate change** negotiations that were being conducted ...
... need to do something about **global warming.** He said that he is going on 84 years of ...
... address the very real problem of **climate change,** we need a vision ...

159. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 24, 2001 , 147 Cong Rec S 3802, Vol. 147, No. 52, AMERICA'S PRIORITIES
Senate
Mr. DURBIN; **Mr.** WELLSTONE
... in the air--which is part of **global warming**--whether we are talking about lead or whether we are ...
... in America to deal with **global warming.** We need to have the courage and the leadership ...

160. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 24, 2001 , 147 Cong Rec S 3807, Vol. 147, No. 52, THE ENVIRONMENT
Senate
Mr. CORZINE; **Mr.** GREGG
... international initiative to address **global warming.** He went on to block new ...

161. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 24, 2001 , 147 Cong Rec S 3855, Vol. 147, No. 52, THE NONRESIDENT INCOME TAX FREEDOM ACT OF 2001
Senate
Mr. SMITH of New Hampshire; **Mr.** CONRAD; **Mrs.** FEINSTEIN; **Mr.** BROWNBACK; **Mr.** HUTCHINSON; **Mr.** REED; **Mr.** WARNER; **Mr.** LEVIN
... efforts on the issue of global **climate change;** to the Committee on Agriculture, Nutrition, and ...
... enhancement, (D) the prevention of **greenhouse gas** emissions through the preservation of ...

162. CONGRESSIONAL RECORD -- SENATE, Friday, April 06, 2001 , 147 Cong Rec S 3638, Vol. 147, No. 50, CONGRESSIONAL BUDGET FOR THE UNITED STATES GOVERNMENT FOR THE FISCAL YEARS 2001--2011
Senate
Mr. BOND; **Mr.** WELLSTONE; **Mr.** REID; **Mr.** DOMENICI; **Mr.** VOINOVICH; **Mr.** ENZI; **Mr.** CARPER; **Mr.** GRAMM; **Mr.** KERRY; **Mr.** LIEBERMAN; **Mr.** LEAHY; **Mr.** HARKIN; **Mrs.** CLINTON; **Mr.** SMITH of Oregon; **Mr.** CONRAD; **Ms.** MIKULSKI; **Mr.** DeWINE; **Mr.** NELSON of Florida; **Mr.** WARNER; **Mr.** NICKLES
... For the purpose of reducing **greenhouse gas** emissions, addressing global **climate change** concerns, protecting the global ...
... programs that will reduce **greenhouse gas** emissions in the near ...
... Nations Framework Convention on **Climate Change;** to provide increased funding to ...
... developing nations to reduce **greenhouse gas** emissions; and, to provide increased ...
... determine what we can do to understand **global warming** better, to fund new ...
... understand the impact of global **climate change** on the technologies which can help us ...
... next 100 years if **greenhouse gas** emissions continue to grow. ...
... warn that the potential impacts of **global warming** include the intensification of floods, ...
... impacts. To address the threat of **global warming,** the U.S. has invested in ...
... global climate, reducing **greenhouse gas** emissions and other pollutants, ...
... international solution to the threat of **climate change.** Unfortunately, overall funding ...
... efforts to understand and mitigate **climate change. The Climate Change** Amendment increases budget ...

... overall tax cut. The **Climate Change** Amendment provides additional ...
... in international negotiations on **climate change** and related programs. The GEF ...
... global environment, including **climate change** but providing financial and ...
... UN Framework Convention on **Climate Change.** Science, Space and Technology-- ...
... understanding and responding to the threat of **global warming.** Energy--Function 270: The ...
... Department of Energy that reduce **greenhouse gas** emissions and save consumers ...
... range of programs that reduce **greenhouse gas** emissions, save energy and ...
... low or no net **greenhouse gas** emissions and provide a ...
... troubling international problem, **global warming.** If left unchecked, **global warming** has the potential to dramatically alter ...
... Nation's Intergovernmental Panel on **Climate Change,** or the IPCC, released its third report on **global warming.** The report was authored by ...
... find ways to stop **global warming,** the Earth's average temperature ...
... Nino, would be aggravated by **global warming** and become more routine. This ...
... serious debate about whether **global warming** is a fact. The science is ...
... Bush has said that he "takes the issue of **global warming** very seriously." Unfortunately, his recent ...
... aimed at securing that participation? **Global warming** is a real threat to us, our ...

163. CONGRESSIONAL RECORD -- SENATE, Friday, April 06, 2001 , 147 Cong Rec S 3650, Vol. 147, No. 50, CONGRESSIONAL BUDGET FOR THE UNITED STATES GOVERNMENT FOR FISCAL YEARS 2001-2011--CONTINUED
Senate
Mr. HUTCHINSON; **Mr.** VOINOVICH; **Mr.** DOMENICI; **Ms.** COLLINS; **Mr.** JOHNSON; **Mr.** SANTORUM; **Mr.** CONRAD; **Mr.** DASCHLE; **Mr.** SMITH of Oregon; **Mr.** KERRY; **Mr.** AKAKA; **Mr.** LIEBERMAN; **Mrs.** MURRAY; **Mr.** BOND; **Mr.** ALLEN; **Mrs.** CLINTON; **Mr.** BYRD; **Mr.** GRAHAM; **Ms.** STABENOW; **Mr.** BINGAMAN; **Mr.** KENNEDY; **Mr.** BIDEN; **Mr.** LOTT; **Mrs.** FEINSTEIN; **Mr.** STEVENS; **Mr.** SPECTER; **Mr.** THOMPSON; **Mr.** McCAIN; **Ms.** SNOWE; **Mr.** WELLSTONE; **Mr.** LEAHY; **Mr.** CRAIG; **Mr.** CHAFEE; **Mr.** LEVIN; **Ms.** CANTWELL; **Mr.** SARBANES; **Mr.** ROCKEFELLER; **Mr.** REID
... reduce conventional pollution and **greenhouse gas** emissions; (4) That research and ...
... commitments to address the problem of **climate change,** it also has slashed the funds available to the ...
... programs intended to address our **climate change** problem. I thank ...
... funding for conservation and **global warming.** And, we see the work on urgent ...

164. CONGRESSIONAL RECORD -- SENATE, Thursday, April 05, 2001 , 147 Cong Rec S 3462, Vol. 147, No. 49, CONGRESSIONAL BUDGET FOR THE UNITED STATES GOVERNMENT FOR FISCAL YEARS 2001-2011
Senate
Ms. COLLINS; **Mr.** BOND; **Mr.** CONRAD; **Mr.** LOTT; **Ms.** STABENOW; **Mr.** DURBIN; **Mr.** REID; **Mr.** DOMENICI; **Mr.** BIDEN; **Mr.** NELSON of Florida; **Mr.** NICKLES; **Mr.** BYRD; **Mr.** BENNETT; **Mr.** SMITH of Oregon; **Mr.** WYDEN; **Mr.** WELLSTONE; **Ms.** SNOWE; **Mr.** CARPER; **Mr.** FRIST; **Mr.** DASCHLE; **Mr.** CORZINE; **Mr.** BINGAMAN; **Ms.** MIKULSKI; **Mr.** BREAUX; **Mr.** NELSON of Nebraska; **Mr.** TORRICELLI; **Mr.** DODD; **Mr.** ROCKEFELLER; **Mr.** LIEBERMAN; **Mr.** VOINOVICH; **Mr.** FEINGOLD; **Mr.** HOLLINGS; **Mr.** ALLEN; **Mr.** WARNER; **Mr.** BROWNBACK; **Mr.** JOHNSON; **Mr.** GRAMM; **Mr.** GREGG; **Mr.** GRASSLEY; **Mr.** LEVIN; **Mr.** BAUCUS; **Mr.** GRAHAM; **Mr.** DORGAN; **Mr.** SESSIONS; **Mrs.** CLINTON; **Mr.** MURKOWSKI; **Mr.** KERRY; **Mrs.** HUTCHISON
... campaign pledge to address **global warming** through the regulation of carbon ...
... more important to address **global warming** than to give the top one ...
... take care of the environment, whether it is **global warming,** whether it is arsenic, whether it is lead, or whether it is drilling ...

165. CONGRESSIONAL RECORD -- SENATE, Friday, March 30, 2001 , 147 Cong Rec S 3220, Vol. 147, No. 45,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. DASCHLE; **Mr.** LUGAR
... gases linked to global **climate change.** Finally, as impressive as its record has been, ...
... produce no net **greenhouse gas** emissions. The Renewable Fuels ...

166. CONGRESSIONAL RECORD -- SENATE, Monday, March 26, 2001 , 147 Cong Rec S 2843, Vol. 147, No. 41,
THE ENERGY CRISIS
Senate
Mr. MURKOWSKI
... talk about the merits of **climate change.** There is some concern over Kyoto and the ...

167. CONGRESSIONAL RECORD -- SENATE, Monday, March 26, 2001 , 147 Cong Rec S 2890, Vol. 147, No. 41,
RESPONSE TO PRESIDENT'S PROPOSAL TO CUT FUNDING FOR CHILDREN'S PROGRAMS
Senate
Mr. DODD
... in the fight against **global warming**); that has repealed a set of ...
... kinds of challenges, like **global warming.**" And he said, as usual, "No child should be ...

168. CONGRESSIONAL RECORD -- SENATE, Thursday, March 22, 2001 , 147 Cong Rec S 2735, Vol. 147, No. 39,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. BINGAMAN
... real consideration was the issue of **climate change.** In 1992, the Senate ...
... potential for catastrophic **climate change,** that our human activities are, in ...
... view, we cannot separate **climate change** policy from energy policy. To do ...
... national commission on energy and **climate change** to be appointed by this President and to ...
... measures that could achieve stabilization of **greenhouse gas** emissions in this country at ...
... approach to the task of integrating **climate change** policy with energy policy, it is ...
... actions are needed to reduce **greenhouse gas** emissions. The bill I am ...
... major increases in their **greenhouse gas** emissions over the next ...
... States cannot solve the **greenhouse gas** problem by itself, and we all ...
... support investments in **climate change** mitigation. Perhaps most ...
... INTEGRATION OF ENERGY POLICY AND **CLIMATE CHANGE** POLICY Subtitle A--National Commission on Energy and **Climate Change** Sec. 101. National Commission on Energy and **Climate Change.** Sec. 102. Duties of the ...
... INTEGRATION OF ENERGY POLICY AND **CLIMATE CHANGE** POLICY Subtitle A--National Commission on Energy and **Climate Change** SEC. 101. NATIONAL COMMISSION ON ENERGY AND **CLIMATE CHANGE.** (a) Establishment.--There is established ...
... National Commission on Energy and **Climate Change,** which shall be an independent establishment ...
... COMMISSION. (a) Energy and **Climate Change** Study.-- (1) In ...
... A) could achieve stabilization of **greenhouse gas** emissions in the United ...
... long-term stabilization of **greenhouse gas** concentrations. (2) Types of ...
... economically and enviromnentally sound **greenhouse gas** stabilization solutions. (b) ...
... a United States **greenhouse gas** management strategy that contains-- (...
... systems as are necessary to adapt to **climate change** in the near tenn and the ...

... accuracy of predictions concerning **climate change** and economic costs and opportunities. ...
... National Commission on Energy and **Climate Change** established by section ...
... energy production and associated **greenhouse gas** emissions. (2) Membership.--The ...
... implementation of a qualifying **greenhouse gas** mitigation project; or (E) ...
... 4) the term "qualifying **greenhouse gas** mitigation project" means ...
... funds for qualifying **greenhouse gas** mitigation projects that the Secretary ...

169. CONGRESSIONAL RECORD -- SENATE, Thursday, March 22, 2001 , 147 Cong Rec S 2772, Vol. 147, No. 39, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. REID
... program to help reduce **global warming.** (2) For offshore ...
... think we could do more to address **climate change.** But, this is a good ...
... step in addressing **climate change** in this policy bill. ...
... airborne carbon are causing the **global warming** that becomes clearer every ...
... today to address the challenge of **climate change.** We think he should establish a ...
... least the reductions in **greenhouse gas** emissions that his father, President ...
... Nations Framework Convention on **Climate Change.** The nation needs a ...
... administrative and technical resources to do this. **Greenhouse gas** concentrations are dangerously high and our ...
... legislation to start addressing **climate change**--encouraging renewables and this new ...
... a third of U.S. **greenhouse gas** emissions. The national fleet has ...

170. CONGRESSIONAL RECORD -- SENATE, Monday, March 19, 2001 , 147 Cong Rec S 2428, Vol. 147, No. 36, ENERGY
Senate
Mr. MURKOWSKI; **Mr.** THOMAS; **Mr.** McCONNELL
... around the issue of global **climate change,** as amply demonstrated by the ...
... form. Clearly, global **climate change** can potentially have major ...
... years under review. **Global warming** is attracting growing attention, and that ...

171. CONGRESSIONAL RECORD -- SENATE, Thursday, March 15, 2001 , 147 Cong Rec S 2411, Vol. 147, No. 35, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. JEFFORDS
... rain, mercury contamination, and **global warming.** The Clean Power Act ...
... dioxide pollution, the primary **greenhouse gas** responsible for **global warming,** and no standard for ...
... source of air pollution and **greenhouse gas** emissions. Annual power ...

172. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 14, 2001 , 147 Cong Rec S 2300, Vol. 147, No. 34, CLEAN AIR AND GLOBAL WARMING
Senate
Mr. KERRY
... seek legislation to cut **global warming** pollution from powerplants. This is the second ...
... country and to the concerns we have about **global warming** and about pollutants in the ...
... regarding our status with respect to **global warming.** The decade of the 1990s was the hottest ...
... 2000, the Intergovernmental Panel on **Climate Change** released its third assessment ...

... we're projecting future **climate changes** more significant over the ...
... serious threat to the reefs is **global warming.** Coral reefs are crucial ...
... half of human-caused **climate change** is not yet in ...
... arctic ice accelerates **global warming,** since ice reflects ...
... challenges the widespread assumption that **climate changes** are in all cases gradual, and suggests that human-induced **climate change** could occur rapidly rather than ...
... a solution to the problem of **global warming.** Some of my colleagues--and now the ...
... international talks to fight **global warming.** As a Senate observer to the ...
... U.S. pledged to reduce its **greenhouse gas** emissions to 1990 levels ...
... voluntary Framework Convention on **Climate Change.** We will miss that goal and ...
... emissions trading be part of the **global warming** pact. Trading is a ...
GLOBAL WARMING (90%); EMISSIONS (89%); ...

173. CONGRESSIONAL RECORD -- SENATE, Thursday, March 08, 2001 , 147 Cong Rec S 2018, Vol. 147, No. 30, BANKRUPTCY REFORM ACT OF 2001
Senate
Mr. SESSIONS; **Mr.** DORGAN; **Mr.** TORRICELLI; **Mr.** GRAMM; **Mr.** BROWNBACK; **Mr.** LEAHY; **Mr.** DURBIN; **Mr.** HATCH; **Mr.** GRASSLEY; **Mr.** SCHUMER; **Mr.** KERRY; **Mr.** BENNETT; **Mrs.** FEINSTEIN; **Mr.** BINGAMAN; **Mr.** KENNEDY; **Mr.** SARBANES; **Mr.** CONRAD; **Mr.** BOND; **Mr.** REID; **Mr.** LOTT; **Mr.** DASCHLE
... efficiency, environmental quality and **climate change** mitigation. Fourth, we need ...

174. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 07, 2001 , 147 Cong Rec S 1973, Vol. 147, No. 29, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. DOMENICI; **Mrs.** LINCOLN; **Mr.** MURKOWSKI; **Ms.** LANDRIEU; **Mr.** CRAIG
... U.S.C. 7412). (3) **Greenhouse gas.**--The term "**greenhouse gas**" means a natural or ...

175. CONGRESSIONAL RECORD -- SENATE, Wednesday, February 28, 2001 , 147 Cong Rec S 1702, Vol. 147, No. 25, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. LIEBERMAN; **Mr.** FEINGOLD
... acid rain and contribute to **global warming.** And that gets to the larger point. We have ...

176. CONGRESSIONAL RECORD -- SENATE, Monday, February 26, 2001 , 147 Cong Rec S 1548, Vol. 147, No. 23, NATIONAL ENERGY SECURITY
Senate
Mr. MURKOWSKI; **Mr.** LOTT; **Mr.** HAGEL; **Mr.** CAMPBELL; **Mr.** KYL
... reform, nuclear waste, and **climate change.** But we must start ...
... conservation, reducing the impact of all this on **global warming.** Here are the facts: Since 1993, ...
... conservation, reducing the impact of all this on **global warming.** Since they came to office ...
... without air pollution or the **greenhouse gas** emissions. Under current ...
... energy benefits, impacts on **greenhouse gas** emissions and values protected ...
... EFFICIENCY & CONSERVATION (59%); **CLIMATE CHANGE** (59%); LEGISLATION (59%); ...

177. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 06, 2001 , 147 Cong Rec S 1066, Vol. 147, No. 16, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate
Mr. REID
... hopefully, so we can reduce the **global warming** problem when it is necessary to use ...
... emissions which contribute to global **climate change, global warming.** Powerplants in the United ...

178. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 30, 2001 , 147 Cong Rec S 660, Vol. 147, No. 12, NOMINATION OF GALE ANN NORTON TO BE SECRETARY OF THE INTERIOR--RESUMED
Senate
Mr. WELLSTONE; **Mr.** KERRY; **Mr.** SCHUMER; **Mr.** DURBIN; **Mrs.** BOXER; **Ms.** LANDRIEU; **Mrs.** HUTCHISON; **Mr.** BAUCUS; **Mr.** MURKOWSKI; **Mr.** CAMPBELL
... Ms. Norton argued that the **global warming** problem didn't exist. That is, of ...

179. CONGRESSIONAL RECORD -- SENATE, Tuesday, January 30, 2001 , 147 Cong Rec S 686, Vol. 147, No. 12, EXECUTIVE SESSION
Senate
Mr. CRAIG; **Mr.** GRAHAM; **Mr.** ROCKEFELLER; **Mr.** LEVIN; **Mr.** REED; **Mr.** CORZINE; **Mr.** LIEBERMAN; **Ms.** MIKULSKI; **Mr.** TORRICELLI; **Mr.** KENNEDY; **Mr.** FEINGOLD; **Mr.** ENZI; **Mr.** REID; **Mrs.** MURRAY; **Mr.** JEFFORDS; **Mr.** KOHL; **Mr.** HATCH; **Mr.** BIDEN; **Mr.** LEAHY; **Mr.** DASCHLE; **Mr.** LOTT; **Mr.** DOMENICI; **Mr.** BYRD
... thinking on issues like **global warming** has changed. She now says that she ...

180. CONGRESSIONAL RECORD -- SENATE, Monday, January 29, 2001 , 147 Cong Rec S 631, Vol. 147, No. 11, EXECUTIVE SESSION
Senate
Mr. BENNETT; **Mr.** MURKOWSKI; **Mr.** DOMENICI; **Mr.** BINGAMAN; **Mr.** WYDEN; **Mr.** STEVENS; **Mr.** CRAIG; **Mr.** BURNS; **Mr.** WARNER; **Mr.** ALLARD; **Mr.** BYRD
... called right to pollute, and **global warming** science. The Gale Norton who ...
... ed when she said there was no consensus on **global warming.** And quite categorically, to our committee, she ...
... in fact believe that **global warming** is real. I think what ...
... energy. They are concerned about **global warming**--particularly nations that are low ...

181. CONGRESSIONAL RECORD -- SENATE, Monday, January 29, 2001 , 147 Cong Rec S 631, Vol. 147, No. 11, NOMINATIONS
Senate
Mr. BYRD
... ways to address the global **climate change** challenge. I hope he ...
... initiatives that can address **climate change** as well as find more ...
... tackle the problem of global **climate change.** In the coming months, there ...
... REGULATORY AGENCIES (90%); **CLIMATE CHANGE** (90%); ENERGY DEVELOPMENT ...

182. CONGRESSIONAL RECORD -- SENATE, Monday, January 29, 2001 , 147 Cong Rec S 636, Vol. 147, No. 11, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
Senate

Mr. BINGAMAN
... policy for addressing **climate change.** Terascale computing will ...
... Advancing our understanding of global **climate change** will lead to a ...

106th Congress

LexisNexis *Congressional Record* search results for "climate change" or "global warming" or "greenhouse gas" or "greenhouse effect"

1. CONGRESSIONAL RECORD -- SENATE, Thursday, December 14, 2000 , 146 Cong Rec S 11766, Vol. 146, No. 154, LESSONS FROM THE HAGUE
106th Congress, 2nd Session
Mr. CRAIG
... Nations Framework Convention on **Climate Change** (COP-6) at The Hague, ...
... Kyoto Protocol to reduce **greenhouse gas** emissions. The experience brought into ...
... closely followed the progress of the **climate change** debate. I have sought the ...
... drastic a problem **global warming** is likely to be in this century and ...
... status of the scientific research on **climate change.** Prior to that date, the NRC was ...
... Nations Intergovernmental Panel on **Climate Change** (IPCC) that humans were contributing to ...
... effectively stop or slow **climate change** are far from settled and will ...
... plan to focus more on **climate change** "adaptation" rather than **climate change** "mitigation." This thinking would have been considered ...
... article entitled "Breaking the **Global Warming** Gridlock" by Daniel ...
... actions that would reduce vulnerability to **climate change** such as encouraging democracy, raising ...
... for the perceived harm that **climate change**--in their opinion, brought ...
... best prospects to reduce **greenhouse gas** emissions or helping vulnerable ...
... forward in addressing the **climate change** issue whether or not Kyoto is ever ...
... calamities as a consequence of **climate change.** Moreover, the United States ...
... disagree on the causes and effects of **global warming,** I will continue to ...
SCIENCE & TECHNOLOGY (90%); **CLIMATE CHANGE** (90%); SCIENCE NEWS (...
... PUBLIC POLICY (79%); **GLOBAL WARMING** (79%);

2. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 25, 2000 , 146 Cong Rec S 10999, Vol. 146, No. 135, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 2nd Session
Mrs. BOXER; **Mr.** WELLSTONE; **Mr.** BREAUX; **Mr.** MCCAIN; **Mr.** DURBIN; **Mr.** HARKIN
... Science, and Transportation. international **climate change** science commission act ...
... three hearings on the subject of **climate change** this year. We heard from several witnesses on the science of **global warming,** the impacts of **climate change** on the United States, and solutions to **climate change.** One of the most salient ...
... in response to claims of **global warming** must be based on the best ...
... solve this global problem of **climate change,** we must rely upon all the ...
... bill entitled, International **Climate Change** Science Commission Act, it is ...
... Committee's hearing, "Solutions to **Climate Change,**" held on September 21, ...

3. CONGRESSIONAL RECORD -- SENATE, Thursday, October 12, 2000 , 146 Cong Rec S 10275, Vol. 146, No. 127, DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT APPROPRIATIONS
106th Congress, 2nd Session
Mr. BOND. **Ms.** MIKULSKI. **Mr.** BYRD. **Mr.** McCAIN. **Mr.** KYL. **Mrs.** BOXER. **Mr.** BAUCUS. **Mr.** LAUTENBERG. **Mr.** CRAPO.
... Nations Framework Convention on **Climate Change,** which has not been submitted to the Senate ...
... 20 million for the **climate change** technology initiative voluntary ...
... million increase for the **climate change** technology initiative. We also provided an ...

4. CONGRESSIONAL RECORD -- SENATE, Thursday, October 12, 2000 , 146 Cong Rec S 10275, Vol. 146, No. 127, DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT APPROPRIATIONS
106th Congress, 2nd Session
Mr. CRAPO; **Mr.** BOND; **Ms.** MIKULSKI; **Mr.** BYRD; **Mr.** MCCAIN; **Mr.** KYL; **Mrs.** BOXER; **Mr.** BAUCUS; **Mr.** LAUTENBERG
... Nations Framework Convention on **Climate Change,** which has not been submitted to the Senate ...
... 20 million for the **climate change** technology initiative voluntary ...
... million increase for the **climate change** technology initiative. We also provided an ...

5. CONGRESSIONAL RECORD -- SENATE, Thursday, October 12, 2000 , 146 Cong Rec S 10299, Vol. 146, No. 127, DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT
106th Congress, 2nd Session
Mr. CRAIG. **Mr.** KERRY. **Mr.** BOND. **Mrs.** BOXER. **Ms.** MIKULSKI. **Mr.** FEINGOLD. **Mr.** STEVENS. **Mr.** DODD. **Mr.** SMITH of New Hampshire. **Mr.** LEVIN. **Mr.** DeWINE. **Mr.** L. **Mr.** LAUTENBERG. **Mr.** HAGEL. **Mr.** SARBANES. **Mr.** BYRD. **Mr.** KOHL. **Mr.** SAM JOHNSON of Texas. **Mr.** WELLSTONE.
... Nations Framework Convention on **Climate Change,** which has not been submitted to the Senate ...

6. CONGRESSIONAL RECORD -- SENATE, Thursday, October 12, 2000 , 146 Cong Rec S 10299, Vol. 146, No. 127, DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT
106th Congress, 2nd Session
Mr. CRAIG; **Mr.** KERRY; **Mr.** BOND; **Mrs.** BOXER; **Mr.** SMITH OF NEW HAMPSHIRE; **Ms.** MIKULSKI; **Mr.** FEINGOLD; **Mr.** STEVENS; **Mr.** NICKLES; **Mr.** REID; **Mr.** DODD; **Mr.** BYRD; **Mr.** LEVIN; **Mr.** DEWINE; **Mr.** LAUTENBERG; **Mr.** HAGEL; **Mr.** SARBANES; **Mr.** KOHL; **Mr.** SAM JOHNSON OF TEXAS; **Mr.** WELLSTONE; **Mr.** BIDEN
... Nations Framework Convention on **Climate Change,** which has not been submitted to the Senate ...

7. CONGRESSIONAL RECORD -- SENATE, Thursday, October 12, 2000 , 146 Cong Rec S 10412, Vol. 146, No. 127, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 2nd Session
Mr. AKAKA. **Mr.** TORRICELLI. **Mr.** TORRECELLI. **Mr.** MURKOWSKI. **Mr.** KERREY. **Mr.** BIDEN.
... concerns about global **climate changes** and energy security concerns ...

8. CONGRESSIONAL RECORD -- SENATE, Thursday, October 12, 2000 , 146 Cong Rec S 10412, Vol. 146, No. 127, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 2nd Session
Mr. AKAKA; **Mr.** TORRICELLI; **Mr.** TORRECELLI; **Mr.** MURKOWSKI; **Mr.** KERREY; **Mr.** BIDEN
... concerns about global **climate changes** and energy security concerns ...

9. CONGRESSIONAL RECORD -- SENATE, Thursday, October 12, 2000 , 146 Cong Rec S 10485, Vol. 146, No. 127, CLIMATE CHANGE AND GLOBAL WARMING
106th Congress, 2nd Session
Mr. MURKOWSKI.
... President stated his belief that **global warming** is caused by fossil ...
... legislation to deal with the question of **climate change and global warming.** We have looked at this issue

extensively ...
... Bush said he was not certain that **climate change** was a direct result of ...
... in fact, creating **climate change.** I happen to agree with the ...
... sole cause or are they causing **climate change?** Which opinion is more supported ...
... a new theory of **global warming** that is being advanced by ...
... contributor in past **climate change.** But Hensen would still ...
... large a contributor to **climate change** as CO<INF>2</ ...
... link is confirmed, the consequent **global warming** could be comparable to that presently attributed to ...
... over the Earth's atmosphere and **climate change or global warming.** How can we in the ...
... administration would make decisions on **climate change** based on science, not the ...
... Idaho with regard to the issue of **global warming.** Much of the rhetoric that has been used is ...
SCIENCE & TECHNOLOGY (90%); **CLIMATE CHANGE** (90%); **GLOBAL WARMING** (90%); SCIENCE NEWS (...

10. CONGRESSIONAL RECORD -- SENATE, Thursday, October 12, 2000 , 146 Cong Rec S 10485, Vol. 146, No. 127, CLIMATE CHANGE AND GLOBAL WARMING
106th Congress, 2nd Session
Mr. CRAIG; **Mr.** MURKOWSKI
... President stated his belief that **global warming** is caused by fossil ...
... legislation to deal with the question of **climate change and global warming.** We have looked at this issue extensively ...
... Bush said he was not certain that **climate change** was a direct result of ...
... in fact, creating **climate change.** I happen to agree with the ...
... sole cause or are they causing **climate change?** Which opinion is more supported ...
... a new theory of **global warming** that is being advanced by ...
... contributor in past **climate change.** But Hensen would still ...
... large a contributor to **climate change** as CO<INF>2</ ...
... link is confirmed, the consequent **global warming** could be comparable to that presently attributed to ...
... over the Earth's atmosphere and **climate change or global warming.** How can we in the ...
... administration would make decisions on **climate change** based on science, not the ...
... Idaho with regard to the issue of **global warming.** Much of the rhetoric that has been used is ...
SCIENCE & TECHNOLOGY (90%); **CLIMATE CHANGE** (90%); **GLOBAL WARMING** (90%); SCIENCE NEWS (...

11. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 10, 2000 , 146 Cong Rec S 10140, Vol. 146, No. 125, NATIONAL POLICY ISSUES
106th Congress, 2nd Session
Mr. ENZI.
... clean air and to stop the **greenhouse effect** so we promote wildfire. Does it do the job? Some ...

12. CONGRESSIONAL RECORD -- SENATE, Friday, September 22, 2000 , 146 Cong Rec S 9023, Vol. 146, No. 114, THE NEED FOR AN AMERICAN ENERGY POLICY
106th Congress, 2nd Session
Mr. LOTT.
... 1.2 billion for **climate change** activities, but yet it has ...

13. CONGRESSIONAL RECORD -- SENATE, Thursday, September 21, 2000 , 146 Cong Rec S 8997, Vol. 146, No. 113, NOTICES OF HEARINGS
106th Congress, 2nd Session
Mr. MURKOWSKI. **Mr.** LUGAR.
... Relations. The hearing is titled: **Climate Change:** Status of the Kyoto Protocol ...

14. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 19, 2000 , 146 Cong Rec S 8667, Vol. 146, No. 111, TO AUTHORIZE EXTENSION OF NONDISCRIMINATORY TREATMENT TO THE PEOPLE'S
106th Congress, 2nd Session
Mr. REID. **Mr.** DeWINE. **Mr.** MURRAY. **Mr.** JEFFORDS. **Mr.** WELLSTONE. **Mr.** LAUTENBERG. **Mr.** HOLLINGS. **Mr.** DURBIN. **Mr.** BOND. **Mr.** BYRD. **Mr.** ALLARD. **Mr.** HELMS. **Mr.** BAUCUS. **Mr.** SCHUMER. **Mr.** CONRAD. **Mr.** KENNEDY. **Mr.** KERREY. **Mr.** McCAIN. **Mr.** KERRY. **Mr.** BINGAMAN. **Mr.** DORGAN. **Mr.** ENZI. **Mr.** GORTON. **Mr.** SESSIONS. **Mr.** EDWARDS. **Mr.** SANTORUM. **Mr.** ROCKEFELLER. **Mr.** KOHL. **Mr.** ASHCROFT. **Ms.** SNOWE. **Mr.** LEVIN. **Mr.** MACK. **Mr.** LEAHY. **Mr.** HATCH. **Mr.** BIDEN. **Mr.** THURMOND. **Mr.** DASCHLE. **Mr.** ROTH. **Mr.** WARNER. **Mr.** MOYNIHAN.
... developed countries should have to reduce **greenhouse gas** emissions. But China is the ...
... world, so addressing global **climate change** will demand China's ...
... in China and global **climate change** will overcome the stale ...
... both energy demand and **greenhouse gas** emissions, to use the cleanest ...

15. CONGRESSIONAL RECORD -- SENATE, Thursday, September 14, 2000 , 146 Cong Rec S 8539, Vol. 146, No. 108, TO AUTHORIZE EXTENSION OF NONDISCRIMINATORY TREATMENT TO THE PEOPLE'S
106th Congress, 2nd Session
Mr. HOLLINGS. **Mr.** ROTH. **Mr.** SPECTER. **Mr.** MOYNIHAN. **Mr.** BENNETT. **Mr.** SMITH of New Hampshire. **Mr.** GRAMM. **Mr.** KERRY. **Mr.** BYRD. **Ms.** MIKULSKI. **Mr.** McCONNELL. **Mrs.** LINCOLN. **Ms.** COLLINS. **Mr.** GRAMS. **Mr.** DORGAN.
... will increase global **greenhouse gas** emissions by 17 ...
... percent reduction in **greenhouse gas** emissions. See Mark ...

16. CONGRESSIONAL RECORD -- SENATE, Thursday, September 7, 2000 , 146 Cong Rec S 8132, Vol. 146, No. 103, TO AUTHORIZE EXTENSION OF NONDISCRIMINATORY TREATMENT TO THE PEOPLE'S
106th Congress, 2nd Session
Mr. LOTT. **Mr.** BYRD. **Mr.** HAGEL. **Mr.** WELLSTONE. **Mr.** HELMS. **Mr.** REID. **Mr.** GRAMS. **Mr.** BAUCUS. **Mr.** DODD. **Mr.** ROTH. **Mr.** MOYNIHAN. **Mr.** GRASSLEY. **Mr.** GRAMM. **Mr.** ROBERTS. **Mr.** SPECTER. **Mr.** LEAHY. **Mr.** DORGAN. **Mr.** HOLLINGS. **Mr.** Heinz. **Mrs.** FEINSTEIN. **Mr.** BROWNBACK. **Mr.** BRYAN. **Mr.** SMITH of New Hampshire.
... air quality, and reduce **greenhouse gas** emissions levels while ...
... quality, and ultimately, global **climate change.** If one realizes that two- ...
... coal. What is that going to do to the problem of **global warming?** Because coal is the largest energy ...
... in energy consumption and **greenhouse gas** emissions. Hear me now, ...
... use changes, and global **climate change,** then the United States and China ...
... for addressing global **climate change.** 6. A unified ...
... advocating measures to offset **global warming.** This is his chance. This is the time. This is the opportunity. If ...
... real to this thing called **global warming**--and I believe there is. I believe there is something to **global warming.** This is the way to ameliorate it. China would ...
... committed itself to the reduction of **greenhouse gas** emissions, as outlined in ...
... S. Res. 98 or any **climate change** treaty. I recognize the underlying science of **climate change** and believe that

every nation ...
... global issue like **climate change,** then all nations must work to ...
... effective ways to reduce **greenhouse gas** emissions. While clean ...
... developing nations consider **climate change** commitments. While there are many ...
... energy technologies and mitigating **greenhouse gas** emissions. This can be done if the ...
... going to address the problems of **global warming** and all the other serious environmental ...
... air quality, and reduce **greenhouse gas** emissions levels while ...
... helps to reduce global **climate change,** and helps America use our ...

17. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 6, 2000 , 146 Cong Rec S 8048, Vol. 146, No. 102, TO AUTHORIZE EXTENSION OF NONDISCRIMINATORY TREATMENT TO THE PEOPLE'S
106th Congress, 2nd Session
Mr. GRAMS. **Mrs.** LINCOLN. **Mr.** FEINGOLD. **Mr.** HOLLINGS. **Mr.** CRAIG. **Mr.** BYRD. **Mr.** MOYNIHAN.
... developing nations with regard to **climate change.** Now I am all for dealing with **global warming.** I am for the Kyoto ...
... addressing the global issue of **climate change.** The United States would also benefit from this ...

18. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 6, 2000 , 146 Cong Rec S 8069, Vol. 146, No. 102, ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT, 2001
106th Congress, 2nd Session
Mr. DOMENICI. **Mr.** DASCHLE. **Mr.** BOND. **Mr.** BAUCUS. **Mr.** JOHNSON. **Mr.** ASHCROFT. **Mr.** GRASSLEY.
... Nations Framework Convention on **Climate Change,** which has not been submitted to the Senate ...

19. CONGRESSIONAL RECORD -- SENATE, Thursday, July 27, 2000 , 146 Cong Rec S 7814, Vol. 146, No. 100, A COMPILATION OF INFORMATION ON ETHANOL ETHERS
106th Congress, 2nd Session
Mr. KERREY
... percent of the human contribution to **global warming.** Gasoline obviously accounts ...
... one of the largest contributors of **greenhouse gas** emissions in the U.S. ...
... for 42 percent of **greenhouse gas** emissions in the U.S., ...
... superior in reducing **greenhouse gas** emissions. In addition, because the ...
... harmful pollutants as well as **greenhouse gas** emissions from gasoline are improved. As ...
... ETBE to MTBE because of its overall **greenhouse gas** reductions that come from its renewable ...

20. CONGRESSIONAL RECORD -- SENATE, Thursday, July 27, 2000 , 146 Cong Rec S 7841, Vol. 146, No. 100, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 2nd Session
Mr. BREAUX; **Mr.** KENNEDY; **Mr.** CAMPBELL; **Mr.** TORRICELLI: **MR; Mr.** HOLLINGS; **Mr.** HATCH; **Mr.** ROTH; **Mr.** SANTORUM; **Mr.** WYDEN; **Mr.** SMITH OF NEW HAMPSHIRE; **Mr.** BRYAN; **Ms.** COLLINS; **Mr.** GRAHAM; **Mr.** JEFFORDS; **Mr.** MURKOWSKI; **Mr.** GORTON; **Mr.** KERREY; **Mr.** ALLARD; **Mr.** HARKIN; **Mr.** KERRY; **Mr.** SARBANES; **Mrs.** FEINSTEIN; **Mr.** DASCHLE; **Mr.** THOMAS; **Mr.** BROWNBACK; **Mr.** AKAKA; **Mr.** CONRAD; **Mr.** DURBIN; **Mr.** HUTCHINSON; **Mr.** ROBERTS; **Mr.** FRIST; **Mr.** MCCAIN; **Mr.** FEINGOLD
... describing reductions in **greenhouse gas** emissions that result from implementation of this ...
... criteria air pollutant and **greenhouse gas** emission reductions under ...

... Secretary of Energy, describing **greenhouse gas** emission reductions and assessing the ...
... efforts on the issue of global **climate change;** to the Committee on Finance. International ...
... issues of our time--global **climate change.** Specifically, this bill provides ...
... air--helping to offset **climate change** since carbon dioxide is ...
... Carbon dioxide is a **greenhouse gas** believed to contribute to **global warming.** While there is debate over the ...
... seriously considered to address **climate change** was an international treaty which calls ...
... disadvantage. Approaching the issue of **climate change** in this fashion would be very costly and would ...
... In addition to reducing **greenhouse gas** emissions, sponsored projects ...
... want to be part of the solution to **climate change.** We are lucky in the fact that ...
... a means to combat **climate change.** These companies have taken a ...
... world environment--since **climate change** is a global problem, to ...
... a leadership role on **climate change** without crushing our own ...
... developing countries in the **climate change** issue--since any agreement to ...
... bill will resolve the **climate change** issue. That is not my ...
... will contribute to the solution on **climate change** and help to re-shape the ...

21. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 26, 2000 , 146 Cong Rec S 7656, Vol. 146, No. 99,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 2nd Session
Mr. BINGAMAN; **Mr.** KENNEDY; **Mr.** ROCKEFELLER; **Ms.** COLLINS; **Mr.** THURMOND; **Mr.** FEINGOLD; **Mr.** MCCAIN; **Mr.** KERRY; **Mr.** ABRAHAM; **Mrs.** FEINSTEIN; **Mr.** MURKOWSKI; **Mr.** NICKLES; **Mr.** TORRICELLI; **Mr.** GRAHAM; **Ms.** MIKULSKI; **Mr.** AKAKA; **Mr.** ROBB; **Mr.** BAUCUS; **Mr.** LEAHY; **Mr.** DOMENICI; **Mr.** WYDEN; **Mr.** VOINOVICH; **Mr.** GRASSLEY; **Mr.** HATCH
... due to abiotic factors such as **climate change,** biotic factors such as predator- ...
... critical element in **greenhouse gas** emissions, will be reduced ...
... in an effort to reduce **greenhouse gas** emissions and lower our consumption of ...

22. CONGRESSIONAL RECORD -- SENATE, Thursday, July 20, 2000 , 146 Cong Rec S 7351, Vol. 146, No. 95,
Senate
106th Congress, 2nd Session
Mr. COCHRAN; **Mr.** LEVIN; **Ms.** COLLINS; **Mr.** GRAHAM; **Mr.** GRAMM; **Mr.** CONRAD; **Mr.** BYRD; **Mr.** DOMENICI; **Mr.** STEVENS; **Mr.** DORGAN; **Mr.** REID; **Mr.** DURBIN; **Mr.** LOTT; **Mr.** JOHNSON; **Mr.** KERRY; **Mr.** NICKLES; **Mr.** BOND; **Mr.** BAUCUS; **Mr.** HELMS; **Mr.** HARKIN; **Mr.** SMITH OF NEW HAMPSHIRE; **Mrs.** BOXER; **Mr.** WYDEN; **Mr.** CAMPBELL; **Mr.** KENNEDY; **Mr.** INOUYE; **Mr.** SESSIONS; **Mr.** WARNER; **Mr.** MCCAIN; **Mr.** HATCH; **Ms.** SNOWE; **Mr.** CRAIG; **Mr.** BURNS; **Mr.** BINGAMAN; **Mr.** SANTORUM; **Mr.** KOHL; **Mr.** DASCHLE; **Mrs.** LANDRIEU; **Mr.** LEAHY; **Mr.** ROBERTS
... Kyoto Protocol on global **climate change** and control of greenhouse gases has ...

23. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 19, 2000 , 146 Cong Rec S 7264, Vol. 146, No. 94,
DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT, 2001
106th Congress, 2nd Session
Mr. BURNS
... Nations Framework Convention on **Climate Change,** which has not been submitted to the Senate ...

24. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 18, 2000 , 146 Cong Rec S 7121, Vol. 146, No. 93,
FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS APPROPRIATIONS ACT, 2001.

106th Congress, 2nd Session
Mr. LOTT; **Mr.** DORGAN
... programs aimed at reducing **greenhouse gas** emissions: Provided, That such assistance ...
... Federation is a party. **Greenhouse Gas** Emissions Sec. 567. (...
... Protocol to the Framework Convention on **Climate Change** (FCCC) shall only be ...
... obligations and expenditures for **climate change** programs and activities, domestic and ...
... each agency identifying **climate change** activities and associated costs ...
... States Framework Convention on **Climate Change,** which has not been submitted to the Senate ...

25. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 18, 2000 , 146 Cong Rec S 7167, Vol. 146, No. 93, AUTHORITY FOR COMMITTEES TO MEET COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
106th Congress, 2nd Session
Mr. VOINOVICH
... 2000, at 9:30 a.m. on **Global Warming--** National Assessment on **Climate Change.** The PRESIDING OFFICER. Without ...

26. CONGRESSIONAL RECORD -- SENATE, Monday, July 17, 2000 , 146 Cong Rec S 7014, Vol. 146, No. 92, DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT,
106th Congress, 2nd Session
Mr. REED; **Mr.** GORTON; **Mr.** THOMAS; **Mr.** GRAMS; **Mr.** ENZI; **Mr.** CRAIG; **Mr.** BURNS; **Mr.** REID; **Mr.** DASCHLE; **Mr.** BAUCUS; **Mr.** BRYAN; **Mr.** NICKLES; **Mr.** LIEBERMAN; **Mr.** CRAPO; **Mr.** BOND; **Mr.** LEAHY; **Mr.** BYRD; **Mr.** BREAUX; **Mr.** KYL; **Mr.** DOMENICI; **Mr.** TORRICELLI; **Mr.** DORGAN; **Mr.** BENNETT; **Mrs.** MURRAY; **Mr.** GRAHAM; **Mr.** MACK; **Mr.** EDWARDS; **Mr.** DEWINE; **Mr.** SMITH; **Ms.** SNOWE; **Ms.** COLLINS; **Mr.** SANTORUM
... Administration to support an approach to **climate change** that protects the economic interests of the ...
... developing countries to reduce **greenhouse gas** emissions. The Administration is aggressively ...
... developing countries to reduce **greenhouse gas** emissions through international ...
... currently engaged in **climate change** negotiations to ensure meaningful ...
... developing countries and to ensure that **greenhouse gas** emissions reductions are achieved ...
... both the Framework Convention on **Climate Change,** which was ratified by the Senate ...
... developing countries to reduce **greenhouse gas** emissions? Mr. BYRD. ...

27. CONGRESSIONAL RECORD -- SENATE, Monday, July 10, 2000 , 146 Cong Rec S 6302, Vol. 146, No. 87, DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT, 2001
106th Congress, 2nd Session
Mr. GORTON; **Mr.** BYRD; **Mr.** WELLSTONE; **Mr.** BINGAMAN; **Mr.** THOMAS; **Mr.** BOND
... Nations Framework Convention on **Climate Change,** which has not been submitted to the Senate ...
... air pollution and increasing **greenhouse gas** emissions. Technologies from PNGV ...

28. CONGRESSIONAL RECORD -- SENATE, Friday, June 30, 2000 , 146 Cong Rec S 6244, Vol. 146, No. 86, A NATIONAL ENERGY POLICY
106th Congress, 2nd Session
Mr. AKAKA
... emit reduced levels of **greenhouse gas** emissions, and would not contribute to ...

29. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 27, 2000 , 146 Cong Rec S 5873, Vol. 146, No. 83,
OIL
106th Congress, 2nd Session
Mr. MURKOWSKI
... oil imports and stabilize **climate change.** As identified in the AP ...
... threat posed by **global warming.** I think that is a ...
... POWER PLANTS (59%); **CLIMATE CHANGE** (59%); ENERGY DEVELOPMENT ...

30. CONGRESSIONAL RECORD -- SENATE, Monday, June 26, 2000 , 146 Cong Rec S 5766, Vol. 146, No. 82,
OCEANS ACT OF 2000
106th Congress, 2nd Session
Mr. THOMAS; **Mr.** MCCAIN; **Mr.** HOLLINGS; **Ms.** SNOWE
... potentially due to global **climate change,** are exacerbating existing problems. The ...

31. CONGRESSIONAL RECORD -- SENATE, Monday, June 26, 2000 , 146 Cong Rec S 5773, Vol. 146, No. 82,
GAS PRICE CRISIS
106th Congress, 2nd Session
Mrs. HUTCHISON; **Mr.** DOMENICI
... ambient air and the so-called **greenhouse effect.** While we hide under the ...

32. CONGRESSIONAL RECORD -- SENATE, Friday, June 23, 2000 , 146 Cong Rec S 5722, Vol. 146, No. 81,
TWENTY YEARS OF CONGRESSIONAL SERVICE BY DAVID GARMAN
106th Congress, 2nd Session
Mr. MURKOWSKI
... Air Act, Global **Climate** **Change** Policy, energy R& ...
... AIR QUALITY (68%); **CLIMATE CHANGE** (68%); AIR QUALITY ...

33. CONGRESSIONAL RECORD -- SENATE, Thursday, June 22, 2000 , 146 Cong Rec S 5649, Vol. 146, No. 80,
FLOOD DISASTER
106th Congress, 2nd Session
Mr. CONRAD
... something going on with global **climate change** that we don't fully understand, to have these ...

34. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 21, 2000 , 146 Cong Rec S 5536, Vol. 146, No. 79,
FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS
106th Congress, 2nd Session
Mr. MCCONNELL; **Mr.** LEAHY; **Mr.** ABRAHAM; **Mr.** BYRD; **Mr.** MCCAIN; **Mr.** STEVENS; **Mrs.** FEINSTEIN;
Mr. BIDEN; **Mr.** DOMENICI
... package for Lebanon. **climate change** language Mr. BYRD. ...
... currently engaged in **climate change** negotiations to ensure meaningful ...
... developing countries and to ensure that **greenhouse gas** emissions reductions are achieved ...
... both the Framework Convention on **Climate Change** (FCCC), which was ratified by the ...
... Administration to support an approach to **climate change** that protects the economic interests of the ...
... developing countries to reduce **greenhouse gas** emissions. The Administration is aggressively ...
... developing countries to reduce **greenhouse gas** emissions through international ...

... developing countries to reduce **greenhouse gas** emissions. Is my understanding ...
... engaging in international **climate change** negotiations or activities that would encourage ...

35. CONGRESSIONAL RECORD -- SENATE, Friday, June 16, 2000 , 146 Cong Rec S 5291, Vol. 146, No. 76,
CONSEQUENCES OF CLIMATE CHANGE
106th Congress, 2nd Session
Mr. MURKOWSKI; **Mr.** HAGEL; **Mr.** CRAIG; **Mrs.** MURRAY
... growing concern that we all have relative to **climate change** and the developing technology associated with that ...
... new report on the consequences of **climate change.** This report affects a ...
... report is the estimated effects of **climate change** on various regions of the country and ...
... report are some "potential scenarios" of **climate change** over the next 100 ...
... report began. These "scenarios" of **climate change** were then used to drive other ...
... allow us to determine impacts of **climate change.** My point is obvious. These ...
... change. The estimate of impacts from **climate change** on these sensitive areas could also change. ...
... estimating regional impacts of **climate change.** It highlights the need for ...
... reminds us of the potential risk of **climate change.** For just a ...
... technology, such as that proposed in our **climate change** bill, S. 882, we ...
... about the dire predictions of **climate change.** Yet the Republican energy ...
... risk of human-induced **climate change** is a risk we should responsibly ...
... first National Assessment on **Climate Change.** This report entitled "**Climate Change** Impacts on the United States," is ...
... predict in detail **climate changes** region-by-region ...
... published estimates of how **climate could change** in the United States are the ...
... due to man-made **greenhouse gas** emissions? Let me quote from ...
... dioxide is a minor **greenhouse gas** that contributes only about 3% of the **greenhouse effect,** and man-made sources ...
... natural sources. The major **greenhouse gas** is water vapor... if all the carbon ...
... draft document known as the **climate change** "National Assessment" that purports to ...
... a useful contribution to the **climate change** debate if it stimulates more ...
... document that talks about **climate change** science. The "Pathways Report" ...
... single, linear approach to the **climate change** question. It simply extrapolates ...
... analysis of the current states of our **climate change** knowledge is what makes the Pathways ...
... none of these questions asks "Is **global warming** for real?" No, ...
... Pathway questions you realize that the **climate change** issue cannot be resolved with any ...
... natural and man-made **greenhouse gas** emissions? Do we need to learn ...
... constituents. Should U.S. policymaking on **climate change** rely primarily upon ...
... Climate Modeling to Support **Climate Change** Assessment Activities." First, ...
... Immediate actions that reduce **greenhouse gas** emissions in ways we ...
... coordination of all government action on **climate change.** This is merely one approach to this very ...
... structure for coordinating **climate change** policy. It has been ten years, ...
... significant factor in **climate change.** Instead, let's roll ...
... free actions that reduce **greenhouse gas** emissions. The NRC, based on its ...
... ratified the Framework Convention on **Climate Change** in 1992. We cannot, nor should we, ...
... Framework Convention says **climate change** measures must be cost- ...
... says steps to mitigate **climate change** are effective if based on relevant ...
... national consensus. Stalemate on the **climate change** issue should no longer be ...
... Chairman of the White House **Climate Change** Task Force, where I ...
... Chairman, White House **Climate Change** Task Force, The White ...
... I have introduced on the subject of **climate change.** Senator Murkowski and I have been ...

... improve voluntary reporting of **greenhouse gas** emissions." Now let's ...
... for projects addressing **climate change,** and my provision providing ...
... air pollution, and reduce **greenhouse gas** emissions-- This program first ...
... Congress legislation to respond to **climate change.** Any comprehensive execution of this provision would have to ...
... administrative barriers to reducing **greenhouse gas** emissions. If any exist with regard to ...
... consensus, not division, on **climate change.** On a separate complementary ...
... actions today to reduce their **greenhouse gas** emissions-- Unlike some other ...
... preserves state-initiated **climate change** responses by protecting them from ...
... effects the reduction (or sequestration) of **greenhouse gas** emissions, it remains in ...
... tampering with states' rights and **climate change** programs. 9. Diplomatic ...
... indicate that any proposed suite of **climate change** response policies would appreciably ...
... advocates on both sides of the **climate change** issue do for quite ...
... regrets, steps to reduce **greenhouse gas** emissions. Additionally (and perhaps, ...
... ATMOSPHERIC SCIENCES (90%); **CLIMATE CHANGE** (90%); MODELING & SIMULATION (...

36. CONGRESSIONAL RECORD -- SENATE, Thursday, June 15, 2000 , 146 Cong Rec S 5188, Vol. 146, No. 75, DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS ACT, **106th** Congress, 2nd Session

Mr. SHELBY; **Mr.** LAUTENBERG; **Mr.** MCCAIN; **Mr.** REID; **Mr.** NICKLES; **Mr.** INHOFE; **Mrs.** BOXER; **Mr.** COCHRAN; **Mr.** LEVIN; **Mr.** DOMENICI; **Mr.** CAMPBELL; **Mr.** WYDEN; **Mr.** FEINGOLD; **Mr.** CLELAND; **Mr.** LIEBERMAN; **Mr.** SCHUMER; **Mr.** REED; **Mr.** BYRD; **Mr.** KERRY; **Mr.** DASCHLE; **Mr.** DODD; **Mr.** BOND; **Mr.** GORTON; **Mr.** BROWNBACK; **Mr.** ABRAHAM; **Mr.** ASHCROFT; **Mrs.** FEINSTEIN; **Mr.** BRYAN; **Ms.** LANDRIEU; **Mr.** BURNS

... weeks about the reality of **global warming.** A Federal Government ...
... thought, potentially due to **greenhouse gas** emissions. A report ...
... 20 years due to **global warming.** These and other significant reports ...
... one another to warn us that **global warming** is real and that we need to pay ...
... must take to curb **greenhouse gas** emissions is to reduce the amount of ...
... dioxide is the major contributor to **greenhouse gas** emissions and to the subsequent warming of our ...
... contributed more than cars to **global warming,** emitted more smog- ...
... strongly is because I do believe that **global warming** is a real and vital ...
... thing we can do to reduce **global warming** is to reduce the emission of carbon ...
... air and creating a **greenhouse effect** that warms the Earth. We also know that ...
... I happen to believe **global warming** is real. I took ...
... According to the Intergovernmental Panel on **Climate Change,** sea levels could rise ...
... air more because of it. We are contributing to **global warming** more because of it. The United States ...
... a way to inhibit **global warming.** Although federal anti- ...
... But those worried about **global warming** say CO -2 is ...
... creating that much more **global-warming** gas. I demonize ...
... CO -2 causes **global warming** or that warming is occurring. Seeking ...
... not they have fully subscribed to the **global warming** theory, that it is not a ...
... 47 percent more **global warming** pollution than do cars. Each ...
... environmental challenge of our time: **global warming.** Passenger cars, SUVs, and ...
... 18 percent of U.S. **greenhouse gas** emissions in 1998. It is ...
... major contributor to the problem of **global warming.** A recent National ...
... Sciences study finds that **global warming** trends are undoubtedly real. ...
... opportunities for attacking **global warming** as dramatically and as cost-effectively as ...
... opportunities for attacking **global warming** as dramatically and as cost-efficiently as ...

37. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 14, 2000 , 146 Cong Rec S 5088, Vol. 146, No. 74,
DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS ACT, 2001
106th Congress, 2nd Session
Mr. SHELBY; **Mr.** LAUTENBERG; **Ms.** MIKULSKI; **Mr.** GORTON; **Mr.** DORGAN; **Mr.** COCHRAN; **Mr.** CONRAD; **Mr.** BRYAN; **Mr.** STEVENS; **Mr.** NICKLES; **Mr.** REID
... will agree those are attributable to **global warming,** but I think there is ...
... in the scientific sector that **global warming** is for real, that there is an impact that is ...
... One of the elements that contributes to that **global warming** is carbon dioxide emissions. With ...

38. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 14, 2000 , 146 Cong Rec S 5119, Vol. 146, No. 74,
AMENDMENTS SUBMITTED - NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2001 - LOTT AMENDMENT NO. 3382
106th Congress, 2nd Session
Mr. WARNER; **Mr.** LEVIN; **Mr.** SHELBY; **Mr.** ALLARD
... Nations Framework Convention on **Climate Change,** which has not been submitted to the Senate ...

39. CONGRESSIONAL RECORD -- SENATE, Thursday, May 25, 2000 , 146 Cong Rec S 4416, Vol. 146, No. 67,
AGRICULTURAL RISK PROTECTION ACT OF 2000--CONFERENCE REPORT
106th Congress, 2nd Session
Mr. LUGAR; **Mr.** CONRAD; **Mr.** WELLSTONE; **Mr.** CRAIG; **Mr.** ROBERTS; **Mr.** HARKIN; **Mr.** DORGAN; **Mr.** KERREY; **Mr.** BURNS; **Mr.** GRAMS; **Mr.** LEAHY; **Mr.** JOHNSON; **Mr.** TORRICELLI; **Mr.** GRASSLEY; **Mrs.** LINCOLN; **Mr.** REED; **Mr.** DOMENICI; **Mr.** DASCHLE; **Mr.** KOHL; **Mr.** SCHUMER; **Mr.** NICKLES; **Mr.** REID
... debate regarding global **climate change,** and this funding is an important downpayment on this ...
... atmosphere and to mitigate the global **climate change** problems we have. I could continue to ...

40. CONGRESSIONAL RECORD -- SENATE, Thursday, May 18, 2000 , 146 Cong Rec S 4191, Vol. 146, No. 62,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 2nd Session
Mrs. FEINSTEIN; **Mr.** HATCH; **Mr.** ROCKEFELLER; **Mr.** ROBB; **Mr.** ABRAHAM; **Mr.** LEAHY
... air pollution and to reduce **greenhouse gas** emissions will require an ...

41. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 17, 2000 , 146 Cong Rec S 4117, Vol. 146, No. 61,
AUTHORITY FOR COMMITTEES TO MEET
106th Congress, 2nd Session
Mr. CRAIG
... 2000, at 9:30 a.m. on **global warming.** The PRESIDING OFFICER. Without ...
... PRIVATE UTILITIES (73%); **CLIMATE CHANGE** (73%); **GLOBAL WARMING** (73%); UTILITIES INDUSTRY (...

42. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 10, 2000 , 146 Cong Rec S 3795, Vol. 146, No. 57
106th Congress, 2nd Session
Mr. GRASSLEY; **Mrs.** FEINSTEIN; **Mr.** FEINGOLD; **Mr.** BUNNING; **Mr.** HOLLINGS; **Mr.** MOYNIHAN; **Mr.** DODD; **Mr.** GRAHAM
... rain forests and increase **global warming.** We all lose when species unique to ...

43. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 10, 2000 , 146 Cong Rec S 3832, Vol. 146, No. 57,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 2nd Session
Ms. COLLINS; **Mr.** FEINGOLD; **Mr.** ROCKEFELLER; **Mr.** REID; **Mr.** PRESIDENT; **Mr.** BENNETT; **Mr.** BROWNBACK; **Mr.** DASCHLE; **Mr.** KENNEDY; **Mr.** BIDEN; **Mr.** ROBB
... Carbon dioxide is a **greenhouse gas** believed to contribute to **global warming.** While there is debate over the ...
... seriously considered to address **climate change** was an international treaty which calls ...
... disadvantage. Approaching the issue of **climate change** in this fashion would be very costly and would ...
... 133 percent of the total **greenhouse gas** emissions by all these activities. ...
... major role in any **climate change** plan, since it is an important ...
... While the facts about **global warming** are not all clear, what is clear is that **global warming** is occurring. What is also clear is that human ...
... gases, and that these gases are influencing **global warming.** Carbon sequestration, that is pulling ...
... important part of fighting **global warming,** and agriculture is one of the largest and ...
... knowledge of causes and solutions to **global warming.** The Domestic Carbon Storage ...
... role in fighting **climate change** forward. Carbon sequestration ...
... take action to combat **global warming,** and I hope that the Senate ...

44. CONGRESSIONAL RECORD -- SENATE, Thursday, May 4, 2000 , 146 Cong Rec S 3514, Vol. 146, No. 54,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 2nd Session
Mr. DASCHLE; **Mr.** LUGAR; **Mr.** JEFFORDS; **Mr.** ROCKEFELLER; **Mr.** GORTON; **Mr.** CAMPBELL; **Mr.** KERREY; **Mr.** SCHUMER; **Mr.** LEAHY; **Mr.** SARBANES; **Mr.** DODD
... goals, such as energy security, **greenhouse gas** emissions reductions, and domestic ...
... consultation with the Secretary of Energy, **greenhouse gas** emission reductions that result from ...

45. CONGRESSIONAL RECORD -- SENATE, Thursday, May 4, 2000 , 146 Cong Rec S 3553, Vol. 146, No. 54,
AUTHORITY FOR COMMITTEES TO MEET
106th Congress, 2nd Session
Mr. INHOFE
... role in reducing **climate change.** The PRESIDING OFFICER. Without ...

46. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 2, 2000 , 146 Cong Rec S 3201, Vol. 146, No. 52,
NUCLEAR WASTE POLICY AMENDMENTS ACT OF 2000--VETO
106th Congress, 2nd Session
Mr. MURKOWSKI; **Mr.** BINGAMAN; **Mr.** REID; **Mr.** CRAIG; **Mr.** GORTON; **Mr.** BRYAN; **Mrs.** BOXER; **Mr.** ROCKEFELLER; **Mr.** DOMENICI
... How do we address the risk of **global warming** without nuclear power? It is ...
... other side about **climate change,** we aren't building new ...
... silly environmental policy. **Climate change** is a serious issue, ...
... worried about with reference to **global warming.** The United States of America ...
... air so we will not have **global warming.** And here we're talking about the ...
... growth and prosperity without **global warming.** From my standpoint, not ...

47. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 2, 2000 , 146 Cong Rec S 3222, Vol. 146, No. 52
106th Congress, 2nd Session

Mr. MURKOWSKI; **Mr.** HELMS; **Mr.** REID; **Mr.** SESSIONS; **Mr.** BRYAN; **Mr.** DURBIN; **Mr.** FITZGERALD; **Ms.** LANDRIEU; **Mr.** NICKLES; **Mr.** LOTT; **Mr.** DORGAN
... issue. There was an excellent film on **global warming** on "Frontline" about 2 ...
... Union, that we have to do something about **global warming.** He attempted to get us to ratify the Kyoto treaty to reduce **greenhouse gas** emissions by 7 ...
... 95-0, against the agreement. Our **greenhouse gas** emissions have gone up ...
... percent reduction in **greenhouse gas** emissions between now and ...
... believed to be the most significant **greenhouse gas**--are not emitted because of nuclear ...

48. CONGRESSIONAL RECORD -- SENATE, Monday, May 1, 2000 , 146 Cong Rec S 3199, Vol. 146, No. 51,
NOTICE OF HEARINGS
106th Congress, 2nd Session
Mr. LUGAR
... role in reducing **climate change.**

49. CONGRESSIONAL RECORD -- SENATE, Thursday, April 27, 2000 , 146 Cong Rec S 3034, Vol. 146, No. 50,
JOHN H. CHAFEE ENVIRONMENTAL EDUCATION ACT OF 1999
106th Congress, 2nd Session
Mr. SESSIONS
... worldwide issues as global **climate change** and sustainable marine resources; or "(...

50. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 25, 2000 , 146 Cong Rec S 2879, Vol. 146, No. 48,
THE NUCLEAR WASTE BILL
106th Congress, 2nd Session
Mr. SESSIONS
... amazing agreement that we would reduce our **greenhouse gas** emissions by 7 ...
... day, 15 percent of our **greenhouse gas** emissions when we know our demands ...
... greenhouse gases and the potential of **global warming.** They went over all the issues at that ...
... in a period of **global warming,** but it does appear we may be. We ...
GLOBAL WARMING (90%); NUCLEAR ENERGY (...
... HAZARDOUS WASTE (89%); **CLIMATE CHANGE** (89%); NUCLEAR WASTE (...

51. CONGRESSIONAL RECORD -- SENATE, Thursday, April 13, 2000 , 146 Cong Rec S 2805, Vol. 146, No. 47,
METHANE HYDRATE RESEARCH AND DEVELOPMENT ACT OF 2000
106th Congress, 2nd Session
Mr. SESSIONS; **Mr.** MURKOWSKI
... anticipated impact on global **climate change** from-- (A) methane hydrate ...
... role in global **climate change.** Recent scientific research suggests that abrupt **climate changes** have occurred in the past as ...
... responsibly to address the risk of **climate change.** Since natural gas ...
... hydrates also reduces our risk of **climate change**--some experts estimate we can ...
... responsibly address the risk of **climate change.** Working with our colleagues in the ...

52. CONGRESSIONAL RECORD -- SENATE, Thursday, April 6, 2000 , 146 Cong Rec S 2270, Vol. 146, No. 42
106th Congress, 2nd Session

Mr. REID; **Mr.** DURBIN; **Mr.** DOMENICI; **Mrs.** FEINSTEIN; **Mr.** BYRD; **Mr.** WARNER; **Mr.** CRAPO; **Mr.** LIEBERMAN; **Mr.** GRAMS; **Mr.** ROTH; **Mrs.** BOXER; **Mr.** STEVENS; **Mr.** MURKOWSKI; **Mr.** GRAMM; **Mr.** MCCAIN; **Mr.** REED; **Mr.** LEAHY; **Mr.** LAUTENBERG; **Mr.** NICKLES; **Mr.** LEVIN; **Mr.** ROBB; **Mr.** COVERDELL; **Mrs.** MURRAY; **Mr.** HARKIN; **Ms.** MIKULSKI; **Mr.** SARBANES; **Mr.** CRAIG; **Mr.** SESSIONS; **Mr.** HATCH; **Mr.** GRAHAM; **Mr.** BAYH; **Mr.** EDWARDS; **Mrs.** LINCOLN; **Ms.** LANDRIEU; **Mr.** WELLSTONE; **Mr.** JOHNSON; **Mr.** GORTON; **Mr.** ALLARD; **Mr.** THURMOND; **Mr.** SMITH OF NEW HAMPSHIRE; **Mr.** GRASSLEY; **Mr.** SCHUMER; **Mr.** JEFFORDS; **Mr.** TORRICELLI; **Ms.** COLLINS; **Mr.** LOTT; **Mr.** DASCHLE; **Mr.** BOND; **Mr.** INOUYE; **Mr.** CAMPBELL; **Mr.** KENNEDY; **Mr.** BINGAMAN
... tons of methane, a **greenhouse gas,** per year. Drilling ...
... serious problem of global **climate change,** generating methane emissions ...

53. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 5, 2000 , 146 Cong Rec S 2159, Vol. 146, No. 41
106th Congress, 2nd Session
Mr. BINGAMAN; **Mr.** REID; **Mr.** DOMENICI; **Mrs.** BOXER; **Mr.** GRAMM; **Mr.** KENNEDY; **Mr.** KERRY; **Mr.** GREGG; **Mr.** SANTORUM; **Mrs.** MURRAY; **Mr.** DODD; **Mr.** GORTON; **Mr.** EDWARDS; **Mr.** SCHUMER; **Mr.** HOLLINGS; **Mr.** WELLSTONE; **Mr.** SARBANES; **Mr.** LAUTENBERG; **Mr.** ALLARD; **Mr.** ENZI; **Mr.** VOINOVICH; **Mr.** STEVENS; **Mr.** FEINGOLD; **Mr.** GRAMS; **Mr.** CONRAD; **Mr.** DORGAN; **Mr.** BOND; **Mr.** BYRD; **Ms.** COLLINS; **Mr.** WARNER; **Mr.** BAUCUS; **Mr.** HARKIN; **Mr.** ROTH; **Mr.** DURBIN; **Mr.** MURKOWSKI; **Mr.** NICKLES; **Mr.** ROBB; **Mr.** JEFFORDS; **Ms.** MIKULSKI
... down there to see what was happening with **climate change** and the National Science Foundation. ...
... things we could discover about our **climate change** and our environment about which we could do something. ...

54. CONGRESSIONAL RECORD -- SENATE, Monday, April 3, 2000 , 146 Cong Rec S 2034, Vol. 146, No. 39,
ENERGY PRICES AND GAS TAXES
106th Congress, 2nd Session
Mr. CRAIG
... conservation, reducing the impact of all this on **global warming.** He is referring again to the cost of ...
... define and refine the science of **global warming** and attempt to understand the cause or ...
... But he goes on, ... that is what the whole **global warming** issue is about. All over the ...
... administration blames for **global warming,** carbon dioxide, isn't ...
... going to debate the global **climate change** issue. Getting rid of ...

55. CONGRESSIONAL RECORD -- SENATE, Thursday, March 30, 2000 , 146 Cong Rec S 2008, Vol. 146, No. 38,
AUTHORITY FOR COMMITTEES TO MEET
106th Congress, 2nd Session
Mr. GRAMM
... in order to reduce **greenhouse gas** emissions, advance global ...

56. CONGRESSIONAL RECORD -- SENATE, Monday, March 27, 2000 , 146 Cong Rec S 1704, Vol. 146, No. 35,
ENERGY POLICY
106th Congress, 2nd Session
Mr. CRAIG
... yet been proven to be the cause of **climate change.** The U.S. Senate voted ...

57. CONGRESSIONAL RECORD -- SENATE, Thursday, March 23, 2000 , 146 Cong Rec S 1620, Vol. 146, No. 34,
THE OIL CRISIS
106th Congress, 2nd Session
Mr. CAMPBELL; **Mr.** GORTON; **Ms.** SNOWE; **Mr.** CRAIG
... conservation, reducing the impact of all of this on **global warming.** Mr. President, we should not ...

58. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 8, 2000 , 146 Cong Rec S 1328, Vol. 146, No. 25,
NOTICE OF HEARING
106th Congress, 2nd Session
Mr. MURKOWSKI; **Mr.** BOND
... 1974 with respect to potential **Climate Change;** and S. 1776, To amend the ...
... in order to reduce **greenhouse gas** emissions, advance global ...

59. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 29, 2000 , 146 Cong Rec S 962, Vol. 146, No. 20,
NATIONAL SUSTAINABLE FUELS AND CHEMICALS ACT OF 1999 - MURKOWSKI AMENDMENT NO. 2862
106th Congress, 2nd Session
Mr. CRAPO
... near-zero net **greenhouse gas** emissions, technology export, and ...
... near zero net **greenhouse** **gas** emissions; "(40 biobased ...
... resource supply, reduced **greenhouse gas** emissions, healthier rural ...
... accurate measurement and analysis of **greenhouse gas** emissions, carbon sequestration, and ...

60. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 29, 2000 , 146 Cong Rec S 972, Vol. 146, No. 20,
NATIONAL SUSTAINABLE FUELS AND CHEMICALS ACT OF 1999
106th Congress, 2nd Session
Mr. CRAPO; **Mr.** LUGAR; **Mr.** MURKOWSKI
... near-zero net **greenhouse gas** emissions, technology export, and ...
... near zero net **greenhouse** **gas** emissions; (4) biobased ...
... resource supply, reduced **greenhouse gas** emissions, healthier rural ...
... accurate measurement and analysis of **greenhouse gas** emissions, carbon sequestration, and ...
... while dramatically reducing **greenhouse gas** emissions. Early civilizations ...
... balance of payments, reduce **greenhouse gas** emissions and strengthen rural ...

61. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 22, 2000 , 146 Cong Rec S 674, Vol. 146, No. 16,
THE PRICE OF ENERGY
106th Congress, 2nd Session
Mr. MURKOWSKI
... got colder even with **global warming.** The thought from OPEC was: Wait ...

62. CONGRESSIONAL RECORD -- SENATE, Wednesday, February 9, 2000 , 146 Cong Rec S 515, Vol. 146, No. 11
106th Congress, 2nd Session
Mr. MURKOWSKI; **Mr.** REID; **Mr.** GRAMS; **Mr.** DORGAN
... percent of the reductions in **greenhouse gas** emissions that have come out of the ...

63. CONGRESSIONAL RECORD -- SENATE, Wednesday, February 9, 2000 , 146 Cong Rec S 556, Vol. 146, No. 11, NUCLEAR WASTE POLICY ACT AMENDMENTS
106th Congress, 2nd Session
Mr. GRAMS
... percent of the reductions in **greenhouse gas** emissions that have come out of the ...

64. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 8, 2000 , 146 Cong Rec S 463, Vol. 146, No. 10, NUCLEAR WASTE POLICY AMENDMENTS ACT OF 1999
106th Congress, 2nd Session
Mr. LOTT; **Mr.** BRYAN; **Mr.** REID; **Mr.** MURKOWSKI; **Mr.** BINGAMAN; **Mr.** SPECTER
... concerned about global **climate change.** We are concerned about Kyoto. We should be. Is there ...
... energy in any proposals on **climate change.** One can only ...

65. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 8, 2000 , 146 Cong Rec S 469, Vol. 146, No. 10
106th Congress, 2nd Session
Mr. NICKLES; **Mr.** REID; **Mr.** MURKOWSKI; **Mr.** HUTCHINSON; **Mr.** BRYAN; **Mr.** WELLSTONE
... look at our concern over **global warming,** if we look at our concern over ...
... clean air and preventing **climate change.** Here is where our electricity comes from: 53 ...
... clean air, about **climate change** or is this some kind of a cynical ...

66. CONGRESSIONAL RECORD -- SENATE, Monday, January 31, 2000 , 146 Cong Rec S 150, Vol. 146, No. 5, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 2nd Session
Mr. SPECTER; **Mr.** HARKIN; **Mr.** DOMENICI
... report on nuclear energy an **climate change,** "we can expect our consumption of ...
... surface and air pollution and **global warming.** Most of the world's energy ...
... global burden of pollution and **greenhouse gas.** A global solar- ...

67. CONGRESSIONAL RECORD -- SENATE, Friday, November 19, 1999 , 145 Cong Rec S 14977, Vol. 145, No. 165, TICKET TO WORK AND WORK INCENTIVES IMPROVEMENT ACT OF 1999--CONFERENCE
106th Congress, 1st Session
Mr. MOYNIHAN; **Mr.** DURBIN; **Mr.** ASHCROFT; **Mr.** WELLSTONE; **Mr.** FRIST; **Mr.** KOHL; **Mr.** ALLARD; **Mr.** LIEBERMAN; **Mr.** JEFFORDS; **Mr.** REED; **Mr.** ROTH; **Mr.** SANTORUM; **Mr.** HARKIN; **Mr.** SESSIONS; **Mr.** SCHUMER; **Mr.** LOTT; **Mr.** NICKLES; **Mr.** REID; **Mr.** GORTON
... air and mitigation of global **climate change,** it is essential that renewable energy ...

68. CONGRESSIONAL RECORD -- SENATE, Friday, November 19, 1999 , 145 Cong Rec S 15147, Vol. 145, No. 165, METHANE HYDRATE RESEARCH AND DEVELOPMENT ACT OF 1999 - AKAKA AMENDMENT NO. 2806
106th Congress, 1st Session
Mr. DASCHLE
... anticipated impact on global **climate change** from-- (I) methane hydrate ...

69. CONGRESSIONAL RECORD -- SENATE, Thursday, November 18, 1999 , 145 Cong Rec S 14832, Vol. 145, No.

164, S. 1949
106th Congress, 1st Session
Mr. LEAHY
... reductions in future **climate** **change** implementation programs. Sec. ...
... streams; and (G) global **climate change** that may fundamentally and irreversibly ...
... carbon dioxide, the primary **greenhouse gas;** (9) on average-- (A) ...
... owner or operator in any **climate change** implementation program; (8) to ...
... REDUCTIONS IN FUTURE **CLIMATE CHANGE** IMPLEMENTATION PROGRAMS. It is the sense of ...
... generating unit, in any **climate** **change** implementation program enacted ...
... ENVIRONMENTAL LAW (59%); **CLIMATE CHANGE** (59%); TAXES & TAXATION (...

70. CONGRESSIONAL RECORD -- SENATE, Wednesday, November 17, 1999 , 145 Cong Rec S 14696, Vol. 145, No. 163, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 1st Session
Mr. CRAIG; **Mr.** LEAHY; **Mr.** BROWNBACK; **Mr.** FEINGOLD; **Mr.** JEFFORDS; **Mr.** LOTT: **MR; Mr.** ENZI; **Ms.** COLLINS; **Mr.** SCHUMER; **Mr.** BINGAMAN
... current predictions for **climate changes,** by the end of the next ...
... will be affected by **climate change,** or that the effects will be limited to ...
... reductions in future **climate** **change** implementation programs. Sec. ...
... streams; and (G) global **climate change** that may fundamentally and irreversibly ...
... carbon dioxide, the primary **greenhouse gas;** (9) on average-- (A) ...
... owner or operator in any **climate change** implementation program; (8) to ...
... REDUCTIONS IN FUTURE **CLIMATE CHANGE** IMPLEMENTATION PROGRAMS. It is the sense of ...
... generating unit, in any **climate** **change** implementation program enacted ...
... time, even more **greenhouse** **gas** emissions will be avoided ...
... sources increases. Prevention of **greenhouse gas** emissions of up to 1 ...
... reductions in future **climate change** implementation programs. This section ...
... owner/operator in any **climate change** implementation program enacted ...

71. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 9, 1999 , 145 Cong Rec S 14403, Vol. 145, No. 157, IN HONOR OF SENATOR JOHN H. CHAFEE
106th Congress, 1st Session
Mr. LIEBERMAN
... protect against global **climate** **change,** urging the President to adopt an ...
... Nations Framework Convention on **Climate Change.** We went to Kyoto, Japan ...
... taking action to address **global warming.** He and I then worked together with ...
... give companies that reduce **greenhouse gas** emissions the promise of credit if and when we ...
CONFERENCES & CONVENTIONS (90%); **CLIMATE CHANGE** (90%); US ENVIRONMENTAL LAW (...

72. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 9, 1999 , 145 Cong Rec S 14408, Vol. 145, No. 157, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 1st Session
Mr. ROBB; **Mr.** ENZI; **Mr.** AKAKA; **Mr.** GRAMS; **Mr.** L; **Mr.** JEFFORDS; **Mr.** DOMENICI; **Mr.** BINGAMAN; **Mr.** BOND; **Mr.** THOMAS; **Mr.** LEAHY; **Mr.** BAUCUS
... practices, vessel groundings, and **climate change;** (4) the Department of the Interior-- (...

73. CONGRESSIONAL RECORD -- SENATE, Friday, November 5, 1999 , 145 Cong Rec S 14080, Vol. 145, No. 155, TRADE AND FOREIGN POLICY
106th Congress, 1st Session
Mr. MURKOWSKI
... Congress "reluctant to support the **Climate Change** Treaty." Mr. President, it should ...
... national security interest. As to the **Climate Change** Treaty, Congress is not ...
... countries to limit or reduce **greenhouse gas** emissions. Of course, this has not ...

74. CONGRESSIONAL RECORD -- SENATE, Friday, November 5, 1999 , 145 Cong Rec S 14081, Vol. 145, No. 155, NUCLEAR WASTE POLICY
106th Congress, 1st Session
Mr. MURKOWSKI; **Mr.** SESSIONS; **Mr.** DOMENICI
... meet our clean air **global warming** goals without the enhancement of ...

75. CONGRESSIONAL RECORD -- SENATE, Thursday, November 4, 1999 , 145 Cong Rec S 13922, Vol. 145, No. 154, JOHN H. CHAFEE
106th Congress, 1st Session
Mr. MOYNIHAN
... environmental challenges equal that of **global warming,** and the principal culprit in that ...
... less pollution, less **global warming.** Now for point ...

76. CONGRESSIONAL RECORD -- SENATE, Wednesday, November 3, 1999 , 145 Cong Rec S 13729, Vol. 145, No. 153, AFRICAN GROWTH AND OPPORTUNITY ACT
106th Congress, 1st Session
Mr. ROTH; **Mr.** CONRAD; **Mr.** WELLSTONE; **Mr.** MOYNIHAN; **Mr.** GRASSLEY; **Mr.** BAUCUS; **Mrs.** FEINSTEIN; **Mr.** FEINGOLD; **Mr.** KENNEDY; **Mr.** SPECTER; **Mr.** DORGAN; **Ms.** LANDRIEU; **Mr.** HARKIN; **Mr.** REID; **Mr.** LEVIN; **Mr.** MACK; **Mr.** BINGAMAN; **Mr.** LIEBERMAN; **Mr.** NICKLES; **Mr.** THURMOND; **Mr.** KOHL; **Mr.** SCHUMER; **Mr.** DURBIN; **Mr.** KERRY
... African rainforests and increase **global warming.** We are all degraded when the products we buy and ...

77. CONGRESSIONAL RECORD -- SENATE, Friday, October 29, 1999 , 145 Cong Rec S 13526, Vol. 145, No. 150, ENERGY SECURITY TAX ACT OF 1999
106th Congress, 1st Session
Mr. DASCHLE; **Mr.** BYRD; **Mr.** REID; **Mr.** DURBIN; **Mr.** LOTT; **Mrs.** LINCOLN
... important key to the problem of **global warming.** I hope that we can ...
... attempt to do something about **global warming.** I have lived a ...
... much about the science and **global warming,** but I know that ...
... Buenos Aires, to discuss **global warming,** that they will somehow be able to ...

78. CONGRESSIONAL RECORD -- SENATE, Friday, October 29, 1999 , 145 Cong Rec S 13534, Vol. 145, No. 150, NUCLEAR WASTE POLICY AMENDMENTS ACT OF 1999
106th Congress, 1st Session
Mr. MURKOWSKI; **Mr.** BRYAN; **Mr.** REID; **Mr.** SESSIONS
... air, and we are concerned about **global warming,** nuclear is an answer. They won't have that. They ...

79. CONGRESSIONAL RECORD -- SENATE, Friday, October 29, 1999 , 145 Cong Rec S 13540, Vol. 145, No. 150, THE NUCLEAR POWER INDUSTRY
106th Congress, 1st Session
Mr. SESSIONS
... great concern over **global warming** and the emission of greenhouse gases into the ...
... increase since 1990, **greenhouse gas** cuts envisioned by the ...
... POWER PLANTS (79%); **CLIMATE CHANGE** (59%); POPULATION & DEMOGRAPHICS (...

80. CONGRESSIONAL RECORD -- SENATE, Thursday, October 28, 1999 , 145 Cong Rec S 13339, Vol. 145, No. 149, IN HONOR OF SENATOR JOHN CHAFEE
106th Congress, 1st Session
Mr. ROCKEFELLER; **Mr.** LEAHY; **Mrs.** MURRAY; **Mr.** ASHCROFT; **Mr.** HATCH
... well as the need to stop **global warming** from further progression. I ...

81. CONGRESSIONAL RECORD -- SENATE, Thursday, October 28, 1999 , 145 Cong Rec S 13345, Vol. 145, No. 149, NO NEW WAVE OF ISOLATIONISM
106th Congress, 1st Session
Mr. NICKLES
... Kyoto treaty, the Global **Climate Change** Protocol negotiated in ...

82. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 26, 1999 , 145 Cong Rec S 13119, Vol. 145, No. 147, IN HONOR OF SENATOR JOHN CHAFEE
106th Congress, 1st Session
Mr. BYRD; **Mr.** GRAHAM
... Rio treaties on global **climate change** and biodiversity, but he also supported ...
... analysis of the Kyoto Protocol on **global warming** before the Senate would consider that ...

83. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 26, 1999 , 145 Cong Rec S 13122, Vol. 145, No. 147, IN HONOR OF SENATOR JOHN CHAFEE
106th Congress, 1st Session
Mrs. HUTCHISON; **Mr.** VOINOVICH; **Mr.** SMITH OF NEW HAMPSHIRE; **Mr.** BAUCUS; **Mr.** HOLLINGS; **Mr.** ENZI; **Mr.** INOUYE; **Mr.** KENNEDY; **Mr.** HARKIN; **Mr.** GRAMS; **Ms.** MIKULSKI
... site for the Global **Climate Change** Conference. Senator Chafee and ...
... resolution dealing with global **climate change.** While we were there I attended ...
... discussion that we had on Japan, global **climate change,** and a variety of environmental ...

84. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 26, 1999 , 145 Cong Rec S 13133, Vol. 145, No. 147
106th Congress, 1st Session
Mr. DODD; **Mr.** FEINGOLD; **Mr.** CONRAD
... African rainforests and increase **global warming;** we all lose when species unique to ...

85. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 26, 1999 , 145 Cong Rec S 13160, Vol. 145, No. 147, THE CLIMATE CHANGE ENERGY POLICY RESPONSE ACT AND THE CLIMATE CHANGE TAX

AMENDMENTS OF 1999
106th Congress, 1st Session
Mr. ENZI
Mr. President, the **Climate Change** Energy Policy Response Act would bring the debate on **global warming and climate change** out of the arena of mass ...
... goals for addressing **climate change** concerns, but it also seeks to ...
... developed by professional **global warming** special interest activists and the ...
... many of the people who attend **global warming** conferences and who circulate **global warming** propaganda, **global warming** is an occupation. This is how they make their ...
... for activities involving **climate change.** It would require increased peer ...
... assimilate natural and manmade **greenhouse gas** emissions and to evaluate natural ...
... put the power of addressing **global warming** issues into the hands of those most affected by **climate change** initiatives. It does this by amending the ...
... for voluntary reduction of **greenhouse gas** emissions and for the development of ...
... research and development involving **climate change.** It also would apply tax credits for **greenhouse gas** emission reduction facilities. This ...
GLOBAL WARMING (93%); **CLIMATE CHANGE** (92%); ENERGY POLICY (...

86. CONGRESSIONAL RECORD -- SENATE, Monday, October 25, 1999 , 145 Cong Rec S 13089, Vol. 145, No. 146, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 1st Session
Mrs. FEINSTEIN; **Mr.** CRAIG
... in order to reduce **greenhouse gas** emissions, advance global ...
... Energy and Natural Resources. the **climate change** energy policy response ...
... for the voluntary reduction of **greenhouse gas** emissions and to advance global ...
... development; to the Committee on Finance. the **climate change** tax amendments of 1999 ...
... for our country as global **climate change.** Worst case scenarios ...
... President, we need consensus on **climate change.** But there is no magic ...
... likelihoods of rapid or abrupt **climate changes.** Likewise, Mr. President, we ...
... Government is doing--about **climate change.** Knowledge in the science, economics, and technology of **climate change** will yield to understanding. We should all be ...
... ahead with some steps that reduce **greenhouse gas** emissions while accomplishing ...
... solving traffic problems and the **greenhouse gas** theory fizzles out, at ...
... regrets action to lower **greenhouse gas** emissions. But let's ...
... things with regard to the global **climate change** issue. My legislation does ...
... Act may be cited as the "**Climate Change** Energy Policy Response ...
... TITLE II--ADVANCEMENT OF **CLIMATE CHANGE** SCIENCE Sec. 201. Coordination, prioritization, and evaluation of **climate change** science research. TITLE ...
... for addressing the effects of **greenhouse gas** emissions. TITLE IV-- ...
... ENERGY TECHNOLOGY TO MITIGATE **CLIMATE CHANGE** Sec. 601. International ...
... energy technology to mitigate **climate change.** TITLE VII--OPTIMAL ...
... 1) to responsibly address **climate change** issues requires examination of ...
... practices; (2) global **climate change** issues have profound scientific, ...
... capabilities to perform the requisite **climate change** modeling simulations and experiments ...
... policy questions related to **climate change;** and (C) those deficiencies, among ...
... characteristics and assess the results of **climate change;** (ii) formulate policies that are ...
... scientific issues pertaining to **climate change** and variability; (5) there has been a ...
... States to document and understand **climate change** adequately; (6)(A) ...

... a lower level of **greenhouse gas** emissions in the United ...
... policy information regarding **climate change** is severely limited; (B) the ...
... fully informed of all aspects of **climate change** is not being satisfied; and (...
... economically sound approaches to **climate change** policy resolution is urgently ...
... reduce, avoid, or offset **greenhouse gas** emissions, even though ...
... regulatory mandates; and (10) **greenhouse gas** emission improvements can be ...
... avoidance of the emission of a **greenhouse gas;** "(B) a limitation on the emission of a **greenhouse gas;** "(C) sequestration of carbon; and "(...
... for the emission of a **greenhouse gas.** "(3) Energy technology.--The ...
... use of energy that could reduce **greenhouse gas** emissions; and "(B) a ...
... oceans, and wetlands. "(4) **Greenhouse gas.**--The term **greenhouse gas'** means a gaseous ...
... related activities involving **climate change** issues, including scientific ...
... activities of various global **climate change** policies described in this ...
... modeling results) relating to **climate change** issues described in this ...
... made to this title by the **Climate Change** Energy Policy Response ...
... TITLE II--ADVANCEMENT OF **CLIMATE CHANGE** SCIENCE SEC. 201. COORDINATION, PRIORITIZATION, AND EVALUATION OF **CLIMATE CHANGE** SCIENCE RESEARCH. (a) ...
... COORDINATION, PRIORITIZATION, AND EVALUATION OF **CLIMATE CHANGE** SCIENCE RESEARCH. "(a) ...
... in part, involves **climate change** science. "(b) Recommendations To ...
... after the date of enactment of the **Climate Change** Energy Policy Response ...
... d) Objectives of Federal **Climate Change** Science Research.-- "(1) In general.--All **climate change** science research performed ...
... assimilate natural and manmade **greenhouse gas** emissions; "(B) evaluating the ...
... National Resource Center on **Climate Change** established under section ...
... Appropriations for Certain **Climate Change** Research.--For each of ...
... variations in climate and **greenhouse gas** emissions including crops, ...
... Coordination, prioritization, and evaluation of **climate change** science research.". TITLE ...
... FOR ADDRESSING THE EFFECTS OF **GREENHOUSE GAS** EMISSIONS. (a) In ...
... POLICIES FOR ADDRESSING **GREENHOUSE GAS** EMISSIONS. "(a) Evaluation and ...
... after the date of enactment of the **Climate Change** Energy Policy Response ...
... responding to potential global **climate change** (including a comparative ...
... adapt to potential global **climate change.** "(B) Consultation.--Each ...
... related to potential global **climate change;** and "(II) the projected ability of ...
... within specified timeframes, **greenhouse gas** emissions under a ...
... after the date of enactment of the **Climate Change** Energy Policy Response ...
... after the date of enactment of the **Climate Change** Energy Policy Response ...
... each mechanism on global **climate change** and the effect of each mechanism on the ...
... after the date of enactment of the **Climate Change** Energy Policy Response ...
... private sector that affect **greenhouse gas** emissions. "(2) Public ...
... policies for addressing **greenhouse gas** emissions.". TITLE IV-- ...
... year Federal spending on **climate change,** categorized by research, ...
... Federal spending related to **climate change** categorized by research, ...
... detailing all spending recommendations on **climate change** submitted by Federal ...
... 5) an alphabetical index of all **climate change** grantees, cross-referenced ...
... project; "(6) an index of all **climate change** grant proposals not ...
... in peer review of **climate change** grant proposals submitted to ...
... NATIONAL RESOURCE CENTER ON **CLIMATE CHANGE.** "(a) In General.--The ...
... National Resource Center on **Climate Change** (referred to in this section as the ...

... other information relating to **climate change** provided for in this ...
... provided for in the **Climate Change** Energy Policy Response ...
... National Resource Center on **Climate Change.**". TITLE V--ACCELERATED ...
... National Resource Center on **Climate Change** established under section ...
... domestically and internationally for **greenhouse gas** emission reductions (within the ...
... ENERGY TECHNOLOGY TO MITIGATE **CLIMATE CHANGE** SEC. 601. INTERNATIONAL ...
... ENERGY TECHNOLOGY TO MITIGATE **CLIMATE CHANGE.** Section 1608 of the Energy ...
... Energy Technology To Mitigate **Climate Change.**-- "(1) Definitions.--In this ...
... will result in **greenhouse gas** reduction when compared to the technology that would ...
... after the date of enactment of the **Climate Change** Energy Policy Response ...
... after the date of enactment of the **Climate Change** Energy Policy Response ...
... after the date of enactment of the **Climate Change** Energy Policy Response ...
... after the date of enactment of the **Climate Change** Energy Policy Response ...
... effect on the date of enactment of the **Climate Change** Energy Policy Response ...
... voluntary steps to reduce **greenhouse gas** emissions. "(b) Coordination With ...
... voluntary energy initiatives.". The **Climate Change** Energy Policy Response ...
... in order to reduce **greenhouse gas** emissions, advance global ...
... federal activities involving **climate change** issues including scientific ...
... economic analysis of various **climate change** policy alternatives; select **climate change** policy alternatives for ...
... funded information relating to **climate change** is timely, balanced, understandable, ...
... TITLE II--ADVANCEMENT OF **CLIMATE CHANGE** SCIENCE SEC. 201--COORDINATION, PRIORITIZATION, AND EVALUATION OF **CLIMATE CHANGE** SCIENCE RESEARCH This section ...
... funded scientific research on **climate change** conducted by or through ...
... objectives for federal **climate change** science research are to: understand the ...
... assimilate natural and manmade **greenhouse gas** emissions; evaluate the natural ...
... National Resource Center on **Climate Change.** For each of fiscal ...
... variations in climate and **greenhouse gas** emissions including, crops, ...
... for addressing the effects of **greenhouse gas** emissions This section provides that ...
... prepare an economic analysis of **climate change** policy alternatives. The Secretary of ...
... avoid, reduce, or adapt to **climate change.** Each such assessment is to analyze ...
... international agreements relating to **climate change,** and the projected ability and likelihood of ...
... Protection Agency activities with **climate change** implications DOE is to report on the ...
... in turn, affect **greenhouse gas** emissions. DOE is to consult with the ...
... U.S. investment in **climate change** activities that includes: a ...
... year, and proposed spending on **climate change** categorized by research, ...
... U.S. taxpayers attributable to **greenhouse gas** emissions reductions; tables of spending proposals on **climate change** submitted by federal ...
... recommendations to Congress; an index of all **climate change** grantees, cross-referenced ...
... in peer review of **climate change** grant proposals. Each such ...
... National Resource Center on **Climate Change** DOE, in consultation with the ...
... National Resource Center on **Climate Change.** The Center is to preserve and make ...
... available to the federal government on **climate change.** Reference items may be ...
... National Research Center on **Climate Change,** but is not to affect ...
... barriers to rapid deployment of **greenhouse gas** Emission reduction technology This ...
... deployment of technology to reduce **greenhouse gas** emissions. The scope is both ...
... ENERGY TECHNOLOGY TO MITIGATE **CLIMATE CHANGE** sec.

601--international ...
... energy technology to mitigate **climate change** Pilot program for ...
... voluntary measures to reduce **greenhouse gas** emissions. Revised reporting ...
... purpose of encouraging voluntary **greenhouse gas** emission reductions; and (2) the ...
... multiple certification of the same **greenhouse gas** emissions reductions: If more than ...
... seek certification of a **greenhouse gas** emission reduction shall be ...
... practices for estimating **greenhouse gas** emission reductions under ...
... engaging in voluntary **greenhouse gas** reduction measures and having the reductions ...
... voluntary steps to reduce **greenhouse gas** emissions. This provision remains ...
... Act may be cited as the "**Climate Change** Tax Amendments of 1999". ...
... RESEARCH AND DEVELOPMENT REGARDING **GREENHOUSE GAS** REDUCTION. (a) In ...
... take effect unless the **Climate Change** Energy Policy Response ...
... CREDIT FOR REDUCED **GREENHOUSE GAS** EMISSIONS FACILITIES. (a) Allowance of Reduced **Greenhouse Gas** Emissions Facilities Credit.-- ...
... following: "(4) the reduced **greenhouse gas** emissions facilities credit." (...
... CREDIT FOR REDUCED **GREENHOUSE GAS** EMISSIONS FACILITIES. "(a) ...
... section 46, the reduced **greenhouse gas** emissions facilities credit ...
... in a reduced **greenhouse gas** emissions facility for such ...
... year. "(b) Reduced **Greenhouse Gas** Emissions Facility.--For ...
... a), the term reduced **greenhouse gas** emissions facility' means ...
... taxpayer, "(B) reduces **greenhouse gas** emissions on a per ...
... percentage reduction in **greenhouse gas** emissions described in ...
... basis of a reduced **greenhouse gas** emissions facility placed ...
... qualify as a reduced **greenhouse gas** emissions facility which is being ...
... Only construction of reduced **greenhouse gas** emissions facility to be taken into ...
... rules relating to reduced **greenhouse gas** emissions facility.--For ...
... respect to a reduced **greenhouse gas** emissions facility (as defined ...
... under this title the reduced **greenhouse gas** emissions facility disposed of, and whose ...
... year of disposition of the reduced **greenhouse gas** emissions facility property ...
... for a reduced **greenhouse gas** emissions facility under ...
... regarding a reduced **greenhouse gas** emissions facility." (d) ...
... portion of the basis of any reduced **greenhouse gas** emissions facility attributable to any ...
... Credit for reduced **greenhouse gas** emissions facilities." (e) ...
... for Voluntary Reduction of **Greenhouse Gas** Emissions.-- (1) In ...
... expenditures for the reduction of **greenhouse gas** emissions. For purposes of this ...
... response for reduction of **greenhouse gas** emissions and to ensure that the incentives ...
... Congress that incentives for **greenhouse gas** reductions should be available for ...
... economic incentives for **greenhouse gas** emission reductions comparable to those ...
... for legislative action. The **Climate Change** Tax Amendments of 1999-- ...
... for the voluntary reduction of **greenhouse gas** emissions and to advance global ...
... designates the short title as the "**Climate Change** Tax Amendments of 1999." ...
... R & D involving **climate change.** In order for ...
... becomes law, and only if the **Climate Change** Energy Policy Response ...
... tax credits for **greenhouse-gas**-emission reduction facilities. **greenhouse gas** emissions facility credit The ...
... based upon the amount of **greenhouse gas** emission reductions reported and ...
... in a "reduced **greenhouse gas** emissions facility." For ...
... efficient one that reduced **greenhouse gas** emissions by 18 ...
... investment in that "reduced **greenhouse gas** emissions facility". Such facility is ...

... facility of the taxpayer; which reduces **greenhouse gas** emissions (on a per ...
... relating to voluntary reporting of **greenhouse gas** emission reductions). Only that ...
... qualify as a reduced **greenhouse gas** emission facility. election ...
... in tax equal to the **greenhouse gas** emissions facility investment ...
... for voluntary reduction of **greenhouse gas** emissions The Secretary of Energy and the ...
... recoupable expenditures on the reduction of **greenhouse gas** emissions. An expenditure qualifies if it is ...

87. CONGRESSIONAL RECORD -- SENATE, Thursday, October 14, 1999 , 145 Cong Rec S 12620, Vol. 145, No. 139, DEPARTMENT OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT, AND INDEPENDENT AGENCIES APPROPRIATIONS ACT, 2000--CONFERENCE REPORT
106th Congress, 1st Session
Mr. LOTT; **Mr.** BOND; **Ms.** MIKULSKI; **Mr.** WELLSTONE; **Mr.** MCCAIN; **Mr.** LAUTENBERG; **Mr.** BURNS; **Mr.** CRAIG; **Mr.** BYRD; **Mr.** SANTORUM
... understanding of section 425. **climate change** language Mr. BYRD. ...
... U.N. Framework Convention on **Climate Change,** ratified by the U.S. ...
... technologies, and reduce global **greenhouse gas** emissions. Is my understanding ...
... under the Framework Convention on **Climate Change** ratified in 1992, have had ...
... Kyoto Protocol on global **climate change,** prior to ratification and Senate ...
... accountability in the Administration's **climate change** proposals and initiatives. This language ...
... proposals, then submission of agency **climate change** reports with the President's FY ...

88. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 12, 1999 , 145 Cong Rec S 12329, Vol. 145, No. 137, EXECUTIVE SESSION - COMPREHENSIVE NUCLEAR TEST-BAN TREATY
106th Congress, 1st Session
Mr. REID; **Mr.** WARNER; **Mr.** FEINGOLD; **Mr.** KYL; **Mr.** KERREY; **Mr.** BIDEN; **Mr.** SPECTER; **Mr.** HELMS; **Mr.** BURNS; **Mr.** REED; **Mr.** BUNNING; **Mr.** BAUCUS; **Ms.** SNOWE; **Mr.** KERRY; **Mr.** LIEBERMAN; **Mr.** KENNEDY; **Mr.** LEVIN; **Mr.** DORGAN; **Mr.** BROWNBACK; **Mr.** SARBANES; **Mr.** DOMENICI; **Mr.** ROBB; **Mr.** HUTCHINSON; **Mr.** SMITH OF NEW HAMPSHIRE; **Mr.** MCCAIN; **Mr.** HATCH; **Mr.** ASHCROFT; **Mr.** AKAKA
... defer to the President on the Kyoto **Global Warming** Treaty or the ABM multilateralization or ...

89. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 5, 1999 , 145 Cong Rec S 12045, Vol. 145, No. 133, NOTICES OF HEARINGS
106th Congress, 1st Session
Mr. THOMAS; **Mr.** MURKOWSKI
... 1974 with respect to potential **climate change** has been cancelled. For further ...

90. CONGRESSIONAL RECORD -- SENATE, Monday, October 4, 1999 , 145 Cong Rec S 11824, Vol. 145, No. 132, AIR TRANSPORTATION IMPROVEMENT ACT
106th Congress, 1st Session
Mr. GORTON; **Mr.** ROCKEFELLER; **Mr.** FITZGERALD; **Mr.** AKAKA; **Mr.** SMITH OF NEW HAMPSHIRE
... pollution, help curb **global warming,** and reduce the amount of gasoline we ...

91. CONGRESSIONAL RECORD -- SENATE, Monday, October 4, 1999 , 145 Cong Rec S 11877, Vol. 145, No. 132, HOPE FOR AFRICA BILL

106th Congress, 1st Session
Mr. FEINGOLD
... African rainforests and increase **global warming,** and we all reap the benefits of an Africa where ...

92. CONGRESSIONAL RECORD -- SENATE, Thursday, September 30, 1999 , 145 Cong Rec S 11670, Vol. 145, No. 130, COMPREHENSIVE TEST BAN TREATY
106th Congress, 1st Session
Mr. HELMS; **Mr.** DORGAN; **Mr.** WARNER; **Mr.** DURBIN; **Mr.** BIDEN; **Mr.** SPECTER; **Mr.** KENNEDY; **Mr.** FEINGOLD; **Mr.** BINGAMAN; **Mr.** HARKIN
... U.N. convention on global **climate change,** both of which the President has not ...
... International Development and U.S. **Climate Change** Policy. July 29, ...
... a New U.N. **Climate Change** Treaty. October 9, ...
... Implications of the Kyoto Protocol on **climate Change.** (S. Hrg. 105- ...
... Protocol to the UN Convention on **Climate Change.** Mr. President, I ...

93. CONGRESSIONAL RECORD -- SENATE, Thursday, September 30, 1999 , 145 Cong Rec S 11751, Vol. 145, No. 130, NOTICE OF HEARING
106th Congress, 1st Session
Mr. MURKOWSKI
... 1974 with respect to potential **Climate Change.** The hearing will take ...

94. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 22, 1999 , 145 Cong Rec S 11237, Vol. 145, No. 124, FEDERAL DAIRY POLICY
106th Congress, 1st Session
Mr. FEINGOLD; **Mr.** KERRY; **Ms.** MIKULSKI; **Mr.** GRAMS; **Mr.** WELLSTONE; **Mr.** BOND; **Mr.** BRYAN; **Mr.** DEWINE; **Mr.** SCHUMER; **Mr.** AKAKA; **Mr.** LEAHY; **Mrs.** FEINSTEIN; **Mr.** CHAFEE; **Mr.** MACK; **Mr.** GRAHAM
... voluntary energy conservation and **climate change** related programs and initiatives--such as the ...
... Vehicles. These programs have reduced **greenhouse gas** emissions by increasing ...

95. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 15, 1999 , 145 Cong Rec S 10892, Vol. 145, No. 120, DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS ACT--
106th Congress, 1st Session
Mr. GORTON; **Mr.** BRYAN; **Mrs.** FEINSTEIN; **Mr.** SHELBY; **Mr.** REED; **Mr.** LAUTENBERG; **Mr.** CHAFEE; **Mr.** BAUCUS; **Mr.** WARNER; **Mr.** GRAHAM; **Mr.** NICKLES; **Mr.** REID; **Mr.** HELMS; **Mr.** SPECTER; **Mr.** ABRAHAM; **Mr.** ASHCROFT; **Mr.** LEVIN; **Mr.** BURNS; **Ms.** MIKULSKI; **Mr.** FEINGOLD; **Mr.** LIEBERMAN; **Mr.** DEWINE; **Mr.** THOMAS; **Mr.** STEVENS; **Mrs.** MURRAY; **Mr.** VOINOVICH
... first began to believe that **global warming** was a major threat ...
... a possible indicator of **global warming.** I began to take ...
... fuel efficiency, what would that do for **global warming?** Carbon dioxide is the main culprit in **global warming.** Our country is the largest emitter and ...
... none, that we can do to influence **global warming** in a positive ...
... way to address the problem of **global warming.** I am hopeful that this measure ...
... relatively painlessly, to reduce **global warming.** I yield the floor. ...
... single thing we could do to alleviate **global warming.** So I thank the Senator from ...
... many may believe to be **global warming.** One does not have to embrace the concept of **global warming.** I know

not ...
... a potential impact on **global warming** is something that they as a company, as ...
... between carbon dioxide and **global warming** and some of the implications it has for us in the ...
... not have to embrace the concept of **global warming** to agree with the vast majority, ...
... a way to inhibit **global warming.** Although federal anti- ...
... But those worried about **global warming** say CO<INF> ...
... creating that much more **global-warming** gas. I demonize ...
... 2</INF> causes **global warming** or that warming is occurring. Seeking ...
... emissions that cause global **climate change.** Few can hear those words, "**climate change,**" and not be concerned about the ...
... concern that changes in our **climate, changes** that are created in the atmosphere as ...
... 43 percent more **global-warming** pollution than cars. And each ...
... oil consumption, and global **climate change** are intertwined. Global **climate change** is an issue that has been quite contentious ...
... effective way to reduce **greenhouse gas** emissions from automobiles. The bottom ...
... pollution as well as global **climate change.** More than 117 million ...
... meet the tremendous challenge of **climate change** head on rather than leaving ...
... emitter of the pollution that contributes to **climate change,** the United States has the responsibility to ...
... one-third of America's **greenhouse gas** emissions, and projections suggest that our ...
... strategy to address global **climate change.** The study found that increased ...

96. CONGRESSIONAL RECORD -- SENATE, Friday, September 10, 1999 , 145 Cong Rec S 10720, Vol. 145, No. 117, ORDER OF BUSINESS
106th Congress, 1st Session
Mr. LOTT; **Mr.** DORGAN; **Mr.** COVERDELL
... situation with regard to Kyoto, the **global warming** issue; and the third leg of this ...

97. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 8, 1999 , 145 Cong Rec S 10551, Vol. 145, No. 115, DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT,
106th Congress, 1st Session
Mr. GORTON; **Mr.** GRAHAM; **Mr.** ENZI; **Mr.** BOND; **Mr.** CAMPBELL; **Mr.** BRYAN; **Mr.** BYRD; **Mr.** INOUYE; **Mr.** SESSIONS; **Mrs.** HUTCHISON; **Mr.** DOMENICI; **Mr.** ROBB; **Mrs.** BOXER; **Mr.** DURBIN; **Mr.** CRAIG; **Mr.** FEINGOLD; **Mr.** SMITH OF OREGON; **Mr.** BURNS; **Mr.** CLELAND
... air quality and lower **greenhouse gas** emissions, and expanding markets ...

98. CONGRESSIONAL RECORD -- SENATE, Thursday, August 5, 1999 , 145 Cong Rec S 10342, Vol. 145, No. 114, DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT, 2000-- CONTINUED
106th Congress, 1st Session
Mr. GORTON; **Mr.** ROBB; **Mr.** ENZI; **Mr.** DOMENICI; **Mr.** BYRD; **Ms.** MIKULSKI; **Mr.** SARBANES; **Mr.** HOLLINGS; **Mr.** LEAHY; **Mr.** KOHL; **Mr.** STEVENS; **Mr.** WARNER; **Mr.** CLELAND; **Mr.** JEFFORDS; **Mr.** KERREY; **Mr.** BENNETT; **Mr.** MACK; **Mr.** GRAHAM; **Mr.** LIEBERMAN; **Mr.** BINGAMAN; **Mr.** MURKOWSKI; **Mrs.** MURRAY; **Mr.** DEWINE; **Mr.** SANTORUM; **Mr.** MCCAIN; **Mr.** SPECTER
... increased funding for the **climate change** technology initiative or for ...
... air sciences; global **climate change** and wilderness research. Beyond these ...

99. CONGRESSIONAL RECORD -- SENATE, Wednesday, August 4, 1999 , 145 Cong Rec S 10139, Vol. 145, No.

113, AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION, AND RELATED AGENCIES APPROPRIATIONS ACT, 2000
106th Congress, 1st Session
Mr. KOHL; **Mr.** JEFFORDS; **Mr.** LEAHY; **Mr.** FEINGOLD; **Mr.** GRAMS; **Mr.** HATCH; **Mr.** TORRICELLI; **Ms.** COLLINS; **Ms.** SNOWE; **Mr.** SCHUMER; **Mr.** WELLSTONE; **Mr.** CRAIG; **Mr.** DASCHLE; **Mr.** COCHRAN; **Mr.** ROBERTS; **Mr.** DORGAN; **Mr.** MCCAIN; **Mr.** SANTORUM; **Mr.** HARKIN; **Mr.** CONRAD; **Mr.** BURNS; **Mr.** NICKLES; **Mr.** SPECTER; **Mr.** LOTT; **Mr.** GREGG; **Mrs.** FEINSTEIN; **Mr.** BREAUX; **Mr.** INOUYE; **Mr.** THOMAS; **Ms.** LANDRIEU; **Mr.** GRAHAM; **Mr.** AKAKA; **Mr.** ENZI; **Mr.** DURBIN; **Mr.** KENNEDY; **Mr.** KERREY; **Mr.** GRASSLEY; **Mrs.** LINCOLN; **Mr.** ASHCROFT; **Mr.** BROWNBACK; **Mr.** MACK; **Mr.** REID; **Mr.** SMITH OF NEW HAMPSHIRE; **Mrs.** BOXER; **Mr.** GRAMM; **Mr.** FITZGERALD; **Mr.** CHAFEE; **Mr.** INHOFE; **Mr.** DOMENICI; **Mrs.** HUTCHISON; **Mr.** THURMOND; **Mr.** COVERDELL; **Mr.** ABRAHAM; **Mr.** BINGAMAN; **Mr.** BOND; **Mr.** BYRD
... provide funding for **climate change** research; Senator McConnell's ...

100. CONGRESSIONAL RECORD -- SENATE, Thursday, July 29, 1999 , 145 Cong Rec S 9744, Vol. 145, No. 109, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 1st Session
Mr. WYDEN; **Mr.** REID; **Mr.** MACK; **Mr.** HATCH; **Mr.** LEAHY; **Mr.** JEFFORDS; **Mr.** DEWINE; **Mr.** HAGEL; **Mr.** THOMPSON
... national efforts to fight **global warming.** The bill focuses on forests because they are the ...
... climate system. Global **climate change** may jeopardize critical ...
... *daunting* challenges if the predicted **climate changes,** such as drier, hotter summers, ...
... level rise resulting from **global warming** could eliminate the salt marshes ...
... Given these potential hazards of **global warming,** the challenge is to find strategies to ...
... dioxide--the most significant **greenhouse gas**--from the atmosphere. In fact, the ...
... win strategy to slow **global warming.** And here's the good news--an ounce of ...
... only a pound of **global warming** cure, but also two ...
... accounting and monitoring to ensure that **greenhouse gas** reductions are real and verifiable. I recognize that **global warming** is a large problem that ...
... renewable technologies that reduce **greenhouse gas** emissions. But increasing our ...
... will solve the entire **global warming** problem, but they are a ...
... step to reverse the buildup of **greenhouse gas** in the atmosphere. It is sometimes ...
... Nations Framework Convention on **Climate Change** was ratified by the Senate, ...
... commitment to begin reducing **greenhouse gas** emissions. We cannot afford to ...
... job at fighting off **global warming.** In fact, our Northwest ...
... state actions to reduce **greenhouse gas** emissions. I am pleased to ...
... voluntary accounting and verification of **greenhouse gas** reductions from forestry activities. The ...
... report real and credible **greenhouse gas** reductions. These guidelines will be ...
... Title XVI ("Global **Climate Change**") of the Energy Policy Act of ...
... Mechanisms for Addressing **Greenhouse Gas** Emissions"). (c) Monitoring and ...
... accurate voluntary reporting of **greenhouse gas** sequestration from forest management ...
... assessing the vulnerability of forests to **climate change.** The Advisory Council includes ...
... guidance on calculating net **greenhouse gas** reductions from biomass energy ...
... fossil fuels) has on the displacement of **greenhouse gas** emissions from fossil fuels. ...
... for reductions of atmospheric **greenhouse gas** concentrations resulting from forest ...
... specified in the loan. **Greenhouse gas** reductions: A loan ...
... 90%); EMISSIONS (90%); **CLIMATE CHANGE** (89%); FRESHWATER ECOSYSTEMS (...
... ENERGY POLICY (79%); **GLOBAL WARMING** (79%); ECOSYSTEMS & HABITATS (...

101. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 28, 1999 , 145 Cong Rec S 9460, Vol. 145, No. 108,
TAXPAYER REFUND ACT OF 1999
106th Congress, 1st Session
Mr. LOTT; **Mr.** ROTH; **Mr.** MOYNIHAN; **Mr.** DOMENICI; **Mr.** REID; **Mr.** WELLSTONE; **Mr.** BYRD; **Mr.** KERREY; **Mr.** THOMPSON; **Mr.** BAUCUS; **Mr.** ROCKEFELLER; **Mr.** GRAMM; **Mrs.** MURRAY; **Mr.** GREGG; **Mr.** CONRAD; **Mr.** ASHCROFT; **Mr.** DASCHLE; **Mr.** BREAUX; **Mr.** NICKLES; **Mr.** GRASSLEY; **Mr.** GRAMS; **Mr.** BRYAN; **Mr.** MACK; **Mr.** MCCAIN; **Mr.** ABRAHAM; **Mr.** SANTORUM; **Mr.** COVERDELL; **Mr.** LAUTENBERG; **Mr.** KENNEDY; **Mr.** ENZI; **Mr.** GRAHAM; **Mr.** ROBB
... extremely complicated--global **climate change** and others. This is a very straightforward, ...

102. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 27, 1999 , 145 Cong Rec S 9317, Vol. 145, No. 107,
SNAKE RIVER DAMS
106th Congress, 1st Session
Mr. GORTON; **Mr.** SCHUMER
... environmental groups point to **global warming** as a major cause ...

103. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 21, 1999 , 145 Cong Rec S 8972, Vol. 145, No. 104,
NATIONAL YOUTH SCIENCE FOUNDATION
106th Congress, 1st Session
Mrs. HUTCHISON
... genome project, global **climate change,** the history of the universe, the fate of our ...

104. CONGRESSIONAL RECORD -- SENATE, Monday, July 19, 1999 , 145 Cong Rec S 8775, Vol. 145, No. 102,
BRITISH-AMERICAN PARLIAMENTARY GROUP
106th Congress, 1st Session
Mr. BYRD; **Mr.** THOMAS
... approach the problem of global **climate change.** Our blood ties are stronger than the ...

105. CONGRESSIONAL RECORD -- SENATE, Monday, July 19, 1999 , 145 Cong Rec S 8797, Vol. 145, No. 102,
PRESIDENT CLINTON'S EXECUTIVE ORDER TO INCREASE ENERGY EFFICIENCY IN THE FEDERAL GOVERNMENT
106th Congress, 1st Session
Mr. KERRY
... goals, including the reduction of **greenhouse gas** emissions, energy efficiency ...

106. CONGRESSIONAL RECORD -- SENATE, Thursday, July 15, 1999 , 145 Cong Rec S 8631, Vol. 145, No. 100,
PROLIFERATION PREVENTION ENHANCEMENT ACT OF 1999
106th Congress, 1st Session
Mr. SPECTER; **Mr.** BIDEN; **Mr.** FEINGOLD; **Mr.** THOMAS; **Mr.** LEAHY; **Mr.** BENNETT; **Mr.** VOINOVICH; **Mrs.** LINCOLN; **Mr.** DOMENICI
... 1974 with respect to potential **Climate Change.** S. 984 At the request of ...

107. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 14, 1999 , 145 Cong Rec S 8505, Vol. 145, No. 99,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

106th Congress, 1st Session
Mr. BURNS; **Mr.** DURBIN; **Mr.** MURKOWSKI; **Mr.** JEFFORDS; **Mr.** LIEBERMAN; **Mr.** SHELBY
... U.S. contribution to the problem of **climate change** by recognizing carbon ...
... for destructive and irreversible **climate change.** The Clean Energy Act of ...

108. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 30, 1999 , 145 Cong Rec S 7835, Vol. 145, No. 95,
FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS APPROPRIATIONS ACT, 2000
106th Congress, 1st Session
Mr. MCCONNELL; **Mr.** LEAHY; **Mr.** BROWNBACK; **Mr.** ABRAHAM; **Mr.** WELLSTONE; **Mrs.** BOXER; **Mr.** TORRICELLI; **Mr.** SMITH OF OREGON; **Mr.** DURBIN; **Mr.** MCCAIN; **Mr.** DORGAN; **Mr.** CAMPBELL
... protect the ozone, and to prevent **climate change.** Take a poll of the ...
... protecting the ozone, preventing **climate change.** For this endeavor, the administration ...

109. CONGRESSIONAL RECORD -- SENATE, Monday, June 28, 1999 , 145 Cong Rec S 7685, Vol. 145, No. 93,
NATIONAL SECURITY
106th Congress, 1st Session
Mr. AKAKA; **Mr.** BAUCUS
... include global issues such as **global warming** and the proliferation of weapons of mass ...
... CONTROL & DISARMAMENT (59%); **GLOBAL WARMING** (59%); EXPORT TRADE (...

110. CONGRESSIONAL RECORD -- SENATE, Monday, June 21, 1999 , 145 Cong Rec S 7325, Vol. 145, No. 88,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 1st Session
Mr. GRAMS; **Mr.** TORRICELLI; **Mr.** LIEBERMAN; **Mr.** ROCKEFELLER; **Mr.** DORGAN; **Mr.** BINGAMAN; **Mr.** INOUYE; **Mr.** ABRAHAM
... practices, vessel groundings, and **climate change.** (4) Since 1994, ...

111. CONGRESSIONAL RECORD -- SENATE, Thursday, June 17, 1999 , 145 Cong Rec S 7209, Vol. 145, No. 86,
ENDING ABUSIVE AND EXPLOITATIVE CHILD LABOR
106th Congress, 1st Session
Mr. HARKIN
... humanity, to remove the threat of **global warming** and environmental destruction, to lift ...

112. CONGRESSIONAL RECORD -- SENATE, Thursday, June 17, 1999 , 145 Cong Rec S 7219, Vol. 145, No. 86,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -
106th Congress, 1st Session
Ms. COLLINS; **Mr.** DURBIN; **Mr.** COCHRAN; **Mr.** LEAHY; **Mr.** GRAHAM; **Mr.** MURKOWSKI; **Mr.** ASHCROFT
... offset emissions that contribute to the "**greenhouse effect.**" Unfortunately, the current high ...
... consider policies to counteract **global warming** and improve water quality, we ...

113. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 16, 1999 , 145 Cong Rec S 7098, Vol. 145, No. 85,
ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT, 2000
106th Congress, 1st Session

Mr. DOMENICI; **Mr.** REID; **Mr.** JEFFORDS; **Mr.** DORGAN; **Mr.** DURBIN; **Mr.** ROTH; **Mr.** ALLARD; **Mr.** BINGAMAN; **Mr.** LEAHY; **Mr.** WELLSTONE; **Mrs.** MURRAY; **Mr.** GORTON; **Mr.** MACK; **Mr.** GRAHAM; **Mr.** COVERDELL; **Mr.** CRAIG; **Mr.** DEWINE; **Mr.** BENNETT; **Mr.** GREGG; **Mr.** SCHUMER; **Mr.** MCCAIN; **Mr.** FEINGOLD; **Mrs.** HUTCHISON
... help to eliminate harmful **greenhouse gas** emissions. Wind, solar, ...
... fossil fuels and addressing **climate change.** Anyone who had the pleasure of spending some of this ...
... greenhouse gases that contribute to **climate change.** The solar and renewable energy ...

114. CONGRESSIONAL RECORD -- SENATE, Monday, June 14, 1999 , 145 Cong Rec S 6939, Vol. 145, No. 83, ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT, 2000
106th Congress, 1st Session
Mr. DOMENICI; **Mr.** REID; **Mr.** BENNETT
... purpose of monitoring ocean **climate change** indicators". amendment no. ...

115. CONGRESSIONAL RECORD -- SENATE, Monday, June 14, 1999 , 145 Cong Rec S 6949, Vol. 145, No. 83, AMENDMENTS SUBMITTED - ENERGY AND WATER DEVELOPMENT APPROPRIATIONS - DOMENICI AMENDMENT NO. 625
106th Congress, 1st Session
Mr. MACK; **Mr.** BOND; **Mr.** COCHRAN; **Mr.** LEVIN; **Mr.** CONRAD; **Mr.** DORGAN; **Mr.** DOMENICI
... purpose of monitoring ocean **climate change** indicators." DOMENICI AMENDMENTS ...

116. CONGRESSIONAL RECORD -- SENATE, Thursday, May 20, 1999 , 145 Cong Rec S 5771, Vol. 145, No. 74, AUTHORITY FOR COMMITTEES TO MEET
106th Congress, 1st Session
Mr. LOTT
... budget request for **climate change** programs and compliance with various ...
... requiring detailed accounting of **climate change** spending and performance measures ...

117. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 18, 1999 , 145 Cong Rec S 5484, Vol. 145, No. 72, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 1st Session
Ms. COLLINS; **Mr.** THURMOND; **Mr.** ROBERTS; **Mr.** ROCKEFELLER; **Mr.** WELLSTONE; **Mrs.** MURRAY; **Mr.** BOND; **Mr.** ASHCROFT
... agriculture is a source of **greenhouse gas** emissions and do not care ...
... tool to solve the challenge of **climate change.** I also want to make ...
... methods to meet the challenge of **climate change** without an international treaty. This ...
... by the International Panel on **Climate Change** that would halt production agriculture as we ...
... United Nations-sponsored **climate change** protocol or treaty; (8) ...
... under the Framework Convention on **Climate Change**-- "(A) with and without market ...

118. CONGRESSIONAL RECORD -- SENATE, Tuesday, May 11, 1999 , 145 Cong Rec S 5036, Vol. 145, No. 67, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 1st Session
Mr. CAMPBELL; **Mr.** LEAHY; **Mr.** JEFFORDS; **Mr.** KOHL; **Mr.** HATCH; **Mr.** LIEBERMAN; **Mr.** MACK; **Mr.**

ROCKEFELLER; **Mr.** CRAPO; **Mr.** LAUTENBERG
... air pollution and reduce **greenhouse gas** emissions, for example, ...
... increasing air pollution and **greenhouse gas** emissions. (B) Developing ...

119. CONGRESSIONAL RECORD -- SENATE, Monday, May 10, 1999 , 145 Cong Rec S 4937, Vol. 145, No. 66,
BIOMASS ENERGY EQUITY ACT
106th Congress, 1st Session
Ms. COLLINS
... a net reduction of **greenhouse gas** emissions. Unfortunately, an error was ...
... quality, waste management, and **greenhouse gas** reduction benefits. The national ...

120. CONGRESSIONAL RECORD -- SENATE, Wednesday, May 5, 1999 , 145 Cong Rec S 4792, Vol. 145, No. 64,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 1st Session
Mr. HOLLINGS; **Mr.** BURNS; **Mr.** LEAHY; **Mr.** GREGG; **Mr.** DASCHLE; **Mr.** JEFFORDS; **Mr.** REID; **Mr.** LAUTENBERG; **Mr.** ASHCROFT
... ago, and is thought to have triggered **climate change** that may be linked to the disappearance of the ...

121. CONGRESSIONAL RECORD -- SENATE, Friday, April 30, 1999 , 145 Cong Rec S 4487, Vol. 145, No. 61,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 1st Session
Mr. MCCONNELL; **Mr.** CONRAD; **Mr.** DORGAN; **Mr.** CAMPBELL; **Mr.** MURKOWSKI; **Mr.** LEAHY; **Mr.** KENNEDY
... security, rural development and **greenhouse gas** reductions, this expenditure represents an ...
... near zero net **greenhouse gas** emissions. The impact of bioethanol on **greenhouse gas** emissions is particularly significant because the ...
... one-third of the total **greenhouse gas** emissions. Of the many contributing factors to possible **climate change,** the transportation sector is our most ...
... challenge because of the ubiquitous dependence on **greenhouse gas** producing fossil fuels. ...
... term approach to the problem of **global warming** that does not assume a ...
... balance of payments, reduce **greenhouse gas** emissions and strengthen rural ...

122. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 27, 1999 , 145 Cong Rec S 4257, Vol. 145, No. 58,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 1st Session
Mr. BENNETT; **Mr.** MURKOWSKI; **Mr.** HAGEL; **Mr.** BYRD; **Mr.** CRAIG; **Mr.** GRAMS; **Mr.** BIDEN; **Mr.** SARBANES; **Mr.** SHELBY; **Mrs.** HUTCHISON; **Mr.** FEINGOLD; **Mr.** SCHUMER; **Mr.** HATCH; **Mr.** BREAUX; **Mr.** BAUCUS; **Mr.** GORTON; **Mr.** JEFFORDS; **Mr.** LEAHY; **Mr.** SPECTER; **Ms.** COLLINS; **Ms.** SNOWE
... 1974 with respect to potential **Climate Change;** to the Committee on Energy and Natural ...
... deals with the issue of the potential **climate change** that we have heard so much about ...
... technology to help stabilize **greenhouse gas** concentrations in the atmosphere. This would be ...
... greenhouse gases and address **climate change.** The necessity of doing this, Mr. ...
... voluntary reductions in **greenhouse gas** emissions. Our emphasis remains on ...
... accountability and responsibility for **climate change** and related matters within the ...
... statutory office of global **climate change.** Somebody needs to be accountable ...
... protect the U.S. Global **Climate Change** Research Program from politics and ...

... in the way of voluntary **greenhouse gas** emissions reduction; we would like to ...
... reduce, sequester, or avoid **greenhouse gas** emissions. These are all approaches that we plan to ...
... manner, to address the issue of **greenhouse gas** emissions and potential **climate change,** because we believe the potential threat of human- induced **climate change** will best be solved on ...
... economic pain? Do we stabilize the **greenhouse gas** concentrations in the atmosphere ...
... even reduce global **greenhouse gas** emissions? No, because any reductions ...
... effort. If human-induced **greenhouse gas** emissions are indeed changing the ...
... common sense approach to **greenhouse gas** emissions and climate. Mr. ...
... dealing with the issue of global **climate change.** This legislation turns the debate ...
... in fact, the focus of **climate change** efforts in the Congress. ...
... common sense to the issue of **climate change.** Senator Murkowski laid ...
... accountability for global **climate change** spread throughout the Government. It is ...
... moves the current focus of **climate change** policy away from short- ...
... sequester, or avoid manmade **greenhouse gas** emissions. It does so by strengthening ...
... naturally lower the levels of **greenhouse gas** emissions. This bill also addresses the ...
... way to deal with the issue of **climate change:** a long-term ...
... uncertainties surrounding the science of **climate change,** human activities may ...
... ultimately contribute to global **climate change** beyond that resulting from natural ...
... require that any stabilization of atmospheric **greenhouse gas** concentrations must be a ...
... constitute the major source of **greenhouse gas** emissions early in the ...
... international response to potential **climate change;** (4) environmental progress and ...
... interrelated; (5) effective **greenhouse gas** management efforts depend on the ...
... Nations Framework Convention on **Climate Change** fails to meet the minimum ...
... efforts to reduce or avoid **greenhouse gas** emissions and improve energy ...
... 3. OFFICE OF GLOBAL **CLIMATE CHANGE.** Section 1603 of the Energy ...
... inserting "OFFICE OF GLOBAL **CLIMATE CHANGE**"; and (2) by striking the ...
... Energy an Office of Global **Climate Change.** "(b) Function.--The Office ...
... issues and policies regarding **climate change** and related matters. "(c) ...
... for their effects of any kind on **climate change** globally and domestically and on the generation, ...
... A) potential global **climate change,** including any known adverse and ...
... greatest extent practicable, to **climate change;** "(4) provide, consistent with ...
... public access to all information on **climate change,** effects of **climate change,** and adaptation to **climate change;** "(5) promote and cooperate ...
... Nations Framework Convention on **Climate Change,** and Parties thereto with economies in ...
... annual reductions or avoidance of **greenhouse gas** emissions and sequestration and carbon ...
... use of vehicles with reduced **greenhouse gas** emissions, methane recovery, ...
... reductions in, or avoidance of, **greenhouse gas** emissions achieved as a ...
... regarding the accuracy and reliability of **greenhouse gas** reductions and related information ...
... purpose of encouraging voluntary **greenhouse gas** emission reductions by the ...
... inadvertently or otherwise, of some or all of the same **greenhouse gas** emissions reductions by ...
... accuracy and reliability of reported **greenhouse gas** reductions and related information, are ...
... for the purpose of addressing **greenhouse gas** emission reductions and reporting such ...
... sequester, avoid, or capture **greenhouse gas** emissions; or "(iii) other ...
... in the stabilization of lobal **greenhouse gas** concentrations through one or ...
... technologies; "(B) development of **greenhouse gas** capture and sequestration technologies and ...
... solutions to address anthropogenic **climate change,** including-- "(A) capture and sequestration of **greenhouse gas** emissions; "(B) development of ...
... solutions to the effective management of **greenhouse gas** emissions in the long ...
... nutrient management. "(2) **Climate change.**--The term **climate change'** means a change of ...
... infrared radiation. "(5) **Greenhouse gas** reduction.--The term **greenhouse gas** reduction' means 1

metric ton of **greenhouse gas** (expressed in terms of ...
... U.S.C. 13385). "(6) **Greenhouse gas** sequestration.--The term **greenhouse gas** sequestration' means extracting ...
... efficiency and security and reduce **greenhouse gas** emissions. While the complex issue of **climate change** will not be solved ...
... taken globally to reduce **greenhouse gas** emissions, we must accelerate the ...
... fix this issue. Any viable **climate change** policy must include ...
... increase in global **greenhouse gas** emissions over the next ...
... serious about reducing **greenhouse gas** emissions in the long ...
... reduce, avoid, or sequester **greenhouse gas** emissions. All sectors of the economy should be ...
... emitter of greenhouse gases. **Global warming** is a global problem. It is ...
... efforts to reduce our own **greenhouse gas** emissions will be for ...
... U.S. in addressing **climate change** challenges that might result from the ...
... effort to address global **climate change.** The Administration has not submitted the ...
... proposed to address global **climate change.** In summary, improved ...
... efficiency and security, and global **climate change** will all be critical issues ...
... well as reductions in **greenhouse gas** emissions, and an important marketable ...
... private entities to reduce **greenhouse gas** emissions, even though all ...
... current Administration to reduce **greenhouse gas** emissions. It also provides a ...
... in this very important response to the **climate change** issue--a more ...
... for assessing the effects of **greenhouse gas** emissions; (2) Accelerated ...
... deployment of technology to mitigate **climate change;** (4) The advancement of climate ...
... opinion on the causes and effects of **climate change.** Mr. President, significant ...
... issues associated with the current **climate change** debate, sets the proper ...
... problems associated with global **climate change.** It addresses these potential problems ...
... agreed to legally-binding **greenhouse gas** emissions reductions, the GAO ...
... users to avoid or reduce **greenhouse gas** emissions. Those technologies include ...
... responsibility to reduce or sequester **greenhouse gas** emissions and we are taking substantive, ...
... for the theoretical impacts of **global warming.** It doesn't attempt to punish ...

123. CONGRESSIONAL RECORD -- SENATE, Tuesday, April 27, 1999 , 145 Cong Rec S 4306, Vol. 145, No. 58, NOTICES OF HEARINGS
106th Congress, 1st Session
Mr. CAMPBELL; **Mr.** NICKLES
... budget request for **climate change** programs and compliance with various ...
... requiring detailed accounting of **climate change** spending and performance measures ...

124. CONGRESSIONAL RECORD -- SENATE, Thursday, April 22, 1999 , 145 Cong Rec S 4143, Vol. 145, No. 56, EARTH DAY
106th Congress, 1st Session
Mr. GRAMS
... technologies which reduce or sequester **greenhouse gas** emissions. We have had tremendous accomplishments ...

125. CONGRESSIONAL RECORD -- SENATE, Wednesday, April 21, 1999 , 145 Cong Rec S 3975, Vol. 145, No. 55, EARTH DAY
106th Congress, 1st Session
Mr. REID; **Mrs.** FEINSTEIN

... will speak about **global warming.** Mr. REID. **Global warming** is perfect. That deals with Earth ...
... minutes to talk about **global warming** and the importance of Earth Day. The ...
... finish a brief **global warming** statement, I would like to ...
... facing our planet: the threat of **global warming.** The phenomenon of global **climate change** really hit home for me ...
... clear and compelling evidence to me that **global warming** is real. It is happening, and it will have ...
... continue to dispute the reality of **global warming.** Today I would like to lay out the evidence that **global warming** is indeed occurring. There is overwhelming ...
... following facts: The natural **greenhouse effect** (which is primarily a product of ...
... Large increases in **greenhouse gas** concentrations resulting from human ...
... produce significant further **global warming,** accompanied by other ...
... years. The Intergovernmental Panel on **Climate Change,** an assembly of 2,000 of the world's ...
... human activities are increasing the **greenhouse effect,** and therefore raising the temperature of the planet. It is ...
... gases have also increased. An increase of **greenhouse gas** concentrations leads on average to an ...
... climate." Already, these increased **greenhouse gas** emissions are changing the earth's ...
... scientific evidence regarding **global warming** did not exist, the weather ...
... can be linked directly to **global warming,** collectively they show a ...
... best science tells us **global warming** will look like. ...
... changes caused by **global warming** also could wreak havoc upon the ...
... University of California estimates that **global warming** could render 20 to 50 ...
... eighth of the planet. The effects of **global warming** on human health, including ...
... floor statement soon. **Global warming** is not a problem that we ...
... steps now to reduce **global warming.** That is why I am circulating a ...
... will help curb **global warming,** improve air quality, ...
... will not solve the **global warming** problem, but they are a very ...
... skeptical about the existence of **global warming**--to attend a briefing that ...
... measurements concerning global **climate change;** disturbing new evidence that **climate change** may be occurring more ...
... possible solutions to the problem. **Global warming** is an extremely complicated issue, and ...
... for how to stop **global warming.** But I do feel strongly that **global warming's** existence cannot be disputed. It is ...

126. CONGRESSIONAL RECORD -- SENATE, Thursday, March 25, 1999 , 145 Cong Rec S 3457, Vol. 145, No. 48
106th Congress, 1st Session
Mr. CAMPBELL; **Mr.** CRAIG; **Mr.** MURKOWSKI; **Mr.** BURNS; **Mr.** DURBIN; **Mr.** KENNEDY; **Mr.** CHAFEE; **Mr.** GRASSLEY; **Mr.** ABRAHAM; **Mr.** MCCAIN; **Mr.** GRAMS; **Mr.** LEVIN; **Mr.** THOMPSON; **Mrs.** HUTCHISON; **Mr.** LEAHY; **Mr.** DASCHLE; **Mr.** SARBANES; **Mr.** EDWARDS; **Mr.** HATCH; **Mr.** LUGAR; **Mr.** ASHCROFT; **Mr.** SMITH OF NEW HAMPSHIRE
... without air pollution or **greenhouse gas** emissions, and it is accomplished at relatively ...
... energy benefits, impacts on **greenhouse gas** emissions and values protected ...
... including consideration of the impacts on **greenhouse gas** emissions); and "(iv) drinking, ...
... including consideration of the impacts on **greenhouse gas** emissions)". (2) Section ...

127. CONGRESSIONAL RECORD -- SENATE, Thursday, March 25, 1999 , 145 Cong Rec S 3537, Vol. 145, No. 48, AUTHORITY FOR COMMITTEES TO MEET
106th Congress, 1st Session
Mr. DOMENICI
... Protocol to the Framework Convention on **Climate Change.** The PRESIDING OFFICER. Without ...

128. CONGRESSIONAL RECORD -- SENATE, Tuesday, March 16, 1999 , 145 Cong Rec S 2779, Vol. 145, No. 41,
NOTICES OF HEARINGS
106th Congress, 1st Session
Ms. COLLINS; **Mr.** THOMAS; **Mr.** MURKOWSKI; **Mr.** CRAIG
... Protocol to the Framework Convention on **Climate Change.** The hearing will take ...

129. CONGRESSIONAL RECORD -- SENATE, Tuesday, March 16, 1999 , 145 Cong Rec S 2779, Vol. 145, No. 41,
NOTICES OF HEARINGS
106th Congress, 1st Session
Ms. COLLINS; **Mr.** THOMAS; **Mr.** MURKOWSKI; **Mr.** CRAIG
... Protocol to the Framework Convention on **Climate Change.** The hearing will take ...

130. CONGRESSIONAL RECORD -- SENATE, Monday, March 15, 1999 , 145 Cong Rec S 2648, Vol. 145, No. 40,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
106th Congress, 1st Session
Mr. HOLLINGS; **Mr.** NICKLES; **Mr.** CRAIG; **Mr.** MURKOWSKI; **Mr.** PRESIDENT; **Mr.** GRAMS; **Mr.**
CAMPBELL; **Ms.** COLLINS
... nuclear energy. As we look at **global warming** and greenhouse gases and various ...
... reducing greenhouse gases and hence **global warming.** Mr. GRAMS. Mr. ...

131. CONGRESSIONAL RECORD -- SENATE, Monday, March 8, 1999 , 145 Cong Rec S 2431, Vol. 145, No. 35,
CLIMATE CHANGE BILL AWARDING CREDIT FOR EARLY ACTION
106th Congress, 1st Session
Mr. JEFFORDS
Mr. President, **climate change** poses potential real ...
... lead to inaction. Preventing **climate change** is a daunting challenge. It ...
... while reducing our risk from **climate change.** This legislation sends the right ...
... EFFICIENCY & CONSERVATION (90%); **CLIMATE CHANGE** (90%); LEGISLATION (90%); ...

132. CONGRESSIONAL RECORD -- SENATE, Thursday, March 4, 1999 , 145 Cong Rec S 2318, Vol. 145, No. 34,
THE NEW MILLENNIUM CLASSROOMS ACT
106th Congress, 1st Session
Mr. ABRAHAM; **Mr.** HATCH; **Ms.** SNOWE; **Mr.** FRIST; **Mr.** JEFFORDS; **Mr.** HOLLINGS; **Mr.**
ROCKEFELLER; **Mr.** DORGAN; **Mr.** CHAFEE; **Mr.** MACK; **Mr.** LIEBERMAN; **Mr.** WARNER; **Mr.**
MOYNIHAN; **Mr.** BIDEN; **Mr.** BAUCUS; **Mr.** DEWINE; **Mrs.** FEINSTEIN
... potential environmental impacts from **greenhouse gas** emissions; to the Committee on Environment and ...
... reduce the threat of global **climate change. In** a word, this ...
... States ever reach the point where **greenhouse gas** mitigation is legally required? ...
... happen scientifically or politically on the **climate change** issue over the next ...
... authorize the President to enter into **greenhouse gas** reduction agreements with entities ...
... credits for voluntary **greenhouse gas** reductions and sequestration achieved ...
... opportunities to address potential **climate change** in a cost- ...
greenhouse gas emissions. The legislation is perhaps ...
... address the threat of global **climate change.** Many of them recognize that our legislation is ...
... strong beliefs on the science of **climate change** and find some significant merits ...
... program. The issue of global **climate change** is serious business. While the ...

... Sec. 5. Entitlement to **greenhouse gas** reduction credit for ...
... Relationship to future domestic **greenhouse gas** regulatory statute. SEC. ...
... potential environmental impacts of **greenhouse gas** emissions by authorizing the ...
... program that requires mitigation of **greenhouse gas** emissions, for voluntary ...
... during which a domestic **greenhouse gas** regulatory statute is in ...
... States. (5) Domestic **greenhouse gas** regulatory statute.--The term "domestic **greenhouse gas** regulatory statute" means ...
... quantitative limitation on domestic **greenhouse gas** emissions, or taxes such emissions. (...
... section 6. (8) **Greenhouse gas.**--The term "**greenhouse gas**" means-- (A) carbon ...
... sulfur hexafluoride. (9) **Greenhouse gas** reduction credit.--The term "**greenhouse gas** reduction credit" means an ...
... under a domestic **greenhouse gas** regulatory statute to emit 1 metric ton of **greenhouse gas** (expressed in terms of ...
... dioxide equivalent) that is provided because of **greenhouse gas** emission reductions or carbon ...
... means a source of **greenhouse gas** emissions. SEC. 4. ...
... States agrees to provide **greenhouse gas** reduction credit usable ...
... section 5 that reduces **greenhouse gas** emissions or sequesters carbon ...
... SEC. 5. ENTITLEMENT TO **GREENHOUSE GAS** REDUCTION CREDIT FOR ...
... participant shall receive **greenhouse gas** reduction credit under an ...
... action that-- (1) reduces **greenhouse gas** emissions or sequesters carbon ...
... shall be entitled to receive **greenhouse gas** reduction credit for a **greenhouse gas** emission reduction or carbon ...
... may be earned.--No **greenhouse gas** reduction credit may be ...
... earned for a **greenhouse gas** emission reduction, carbon ...
... participant shall receive **greenhouse gas** reduction credit under an ...
... A) the participant's aggregate **greenhouse gas** emissions from domestic sources that are ...
... For the purpose of receiving **greenhouse gas** reduction credit under ...
... shall be treated as a **greenhouse gas** emission reduction. (d) ...
... receive 1 ton of **greenhouse gas** reduction credit for each ton of **greenhouse gas** emission reductions or carbon ...
... agency program to implement the **Climate Change** Action Plan. (2) ...
... actual reductions in **greenhouse gas** emissions or actual increases ...
... credit period during which **greenhouse gas** reduction credit may be ...
... Act. (f) Award of **Greenhouse Gas** Reduction Credit.-- (1) ...
... participant of the cumulative balance (if any) of **greenhouse gas** reduction credit earned ...
... receive 1 ton of **greenhouse gas** reduction credit for ...
... participant's average annual **greenhouse gas** emissions from domestic sources ...
... earlier than 1996-- (A) **greenhouse gas** reduction credit shall be ...
... credit period; and (B) **greenhouse gas** reduction credit shall be ...
... shall cover all domestic **greenhouse gas** sources that the participant owns as of the ...
... participant, or any project that decreases **greenhouse gas** emissions from or sequesters carbon ...
... each year for which **greenhouse gas** reduction credit is claimed; and (...
... each year for which **greenhouse gas** reduction credit is claimed. (...
... annual source baseline and **greenhouse gas** emissions for the calendar ...
... achieve tonnage reductions of **greenhouse gas** emissions that are comparable to reductions that would be ...
... 1) purchase earned **greenhouse gas** reduction credit from and sell the ...
... RELATIONSHIP TO FUTURE DOMESTIC **GREENHOUSE GAS** REGULATORY STATUTE. (a) ...
... particular form of domestic **greenhouse gas** regulatory statute, except that an ...

... shall provide that-- (1) **greenhouse gas** reduction credit earned ...
... under a domestic **greenhouse gas** regulatory statute; and (2) if the ...
... under a domestic **greenhouse gas** regulatory statute to emit ...
... early action agreement, any **greenhouse gas** reduction credit to which the participant was ...
... agreement for domestic **greenhouse gas** reductions during that historic ...
... added back to the participant's **greenhouse gas** emissions level for the ...
... Act authorizes aggregate **greenhouse gas** emissions from domestic sources in an amount that exceeds any **greenhouse gas** emission limitation applicable to the ...
... surrounding any possible regulation of **greenhouse gas** emissions. This bill will ...
... voluntary action to reduce **greenhouse gas** emissions. This credit could be used to ...
... track and publicly report **greenhouse gas** emissions. Credit given would be ...
... uncertainties surrounding the issue of **greenhouse gas** emissions and their relation to **global warming.** The complexities and uncertainties associated with ...
... doing their part to address **global warming.** By allowing companies to ...
... credit, under any future **greenhouse gas** reduction systems we choose to ...
... forward now to reduce their **greenhouse gas** emissions. They don't want to ...
... Companies recognize that if they reduce their **greenhouse gas** emissions now they will be ...
... part of the solution to the problem of **greenhouse gas** emissions. This bill ensures that ...
... immediate reductions in **greenhouse gas** pollution. Once emitted, ...
... environmental risks of continued **global warming.** It just makes sense to ...
... posed by global **climate change.** Emissions of greenhouse gases that ...
... tells us that the risks associated with **climate change** are serious. Weather-related ...
... for an international solution to **climate change.** The protocol included important ...
... Kyoto and Buenos Aires **climate change** conventions. I was particularly ...
... Aires to limit the growth of their **greenhouse gas** emissions. Nations of the world are all coming to recognize that **climate change** is an issue of grave international ...
... block any steps related to **climate change** until the Kyoto protocol is ...
... protect us against the danger of **climate change.** Regardless of our individual views on the ...
... focus our debate on the issue of **climate change** and work to forge agreement on ...
... catalyzes American action on **climate change** and delivers on the promise of crediting ...
... profound threat of global **climate change.** This legislation alone will not protect us from the consequences of **climate change,** but it is a constructive and ...
... address the important issue of **climate change** now because we have a moral ...
... President, the debate about **climate change** is too often vested-- and I ...
... verify reductions in **greenhouse gas** emissions. While there are significant ...
... real reductions in **greenhouse gas** emissions. I look ...
... position on the Protocol on Global **Climate Change**--the Kyoto Protocol. I ...
... regulatory program to reduce **greenhouse gas** emissions. This legislation simply ...
... disincentives to taking action on **greenhouse gas** emissions and reward the initiative and ...
... important issue facing any **climate change** legislation. While there is growing ...
... Uncertainty over how **climate change** will be addressed, if at all, is a ...
... JEFFORDS. Mr. President, **climate change** poses potential real ...
... lead to inaction. Preventing **climate change** is a daunting challenge. It ...
... while reducing our risk from **climate change.** This legislation sends the right ...
... science, politics, and economics of **climate change** all present major issues, and ...
... toward managing the problem of **climate change.** The science of **climate change** is sufficiently advanced that we know we ...
... key--most efficiently. **Climate change** presents us with a classic ...
... groups like the International **Climate Change** Partnership and the Pew Center on Global **Climate Change,** both of which have provided a ...

... Nations Framework Convention on **Climate Change** or some other authority--that establishes an ...
... tells us that current rates of **greenhouse gas** emissions are likely to result ...
... want to do something to reduce **greenhouse gas** emissions, they not only ...
... impact of complying with any future **climate change** policy. One way ...
... much in the issue of **climate change,** this bill is a work ...
... change in our approach to **climate change:** we have moved beyond the days of ...
... arguments between those who see **climate change** as a real threat and those who ...
... solutions to the problem of global **climate change. Climate change** is real. Over the last ...
... carbon dioxide and other **greenhouse gas** emissions from human activity. The ...
... other potential consequences of **climate change** are serious enough to warrant some ...
... business practices to address **climate change,** let's start to think ...
... systems that produce less **greenhouse gas** to meet a global demand. The Administration's **Climate Change** Technology Initiative is a ...
... cost of responding to future **climate change** problems. The more time we ...
... by, and the longer we let **greenhouse gas** concentrations rise unchecked, the ...
... long way to go with any **climate change** treaty. There must be real ...
... country's contribution to world **greenhouse gas** concentrations. Make no ...
... address the complex issue of **climate change.** I plan to continue to ...
... addition of credits for **greenhouse gas** reductions for forestry- ...
... realize that the Intergovernmental Panel on **Climate Change** (IPCC) has been tasked to prepare ...
... domestically within the global **climate change** debate. I hope to be ...
... a large component of the **climate change** debate--must continue. ...

133. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 9, 1999 , 145 Cong Rec S 1405, Vol. 145, No. 23, NUCLEAR WASTE STORAGE
106th Congress, 1st Session
Mr. LOTT
... can address those who say **global warming** is a problem--a ...

134. CONGRESSIONAL RECORD -- SENATE, Thursday, January 28, 1999 , 145 Cong Rec S 1095, Vol. 145, No. 16, FOOD AND MEDICINE SANCTION RELIEF ACT OF 1999
106th Congress, 1st Session
Mr. HAGEL; **Mr.** ROBB; **Mr.** JEFFORDS; **Ms.** COLLINS; **Mr.** KENNEDY; **Mr.** KERREY; **Mr.** MOYNIHAN
... further the science of global **climate change.** Significant, widespread quantities of ...
... significant effects on global **climate change.** The importance of the process in ...

105th Congress

LexisNexis *Congressional Record* search results for "climate change" or "global warming" or "greenhouse gas" or "greenhouse effect"

1. CONGRESSIONAL RECORD -- SENATE, Thursday, November 12, 1998 , 144 Cong Rec S 12997, Vol. 144, No. 152, OMNIBUS CONSOLIDATED AND EMERGENCY SUPPLEMENTAL APPROPRIATIONS FOR FISCAL YEAR 1999--CONFERENCE REPORT
105th Congress, 2nd Session
... a page of the text of **Mrs.** F; **Mrs.** FEINSTEIN
... global problems like **climate change.** Nor should it be routinely accepted if a ...

2. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 21, 1998 , 144 Cong Rec S 12741, Vol. 144, No. 151, OMNIBUS CONSOLIDATED AND EMERGENCY SUPPLEMENTAL APPROPRIATIONS FOR FISCAL YEAR 1999--CONFERENCE REPORT
105th Congress, 2nd Session
The PRESIDENT pro tempore; **Mr.** LOTT; **Mr.** STEVENS; **Mr.** DASCHLE; **Mr.** DORGAN; **Mr.** CONRAD; **Mr.** DOMENICI; **Mr.** GRASSLEY; **Mr.** FAIRCLOTH; **Mr.** BINGAMAN; **Mr.** ABRAHAM; **Mr.** BROWNBACK; **Mr.** LIEBERMAN; **Mr.** CRAIG; **Mr.** MCCONNELL; **Mr.** KYL; **Mr.** KERRY; **Mr.** ROTH; **Mr.** BIDEN; **Mr.** BURNS; **Mr.** MURKOWSKI; **Mr.** ENZI; **Mr.** HATCH; **Mr.** BAUCUS; **Mr.** GRAHAM; **Mr.** THURMOND; **Mr.** THOMAS; **Mr.** MOYNIHAN; **Mr.** GREGG; **Ms.** SNOWE; **Mr.** LEVIN; **Mr.** SHELBY; **Mr.** REED; **Mr.** LAUTENBERG; **Mr.** SPECTER; **Mr.** HARKIN; **Mr.** COCHRAN; **Mr.** MCCAIN; **Mr.** WELLSTONE; **Mr.** JEFFORDS; **Mr.** HOLLINGS; **Ms.** MIKULSKI; **Mr.** GRAMS; **Mr.** KOHL; **Mr.** SMITH OF OREGON; **Mrs.** FEINSTEIN; **Mr.** BRYAN; **Mr.** D'AMATO; **Mrs.** BOXER; **Mr.** BREAUX; **Mr.** ROBB; **Mr.** LEAHY; **Mr.** GORTON; **Mr.** FEINGOLD; **Mr.** KENNEDY; **Mr.** NICKLES
... global problems like **climate change.** Nor should it be routinely accepted if a ...
... increase for global **climate change** programs to more than $1 ...

3. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 21, 1998 , 144 Cong Rec S 12810, Vol. 144, No. 151, OMNIBUS APPROPRIATIONS CONFERENCE REPORT
105th Congress, 2nd Session
Mr. SPECTER; **Mr.** ASHCROFT; **Mr.** GRAMS; **Mr.** MCCAIN; **Mr.** JOHNSON; **Mr.** THOMPSON; **Mr.** BYRD; **Mr.** D'AMATO; **Mr.** WELLSTONE; **Mr.** FRIST; **Mr.** SMITH OF OREGON; **Mr.** SMITH OF NEW HAMPSHIRE; **Mr.** GORTON; **Mrs.** MURRAY; **Mrs.** FEINSTEIN; **Mr.** KERREY; **Mr.** BAUCUS; **Mr.** LOTT
... 1 billion for **global warming,** a 26-percent ...
... hasn't even sent us the **global warming** treaty. So this funding basically ...

4. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 20, 1998 , 144 Cong Rec S 12696, Vol. 144, No. 150, OMNIBUS CONSOLIDATED AND EMERGENCY SUPPLEMENTAL APPROPRIATIONS FOR FISCAL YEAR 1999--CONFERENCE REPORT
105th Congress, 2nd Session
Mr. STEVENS; **Mr.** BYRD; **Mr.** HAGEL; **Mr.** BURNS; **Mr.** ABRAHAM; **Mr.** GREGG; **Mr.** GORTON; **Mr.** LOTT; **Mr.** DURBIN; **Mr.** MACK; **Mr.** GRAHAM; **Mr.** FAIRCLOTH; **Mr.** LAUTENBERG; **Mr.** HARKIN; **Mr.** CAMPBELL; **Mr.** MURKOWSKI; **Mrs.** MURRAY; **Mr.** WELLSTONE; **Mr.** CRAIG; **Mr.** DORGAN
... Boston Harbor cleanup, **climate change,** and the Corporation for National and ...
... advance a treaty, the **Global Warming** Treaty, that the administration does not have the ...

5. CONGRESSIONAL RECORD -- SENATE, Thursday, October 15, 1998 , Cong Rec S 12648, ,No., STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 2nd Session

Mr. LEAHY
... carbon dioxide, the primary **"greenhouse gas,"** the equivalent weight of 24,655 ...
... reductions in future **climate change** implementation programs. Sec. ...
... streams; and (G) global **climate change** that may fundamentally and irreversibly ...
... carbon dioxide, the primary **greenhouse gas;** (9) on average-- (A) ...
... utility sector in any **climate change** implementation program; (8) to ...
... REDUCTIONS IN FUTURE **CLIMATE CHANGE** IMPLEMENTATION PROGRAMS. It is the sense of ...
... generating unit, in any **climate change** implementation program enacted ...
... Reductions in Future **Climate Change** Implementation Programs. This section ...
... owner/operator in any **climate change** implementation program enacted ...

6. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 14, 1998 , 144 Cong Rec S 12482, Vol. 144, No. 146, EIA COST ESTIMATES ON GLOBAL WARMING
105th Congress, 2nd Session
Mr. ENZI; **Mr.** DEWINE
... using funny numbers on **global warming.** In my opinion, it also ...
... administration has already bought the **global warming** treaty, and now we are trying to ...
... few of the studies that have been done on **global warming.** The red line is the administration. You ...
... money to pay for the **global warming** treaty. I guess ...
... nations that are island nations; if **global warming** happens, they will be inundated ...
... tells you what they think about **global warming.** It is a way to get ...
GLOBAL WARMING (90%); ENVIRONMENTAL TREATIES & ...

7. CONGRESSIONAL RECORD -- SENATE, Saturday, October 10, 1998 , 144 Cong Rec S 12309, Vol. 144, No. 142, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 2nd Session
Mr. CHAFEE; **Mr.** DASCHLE; **Mr.** DOMENICI; **Mr.** ROTH; **Mr.** MOYNIHAN; **Mr.** KERREY
... early action to mitigate **greenhouse gas** emissions; to the Committee on Environment and ...
... address the threat of global **climate change.** Before I get into the ...
... moments discussing the science of **climate change.** Human influence on the global ...
... scientific community on the issue of **climate change.** The conference report warned that some ...
... global treaty to address **climate change.** In 1987, an ice ...
... amplification of the Earth's natural **greenhouse effect** by the buildup of various ...
... statement reported that, "... if the increase of **greenhouse gas** concentrations is not limited, the predicted **climate change** would place stresses on natural and ...
... 1995, the Intergovernmental Panel on **Climate Change,** representing the consensus of climate ...
... certainty? They are not. The predictions of **climate change** are indeed based on numerous ...
... established Pew Center on **Climate Change.** American Electric Power, ...
... science and environmental impacts of **climate change** for us to take actions to ...
... immediate action to combat **climate change.** While the climate debate ...
... can enter into binding **greenhouse gas** reduction agreements with entities ...
... credits for voluntary **greenhouse gas** reductions effected by those ...
... within the framework of whatever **greenhouse gas** control requirement may ...
... regulate or otherwise control **greenhouse gas** emissions, the credits would be usable ...
... companies that want to reduce their **greenhouse gas** emissions, providing credit ...
... program may also make the **greenhouse gas** reductions achieved before ...
... companies will be penalized if **greenhouse gas** reductions are ultimately required, because their ...

... concluded a trade of **greenhouse gas** emission credits. Private ...
... role in the reduction of **greenhouse gas** emissions. And they argue that developing ...
... President. We are here today because we believe that **climate change** presents a serious ...
... discussion of greenhouse gases and **global warming,** I can understand why some ...
... problems associated with possible **global warming,** and that just makes sense. There is, of ...
... uncertainty presented by the **climate change** issue. I am proud to be an ...
... credit, under any future **greenhouse gas** reduction systems we may ...
... forward now to reduce their **greenhouse gas** emissions. They don't want to ...
... Companies recognize if they reduce their **greenhouse gas** emissions now they will be ...
... environmental risks of continued **global warming.** Given that once emitted, many **climate change** gases continue to trap ...
... practical action now. **Climate change** is neither an abstraction nor the object of ...
... record their emissions in **greenhouse gas** emissions, which I worked ...
... President, the debate about **climate change** is too often vested-- and I ...
CLIMATE CHANGE (90%); LEGISLATION (90%); ...
... SCIENCE NEWS (59%); **GLOBAL WARMING** (59%);

8. CONGRESSIONAL RECORD -- SENATE, Friday, October 9, 1998 , Cong Rec S 12164, ,No., STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS -
105th Congress, 2nd Session
Mr. HATCH; **Mr.** BAUCUS; **Mr.** DASCHLE; **Mr.** KYL: **MR; Mr.** BENNETT; **Mr.** LIEBERMAN; **Mr.** ROTH; **Mr.** FORD; **Mr.** COATS; **Mr.** MOYNIHAN
... ecosystems from mercury emissions, **climate change,** and nitrogen saturation of sensitive ...

9. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 30, 1998 , 144 Cong Rec S 11135, Vol. 144, No. 134, INTERIOR APPROPRIATIONS RIDERS
105th Congress, 2nd Session
Mr. MURKOWSKI
... short, and keep us from addressing **global warming,** and that these issues cannot stand the ...

10. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 30, 1998 , 144 Cong Rec S 11187, Vol. 144, No. 134, ENERGY SAVING PERFORMANCE CONTRACTS
105th Congress, 2nd Session
Mr. PRESIDENT
... pollution as well as the dangers of **climate change** only reinforce the need ...
... nitrous oxide, all of which contribute to **global warming.** In fact, U.S. ...

11. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 15, 1998 , 144 Cong Rec S 10335, Vol. 144, No. 122, DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT, 1999
105th Congress, 2nd Session
Mr. BUMPERS; **Mr.** MURKOWSKI; **Mr.** REID; **Mr.** BRYAN; **Mr.** CRAIG; **Mr.** HATCH; **Mr.** BENNETT
... administration talks about **global warming** and that gas is the answer--where are you going to ...

12. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 2, 1998 , 144 Cong Rec S 9854, Vol. 144, No. 114, FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED AGENCIES APPROPRIATIONS ACT,

1999
105th Congress, 2nd Session
Mr. SHELBY; **Mr.** KYL; **Mr.** DODD; **Mr.** KERREY; **Ms.** MIKULSKI; **Mr.** LEAHY; **Mr.** MCCONNELL; **Mr.** HATCH; **Mr.** NICKLES; **Mr.** FORD; **Mr.** FEINGOLD; **Mr.** GORTON; **Mr.** HELMS; **Mr.** BIDEN; **Mr.** COVERDELL; **Mr.** TORRICELLI; **Mr.** MCCAIN; **Mr.** JEFFORDS; **Mr.** HARKIN; **Mr.** COATS; **Mr.** BYRD; **Mr.** ABRAHAM; **Mr.** WARNER; **Mr.** BROWNBACK
... countries to do more to prevent **global warming.** Kyoto has not changed that. If ...
... countries to do more to prevent **global warming.** That is one of the GEF's goals, and ...
... African nations argued that the **Climate Change** and Biodiversity Conventions did not ...

13. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 1, 1998 , 144 Cong Rec S 9719, Vol. 144, No. 113, FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS APPROPRIATIONS ACT, 1999
105th Congress, 2nd Session
Mr. BOND; **Mr.** BYRD; **Mr.** MCCONNELL; **Mr.** LEAHY
... language included on global **climate change.** Senators Byrd and Hagel have been very ...
... in the area of global **climate change.** I think these amendments ...
... programs aimed at reducing **greenhouse gas** emissions". Amendment No. ...
... activities that reduce vulnerability to **climate change.**" Mr. McCONNELL. Senator ...
... programs aimed at reducing **greenhouse gas** emissions. However, because of concerns expressed ...
... in the Framework Convention on **Climate Change.** Again, I want to be ...

14. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 1, 1998 , 144 Cong Rec S 9790, Vol. 144, No. 113, AMENDMENTS SUBMITTED - FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS APPROPRIATIONS ACT -
105th Congress, 2nd Session
Mr. MCCONNELL; **Mr.** MCCAIN; **Mr.** LEAHY; **Mrs.** FEINSTEIN
... programs aimed at reducing **greenhouse gas** emissions". Amendment No. ...
... activities that reduce vulnerability to **climate change.**" Amendment No. 3494
On ...

15. CONGRESSIONAL RECORD -- SENATE, Friday, July 31, 1998 , 144 Cong Rec S 9524, Vol. 144, No. 106, GLOBAL WARMING ESTIMATES
105th Congress, 2nd Session
Mr. ENZI
... minutes to talk about **global warming** and about where we are in the process of ...
... for domestic and international **climate change** activities for 1997, ...
... something as critical to the administration as **global warming.** But the President's response was ...
... page letter describing the **Climate Change** Technology Initiative and the Global ...
... State has spent negotiating **climate change** or supporting the U.N.'s ...
... account of all Federal agency **climate change** programs and activities. These activities ...
... activities directly related to **climate change.** William J. Clinton. ...
... directly related to global **climate change.** domestic programs The **Climate Change** Technology Initiative is a ...
... Administration, builds understanding of **climate change** and variability, atmospheric chemistry, and ...
... help in the development of **climate change** policies, and the development of new ...
... better monitoring of future **climate changes** and their impacts. For example, the ...

... focus on investigating regional **climate changes** and assessing the vulnerability of the U.S. to ...
... year commitment to address **climate change** in developing countries. This ...
... Development (USAID) to support **climate change**-related activities in ...
... developing countries that address **climate change.** The Global Environment Facility (...
... avoiding economic disruption from **climate change,** extinction of valuable species, and ...
... contribution to the GEF supports **climate change**-related projects in ...
... UN framework Convention on **Climate Change** Secretariat and the Intergovernmental Panel on **Climate Change** (IPCC)--the single, most ...
... assessment body with respect to **climate change.** Many nations rely on the ...
... information and assessment advice on **climate change.** indirectly related programs ...
... indirectly related to global **climate change.** For example, the Department of ...
... focus of these programs is not on **climate change,** the Administration does not consider them to be "**climate change** programs and activities," as stipulated ...
... want public input on **climate change.** I know they don't ...
CLIMATE CHANGE (79%); **GLOBAL WARMING** (79%); US FEDERAL GOVERNMENT (...

16. CONGRESSIONAL RECORD -- SENATE, Friday, July 31, 1998 , 144 Cong Rec S 9663, Vol. 144, No. 106,
EXECUTIVE SESSION - EXECUTIVE CALENDAR
105th Congress, 2nd Session
Mr. GORTON
... in our efforts to reduce **greenhouse gas** emissions. Nuclear power is responsible for 90% of our **greenhouse gas** emissions reductions from the electricity ...

17. CONGRESSIONAL RECORD -- SENATE, Thursday, July 30, 1998 , 144 Cong Rec S 9453, Vol. 144, No. 105,
SENATE RESOLUTION 262--TO STATE THE SENSE OF THE SENATE THAT THE GOVERNMENT OF THE UNITED STATES SHOULD PLACE A PRIORITY ON FORMULATING A COMPREHENSIVE AND STRATEGIC POLICY WITH JAPAN IN ADVANCING SCIENCE
105th Congress, 2nd Session
Mr. ROTH; **Mr.** BINGAMAN
... through research on global **climate change;** reducing the risks posed ...

18. CONGRESSIONAL RECORD -- SENATE, Friday, July 17, 1998 , 144 Cong Rec S 8425, Vol. 144, No. 96,
DEPARTMENT OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT, AND INDEPENDENT AGENCIES APPROPRIATIONS ACT, 1999
105th Congress, 2nd Session
Mr. DOMENICI; **Mr.** WELLSTONE; **Mrs.** MURRAY; **Mr.** CONRAD; **Mr.** FAIRCLOTH; **Mr.** ROCKEFELLER; **Mr.** REID; **Mr.** NICKLES; **Mr.** FORD; **Mr.** BOND; **Mr.** KOHL; **Mr.** D'AMATO; **Ms.** MIKULSKI; **Mr.** BRYAN; **Mr.** SESSIONS; **Mr.** INOUYE; **Mr.** MURKOWSKI; **Mr.** BUMPERS; **Mr.** BURNS; **Mr.** LEAHY; **Mr.** CHAFEE; **Mr.** BYRD; **Mr.** MACK; **Mr.** DEWINE; **Mr.** JEFFORDS; **Mr.** GRAMS; **Mr.** DURBIN; **Ms.** MOSELEY-BRAUN; **Mr.** SARBANES; **Mr.** KERRY; **Mr.** DODD; **Mrs.** BOXER; **Mr.** KENNEDY; **Mr.** HARKIN; **Mr.** LOTT; **Mr.** CRAIG; **Mr.** BENNETT; **Mr.** KERREY
... same time reducing **greenhouse gas** emissions. HUD NOTICE AND ...
... 1992 Framework Convention on **Climate Change.** Under the 1992 Framework ...
... varying degrees reduced **greenhouse gas** emissions by increasing ...
... thing is certain: the level of **greenhouse gas** reductions called for ...
... clear is whether there is a global **climate change** problem, and if so, how significant it is and what is its ...

... a better understanding of **climate change** and what action might be needed. To do so, we ...
... eliminated the uncertainties surrounding **climate change,** and until we have had a full, ...

19. CONGRESSIONAL RECORD -- SENATE, Friday, July 17, 1998 , 144 Cong Rec S 8473, Vol. 144, No. 96,
DISPOSAL OF WEAPONS-GRADE PLUTONIUM
105th Congress, 2nd Session
Mr. DOMENICI; **Mr.** HELMS
... world are concerned is causing **global warming,** because they don't burn any coal, they ...
... pollutants that might cause **global warming** and we essentially, through regulation and ...

20. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 15, 1998 , 144 Cong Rec S 8262, Vol. 144, No. 94,
ADDITIONAL STATEMENTS
105th Congress, 2nd Session
Mr. WYDEN
... ecological issues ranging from **climate change** and water and air quality to ...

21. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 14, 1998 , 144 Cong Rec S 8152, Vol. 144, No. 93,
TROPICAL FOREST PROTECTION ACT OF 1998
105th Congress, 2nd Session
Mr. ROBERTS; **Mr.** LUGAR; **Mr.** BIDEN; **Mr.** CHAFEE
... moderating potential global **climate change;** and "(C) regulating hydrological ...
... mitigating the build up of **greenhouse gas** concentrations in the atmosphere. ...
... absorb the most important **greenhouse gas,** carbon dioxide. They influence ...
... otherwise contribute to global **climate change.** While there are still many scientific uncertainties related to **climate change,** it is undeniable that atmospheric carbon ...
... moderating potential global **climate change;** and "(C) regulating hydrological ...
... 90%); DEFORESTATION (79%); **CLIMATE CHANGE** (79%); FORESTRY & LOGGING (...

22. CONGRESSIONAL RECORD -- SENATE, Friday, July 10, 1998 , 144 Cong Rec S 7940, ,No., STATEMENTS
ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 2nd Session
Mr. DODD; **Mr.** MOYNIHAN; **Mr.** MURKOWSKI; **Mr.** WARNER; **Mr.** FORD; **Mr.** BUMPERS; **Mr.** GRAMS
... CECA will reduce **greenhouse gas** emissions by 25 to ...

23. CONGRESSIONAL RECORD -- SENATE, Friday, June 26, 1998 , 144 Cong Rec S 7247, ,No., THE
PRESIDENT'S TRIP TO CHINA
105th Congress, 2nd Session
Mr. BYRD
... commitments to limit or reduce **greenhouse gas** emissions" similar to those to which developed ...
... growth and also reducing global **greenhouse gas** emissions. As I have previously said, the ...
... potential consequences of increasing **greenhouse gas** concentrations, all economic development should be ...
... addressing this shared problem. **Global warming** is a global problem. It is ...
... binding commitments to reduce their **greenhouse gas** emissions. Taken together, these ...
EMISSIONS (91%); **CLIMATE CHANGE** (90%); EMERGING MARKETS (...

24. CONGRESSIONAL RECORD -- SENATE, Thursday, June 25, 1998 , 144 Cong Rec S 7164, Vol. 144, No. 85,
KYOTO PROTOCOL IMPLEMENTATION
105th Congress, 2nd Session
Mr. MURKOWSKI
Last week, the administration's **climate change** negotiators returned from Bonn, ...
... Nations Framework Convention on **Climate Change.** Mr. President, people ...
... President Clinton outlined his **climate change** proposal during a ...
... speech to describe the administration's **climate change** proposal, I have to do that, because the speech is all we have. ...
... Office to review the administration's **climate change** proposal. The Committee on Energy and ...
... Administration has no documentation of its **climate change** proposal, beyond the President's ...
... five years for its **climate change** program, and the documentation of that program is ...
... proposal. So, in this brief **climate change** proposal, what do we find? We find ...
... principles for addressing **climate change.** One of the administration's principles on **climate change** is: "Developing Countries Must Participate." The President's **climate change** proposal says: "The President has ...
... chairman of the White House **Climate Change** Task Force, told me ...
... China and India. So, the President's **climate change** proposal says you must have ...
... knock U.S. effort on **global warming.** Two week talks ...
... Clinton's effort to make the **global warming** treaty more palatable to ...
... drastically cut so-called **greenhouse gas** emissions as the United States and ...
... disconnect. President Clinton's **climate change** proposal says: The President is ...
... reduce emissions. .. The administration's **climate change** proposal states that an emissions ...
... world in a **climate change** treaty. Mr. President, ...
... now. I have watched this **climate change** deal become more and ...
... a letter saying "this **climate change** treaty is bad news ...
... Knock U.S. Effort on **Global Warming** (By Patrice Hill) ...
... Clinton's efforts to make the **global warming** treaty more palatable to ...
... drastically cut so-called **greenhouse-gas** emissions as the United States and ...
... United States for the **global warming** problem, since it is the largest ...
... TREATIES & AGREEMENTS (90%); **CLIMATE CHANGE** (89%); DEVELOPING COUNTRIES (...

25. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 23, 1998 , 144 Cong Rec S 6861, Vol. 144, No. 83,
PARTISAN FIGHTING OVER FOREIGN RELATIONS POLICY
105th Congress, 2nd Session
Mr. BAUCUS; **Mr.** LOTT
... environmental protection, the prevention of **climate change,** and human rights--we will ...

26. CONGRESSIONAL RECORD -- SENATE, Thursday, June 18, 1998 , 144 Cong Rec S 6507, Vol. 144, No. 80,
ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT, 1999
105th Congress, 2nd Session
Mr. REID; **Mr.** GORTON; **Mr.** DASCHLE; **Mr.** NICKLES; **Mr.** FAIRCLOTH; **Mr.** DOMENICI; **Mr.** DORGAN; **Mr.** LOTT; **Mr.** MCCAIN; **Mr.** THOMAS; **Mr.** KENNEDY; **Mr.** KERRY; **Mr.** JEFFORDS; **Mr.** ROTH; **Mr.** LEAHY
... one's position on the issue of **climate change**--these programs promise to supply ...

27. CONGRESSIONAL RECORD -- SENATE, Thursday, June 18, 1998 , 144 Cong Rec S 6530, Vol. 144, No. 80,
ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT, 1999

105th Congress, 2nd Session
Mr. DOMENICI; **Mr.** REID; **Mr.** COATS; **Mr.** BIDEN; **Mr.** BYRD; **Mr.** GLENN; **Mr.** LIEBERMAN; **Mr.** BENNETT; **Mr.** GORTON; **Mr.** CHAFEE; **Mr.** SARBANES; **Ms.** MIKULSKI; **Mr.** BUMPERS; **Mr.** LEAHY; **Mrs.** FEINSTEIN; **Mr.** BURNS; **Mr.** BINGAMAN; **Mr.** CAMPBELL; **Mr.** INHOFE; **Ms.** SNOWE
... world's energy, environment and **global warming** problems. But in ...
... help our country reduce **greenhouse gas** emissions. Earlier this year the ...

28. CONGRESSIONAL RECORD -- SENATE, Thursday, June 18, 1998 , 144 Cong Rec S 6559, Vol. 144, No. 80, WORLD AFFAIRS
105th Congress, 2nd Session
Mr. BUMPERS; **Mr.** FAIRCLOTH; **Mr.** DASCHLE; **Mr.** COCHRAN
... depletion, we talk about **global warming,** we talk about building ...
... things we are going to do to stop **global warming** from occurring. But the truth of the ...

29. CONGRESSIONAL RECORD -- SENATE, Thursday, June 11, 1998 , 144 Cong Rec S 6146, Vol. 144, No. 75, ENGAGING CHINA IN THE 21ST CENTURY
105th Congress, 2nd Session
Mr. BAUCUS
... controls, our efforts to prevent **global warming** will be undermined. China is ...

30. CONGRESSIONAL RECORD -- SENATE, Thursday, June 4, 1998 , 144 Cong Rec S 5653, Vol. 144, No. 71, AUTHORITY FOR COMMITTEES TO MEET
105th Congress, 2nd Session
Mr. GRAMM
... comments on its review of the Administration's **Climate Change** Proposal and to hear the Administration's ...

31. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 2, 1998 , Cong Rec S 5551, ,No., NUCLEAR WASTE POLICY ACT OF 1997--MOTION TO PROCEED
105th Congress, 2nd Session
Mr. REID; **Mr.** BRYAN; **Mr.** LOTT; **Mr.** DASCHLE; **Mr.** MURKOWSKI; **Mr.** CRAIG; **Mr.** JOHNSON; **Mr.** KOHL; **Mr.** GRAHAM
... deliver on its commitments. Also, as we address **global warming,** the Kyoto accord, and other ...
... clean air and preventing **climate change.** Currently, 22 percent of our ...
... about clean air and **climate change** or is this a cynical diplomatic or, ...
... going to address the reality of **climate change**--and all of us are concerned about it--one of our ...
... United States meeting its **global warming** commitments without incurring ...

32. CONGRESSIONAL RECORD -- SENATE, Thursday, May 21, 1998 , 144 Cong Rec S 5342, Vol. 144, No. 66, NOTICES OF HEARINGS
105th Congress, 2nd Session
Mr. MURKOWSKI; **Mr.** GRAIG; **Mr.** NICKLES
... comments on its review of the Administration's **Climate Change** Proposal and to hear the Administration's ...

33. CONGRESSIONAL RECORD -- SENATE, Friday, May 1, 1998 , Cong Rec S 4040, ,No., AMENDMENTS

SUBMITTED ON APRIL 30, 1998 - PROTOCOLS TO THE NORTH ATLANTIC TREATY OF 1949 ON A ACCESSION OF POLAND, HUNGARY, AND CZECH REPUBLIC - MOYNIHAN (AND WARNER) EXECUTIVE AMENDMENT NO. 2321
105th Congress, 2nd Session
Mr. MOYNIHAN; **Mr.** NICKLES
... Senate of Kyoto protocol on **global warming.**--Prior to the deposit of the United ...
... Nations Framework Convention on **Climate Change,** done at Kyoto on December ...

34. CONGRESSIONAL RECORD -- SENATE, Thursday, April 30, 1998 , 144 Cong Rec S 3810, Vol. 144, No. 51, EXECUTIVE SESSION - PROTOCOLS TO THE NORTH ATLANTIC TREATY OF 1949 ON ACCESSION OF POLAND, HUNGARY, AND THE CZECH REPUBLIC
105th Congress, 2nd Session
Mr. CRAIG; **Mr.** LEVIN; **Mr.** SMITH OF OREGON; **Mr.** BIDEN; **Mr.** FEINGOLD; **Mr.** INHOFE; **Mr.** SMITH OF NEW HAMPSHIRE; **Mr.** MOYNIHAN; **Mr.** WARNER; **Mr.** GRAMM; **Mr.** ROTH; **Mr.** TORRICELLI; **Mr.** LIEBERMAN; **Ms.** MIKULSKI; **Mr.** STEVENS; **Mr.** ABRAHAM; **Mr.** DORGAN; **Mr.** WELLSTONE; **Mr.** ROBB; **Mr.** MCCAIN; **Mr.** KERRY; **Mr.** BYRD; **Mr.** KYL; **Mr.** LOTT; **Mr.** HELMS; **Mr.** CONRAD; **Mr.** BINGAMAN; **Mr.** LEAHY; **Mr.** HARKIN; **Mr.** NICKLES; **Mr.** DOMENICI; **Mr.** THURMOND; **Mr.** ALLARD; **Mr.** GLENN; **Mr.** SHELBY; **Mr.** KERREY; **Mr.** MURKOWSKI; **Ms.** MOSELEY-BRAUN; **Mr.** D'AMATO; **Mr.** KOHL; **Mr.** JEFFORDS; **Mr.** LAUTENBERG; **Mr.** CAMPBELL; **Mr.** JOHNSON; **Mrs.** MURRAY; **Mr.** KEMPTHORNE; **Mr.** KENNEDY; **Mr.** DODD; **Mr.** DEWINE; **Mr.** HATCH; **Mr.** ASHCROFT; **Mrs.** HUTCHISON; **Mr.** DASCHLE
... Nations Framework Convention on **Climate Change** to the Senate for its consideration ...
... senate of kyoto protocol on **global warming.**--Prior to the deposit of the United ...
... Nations Framework Convention on **Climate Change,** done at Kyoto on December ...
... Nations Framework Convention on **Climate Change** to the Senate for its consideration ...
... recognized that the common threat of **climate change** was more important than each ...
... participate in combating **global warming,** and in order of the President to ...

35. CONGRESSIONAL RECORD -- SENATE, Thursday, April 30, 1998 , 144 Cong Rec S 3918, Vol. 144, No. 51, EXECUTIVE REPORTS OF COMMITTEES
105th Congress, 2nd Session
Mr. THURMOND
... Nations Framework Convention on **Climate Change** unless or until the Senate has ...

36. CONGRESSIONAL RECORD -- SENATE, Thursday, April 30, 1998 , 144 Cong Rec S 3919, Vol. 144, No. 51, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 2nd Session
Mr. CLELAND; **Mr.** CAMPBELL; **Mr.** LEAHY; **Mr.** DASCHLE; **Mr.** GRAHAM; **Mr.** MACK; **Mrs.** FEINSTEIN; **Mr.** BIDEN; **Mr.** D'AMATO; **Ms.** MIKULSKI; **Mr.** MOYNIHAN; **Mr.** JOHNSON; **Mr.** ASHCROFT; **Mr.** HOLLINGS; **Mr.** SARBANES; **Mr.** LIEBERMAN
... Nations Framework Convention on **Climate Change** unless or until the Senate has ...
... Nations Framework Convention on **Climate Change.** An amendment that clearly did not ...
... responsibilities for reducing **greenhouse gas** emissions. The Kyoto Protocol would ...
... United States to reduce our **greenhouse gas** emissions to 7 percent ...
... 1990 levels in **greenhouse gas** emissions. He also said there must be "meaningful ...
... accepts the validity of the science on **global warming,** which is still uncertain and at best ...
... percent of the world's manmade **greenhouse gas** emissions early in the ...
... review the available data on **global warming,** it is becoming increasingly clear that the ...

... commitments for reduction of **greenhouse gas** emissions made by the ...
... reducing emission to "meet our **greenhouse gas** emission budget under the ...
... ten years to meet the **greenhouse gas** emission targets established at ...

37. CONGRESSIONAL RECORD -- SENATE, Monday, April 20, 1998 , 144 Cong Rec S 3240, Vol. 144, No. 43, U.N. GLOBAL CLIMATE TREATY
105th Congress, 2nd Session
Mr. HAGEL; **Mr.** PRESIDENT; **Mr.** MURKOWSKI; **Mr.** ENZI; **Mr.** CRAIG; **Mr.** DORGAN
... States to limit or reduce **greenhouse gas** emissions unless--unless--and ...
... commitments to limit or reduce **greenhouse gas** emissions for all nations ...
... responsibilities for reducing **greenhouse gas** emissions. During a ...
... United States to reduce our **greenhouse gas** emissions to 7 percent ...
... 1990 levels in **greenhouse gas** emissions, and he said there must be "meaningful ...
... accepts the validity of the science on **global warming,** which is still uncertain and at best ...
... percent of the world's manmade **greenhouse gas** emissions early in the ...
... lose their jobs. Since the **climate change** problem will one ...
... a little bit of **global warming,** we would be under about 300 ...
... little bit about the **global warming** treaty as well. I ...
... Kyoto was titled "a **global warming"** conference, but I have to ...
... talking about nations that, if **global warming** is true, the polar icecap ...
... best evidence that there isn't **global warming.** There is no consensus on **global warming.** Some scientists argue that the carbon dioxide in **global warming** is even good. The important ...
... numbers that the administration has been collecting on **global warming:** How many American ...
... much they are going to spend on **climate change.** This lack of accountability is a ...
... numbers have to be available for what **global warming**--no, for what the administration's ...
... West Virginia, on this issue of **climate change** and trying to convince the Administration, and ...
... Kyoto Protocol on Global **Climate Change.** Despite grave bipartisan ...
... holocaust" caused by **global warming.** Let me repeat those words. ...
... facing an environmental holocaust from **global warming,** much less an imminent ...
... review the available data on **global warming,** it is becoming increasingly clear that the ...
... commitments for reduction of **greenhouse gas** emissions made by the ...
... U.N. Intergovernmental Panel on **Climate Change,** recently said that " t he Kyoto ...
... sincere about reducing **greenhouse gas** emissions, we would have seen in the ...
... Conspicuously absent from the President's **Climate Change** Technology Initiative was any support ...
... one single molecule of **greenhouse gas** emissions into our atmosphere. Indeed, it is ...
... talk about global **climate change** and its importance to our country and to our friends and ...
... TREATIES & AGREEMENTS (90%); **CLIMATE CHANGE** (90%); EMISSIONS (90%); ...

38. CONGRESSIONAL RECORD -- SENATE, Monday, April 20, 1998 , 144 Cong Rec S 3247, Vol. 144, No. 43, GLOBAL CLIMATE TREATY
105th Congress, 2nd Session
Mr. KYL
... States to drastically reduce its **greenhouse-gas** emissions, presumably by ...
... in the atmosphere that a **"global warming"** effect has commenced, and that the cause of this ...
... activity and the climate, delegates at the **climate change** conference in Kyoto reached an agreement to curb **greenhouse-gas** emissions. The treaty, if ratified, would ...
... same standards. The evidence of **global warming** is inconclusive, at best. For the ...
... emissions are causing a **global warming** effect. Models cannot ...

... figures are based on reducing **greenhouse-gas** emissions to 1990 levels ...
... developed nations to reduce **greenhouse-gas** emissions will not ...
... same scientists who are promoting **global warming** warned at that time that we were about to ...
... issues apocalyptic warnings that, if **global warming** is not headed off, we ...
... spread of infectious diseases. The **global warming** hypothesis should not be taken as ...
... TREATIES & AGREEMENTS (89%); **CLIMATE CHANGE** (89%); **GLOBAL WARMING** (89%); DEVELOPING COUNTRIES (...

39. CONGRESSIONAL RECORD -- SENATE, Friday, April 3, 1998 , Cong Rec S 3215, ,No., FISCAL CANCER
105th Congress, 2nd Session
Mr. HOLLINGS; **Mr.** LIEBERMAN
... disarmament, organ transplants, **global warming** or telecommunications," he adds. "I ...

40. CONGRESSIONAL RECORD -- SENATE, Thursday, April 2, 1998 , Cong Rec S 3031, ,No., CONGRESSIONAL BUDGET FOR THE UNITED STATES GOVERNMENT FOR FISCAL YEARS 1999, 2000, 2001, 2002, AND 2003
105th Congress, 2nd Session
Mr. DORGAN; **Mr.** FORD; **Mr.** DOMENICI; **Mr.** HUTCHINSON; **Mr.** BYRD; **Mr.** NICKLES; **Mr.** LEVIN; **Mr.** BURNS; **Mr.** LAUTENBERG; **Mr.** BUMPERS; **Mr.** ALLARD; **Mr.** BAUCUS; **Mr.** GRAHAM; **Mr.** BOND; **Mr.** CRAIG; **Ms.** LANDRIEU; **Mr.** THURMOND; **Mr.** BROWNBACK; **Mrs.** BOXER; **Mr.** SPECTER; **Mr.** KENNEDY; **Mr.** DURBIN; **Mr.** SANTORUM; **Mr.** GRASSLEY; **Mr.** FRIST; **Ms.** COLLINS; **Mr.** ROCKEFELLER; **Mr.** DASCHLE; **Mr.** STEVENS; **Mr.** BINGAMAN; **Mr.** LIEBERMAN; **Mrs.** FEINSTEIN; **Mrs.** HUTCHISON; **Mr.** GRAMS; **Mr.** CAMPBELL; **Mr.** WELLSTONE; **Mr.** KYL; **Mr.** LOTT; **Mr.** D'AMATO; **Mr.** JEFFORDS; **Mr.** GRAMM; **Mr.** COVERDELL; **Mr.** WARNER; **Mr.** ROBB; **Mr.** LEAHY; **Mr.** REID; **Mr.** BRYAN; **Mr.** CHAFEE; **Mr.** KEMPTHORNE; **Mr.** SARBANES; **Mrs.** MURRAY; **Mr.** BIDEN; **Mr.** FEINGOLD; **Mr.** KERRY; **Ms.** MOSELEY-BRAUN; **Mr.** MACK; **Mr.** KOHL; **Mr.** TORRICELLI; **Mr.** COCHRAN; **Mr.** MCCAIN; **Mr.** LUGAR; **Mr.** GORTON; **Mr.** GREGG; **Ms.** MIKULSKI; **Mr.** DEWINE; **Ms.** SNOWE; **Mr.** DODD; **Mr.** FOX
... discussion of the Administration's so-called **Climate Change** Technology Initiative (CCTI) ...
... domestic activities to reduce **greenhouse gas** emissions, including tax ...
... Kyoto, Japan to attend the **Climate Change** Conference. The vast majority of the ...
... carefully examined the issue of **global warming** have concluded the science is compelling and that it is ...
... Clinton's initiative to reduce **greenhouse gas** emissions early in the ...

41. CONGRESSIONAL RECORD -- SENATE, Tuesday, March 17, 1998 , 144 Cong Rec S 2086, Vol. 144, No. 29, EDUCATION SAVINGS ACT FOR PUBLIC AND PRIVATE SCHOOLS
105th Congress, 2nd Session
Mr. KERRY; **Mr.** COVERDELL; **Mr.** FRIST; **Mr.** TORRICELLI; **Ms.** COLLINS; **Mr.** THOMAS
... families. What is their purpose? To combat **global warming.** The goal is to get solar ...

42. CONGRESSIONAL RECORD -- SENATE, Monday, March 16, 1998 , 144 Cong Rec S 1964, Vol. 144, No. 28, RELATIONS WITH JAPAN AND TO HONOR MIKE MANSFIELD'S 95TH BIRTHDAY
105th Congress, 2nd Session
Mr. BAUCUS
... fishing stocks, sped **global warming** and accelerated the decline of the world's ...
... health of oceans and the pace of **climate change;** predict earthquakes and floods ...

43. CONGRESSIONAL RECORD -- SENATE, Friday, March 13, 1998 , 144 Cong Rec S 1948, Vol. 144, No. 27,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 2nd Session
Mr. REED; **Mr.** DASCHLE; **Mr.** REID; **Mr.** COVERDELL; **Mr.** KENNEDY; **Ms.** SNOWE; **Mr.** LUGAR; **Mr.** BIDEN; **Mr.** CHAFEE; **Mr.** LEAHY; **Mr.** HATCH; **Mr.** LEVIN
... moderating potential global **climate change;** and "(C) regulating hydrological ...
... accelerating the threat of global **climate change.** Rainforests absorb the carbon dioxide that can change our **climate, and that would change** every assumption we have about ...
... otherwise contribute to global **climate change.** While there are still many scientific uncertainties related to **climate change,** it is undeniable that atmospheric carbon ...
... next century--global **climate change.** These forests serve important ...

44. CONGRESSIONAL RECORD -- SENATE, Wednesday, March 11, 1998 , 144 Cong Rec S 1723, Vol. 144, No. 25,
INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1997
105th Congress, 2nd Session
Mr. CHAFEE; **Mr.** BAUCUS; **Mr.** LEVIN; **Mr.** THURMOND; **Mr.** BOND; **Mr.** LAUTENBERG; **Mr.** LIEBERMAN; **Mr.** MCCAIN; **Mr.** LOTT; **Mr.** ABRAHAM; **Mr.** BROWNBACK; **Mr.** MOYNIHAN; **Mr.** DODD; **Mr.** WARNER; **Mr.** BYRD; **Mr.** MURKOWSKI; **Mr.** SPECTER; **Ms.** MOSELEY-BRAUN; **Mr.** CAMPBELL; **Mr.** DASCHLE; **Mr.** REID; **Mr.** ROTH; **Mr.** MACK; **Mr.** GRAHAM; **Mr.** KYL; **Mr.** NICKLES; **Mr.** STEVENS; **Mr.** ALLARD; **Mr.** GRASSLEY; **Mr.** FORD; **Ms.** COLLINS; **Mr.** MCCONNELL; **Mr.** SMITH OF NEW HAMPSHIRE; **Mr.** CLELAND; **Mr.** JEFFORDS
... emissions, obviously, and less **global warming.** So in a strange ...
... country and our efforts to curb the **global warming** that is occurring. So, recognizing that both of ...
... Fossil Energy Use and **Greenhouse Gas** Emissions of Fuel Ethanol ...
... percent reduction in **greenhouse gas** emissions. Mr. President, ...

45. CONGRESSIONAL RECORD -- SENATE, Monday, March 9, 1998 , 144 Cong Rec S 1570, Vol. 144, No. 23,
AMENDMENTS SUBMITTED - THE INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1998 - COLLINS AMENDMENTS NOS. 1730-1732
105th Congress, 2nd Session
Mr. BREAUX; **Mr.** ENZI; **Mr.** MURKOWSKI; **Mr.** BENNETT; **Mr.** GRAHAM; **Mr.** ALLARD; **Mr.** SPECTER; **Mr.** ABRAHAM; **Ms.** MOSELEY-BRAUN; **Mr.** KERREY; **Mr.** CHAFEE; **Mrs.** HUTCHISON; **Ms.** SNOWE
... emissions of gases that contribute to **global warming** and that are attributable to the increased use of ...
... for cost-effective **greenhouse gas** emissions reductions. On page ...
... FOR COST- EFFECTIVE **GREENHOUSE GAS** EMISSIONS REDUCTIONS. Subchapter ...
... for cost- effective **greenhouse gas** emissions reductions "(a) ...
... effective reductions in **greenhouse gas** emissions from the transportation sector, ...
... yield cost- effective **greenhouse gas** emissions reductions. "(b) ...

46. CONGRESSIONAL RECORD -- SENATE, Thursday, March 5, 1998 , 144 Cong Rec S 1476, Vol. 144, No. 21,
AUTHORITY FOR COMMITTEES TO MEET
105th Congress, 2nd Session
Mr. CHAFEE
... examining the Kyoto treaty on **climate change** and its effect on the agricultural economy. The ...

47. CONGRESSIONAL RECORD -- SENATE, Monday, March 2, 1998 , 144 Cong Rec S 1183, Vol. 144, No. 18,

TRIBUTE TO ABRAHAM RIBICOFF
105th Congress, 2nd Session
Mr. BYRD
... report on the difficult problem of **global warming.** His report on the subject could well have been ...
... 20 years later, when **global warming** has now become fashionable as an ...

48. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 24, 1998 , 144 Cong Rec S 884, Vol. 144, No. 14,
PAYCHECK PROTECTION ACT
105th Congress, 2nd Session
Mr. FEINGOLD; **Mr.** REED; **Mrs.** FEINSTEIN; **Mr.** MCCONNELL; **Mr.** CRAIG; **Mrs.** BOXER; **Mr.** KERRY; **Mr.** LEVIN; **Mr.** SESSIONS; **Ms.** MOSELEY-BRAUN; **Mrs.** MURRAY; **Mr.** SMITH OF OREGON; **Mr.** SMITH OF NEW HAMPSHIRE; **Mr.** FORD; **Mr.** KOHL; **Mr.** FAIRCLOTH; **Mr.** KERREY; **Mr.** BAUCUS; **Mr.** WYDEN; **Mr.** MCCAIN; **Mr.** LOTT; **Ms.** SNOWE; **Mr.** DASCHLE; **Mr.** DORGAN; **Mr.** WELLSTONE; **Mr.** JEFFORDS; **Mr.** BURNS
... air pollution and aggravated **global warming.** "Our report documents six ...

49. CONGRESSIONAL RECORD -- SENATE, Tuesday, February 24, 1998 , 144 Cong Rec S 940, Vol. 144, No. 14,
NOTICES OF HEARINGS
105th Congress, 2nd Session
Mr. CAMPBELL; **Mr.** LUGAR
... examine the Kyoto Treaty on **Climate Change** and its effect on the agricultural economy.

50. CONGRESSIONAL RECORD -- SENATE, Thursday, February 12, 1998 , 144 Cong Rec S 682, Vol. 144, No. 11,
THE INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT
105th Congress, 2nd Session
Mr. BYRD; **Mr.** GRAMS
... hear much about **global warming**--much about **global warming.** This is the place to start. Pass ...

51. CONGRESSIONAL RECORD -- SENATE, Wednesday, February 11, 1998 , 144 Cong Rec S 635, Vol. 144, No. 10,
NUCLEAR ISSUES
105th Congress, 2nd Session
Mr. DOMENICI; **Mr.** LEAHY
... energy reduced U.S. **greenhouse gas** emissions from electric utilities ...
... power reduced U.S. **greenhouse gas** emissions 25 percent. That ...
... clean in terms of **global warming** emissions, and we did this without imposing ...

52. CONGRESSIONAL RECORD -- SENATE, Thursday, November 13, 1997 , 143 Cong Rec S 12567, Vol. 143, No.
HINGTON, THURSDAY, NOVEMBER 13, 1997No. 160--Part II, Senate
105th Congress, 1st Session
Mr. LEAHY
... carbonrich coal adds to **global warming,** which has increased the temperatures of Earth's ...

53. CONGRESSIONAL RECORD -- SENATE, Thursday, November 13, 1997 , 143 Cong Rec S 12697, Vol. 143, No.
HINGTON, THURSDAY, NOVEMBER 13, 1997No. 160--Part II, OCEANS ACT OF 1997

105th Congress, 1st Session
Mr. NICKLES; **Mr.** CHAFEE; **Mr.** HOLLINGS
... addition, action to reduce **global warming** and other changes to the oceans and ...

54. CONGRESSIONAL RECORD -- SENATE, Wednesday, November 12, 1997 , 143 Cong Rec S 12510, Vol. 143, No. 159, AUTHORITY FOR COMMITTEES TO MEET
105th Congress, 1st Session
Mr. COATS
... protocols to the framework convention on **climate change.** The PRESIDING OFFICER. Without ...
... 83%); COPYRIGHT (53%); **CLIMATE CHANGE** (50%);

55. CONGRESSIONAL RECORD -- SENATE, Saturday, November 8, 1997 , 143 Cong Rec S 12105, Vol. 143, No. 156, RECIPROCAL TRADE AGREEMENTS ACT OF 1997
105th Congress, 1st Session
Mr. DORGAN; **Mr.** ROTH; **Mr.** GRAMM; **Mr.** SARBANES; **Mr.** REED; **Mr.** STEVENS
... A) mitigation of global **climate change;** (B) reduction in the ...
... communityare significant: global **climate change,** which we were talking about recently; ...
... hand, as he pointed out on the **global warming** issue and on the other environmental ...

56. CONGRESSIONAL RECORD -- SENATE, Saturday, November 8, 1997 , 143 Cong Rec S 12119, Vol. 143, No. 156, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 1st Session
Ms. MOSELEYBRAUN; **Mr.** GRASSLEY; **Mr.** JEFFORDS; **Mr.** CONRAD; **Mrs.** FEINSTEIN; **Mr.** FAIRCLOTH; **Mr.** LAUTENBERG; **Mr.** COATS; **Mr.** SPECTER; **Mr.** KOHL; **Mr.** DURBIN; **Mr.** HATCH; **Mr.** BAUCUS; **Mr.** ABRAHAM
... carbon dioxide for **global warming.** The chief sources of environmentally ...
... President's initiative against **global warming** includes $5 billion ...

57. CONGRESSIONAL RECORD -- SENATE, Friday, November 7, 1997 , 143 Cong Rec S 11916, Vol. 143, No. 155, INTERNATIONAL CLIMATE TREATY
105th Congress, 1st Session
Mr. MURKOWSKI
... concern relative to the issue of **global warming,** greenhouse gases, carbon ...
... world from reasonably addressing the **climate change** issue. So I think it is ...
... Yet, President Clinton's **global warming** explicitly ignores these sources of ...
... TREATIES & AGREEMENTS (90%); **CLIMATE CHANGE** (90%); AIR QUALITY ...

58. CONGRESSIONAL RECORD -- SENATE, Friday, November 7, 1997 , 143 Cong Rec S 11917, Vol. 143, No. 155, FAST TRACK
105th Congress, 1st Session
Mr. ENZI
... unfair commitments in the **global warming** treaty to be discussed in ...
... administration's positions on the global **climate change** treaty are a paramount ...
... proven relationship to show that the **climate change** treaty would have any effect on global ...
... reduction targets for **greenhouse gas** emissions could cost this country as ...

59. CONGRESSIONAL RECORD -- SENATE, Friday, November 7, 1997 , 143 Cong Rec S 11964, Vol. 143, No. 155, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 1st Session
Mr. HELMS; **Mr.** DEWINE; **Mr.** GLENN; **Mr.** FAIRCLOTH; **Mr.** THOMAS; **Mr.** BOND; **Mr.** BUMPERS; **Mr.** GORTON; **Mr.** MURKOWSKI; **Mr.** MOYNIHAN; **Mr.** SHELBY; **Ms.** MOSELEYBRAUN; **Mr.** SMITH OF OREGON; **Mr.** BURNS; **Mr.** D'AMATO; **Ms.** COLLINS; **Mr.** REED; **Mr.** MACK; **Mr.** HARKIN; **Mr.** DODD; **Mrs.** FEINSTEIN; **Mr.** LUGAR; **Mr.** MCCAIN; **Mr.** MCCONNELL; **Mr.** AKAKA; **Mr.** KENNEDY; **Mr.** HAGEL; **Mr.** INOUYE; **Mr.** LAUTENBERG; **Mr.** FORD; **Mr.** GRAHAM; **Mr.** ROCKEFELLER; **Mr.** DORGAN
... air quality. Global **climate change** poses a looming ...
... concerns about global **climate change,** a transition to methane as an ...
... methane hydrates as an instigator of **climate change.** Sediments off the California ...
... haven't really entered into discussions of **climate change.** They have been almost completely ignored. ...
... warming caused by **greenhouse gas** pollution. At the same time, ...
... hydrates were important in **climate change** in the past, there is no ...
... hydrates could greatly exacerbate **global warming.** For now, though, ...
... played in past **climate changes.** Lacking this knowledge, they say it is ...

60. CONGRESSIONAL RECORD -- SENATE, Wednesday, November 5, 1997 , 143 Cong Rec S 11716, Vol. 143, No. 153, RECIPROCAL TRADE AGREEMENT OF 1997--MOTION TO PROCEED
105th Congress, 1st Session
Mr. WELLSTONE; **Mr.** GRASSLEY; **Mr.** KENNEDY; **Mr.** GRAMM; **Mr.** DORGAN; **Mr.** CONRAD; **Mrs.** FEINSTEIN; **Mr.** GRAHAM; **Mr.** ROTH; **Mr.** JOHNSON; **Mr.** CAMPBELL; **Mr.** MURKOWSKI; **Mr.** SARBANES; **Mr.** HOLLINGS; **Mr.** GORTON; **Ms.** COLLINS; **Mr.** SANTORUM; **Mr.** MOYNIHAN; **Mr.** CHAFEE; **Mr.** REED; **Mrs.** BOXER; **Mr.** HAGEL; **Mr.** NICKLES
... environment, if you really are concerned about **global warming,** if you are concerned about the expansion of ...

61. CONGRESSIONAL RECORD -- SENATE, Wednesday, November 5, 1997 , Cong Rec S 11764, ,No., STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 1st Session
Ms. MIKULSKI; **Ms.** SNOWE; **Mrs.** BOXER; **Mr.** MURKOWSKI; **Mr.** MCCAIN; **Mr.** FEINGOLD; **Mr.** AKAKA; **Mr.** DEWINE; **Mr.** MOYNIHAN; **Mr.** KOHL; **Mr.** COATS; **Mr.** LIEBERMAN; **Mr.** NICKLES
... fuels contributes to global **climate change,** air pollution, and acid ...
... signing of the Framework Convention on **Climate Change** in Rio de ...
... overall strategy to combat **greenhouse gas** emissions. As many in the ...
... meeting the challenge of global **climate change** on October 22, 1997, ...
... piece of the country's overall **greenhouse gas** reductions strategy. In ...

62. CONGRESSIONAL RECORD -- SENATE, Wednesday, November 5, 1997 , Cong Rec S 11782, ,No., AUTHORITY FOR COMMITTEES TO MEET
105th Congress, 1st Session
Mr. ROTH
... meet at 9:30 a.m. on **global warming.** The PRESIDING OFFICER. Without ...

63. CONGRESSIONAL RECORD -- SENATE, Tuesday, November 4, 1997 , 143 Cong Rec S 11694, Vol. 143, No. 152, NOTICE OF HEARING
105th Congress, 1st Session

Mr. LUGAR; **Mr.** THOMAS
... aid in decreasing **greenhouse gas** emissions and increasing U.S. ...

64. CONGRESSIONAL RECORD -- SENATE, Monday, November 3, 1997 , Cong Rec S 11591, ,No., EXECUTIVE SESSION - NOMINATION OF CHARLES ROSSOTTI, OF THE DISTRICT OF COLUMBIA, TO BE COMMISSIONER OF INTERNAL REVENUE
105th Congress, 1st Session
Mr. MOYNIHAN; **Mr.** BREAUX; **Mr.** GRASSLEY; **Mr.** CRAIG; **Mr.** BAUCUS; **Mr.** DODD; **Mr.** MURKOWSKI; **Mr.** NICKLES; **Mr.** LOTT
... Commissioner the tools to encourage **the climate of change** we need if we are to reverse the past ...

65. CONGRESSIONAL RECORD -- SENATE, Friday, October 24, 1997 , 143 Cong Rec S 11189, Vol. 143, No. 145, GLOBAL WARMING
105th Congress, 1st Session
Mr. MURKOWSKI
... a strategy for **climate change** talks. The President said the United ...
... ENVIRONMENTAL LAW (89%); **GLOBAL WARMING** (89%); US ENVIRONMENTAL LAW (...

66. CONGRESSIONAL RECORD -- SENATE, Thursday, October 23, 1997 , 143 Cong Rec S 11004, Vol. 143, No. 144, GLOBAL WARMING
105th Congress, 1st Session
Mr. INHOFE; **Mr.** FORD
... conversation on the floor concerning the **global warming** treaty. I will ...
... Works Committee insofar as **global warming** is concerned. In July, the ...
... a hearing on the global **climate change** treaty and we heard from five ...
... conclusive concerning global **climate change.** That is not at all what we found in our ...
... data, we are not sure if there has been any **global warming.** We had a very interesting session that ...
... conclusive evidence that there has actually been any **global warming.** Three, even if we eliminate all ...
... evidence in global **climate change,** which has a dramatic deteriorating ...
... scientific justification on either **global warming** or ambient air standards? Why are they ...
... 31, 1994, EPA's "**Climate Change** Action" recommends a ...
... increases were recommended: a "**greenhouse gas** tax," a "carbon ...
... tax shy Congress? The "**Climate Change** Action Plan" contains ...
GLOBAL WARMING (79%); EMISSIONS (79%); ...

67. CONGRESSIONAL RECORD -- SENATE, Thursday, October 23, 1997 , 143 Cong Rec S 11007, Vol. 143, No. 144, THE GLOBAL CLIMATE TREATY
105th Congress, 1st Session
Mr. HAGEL; **Mr.** CRAIG; **Mr.** THOMAS; **Mr.** MURKOWSKI; **Mr.** TORRICELLI
... commitments to limit or reduce **greenhouse gas** emissions for developing ...
... committing to specific limitations on **greenhouse gas** emissions within the same ...
... 60 percent of the world's **greenhouse gas** emissions within the next ...
... mandate to do something about their **greenhouse gas** emissions. So how can any ...
... in reducing global **greenhouse gas** emissions? It will not. This is ...
... ought to be when it comes to the issue of **global warming.** But first let me ...
... targets are missed. They want **global warming** gas reductions, but ...

... studying the critical issue of **global warming.** While this Nation will ...
... addressing this morning, that question of **global warming,** but more particularly the ...
... commitments to limit or reduce **greenhouse gas** emissions within the same ...
... about efforts to curb **global warming.** And if you'll pardon the pun, this is ...
... year on the U.S. Global **Climate Change** Research Program for the ...
... Asia to North America. The **climate changes.** It always has. And it will continue to ...
... targets and timetables for **greenhouse gas** reductions as the President has proposed. ...
... emissions and stabilize atmospheric **greenhouse gas** concentrations? The answer is no. ...
... commitments to limit or reduce **greenhouse gas** emissions for Developing ...
... understand the true threat of **climate change,** if it is indeed a dangerous ...

68. CONGRESSIONAL RECORD -- SENATE, Thursday, October 23, 1997 , 143 Cong Rec S 11019, Vol. 143, No. 144, THE CLIMATE CHANGE TREATY
105th Congress, 1st Session
Mr. KERRY; **Mr.** SHELBY; **Mr.** BYRD; **Mr.** CHAFEE
... in negotiating a **climate change** treaty. This is a negotiation that we have ...
... commitments to limit or reduce **greenhouse gas** emissions for the annex ...
... by the President on Global **Climate Change** Before the National Geographic ...
... many ways the problem of **climate change** reflects the new realities of the ...
... own borders, but **global warming** requires an international solution. ...
... single enemies, but **global warming** derives from millions of sources. ...
... clear and present danger; **global warming** is far more subtle, ...
... throughout our planet. We know what we have to do. **Greenhouse gas** emissions are caused mostly ...
... realistic and effective international **climate change** treaty. And I'm announcing ...
... in meeting the challenge of **climate change.** The industrialized world must ...
... a global problem such as **climate change** requires a global ...
... innovations to meet the challenge of **climate change.** I propose a ...
... creative ways of reducing **greenhouse gas** emissions. First, we must ...
... private firms and assessments of **greenhouse gas** emissions from major federal ...
... payment in reducing **greenhouse gas** emissions. Today, twothirds of the ...
... sectors to prepare their own **greenhouse gas** reduction plans, and we must, ...
... years and dramatically cut **greenhouse gas** emissions. Despite these winwin ...
... accepted in the past, **climate change** can bring us together ...
CLIMATE CHANGE (90%); EMISSIONS (90%); ...

69. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 22, 1997 , 143 Cong Rec S 10920, Vol. 143, No. 143, A GLOBAL WARMING CHALLENGE
105th Congress, 1st Session
Mr. WELLSTONE; **Mr.** BAUCUS
... I am talking about **global warming.** It is unique because we have to make important ...
... talking about the problem of **global warming,** the problem of **climate change.** In 1992, for the ...
... 1995, the Intergovernmental Panel on **Climate Change,** composed of more than 2,000 ...
... irreversibly to further global **climate change** and consequent ecological, economic and ...
... delaying action on reducing **greenhouse gas** emissions is foolhardy and it is tantamount to ...
... other catastrophic consequences from **global warming.** For my State it could be ...
... targets and timetables for **climate change** action. I hope as we ...
SCIENCE & TECHNOLOGY (90%); **CLIMATE CHANGE** (90%); SCIENCE NEWS (90%); **GLOBAL WARMING** (90%); EMISSIONS (90%);

70. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 22, 1997 , 143 Cong Rec S 10921, Vol. 143, No. 143, APPROACHING THE CLINTON-JIANG SUMMIT
105th Congress, 1st Session
Mr. BAUCUS; **Mr.** GRASSLEY
... biodiversity and prevent largescale **climate change.** One concrete proposal that ...

71. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 21, 1997 , 143 Cong Rec S 10871, Vol. 143, No. 142, GLOBAL WARMING
105th Congress, 1st Session
Mr. KERRY; **Mr.** CHAFEE; **Mr.** INHOFE
... negotiating session prior to the **climate change** conference scheduled in ...
... I have had an opportunity to discuss **global warming** with scientists and representatives from the United ...
... mutual concerns about the **climate change** problem and how best to ...
... colleagues some views on the science of **global warming,** on the international process, the U.S. ...
... in the Chamber to discuss **global warming** and to debate Senate Resolution ...
... resolution was silent, however, as to the science of **global warming.** It addressed only the U.S. ...
... others do, that the prospect of humaninduced **global warming** as an accepted thesis is beyond ...
... human activities are exacerbating **climate changes.** The vast majority of scientists and ...
... engaged is that the science regarding **global warming** is compelling and that to do nothing would be the most ...
... about the potential threat of **global warming.** It was at that time that I joined as an ...
... seriously parochial implications of **global warming.** As a United States ...
... in the debate on the science of **climate change** here on the Senate floor, or elsewhere. And ...
... problem ever undertakenconcluded that global **climate change** is currently under way. The ...
... a faster rate of **climate change** than any experienced during the last ...
... different way. The natural "**greenhouse effect**" has made life on Earth ...
... industrialization and with population growth, **greenhouse gas** emissions from human activities have consistently increased. Anthropogenic **climate changes,** most importantly the burning of ...
... IPCC scientific assessment of **climate change** estimated that the average surface ...
... One key aspect of **climate change** that is important to remember is the slow ...
... House Round Table on **Climate Change.** He said: The world's energyeconomic system is ...
... listed is absolutely tied to **global warming.** And I am not going to ...
... current trend lines of **global warming.** And we will see them with greater ...
... more destruction under **global warming.** The areas of greatest vulnerability are those where ...
... agreed on. The facts about **global warming** are beyond reasonable scientific ...
... consider the policy dimensions of **climate change** is not when the link between greenhouse gases and **climate change** is conclusively proven but when the ...
... ensure economic growth. The **climate change** problem is global. It requires ...
... prevent the costly implications of **global warming** in the future. I ...
... problems that will come from **global warming.** It is absolutely essential that China, ...
... inclusive treaty, covering all **greenhouse gas** emissions, sources and sinks would ...
... policy options that would slow **climate change** without harming American ...
... thoughtful comments about **global warming.** It is a subject in which ...
... costs of complying with a **global warming** treatythat is always what is portrayed, it is ...
... Ford, Jr., called **global warming** a genuine threat to the ...
... months, have criticized the proposed **global warming** treaty saying the phenomenon ...
... Initiative conclude that... Manmade **climate change** will lead to shifts ...
... convinced that in dealing with **climate change** risks, it is important to recognize the ...
... economic and social impacts of **climate change** fully before taking ...
... for the Framework Convention on **Climate Change** must achieve early, substantial reductions in

greenhouse gas emissions. So I think that ...
CLIMATE CHANGE (90%); **GLOBAL WARMING** (90%); TREATIES & AGREEMENTS (...

72. CONGRESSIONAL RECORD -- SENATE, Thursday, October 9, 1997 , 143 Cong Rec S 10759, Vol. 143, No. 140, THE DEFENSE BUDGET
105th Congress, 1st Session
Mr. BUMPERS; **Mr.** KOHL
... issue around here called **global warming,** those 200 million vehicles ...

73. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 8, 1997 , 143 Cong Rec S 10501, Vol. 143, No. 139, BIPARTISAN CAMPAIGN REFORM ACT OF 1997--CLOTURE MOTION
105th Congress, 1st Session
The PRESIDING OFFICER; **Mr.** MCCONNELL; **Mr.** HUTCHINSON; **Mr.** FEINGOLD; **Mr.** AKAKA; **Mr.** CHAFEE; **Mr.** MACK; **Mr.** DORGAN; **Mr.** CRAIG; **Mr.** BUMPERS
... in with few reservations. **Global warming,** too. Now it's campaign finance ...

74. CONGRESSIONAL RECORD -- SENATE, Wednesday, October 8, 1997 , 143 Cong Rec S 10522, Vol. 143, No. 139, INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1997--MOTION TO PROCEED
105th Congress, 1st Session
Mr. LOTT; **Mr.** LAUTENBERG; **Ms.** MOSELEYBRAUN; **Mr.** FORD; **Mr.** BAUCUS; **Mr.** SARBANES; **Mr.** CHAFEE
... emissions, the most significant **greenhouse gas,** comes from transportation sources. And, on this ...

75. CONGRESSIONAL RECORD -- SENATE, Friday, October 3, 1997 , Cong Rec S 10308, ,No., GLOBAL WARMING
105th Congress, 1st Session
Mr. HAGEL; **Mr.** COVERDELL
... address this morning the issue of **global warming.** Let me first say that the ...
... differing opinions on the conclusiveness of **global warming** and how we should address it. But this is ...
... briefed the Senate's global **climate change** observer group that he said it was very unlikely that the ...
... dire and horrific consequences of **global warming,** while failing to mention the ...
... disagree with him or the administration on the issue of **global warming,** and who would have the audacitycan you imagine anyone ...
... learn more about **global warming** and to broadcast their weather forecasts from the ...
... fact, have something to do with global **climate changes.** Judith Lean of the Naval ...
... saying, "We figure that half the **climate change** from 1850 to now can be ...
... a decade of focus on **global warming** and billions of dollars of research ...
... still failed to establish that **global warming** is a significant problem." ...
... century when there was not a **greenhouse gas** emissions problem. He further ...
... U.S. Intergovernmental Panel on **Climate Change,** Dr. Bert Bolin, ...
... White House Conference on **Global Warming** this Monday will be just as ...
... full discussion of all aspects of the **global warming** issue. It will be a ...
... White House approach to **global warming** and have very legitimate concerns about the ...
... Nations treaty to curb **global warming.** This week, he invited 100 ...
... dares suggest that the threat of **global warming** is theory, not established ...
... already tilted toward **global warming** doomsayers, the public will be ...

... definitivelyeven close to definitivelyconcluded that there is **global warming** caused by human ...
... question of whether we have a problem with **global warming.** But the lack of conclusive ...
... doing the most to reduce **greenhouse gas** emissions. The United States is ...
... forced reductions in **greenhouse gas** emissions. Why are we rushing headlong into ...
TREATIES & AGREEMENTS (90%); **GLOBAL WARMING** (90%); EMERGING MARKETS (...

76. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 24, 1997 , 143 Cong Rec S 9887, Vol. 143, No. 129, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 1st Session
Mr. BINGAMAN; **Mr.** DORGAN; **Mr.** HOLLINGS; **Mr.** STEVENS; **Mr.** KERRY; **Ms.** SNOWE; **Mr.** KENNEDY; **Mr.** ALLARD; **Mr.** ASHCROFT; **Mr.** KERREY
... sea level rise from **global warming** will exacerbate this already ...

77. CONGRESSIONAL RECORD -- SENATE, Thursday, September 18, 1997 , 143 Cong Rec S 9601, Vol. 143, No. 125, SMITH-WYDEN AMENDMENT ON COUNTY LAW ENFORCEMENT
105th Congress, 1st Session
Mr. WYDEN; **Mr.** REID; **Mr.** GORTON; **Mr.** DOMENICI; **Mr.** MURKOWSKI; **Mr.** BROWNBACK; **Mr.** NICKLES; **Mr.** FORD; **Mr.** LOTT; **Mr.** MCCAIN; **Mr.** STEVENS; **Mr.** DASCHLE; **Mr.** BYRD; **Mr.** CRAIG; **Mr.** KEMPTHORNE; **Mr.** ROCKEFELLER; **Mr.** BENNETT; **Mr.** BAUCUS; **Mr.** GRAHAM; **Mr.** MACK; **Mr.** KERREY; **Mr.** FEINGOLD; **Mr.** HUTCHINSON; **Mr.** JOHNSON; **Mr.** SARBANES; **Mr.** SPECTER; **Mrs.** MURRAY; **Mr.** HATCH; **Mr.** KYL; **Mr.** DORGAN; **Mr.** BURNS; **Mr.** FAIRCLOTH; **Mr.** ABRAHAM; **Mr.** LEVIN; **Mr.** COVERDELL; **Mrs.** BOXER; **Mr.** BUMPERS; **Mr.** LEAHY; **Mr.** BOND; **Mr.** D'AMATO; **Mr.** JEFFORDS
... program as one of its global **climate change** research initiatives. As the sponsor of ...
... opposition to any binding international **greenhouse gas** emissions agreement that would injure the ...
... time, reduce potential **greenhouse gas** emissions. The Coal Mine ...
... promise compared to conventional **greenhouse gas** mitigation efforts. A ...
... unequivocally produce collateral **greenhouse gas** mitigation benefits equal to the ...

78. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 17, 1997 , 143 Cong Rec S 9437, Vol. 143, No. 124, THE CHINA SUMMIT: WHAT KIND OF ENGAGEMENT?
105th Congress, 1st Session
Mr. BIDEN
... China's cities and contributes to **global warming.** So, there could be a great benefit. ...

79. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 17, 1997 , 143 Cong Rec S 9515, Vol. 143, No. 124, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 1st Session
Mr. HATCH; **Mr.** KENNEDY; **Mr.** ABRAHAM; **Mr.** GRASSLEY; **Mr.** DEWINE; **Mr.** WELLSTONE; **Mr.** LAUTENBERG; **Mr.** KOHL; **Mr.** SMITH OF OREGON; **Mr.** ALLARD
... reduce energy losses and **greenhouse gas** emissions associated with these losses ...

80. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 2, 1997 , Cong Rec S 8668, ,No., STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 1st Session

Mr. D'AMATO; **Mr.** CRAIG
... ozone layer and contribute to the **greenhouse effect.** Biodiesel does just that. When used ...

81. CONGRESSIONAL RECORD -- SENATE, Thursday, July 31, 1997 , 143 Cong Rec S 8482, Vol. 143, No. 111,
GLOBAL CLIMATE CHANGE OBSERVER GROUP
105th Congress, 1st Session
Mr. LOTT
... 98 regarding global **climate change,** the two leaders have the authority to ...
... Senators to serve on the Global **Climate Change** Observer Group. Last ...
... resolution regarding global **climate change.** This resolution encouraged the creation of ...
... status of negotiations on global **climate change** and to report periodically to the Senate on those ...
... Senators to serve on this Global **Climate Change** Observer Group. Due to their ...
CLIMATE CHANGE (93%);

82. CONGRESSIONAL RECORD -- SENATE, Friday, July 25, 1997 , 143 Cong Rec S 8113, Vol. 143, No. 107,
SCHEDULE
105th Congress, 1st Session
Mr. HAGEL
... Senate Resolution 98, the **global warming** resolution. Under the consent ...

83. CONGRESSIONAL RECORD -- SENATE, Friday, July 25, 1997 , 143 Cong Rec S 8113, Vol. 143, No. 107,
EXPRESSING SENSE OF SENATE REGARDING U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE
105th Congress, 1st Session
Mr. HAGEL; **Mr.** KERRY; **Mr.** BYRD; **Mr.** FORD; **Mr.** ROBERTS; **Mr.** LOTT; **Mrs.** MURRAY; **Mr.** MCCONNELL; **Mr.** BAUCUS; **Mr.** KYL; **Ms.** MIKULSKI; **Mr.** THOMAS; **Mr.** KERREY; **Mr.** SHELBY; **Mr.** LIEBERMAN; **Mr.** CONRAD; **Mr.** BINGAMAN; **Mr.** CHAFEE; **Mr.** INHOFE; **Mr.** CRAIG; **Mr.** ENZI; **Mr.** ABRAHAM; **Mr.** MURKOWSKI; **Mr.** WYDEN; **Mr.** NICKLES
... signatory to any international agreement on **greenhouse gas** emissions under the United Nations Framework Convention on **Climate Change.** The Senate proceeded to consider the ...
... Nations' Framework Convention on **Climate Change.** Today, in anticipation of this ...
... international negotiations focus on **global warming,** the theory that greenhouse gases ...
... reliable conclusions about **global warming** (see story below). ...
... away in the global **climate change** treaty. It is far past ...
... talk at the global conferences on **greenhouse gas** emissions will remain as ...
... White House conference on **global warming,** President Clinton announced, "The ...
... now a fact that **global warming** is real." In support of this ...
... 1996 Intergovernmental Panel on **Climate Change** report, and thus a forecast of catastrophic **global warming.** Actual climate observations, however, show that **global warming** is mostly a phantom ...
... about the validity of computerdriven **global warming** forecasts. It takes a ...
... existence of a natural **greenhouse effect** in the atmosphere, which has been known ...
... sensors, have shown no **global warming** trend whatsoever in the ...
... scientists. Those who believe in **global warming** keep hoping that proof is ...
... in a brochure on **global warming:** "Scientists need to do considerably ...
... a decade of focus on **global warming** and billions of dollars of research ...
... still failed to establish that **global warming** is a significant problem." At the ...
... threat of imminent catastrophic **global warming.** The scientific community has simply ...
... question of whether we have a problem with **global warming.** I suggest, again, that ...

... legally binding controls of **greenhouse gas** emissions. But they will ...
... doing the most to reduce **greenhouse gas** emissions. It is the developing nations that ...
... won't. If these nations are excluded, **greenhouse gas** emissions will continue to ...
... reductions in global **greenhouse gas** emissions. The exclusion of these nations is ...
... 25 percent of our Nation's **greenhouse gas** emissions, which would make this critical ...
... Senate's views as to the global **climate change** negotiations now underway. These ...
... Nations Framework Convention on **Climate Change,** known as the Rio Pact. ...
... avoid the effects of global **climate change** will be doomed to failure from the ...
... carbon dioxide and other **greenhouse gas** emissions. Count me as a ...
... fossil fuels, which are the primaryprimarycause of **greenhouse gas** emissions. Let us examine the ...
... environmentalist who is concerned about **global warming.** So, if you are a true environmentalistI am ...
... commitments to limit or reduce **greenhouse gas** emissions within the same ...
... purpose is to start addressing the **greenhouse gas** problem in the only ...
... a significant contribution to **greenhouse gas** emissions need to make ...
... wordsto tackle the problem of **climate change;** and the need to start with their best ...
... White House conference on **climate change** this fall. The American people ...
... discuss the evidence regarding **global warming** and to begin that educational process. There ...
... roll of the dice during the **climate change** negotiations, and we better get ...
... good look at the global **climate change** treaty currently being ...
... will not stop **global warming.** We will not even ...
... position with respect to global **climate change.** I have not been a ...
... something to effect global **climate change** and you are going to do it in a ...
... a phenomenon known as **global warming** is already occurring, it is occurring. There is ...
... about how the Panel on **Climate Change** now predicts the **global warming** of only 1 degree to ...
... warming is expected to exceed any **climate change** that has occurred during the history of ...
... Moreover, the Intergovernmental Panel on **Climate Change,** representing the consensus of climate ...
... effort to deal with global **climate change** is trying to do. Now, I am ...
... others do, that the prospect of humaninduced **global warming** as an accepted thesis with adverse ...
... Nations Framework Convention on **Climate Change** (in this resolution referred to as the " ...
... Convention, intended to address **climate change** on a global basis, ...
... strengthens commitments to limit **greenhouse gas** emissions by Annex ...
... programs aimed at limiting their **greenhouse gas** (GHG) emissions, in ...
... 8, 1997; Whereas **greenhouse gas** emissions of Developing Country ...
... Developing Country Parties' **greenhouse gas** emissions would not begin ...
... for global action on **climate change** and is environmentally flawed; Whereas the ...
... status of negotiations on Global **Climate Change** and reporting periodically to the Senate on those ...
... Nations Framework Convention on **Climate Change** of 1992, at negotiations in ...
... commitments to limit or reduce **greenhouse gas** emissions for the Annex ...
... commitments to limit or reduce **greenhouse gas** emissions for Developing ...
... international agreement to address **climate change,** and he also agrees that all nations, developed and ...
... national environmental protection, the **global warming** issue is not going to be ...
... make significant progress on **global warming.** I heard one of ...
... science. Even if we were to reduce our **greenhouse gas** emissions today to 1990 ...
... will still continue to have the **greenhouse gas** warming effect, because the life of these ...
... upset. Talking about **global warming,** I have a little **global warming** underneath the collar. Two ...
... 20 percent of humancaused **greenhouse gas** emissions. They propose the following ...
... Nations' Framework Convention on **Climate Change** (UNFCCC) agreed to negotiations ...
... binding numeric limits on **greenhouse gas** emissions. This dramatic shift from ...
... urgent action to reduce **greenhouse gas** emissions. There is less than agreement ...
... climate. Controversy notwithstanding, the **climate change** treaty is moving fullspeed ...

... 20 percent of humancaused **greenhouse gas** emissions. Specifically, we are concerned ...
... incorporated in the final **climate change** agreement, ratified and imposed on ...
... closely involved with the development of the **climate change** agreement. The agreement must ...
... producers. (3) The final **climate change** agreement, scheduled for ...
... United Nationssponsored global **climate change** treaty that would be binding on only ...
... voluntary programs to reduce **greenhouse gas** emissions to 1990 levels. This ...
... science is not clear on **global warming** and no nation should risk their ...
... U.N. Framework Convention on **Climate Change** suddenly changed the voluntary ...
... Secretary Wirth proposed **global warming** treaty language that would force the ...
... Britain and Germany, to control their **greenhouse gas** emissions, but purposefully ...
... exceed United States **greenhouse gas** emissions early next ...
... a legally binding **greenhouse gas** treaty. Sounds like ...
... base, therefore they must be causing **global warming.** Deputy Secretary of State ...
... without sound science on **global warming,** mandate that business and consumers ...
... 20 percent of humancaused **greenhouse gas** emissions and has proposed the following ...
... First, the potential effect of **climate change** on U.S. agriculture and livestock production. Second, the estimated **greenhouse gas** emission resulting from the production of ...
... necessary to reduce agricultural **greenhouse gas** emissions to comply with obligations that ...
... ranchers. Fifth, whether and to what extent **greenhouse gas** emission controls would disadvantage ...
... needed to reduce U.S. **greenhouse gas** emissions to 1990 levels. ...
... attention to the questionable science on **global warming** and is blindly putting the U.S. ...
... oftheSenate resolution on the Global **Climate Change** Treaty submitted by ...
... reduce their carbon dioxide and **greenhouse gas** emissions to 1990 levels ...
... Mexico have to do to help stop **global warming?** Nothing. What about other ...
... participate. Is there such a thing as **global warming?** We must admit that there is no ...
... treaty's goal of reducing **greenhouse gas** emissions to 1990 levels ...
... President, the debate over **global warming** is tremendously important to the future of all ...
... I believe the Global **Climate Change** Treaty is unacceptable as it stands at the very ...
... control their emissions if we are to reduce **greenhouse gas.** This resolution strengthens our bargaining ...
... support a negotiated **global warming** treaty. I believe ...
... international agreement on global **climate change.** Consideration of this legislation is critical to ...
... Framework Convention on Global **Climate Change.** An upcoming meeting in ...
... nations to voluntarily reduce **greenhouse gas** emissions to 1990 levels or ...
... United States in **greenhouse gas** emissions by 2015. ...
... commitments to limit or reduce **greenhouse gas** emission for developing ...
... countries that signed the 1992 **climate change** treaty will meet ...
... begin by controlling our **greenhouse gas** emissions. And if we start with modest ...
... countries to lead the way. The **climate change** treaty committed these countries to ...
... onethird of the increase in **greenhouse gas** emissions. For another because the ...
... mutual interests, including **climate change.** China has more people ...
... ways to gain their support on **climate change** issues. After all, China is ...
... programs in **a climate change** treaty, we can achieve **greenhouse gas** reductions at the lowest possible ...
... commitments to limit or reduce **greenhouse gas** emissions for developing ...
... over time, such as with global **climate change.** We deal well with immediate ...
... public discussion about **climate change** and avoid the need for ...
... ratification of any international agreement on **greenhouse gas** emissions under the U.N. Framework Convention on **Climate Change.** I intend to vote ...
... actions to aim to reduce their **greenhouse gas** emissions. Unfortunately, the only ...
... commitments to limit or reduce **greenhouse gas** emissions for developing ...
... questionable science. The science on **climate change** is very much an open inquiry into an ...

... a report entitled "**Global Warming:** Messy Models, Decent ...
... Policy." In it he states, "**Global warming** is presented as a crisis that ...
... little effect on the efficacy of **global warming** mitigation strategies." He continues: "It is ...
... policies developed for the **global warming** issue be built on the best ...
... justify the means for **climate change** policy, the responsibility to ensure that the ...
... Byrd resolution on global **climate change** and I urge my ...
... Nations Framework Convention on **Climate Change.** This resolution would prohibit the ratification of any ...
... globally binding treaty on **climate change** equally. I support the ...
... efforts to control or reduce **global warming** will be successful unless ...
... Developing nations do contribute to **global warming.** If we exempt them from the restrictions mandated ...
... negotiated is to curb global **climate change.** The United States has already ...
... version of a domestic **climate change** action plan. This plan ...
... research causes of global **climate change,** and come up with scientifically ...
... a marginal impact on **climate change.** Coming up with the right ...
... address the issue of global **climate change.** I am hopeful we can ...
... Resolution 98, the ByrdHagel **global warming** resolution. I want to ...
... plan regarding global **climate change** is grossly unfair to the United ...
... developed countries to reduce **greenhouse gas** emissions, while at the same ...
... in spite of: Uncertain **global warming** science; The administration's unwillingness to ...
... commitments to limit or reduce **greenhouse gas** emissions, unless it also mandates ...
... U.N. Framework Convention on **Climate Change.** Like my colleagues ...
... U.N. Framework Convention on **Climate Change** has the potential to do both. The United ...
... negotiations on a global **climate change** treaty. The Kyoto summit is the ...
... U.N. Framework Convention on **Climate Change** in 1992. At Kyoto, the ...
... instrument to deal with the threat of **climate change** in the post 2000 ...
... reasoned approach to global **climate change** mitigation, an approach that seeks ...
... facts. First, global **climate change** is real. If it were not, 160 ...
... magnitude, and regional patterns of **climate change.** We must acknowledge these uncertainties, ...
... a leading indicator of **climate change** is increased emissions of global ...
... dioxidethe largest component of **greenhouse gas** emissionsare about 26 ...
... rule, a country's **greenhouse gas** emissions rise in ...
... participate in global **climate change** abatement. A global ...
... developing countries to mitigate **greenhouse gas** emissions in the same ...
... commitments to address global **climate change** abatement. The United States and ...
... longterm goals to stabilize **greenhouse gas** emissions, and to set quantity ...
... for the abatement of global **climate change.** The United States and other ...
... dramatic reductions in **greenhouse gas** emissions. We can increase the ...
... community to approach global **climate change** in an inclusive, proactive ...
... limiting post2000 emissions of **greenhouse gas** emissions, which are scheduled to conclude ...
... can confidently link **global warming** to human activity. Yet ...
... responsibility for reducing **greenhouse gas** emissions around the world. It ...
... debate on the development of U.S. **climate change** policy. Without that, I ...
... States to limiting post2000 **greenhouse gas** emissions. Mr. LIEBERMAN. ...
... 98. I believe **climate change** is a serious problem that ...
... international agreement to limit **greenhouse gas** emissions will conclude this ...
... global efforts to deal with **climate change.** While I support ...
... international agreement to limit **greenhouse gas** emissions is compelling and significant. ...
... Given the potential impacts of **climate change** predicted by the IPCCmore ...
... don't agree to longterm **greenhouse gas** limits soon, and instead wait to see how our **climate changes,** it may be too late. Greenhouse ...

... market that an international agreement on **climate change** would provide. Senate Resolution ...
... developing countries are on target. **Climate change** cannot be solved by the ...
... under the Framework Convention on **Climate Change,** of course, need to be consistent with their ...
... determine how we handle **climate change,** we must base our actions on the factsthe scientific evidence of **climate change,** the physical effects that are likely to ...
... resolution regarding global **climate change.** I was an original cosponsor of this ...
... participants in limiting **greenhouse gas** emissions in the same ...
... nations that do not face **greenhouse gas** emissions limitations. That could be a ...
... commitments to limit or reduce our **greenhouse gas** emissions, we need to remain ...
... might explore in the **climate change** negotiations. Mr. KERRY. ...
... share the responsibilities to tackle the **global warming** problem. Mr. KERRY. ...
... human induced global **climate change** is occurring, and the proper societal ...
... result in what is known as the **greenhouse effect.** At the same time, the connection between this artificial elevation of **greenhouse gas** levels and changes to the world's ...
... human contribution to global **climate change** has recognized both these uncertainties and the ...
... a human fingerprint on **climate change.** The key conclusion of the most ...
... even if we were to magically reduce our **greenhouse gas** emissions to zero tomorrow, the ...
... down the emissions of the principal **greenhouse gas,** carbon dioxide, into the atmosphere. Because of the ...
... in designing and implementing **greenhouses gas** control measures that make ...
... in any effort to control **greenhouse gas** emissions, compared to the role that ...
... human induced global **climate change,** and the international policy response to it. ...
... commitments to limit or reduce **greenhouse gas** emissions for the Annex ...
... commitments to limit or reduce **greenhouse gas** emissions for Developing ...
... actions to address global **climate change** is crucial to any agreement, and that such commitments should ...
... 98, which, of course, deals with **climate change.** In this measure, the Senator has ...
... Post earlier this month, "**Global warming** threatens the stability that fostered ...
... 1992 Framework Convention on **Climate Change** in Rio, they agreed there to hold their **greenhouse gas** emissions to 1990 levels ...
... imposition of legally binding **greenhouse gas** emissions reductions. In ...
... address the looming threat of **climate change.** In other words, ...
... consequences of actions to address **global warming.** Senator Byrd has addressed these, and ...
... U.N. Framework Convention on **Climate Change** of 1992, at negotiations in ...
... commitments to limit or reduce **greenhouse gas** emissions from the Annex I ...
... commitments to limit or reduce **greenhouse gas** emissions for Developing ...
... scientific understanding of global **climate change.** Mr. BYRD. Mr. ...
... I am, indeed, convinced that **climate change** is a looming threat to the ...
... commitments to limit or reduce **greenhouse gas** emissions for developing ...
... irrespective of the national incomes and **greenhouse gas** emission rates, be mandated to the very ...
... commitments to limit or reduce **greenhouse gas** emissions for the annex ...
... addressing the problem of global **climate change.** Such participation by the developing ...
... burden. Mr. CHAFEE. Because **greenhouse gas** emissions from the developing world ...
... hours of hearings on this subject, on **global warming** as well as ambient air ...
... cosponsor, and which concerns the issue of **global warming** in general and the impending ...
... Framework Convention on Global **Climate Change** for what it was: The nose of the camel. And ...
... voluntary actions to reduce **greenhouse gas** emissions to their 1990 levels ...
... international agreements covering **greenhouse gas** emissions. I wish to ...
... involvement in the issue of **greenhouse gas** emissions and **climate change** because any attempt to address carbon ...
... countries to limit or reduce **greenhouse gas** emissions must be accompanied ...
... by the year 2015. Their **greenhouse gas** emissions are expected to grow ...

... Turning to the broader issue of **climate change** and climate science, let me ...
... bounds of natural variability, and that **climate change** is the rule rather than the exception. ...
... in the U.S. Global **Climate Change** Research Program, approaching $ ...
... action to sharply reduce **greenhouse gas** emissions have claimed that the science ...
... billions in a **climate change** research program that is only ...
... countries to limit or reduce **greenhouse gas** emissions must be accompanied ...
... imposed legally binding **greenhouse gas** reduction targets and timetables, which are ...
... increase. Moreover, because the total **greenhouse gas** emissions from developing nations ...
... understand the true threat of **climate change,** if it is indeed a dangerous ...
... before the ad hoc **climate change** negotiating group convenes ...
... about calamities of future **global warming,** beginning with yesterday's White House meeting on **climate change.** The President has indicated his propaganda ...
... White House conference on **global warming** in October. The conference is ...
... long time ago that any **climate change** agreement that affects the United ...
... event is a product of **global warming.** That is not fair, because the science ...
... billion a year on **climate change** research, if we are going to adapt to ...
... clearly demonstrate that there is a **climate change** responsibility for this Nation, then all the ...
... U.N. Intergovernmental Panel on **Climate Change,** consisting of 2,500 scientists, ...
... primary manmade source of **global warming.** We have shown in our home ...
... role in controlling **global warming** without causing an economic ...
... U.N. intergovernmental panel on **climate change** consisting of about 2,500 ...
... scientifically about the fact that there is **global warming** taking place, about the ...
... TREATIES & AGREEMENTS (90%); **CLIMATE CHANGE** (90%); EMISSIONS (90%); ...

84. CONGRESSIONAL RECORD -- SENATE, Friday, July 25, 1997 , 143 Cong Rec S 8143, Vol. 143, No. 107, GLOBAL WARMING
105th Congress, 1st Session
Mr. SESSIONS
... in Japan dealing with **global warming** at this time. Those of us who care about the ...
... outstanding experts on the question of **global warming.** I am a new ...
... about it. What if we sign a **global warming** treaty and other nations who ...
... percent of emissions that cause **global warming** are supposed to be CO<INF> ...
... not sure what is causing **global warming, if we have global warming** at all. I think we have to know that. Those of us who are ...
... matter we have to consider seriously. Do we have **global warming?** That is a matter that I ...
... lot of dispute about **global warming.** I am not sure what the ...
... according to those who believe in the **global warming** models, because **global warming** caused by the **greenhouse effect** should be an atmospheric effect, but he ...
... information, we may not have **global warming** at all. As I said, that information has not been ...
... second full assessment of **climate change,** the IPCC the U.N. panel ...
... closer climate sensitivity to the **greenhouse effect** is used. In other ...
... high a sensitivity to the **greenhouse effect.** The IPCC continued: There is growing ...
... other thing we have learned is that **global warming** is hard to fix obviously if ...
GLOBAL WARMING (90%); ELECTRIC POWER ...

85. CONGRESSIONAL RECORD -- SENATE, Thursday, July 24, 1997 , 143 Cong Rec S 8041, Vol. 143, No. 106, DEPARTMENTS OF COMMERCE, JUSTICE, AND STATE, THE JUDICIARY, AND RELATED AGENCIES APPROPRIATIONS ACT, 1998

105th Congress, 1st Session
Mrs. FEINSTEIN; **Mr.** GREGG; **Mr.** GORTON; **Mr.** LEAHY; **Mr.** HOLLINGS; **Mr.** HATCH; **Mrs.** MURRAY; **Mr.** BURNS; **Mr.** REID; **Mr.** CRAIG; **Mrs.** BOXER; **Mr.** SMITH OF OREGON; **Mr.** KEMPTHORNE; **Mr.** BRYAN; **Mr.** MURKOWSKI; **Mr.** KYL; **Mr.** STEVENS; **Mr.** BIDEN; **Mr.** SARBANES; **Mr.** LOTT; **Mr.** MCCAIN; **Mr.** KERRY; **Ms.** COLLINS; **Ms.** SNOWE; **Mr.** REED; **Mr.** DODD; **Mr.** FORD; **Mr.** GRAHAM; **Mr.** DORGAN; **Mr.** DOMENICI; **Mr.** ROCKEFELLER; **Mr.** CHAFEE; **Mr.** LAUTENBERG; **Mr.** HARKIN; **Mrs.** HUTCHISON; **Mr.** KOHL; **Mr.** BREAUX; **Ms.** LANDRIEU; **Mr.** BINGAMAN; **Mr.** BYRD; **Mr.** WARNER; **Mr.** DEWINE
... agreement we are going to propound, it would be on the **global warming** issue. So there would be a vote ...
... means that the final vote on **global warming** would occur around 11:30 ...
... take place, after the **global warming** vote, I presume ...
... morning immediately following the **global warming** resolution vote. We have changed that ...

86. CONGRESSIONAL RECORD -- SENATE, Thursday, July 24, 1997 , 143 Cong Rec S 8111, Vol. 143, No. 106, ORDERS FOR FRIDAY, JULY 25, 1997
105th Congress, 1st Session
Mr. GREGG
... Senate Resolution 98, the **global warming** resolution. The PRESIDING OFFICER. ...
GLOBAL WARMING (80%);

87. CONGRESSIONAL RECORD -- SENATE, Thursday, July 24, 1997 , 143 Cong Rec S 8111, Vol. 143, No. 106, PROGRAM
105th Congress, 1st Session
Mr. GREGG
... Senate Resolution 98, the **global warming** resolution. By previous ...
... not reached prior to the **global warming** resolution. Also, by consent, at ...

88. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 22, 1997 , 143 Cong Rec S 7824, Vol. 143, No. 104, DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT, AND INDEPENDENT AGENCIES APPROPRIATIONS ACT, 1998.
105th Congress, 1st Session
Mr. BOND; **Ms.** MIKULSKI; **Mr.** ALLARD; **Mr.** WELLSTONE; **Mr.** GRAHAM; **Mrs.** MURRAY; **Mr.** D'AMATO; **Mr.** MOYNIHAN; **Mr.** LAUTENBERG; **Mr.** TORRICELLI; **Mr.** BUMPERS; **Mr.** BURNS; **Mrs.** HUTCHISON; **Mr.** BENNETT; **Mr.** GRAMM; **Mr.** BYRD; **Mr.** MCCAIN; **Mr.** FAIRCLOTH; **Mr.** GORTON; **Mr.** GREGG; **Mr.** BROWNBACK; **Mr.** SHELBY; **Mr.** GRASSLEY; **Mr.** KERREY; **Mr.** MACK; **Ms.** SNOW; **Mr.** KOHL; **Mr.** ROCKEFELLER; **Mr.** DEWINE; **Mrs.** BOXER; **Mr.** LEAHY; **Mr.** DOMENICI; **Mr.** SARBANES; **Mr.** KERRY
... adequate funding to combat **global warming.** Indeed, at a recent ...
... funding for critical **climate change** research. I am also disappointed that the ...

89. CONGRESSIONAL RECORD -- SENATE, Thursday, July 17, 1997 , 143 Cong Rec S 7623, Vol. 143, No. 102, FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS APPROPRIATIONS ACT, 1998
105th Congress, 1st Session
The PRESIDENT pro tempore; **Mr.** BINGAMAN; **Mr.** TORRICELLI; **Mr.** GRAHAM; **Mr.** HUTCHINSON; **Ms.** COLLINS; **Mr.** MCCONNELL; **Mr.** GRASSLEY; **Mr.** GORTON; **Mr.** ABRAHAM; **Mr.** KEMPTHORNE; **Mr.** DURBIN; **Mr.** ASHCROFT; **Mr.** NICKLES; **Mr.** LEAHY; **Mr.** MURKOWSKI; **Mr.** SARBANES; **Mr.** BAUCUS; **Ms.** MIKULSKI; **Mr.** BIDEN; **Mr.** FEINGOLD; **Mr.** DORGAN; **Mr.** STEVENS
... must work to slow **global warming,** ocean pollution, and loss of ...

... Proposed Agreement to Reduce **Greenhouse** **Gas** Emissions Sec. 589. The ...
... obligations and expenditures for **climate change** programs and activities, domestic and ...
... amend the Framework Convention on **Climate Change** (FCCC) to be provided to the appropriate ...

90. CONGRESSIONAL RECORD -- SENATE, Thursday, July 17, 1997 , 143 Cong Rec S 7736, Vol. 143, No. 102,
AUTHORITY FOR COMMITTEES TO MEET
105th Congress, 1st Session
Mr. CAMPBELL
... p.m., to receive testimony on **climate change.** The PRESIDING OFFICER. Without ...

91. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 16, 1997 , 143 Cong Rec S 7537, Vol. 143, No. 101,
ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT, 1998
105th Congress, 1st Session
Mr. DOMENICI; **Mr.** REID; **Mr.** GORTON; **Mr.** CRAIG; **Mr.** KEMPTHORNE; **Mr.** JEFFORDS; **Mr.** STEVENS; **Mr.** NICKLES
... supplies. The Clinton administration's **climate change** action plan identified ...

92. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 16, 1997 , 143 Cong Rec S 7544, Vol. 143, No. 101,
FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS APPROPRIATIONS ACT, 1998
105th Congress, 1st Session
Mr. MCCONNELL; **Mr.** LEAHY; **Mr.** ALLARD; **Mr.** MURKOWSKI; **Mr.** BROWNBACK; **Mrs.** BOXER; **Mr.** CRAIG; **Mr.** HAGEL; **Mr.** HARKIN; **Mr.** WARNER; **Mr.** GLENN; **Mr.** TORRICELLI; **Mr.** HUTCHINSON; **Mrs.** FEINSTEIN; **Mrs.** MURRAY; **Mr.** DODD; **Mr.** MCCAIN; **Mr.** GRASSLEY; **Mr.** KERRY; **Mr.** COVERDELL; **Mr.** DOMENICI; **Mr.** BAUCUS; **Mrs.** HUTCHISON; **Mr.** GRAMM; **Mr.** KERREY; **Mr.** NICKLES; **Mr.** KEMPTHORNE; **Mr.** BYRD; **Mr.** LOTT; **Mr.** BINGAMAN; **Mr.** CHAFEE; **Mr.** DASCHLE; **Mr.** FORD; **Mr.** GORTON; **Mr.** SPECTER; **Mr.** BENNETT; **Mr.** WYDEN; **Mr.** DEWINE; **Mr.** JEFFORDS; **Mr.** GRAHAM; **Ms.** MIKULSKI; **Ms.** MIKULSKI **MR; Mr.** LEVIN; **Mr.** BIDEN; **Mr.** LAUTENBERG; **Mr.** KENNEDY; **Mr.** D'AMATO
... Enzi amendment relating to **climate change;** a Hagel amendment ...
... more contribution to global **climate change,** ocean pollution, and other ...
... proposed agreement to reduce **greenhouse gas** emissions pursuant to the Framework Convention on **Climate Change** (FCCC) At the appropriate place ...
... PROPOSED AGREEMENT TO REDUCE **GREENHOUSE GAS** EMISSIONS. (a) The President ...
... obligations and expenditures for **climate change** programs and activities, domestic and ...
... amend the Framework Convention on **Climate Change** (FCCC) to be provided to the appropriate ...
... resources the Administration has allocated to the **climate change** issue. To my knowledge ...
... funds been spent on global **climate change.** It is imperative that we have a clear ...

93. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 16, 1997 , 143 Cong Rec S 7544, Vol. 143, No. 101,
FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS APPROPRIATIONS ACT, 1998
105th Congress, 1st Session
Mr. MCCONNELL; **Mr.** LEAHY; **Mr.** ALLARD; **Mr.** MURKOWSKI; **Mr.** BROWNBACK; **Mrs.** BOXER; **Mr.** CRAIG; **Mr.** HAGEL; **Mr.** HARKIN; **Mr.** WARNER; **Mr.** GLENN; **Mr.** TORRICELLI; **Mr.** HUTCHINSON; **Mrs.** FEINSTEIN; **Mrs.** MURRAY; **Mr.** DODD; **Mr.** MCCAIN; **Mr.** GRASSLEY; **Mr.** KERRY; **Mr.** COVERDELL; **Mr.** DOMENICI; **Mr.** BAUCUS; **Mrs.** HUTCHISON; **Mr.** GRAMM; **Mr.** KERREY; **Mr.** NICKLES; **Mr.**

KEMPTHORNE; **Mr.** BYRD; **Mr.** LOTT; **Mr.** BINGAMAN; **Mr.** CHAFEE; **Mr.** DASCHLE; **Mr.** FORD; **Mr.** GORTON; **Mr.** SPECTER; **Mr.** BENNETT; **Mr.** WYDEN; **Mr.** DEWINE; **Mr.** JEFFORDS; **Mr.** GRAHAM; **Ms.** MIKULSKI; **Ms.** MIKULSKI **MR; Mr.** LEVIN; **Mr.** BIDEN; **Mr.** LAUTENBERG; **Mr.** KENNEDY; **Mr.** D'AMATO
... Enzi amendment relating to **climate change;** a Hagel amendment ...
... more contribution to global **climate change,** ocean pollution, and other ...
... proposed agreement to reduce **greenhouse gas** emissions pursuant to the Framework Convention on **Climate Change** (FCCC) At the appropriate place ...
... PROPOSED AGREEMENT TO REDUCE **GREENHOUSE GAS** EMISSIONS. (a) The President ...
... obligations and expenditures for **climate change** programs and activities, domestic and ...
... amend the Framework Convention on **Climate Change** (FCCC) to be provided to the appropriate ...
... resources the Administration has allocated to the **climate change** issue. To my knowledge ...
... funds been spent on global **climate change.** It is imperative that we have a clear ...

94. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 16, 1997 , 143 Cong Rec S 7609, Vol. 143, No. 101,
AMENDMENTS SUBMITTED - THE FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS APPROPRIATIONS ACT, 1998 -
105th Congress, 1st Session
Mr. MCCONNELL
... PROPOSED AGREEMENT TO REDUCE **GREENHOUSE GAS** EMISSIONS. (a) The President ...
... obligations and expenditures for **climate change** programs and activities, domestic and ...
... amend the Framework Convention on **Climate Change** (FCCC) to be provided to the appropriate ...

95. CONGRESSIONAL RECORD -- SENATE, Friday, July 11, 1997 , 143 Cong Rec S 7302, Vol. 143, No. 98,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 1st Session
Mr. DURBIN; **Mr.** KENNEDY; **Mr.** THURMOND
... ethanol helps offset the **greenhouse gas** emissions that result from the burning of ...

96. CONGRESSIONAL RECORD -- SENATE, Thursday, July 10, 1997 , 143 Cong Rec S 7222, Vol. 143, No. 97,
AUTHORITY FOR COMMITTEES TO MEET
105th Congress, 1st Session
Mr. THURMOND; **Mr.** KEMPTHORNE
... hearing room SD406, on **climate change.** The PRESIDING OFFICER. Without ...

97. CONGRESSIONAL RECORD -- SENATE, Friday, June 27, 1997 , 143 Cong Rec S 6728, Vol. 143, No. 93,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 1st Session
Mr. BOND; **Mr.** TORRICELLI; **Mr.** SPECTER; **Mr.** DURBIN; **Mr.** FEINGOLD; **Mr.** LEVIN; **Mr.** THOMPSON; **Mr.** GLENN; **Mr.** ROBB; **Mr.** DODD; **Mr.** BIDEN; **Mr.** GRAHAM; **Mr.** LAUTENBERG; **Mr.** MCCAIN
... carbon to the atmosphere, thereby aggravating **global warming.** (6) Evenage logging ...

98. CONGRESSIONAL RECORD -- SENATE, Thursday, June 26, 1997 , 143 Cong Rec S 6440, Vol. 143, No. 92,

REVENUE RECONCILIATION ACT OF 1997
105th Congress, 1st Session
Mr. DOMENICI; **Mr.** GRAMM; **Mr.** BIDEN; **Mr.** LAUTENBERG; **Mr.** BUMPERS; **Mr.** BYRD; **Mr.** ROTH; **Mr.** MCCONNELL; **Mr.** BURNS; **Mr.** MCCAIN; **Mr.** NICKLES; **Mr.** BOND; **Mr.** KERRY; **Mr.** BROWNBACK; **Mr.** FORD; **Mr.** DORGAN; **Mr.** DURBIN; **Mr.** KENNEDY; **Mr.** FAIRCLOTH; **Mr.** HELMS; **Ms.** MOSELEYBRAUN; **Mr.** MOYNIHAN; **Mr.** BAUCUS; **Mr.** MURKOWSKI; **Mr.** KYL; **Mr.** SHELBY; **Mr.** LOTT; **Mr.** REID; **Mr.** DASCHLE; **Mr.** ALLARD; **Mr.** WELLSTONE; **Mr.** DODD; **Mrs.** BOXER; **Mr.** COATS; **Mr.** KOHL; **Mr.** HATCH; **Mr.** HARKIN; **Mr.** KERREY; **Mr.** GRAMS: **Mr.** HUTCHINSON; **Mr.** SESSIONS; **Mr.** BREAUX; **Mr.** JEFFORDS; **Mr.** ENZI
... dioxide emissions and other **greenhouse gas** emissions and possible implications of those ...

99. CONGRESSIONAL RECORD -- SENATE, Monday, June 23, 1997 , 143 Cong Rec S 6056, Vol. 143, No. 89,
THE PROBLEM OF GLOBAL CLIMATE CHANGE
105th Congress, 1st Session
Mr. BYRD
... Trade Promotion to testify on **Global warming** and on behalf of my senseof ...
... UN) Framework Convention on **Climate Change,** which is scheduled to be held in ...
... Nations Framework Convention on **Climate Change.** The resolution has been cosponsored by ...
... addressing the problem of global **climate change.** In essence, the resolution ...
... carbon dioxide and other **greenhouse gas** emissions, we need to accelerate ...
... Nations Framework Convention on **Climate Change,** the socalled Rio Pact, ...
... nations to aim to reduce their **greenhouse gas** (GHG) emissions to their 1990 ...
... world in under the **climate change** tent, as part of any future ...
... taking action to reduce **greenhouse gas** emissions. The difference is startling. The ...
... a significant contribution to **greenhouse gas** emissions, need to (1) ...
... idea that we are engaged in **climate change** negotiations and that we are moving forward. ...
... information that we need. With respect to the **climate change** negotiations, I have several ...
... current science proves that **global warming** is dangerous" and requires immediate ...
... doubt about the theory" of **climate change** and that we don't know where, how ...
... Four: Even if you disagree that **climate change** is a problem, is the Administration really ...
... protect the environment? The theory of **global warming** holds that greenhouse gases have an ...
... century. If you accept the theory of **global warming,** those emissions will cause as ...
... information about how **climate change** policies will affect our ...
... analysis and assessment of the impact of **climate change** policies on the U.S. economy ...
... I commend to you the resolution on **climate change** adopted by the AFLCIO ...
... part of international negotiations on **climate change.** But I would approach those ...
CLIMATE CHANGE (90%); EMISSIONS (89%); ...

100. CONGRESSIONAL RECORD -- SENATE, Monday, June 23, 1997 , 143 Cong Rec S 6084, Vol. 143, No. 89,
CLIMATE ISSUES AT THE DENVER SUMMIT
105th Congress, 1st Session
Mr. BYRD; **Mr.** LAUTENBERG
... commitments to deep cutbacks on **greenhouse gas** emissions, specifically, carbon ...
... Nations Framework Convention on **Climate Change,** the so called Rio Pact, ...
... nations to aim to reduce their **greenhouse gas** emissions to their 1990 levels ...

101. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 18, 1997 , 143 Cong Rec S 5945, Vol. 143, No. 85,

STAR PRINT--S. RES. 98
105th Congress, 1st Session
Mr. BYRD; **Mr.** CRAIG; **Mr.** GRASSLEY; **Mr.** FORD
... signatory to any international agreement on **greenhouse gas** emissions under the U.N. ...
... status of negotiations on global **climate change** and reporting periodically to the Senate on those ...
... developments and negotiations on global **climate change,** and who will be authorized to report ...
ENVIRONMENTAL AGREEMENTS (90%); **CLIMATE CHANGE** (90%); TREATIES (90%); ...

102. CONGRESSIONAL RECORD -- SENATE, Tuesday, June 17, 1997 , 143 Cong Rec S 5738, Vol. 143, No. 84,
FOREIGN AFFAIRS REFORM AND RESTRUCTURING ACT OF 1997
105th Congress, 1st Session
Mr. SARBANES; **Mr.** INOUYE; **Mr.** HELMS; **Mr.** AKAKA; **Mr.** ENZI; **Mr.** KERRY; **Mr.** NICKLES; **Mr.** FORD; **Mr.** BUMPERS; **Mr.** CRAIG; **Mr.** FEINGOLD; **Mr.** BIDEN; **Mr.** MCCAIN; **Mr.** LOTT; **Mr.** SMITH OF OREGON; **Mr.** KERREY; **Mr.** KENNEDY; **Mr.** LIEBERMAN; **Mr.** GRAMS; **Mr.** SPECTER; **Mrs.** HUTCHISON; **Mr.** MURKOWSKI; **Mr.** ABRAHAM; **Mr.** HOLLINGS; **Mr.** COVERDELL; **Mrs.** FEINSTEIN; **Mr.** BROWNBACK
... Nations Framework Convention on **Climate Change** and my amendment is drafted to ...
... Nations targets for **greenhouse gas** emissions could cost this country as ...
... consider United Nations **climate change** negotiations, and will hold ...
... Sec. 1609. Report on **greenhouse gas** emissions agreement. Sec. ...
... SEC. 1609. REPORT ON **GREENHOUSE GAS** EMISSIONS AGREEMENT. (a) ...
... control, limitation, or reduction of **greenhouse gas** emissions of Annex I ...
... a policy of reducing **greenhouse gas** emissions; (B) an assessment of the ...
... achieving reductions in **greenhouse gas** emissions; (C) an assessment of the ...
... assessment of the effect of increased **greenhouse gas** emissions by nonAnnex ...
... overall effort to reduce **greenhouse gas** emissions; (E) an assessment of the ...
... economy and the environment of increased **greenhouse gas** emissions by Annex ...
... proposed agreement to reduce **greenhouse gas** emissions under the FCCC, the ...
... Nations Framework Convention on **Climate Change,** with annexes, done at New ...
... Framework Convention on Global **Climate Change** and the International Seabed Authority. (...

103. CONGRESSIONAL RECORD -- SENATE, Thursday, June 12, 1997 , 143 Cong Rec S 5622, Vol. 143, No. 82,
SENATE RESOLUTION 98--EXPRESSING THE SENSE OF THE SENATE REGARDING THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE
105th Congress, 1st Session
Mr. BYRD; **Mr.** CRAIG; **Mr.** HAGEL; **Mr.** FORD; **Mr.** ABRAHAM
... Nations Framework Convention on **Climate Change** (in this resolution referred to as the ...
... Convention, intended to address **climate change** on a global basis, ...
... strengthens commitments to limit **greenhouse gas** emissions by Annex ...
... programs aimed at limiting their **greenhouse gas** (GHG) emissions, in ...
... 8, 1997; Whereas **greenhouse gas** emissions of Developing Country ...
... Developing Country Parties' **greenhouse gas** emissions would not begin ...
... for global action on **climate change** and is environmentally flawed; and Whereas the ...
... Nations Framework Convention on **Climate Change** of 1992, at negotiations in ...
... commitments to limit or reduce **greenhouse gas** emissions for the Annex ...
... commitments to limit or reduce **greenhouse gas** emissions for Developing ...
... Nations Framework Convention on **Climate Change.** In particular, it addresses the ...
... undertake such revisions to the global **climate change** convention, first signed ...
... Nations Framework Convention on **Climate Change** in 1992, which was subsequently ...

... policies and programs to limit their **greenhouse gas** GHG emissions on a ...
... fundamental issues of mancreated **climate changes** and how to limit **the** adverse ...
... Worrisome as the prospects of adverse **climate change** are for all of us, I believe it is ...
... States to limit and reduce **greenhouse gas** emissions. This is most troublesome because ...
... developing nations the process of **climate change** will continue without ...
... may be required to limit **greenhouse gas** emissions may not be ...
... escape legallybinding controls on their **greenhouse gas** emissions because that means that if the developing ...
... prepare to meet limits on **greenhouse gas** emissions, and not sink to the ...
... commitments to limit or reduce **greenhouse gas** emissions for the Annex ...
... commitments to limit or reduce **greenhouse gas** emissions for Developing ...
... a senseoftheSenate resolution on **climate change** negotiation. The Senator from West ...
... U.S. Framework Convention on **Climate Change** to which this body gave its consent ...
... treaty to impose enforceable **greenhouse gas** reduction targets by ...
... senseoftheSenate resolution on global **climate change.** I am proud to be a ...
... for the Framework Convention on **Climate Change."** Mr. President, this is clearly ...
... Senate Resolution on the issue of **climate change.** A few weeks ...
... will work with the Global **Climate Change** Treaty that's currently being ...
... environment. We won't stop **global warming.** We won't even get ...
... U.N. Framework Convention on **Climate Change** will conclude negotiations on ...
... carbon dioxide, the primary **greenhouse gas,** from developing nations will ...
... effects that mankind may have on **climate change.** If future research provides ...
... manmade emissions are contributing to **global warming,** then all Nation's should work together ...
... INTERNATIONAL RELATIONS (90%); **CLIMATE CHANGE** (90%); EMISSIONS (90%); ...

104. CONGRESSIONAL RECORD -- SENATE, Wednesday, June 11, 1997 , 143 Cong Rec S 5491, Vol. 143, No. 81,
MFN STATUS FOR CHINA
105th Congress, 1st Session
Mr. BAUCUS; **Mr.** DASCHLE
... must work to slow **global warming,** ocean pollution, and the loss of ...
... come from China. That is, onethird of all **greenhouse gas** emissions in the next ...
... Korea to human rights to **global warming** to Hong Kong and Taiwan and ...

105. CONGRESSIONAL RECORD -- SENATE, Thursday, May 1, 1997 , 143 Cong Rec S 3901, Vol. 143, No. 55,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 1st Session
Mr. MCCONNELL; **Mr.** MURKOWSKI; **Ms.** MOSELEYBRAUN; **Mr.** LEAHY; **Mr.** ROCKEFELLER; **Mr.** GRAHAM; **Mr.** HARKIN; **Mr.** STEVENS; **Mr.** CONRAD; **Mr.** CAMPBELL; **Mr.** SARBANES; **Mr.** JEFFORDS; **Mr.** BREAUX
... chiefly responsible for **global warming** and the creation of a **greenhouse effect.** The resulting **climate change** has the potential to inflict devastating ...

106. CONGRESSIONAL RECORD -- SENATE, Monday, April 14, 1997 , 143 Cong Rec S 3111, Vol. 143, No. 43,
NUCLEAR WASTE POLICY ACT AMENDMENTS
105th Congress, 1st Session
Mr. CRAIG; **Mr.** LOTT
... carbon dioxide, the chief **greenhouse gas,** by 1.9 billion ...
... furthers the Clinton administration's **climate change** action plan, which is intended to ...

107. CONGRESSIONAL RECORD -- SENATE, Thursday, April 10, 1997 , 143 Cong Rec S 2971, Vol. 143, No. 42, NUCLEAR WASTE POLICY ACT AMENDMENTS
105th Congress, 1st Session
Mr. MURKOWSKI; **Mr.** REID; **Mr.** BRYAN; **Mr.** THOMPSON; **Mr.** FRIST; **Mr.** INHOFE; **Mr.** KEMPTHORNE; **Mr.** NICKLES; **Mr.** FORD; **Mr.** CAMPBELL; **Mr.** CRAIG; **Mr.** BUMPERS; **Mr.** DOMENICI; **Mr.** BINGAMAN; **Mr.** DASCHLE; **Mr.** LOTT; **Mr.** DURBIN; **Mr.** WYDEN; **Mr.** THURMOND; **Mr.** BYRD
... lessening emissions and reducing the **greenhouse effect.** It is one thing to criticize, ...

108. CONGRESSIONAL RECORD -- SENATE, Monday, April 7, 1997 , 143 Cong Rec S 2781, Vol. 143, No. 39, NUCLEAR WASTE POLICY ACT AMENDMENTS--MOTION TO PROCEED
105th Congress, 1st Session
Mr. CRAIG; **Mr.** REID; **Mr.** GRAMS; **Mr.** PENA; **Mr.** BRYAN; **Mr.** NICKLES
... pollutants such as those associated with global **climate change.** In other words, it is this ...

109. CONGRESSIONAL RECORD -- SENATE, Monday, February 24, 1997 , Cong Rec S 1433, ,No.
105th Congress, 1st Session
Mr. LEAHY; **Mr.** MCCONNELL; **Mr.** HUTCHINSON; **Mr.** FEINGOLD; **Mr.** HELMS; **Ms.** SNOWE; **Mr.** KENNEDY; **Mr.** JEFFORDS; **Mrs.** BOXER; **Mr.** SMITH OF OREGON; **Mr.** NICKLES; **Mrs.** FEINSTEIN; **Mr.** BYRD
... about the environment and the effect of **global warming,** who care about Africa or ...

110. CONGRESSIONAL RECORD -- SENATE, Monday, February 24, 1997 , 143 Cong Rec S 1433, Vol. 143, No. 20, APPROVING THE PRESIDENTIAL FINDING REGARDING THE POPULATION PLANNING PROGRAM
105th Congress, 1st Session
Mr. LEAHY; **Mr.** MCCONNELL; **Mr.** HUTCHINSON; **Mr.** FEINGOLD; **Mr.** HELMS; **Ms.** SNOWE; **Mr.** KENNEDY; **Mr.** JEFFORDS; **Mrs.** BOXER; **Mr.** SMITH OF OREGON; **Mr.** NICKLES; **Mrs.** FEINSTEIN; **Mr.** BYRD
... about the environment and the effect of **global warming,** who care about Africa or ...

111. CONGRESSIONAL RECORD -- SENATE, Thursday, February 6, 1997 , 143 Cong Rec S 1102, Vol. 143, No. 14, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 1st Session
Mr. STEVENS; **Mr.** HOLLINGS; **Mr.** MURKOWSKI; **Mr.** BYRD
... cite the threat of potential **global warming** as the major rationale for ...
... will prevent or reduce **global warming** is as weak as the argument that CAFE would ...
... global man-made **greenhouse gas** emissions. Increasing CAFE ...
... oil or significantly reduce **greenhouse gas** emissions. So what have they succeeded in ...

112. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 29, 1997 , 143 Cong Rec S 804, Vol. 143, No. 9, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
105th Congress, 1st Session
Mr. GREGG; **Mr.** MCCAIN; **Mr.** BUMPERS; **Mr.** THURMOND; **Mr.** BINGAMAN; **Mr.** HELMS
... information related to global **climate change,** waste disposal, groundwater ...

113. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 22, 1997 , 143 Cong Rec S 590, Vol. 143, No. 5, NOMINATION OF MADELEINE KORBEL ALBRIGHT, OF THE DISTRICT OF COLUMBIA, TO BE SECRETARY OF STATE
105th Congress, 1st Session
Mr. HELMS; **Mrs.** FEINSTEIN; **Mr.** BYRD; **Mr.** BIDEN; **Mr.** GREGG; **Mr.** BURNS; **Mr.** SARBANES; **Mr.** MCCONNELL; **Mr.** KERRY; **Mr.** ASHCROFT; **Mr.** DODD; **Mr.** SPECTER; **Ms.** MIKULSKI; **Mr.** MOYNIHAN; **Mr.** DOMENICI; **Mr.** BOND; **Mr.** KENNEDY; **Mr.** GLENN; **Ms.** LANDRIEU; **Mr.** COATS; **Mr.** HARKIN; **Ms.** SNOWE; **Mr.** THOMPSON; **Mr.** FEINGOLD; **Mrs.** MURRAY; **Mr.** ENZI; **Mr.** DASCHLE; **Mrs.** BOXER; **Mr.** WARNER; **Mr.** STEVENS; **Mr.** THURMOND; **Mr.** LOTT; **Mr.** FORD
... bombs; some as long-term as **global warming;** some as dangerous as nuclear weapons ...

114. CONGRESSIONAL RECORD -- SENATE, Wednesday, January 22, 1997 , 143 Cong Rec S 667, Vol. 143, No. 5, THE NUCLEAR WASTE POLICY ACT OF 1997
105th Congress, 1st Session
Mr. MURKOWSKI
... associated with this, and as we address the issues of **global warming** and greenhouse gases, it must be ...

104th Congress

LexisNexis *Congressional Record* search results for "climate change" or "global warming" or "greenhouse gas" or "greenhouse effect"

1. CONGRESSIONAL RECORD -- SENATE, Tuesday, October 1, 1996 , 142 Cong Rec S 12136, Vol. 142 No. 139 , THE OMNIBUS APPROPRIATIONS BILL
104th Congress 2nd Session
Mr. KERRY
... funding for the Global **Climate Change** Program. This Program seeks to ...
... gases in causing **global warming.** The NOAA Program is an important ...

2. CONGRESSIONAL RECORD -- SENATE, Friday, September 27, 1996 , 142 Cong Rec S 11490, Vol. 142 No. 136 , GLOBAL CLIMATE CHANGE
104th Congress 2nd Session
Mr. HELMS
... goal of reducing global **greenhouse gas** emissions. Many experts ...
... largest source of new **greenhouse gas** emissions in the post ...
... U.N. Convention on Global **Climate Change,** signed at Rio in ...
... I Parties to reduce **greenhouse gas** emissions to 1990 levels ...
... treaty commitments regarding **greenhouse gas** emissions will set ...
... study entitled "Global **Climate Change:** Economic Dimensions of a ...
... 700 million on global **climate change** related spending. This is more than ...
CONFERENCES & CONVENTIONS (90%); **CLIMATE CHANGE** (90%); DEVELOPING COUNTRIES (...

3. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 25, 1996 , 142 Cong Rec S 11276, Vol. 142 No. 134 , HOW THE UNITED NATIONS BENEFITS AMERICANS: THE U.N. ENVIRONMENT PROGRAMME
104th Congress 2nd Session
Mr. PELL
... UN Framework Convention on **Climate Change,** which commits industrialized countries to ...

4. CONGRESSIONAL RECORD -- SENATE, Tuesday, September 24, 1996 , 142 Cong Rec S 11159, Vol. 142 No. 133 , UNANIMOUS-CONSENT AGREEMENT--CONFERENCE REPORT TO ACCOMPANY VA-HUD APPROPRIATIONS BILL
104th Congress 2nd Session
Mr. LOTT
... program to study global **climate change.** The conference agreement also incorporates ...
... Harbor, Montreal Protocol, **Climate Change,** and the Environmental Technologies Initiative. ...

5. CONGRESSIONAL RECORD -- SENATE, Friday, September 6, 1996 , 142 Cong Rec S 10012, Vol. 142 No. 121 , WHY AFRICA MATTERS
104th Congress 2nd Session
Mrs. KASSEBAUM
... rest of the world to adjust to **climate changes** by breeding drought- ...

6. CONGRESSIONAL RECORD -- SENATE, Wednesday, September 4, 1996 , 142 Cong Rec S 9804, Vol. 142 No. 119 , SPACE STATION FUNDING
104th Congress 2nd Session
Mr. KERRY

... program to explore global **climate change** by means of a ...

7. CONGRESSIONAL RECORD -- SENATE, Friday, August 2, 1996 , 142 Cong Rec S 95-1-S9548, Vol. 142 No. 117 , A VICTORY FOR WORKING AMERICANS
104th Congress 2nd Session
Mr. KERRY
... reduce smog, and alleviate **global warming.** With this tax credit, landfill ...

8. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 31, 1996 , 142 Cong Rec S 9312, Vol. 142 No. 115 , RENEWABLE TECHNOLOGIES RESEARCH AND DEVELOPMENT
104th Congress 2nd Session
Mr. AKAKA
... problems associated with global **climate change.** The past decade was a ...

9. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 30, 1996 , 142 Cong Rec S 9085, Vol. 142 No. 114 , ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT, 1997
104th Congress 2nd Session
The PRESIDING OFFICER (**Mr.** Brown)
... getting serious about **global warming,** and in the New York ...
... by Nations To Combat **Global Warming.**" Mr. President, if we are, in fact, serious about **global warming**--and I will submit that to the ...
... not serious about **global warming--I** can tell you that there is ...
... energy, if you really are serious about **global warming,** because how else are you going to ...
... think you are going to solve **global warming** by something short of ...

10. CONGRESSIONAL RECORD -- SENATE, Wednesday, July 17, 1996 , 142 Cong Rec S 8007, Vol. 142 No. 105 , S. 1936--THE NUCLEAR WASTE POLICY ACT
104th Congress 2nd Session
Mr. KYL
... goals for reducing **greenhouse gas** emissions. Whether we build new ...

11. CONGRESSIONAL RECORD -- Senate, Tuesday, July 9, 1996 , 142 Cong Rec S 7421, Vol. Vol. 142 No. 100 , SMALL BUSINESS JOB PROTECTION ACT OF 1996
104th Congress 2nd Session
The PRESIDING OFFICER (**Mr.** Brown)
... reduced smog, and alleviates **global warming.** With this tax credit, landfill ...

12. CONGRESSIONAL RECORD -- SENATE, Tuesday, July 9, 1996 , 142 Cong Rec S 7421, Vol. 142 No. 100 , SMALL BUSINESS JOB PROTECTION ACT OF 1996
104th Congress 2nd Session
The PRESIDING OFFICER (**Mr.** Brown)
... reduced smog, and alleviates **global warming.** With this tax credit, landfill ...

13. CONGRESSIONAL RECORD -- SENATE, Thursday, June 20, 1996 , 142 Cong Rec S 6626, Vol. 142, No. 92, UNITED STATES LOSES RANK IN GLOBAL GIVING
104th Congress, 2nd Session
Mr. SIMON
... related damages due to **global warming.** Millions of families have no ...

14. CONGRESSIONAL RECORD -- Senate, Monday, June 3, 1996 , 142 Cong Rec S 5657, Vol. 142 No. 79, BALANCED BUDGET AMENDMENT TO THE CONSTITUTION
104th Congress 2nd Session
MR. COVERDELL
... mad cow" disease or **global warming,** but there is still time ...

15. CONGRESSIONAL RECORD -- Senate, Friday, May 24, 1996 , 142 Cong Rec S 5643, Vol. 142 No. 75, MFN STATUS FOR CHINA
104th Congress 2nd Session
MR. BAUCUS
... industrial contributor to global **climate change** and pollution of the oceans. And it is the world's ...

16. CONGRESSIONAL RECORD -- Senate, Tuesday, April 30, 1996 , 142 Cong Rec S 4420, Vol. 142 No. 57, WHO NEEDS AMBASSADORS?
104th Congress 2nd Session
MR. KENNEDY
... programs on such issues as population, **climate change,** ozone depletion, desertification, and ...

17. CONGRESSIONAL RECORD -- Senate, Thursday, April 25, 1996 , 142 Cong Rec S 4161, Vol. 142 No. 55, 1996 BALANCED BUDGET DOWNPAYMENT ACT-CONFERENCE REPORT
104th Congress 2nd Session
MR. DASCHLE
... treatment, for global **climate change** research, for environmental ...

18. CONGRESSIONAL RECORD -- Senate, Wednesday, April 24, 1996 , 142 Cong Rec S 4086, Vol. 142 No. 54, CARLSBAD CAVERNS NATIONAL PARK
104th Congress 2nd Session
MR. BINGAMAN
... information related to global **climate change,** waste disposal, ground ...

19. CONGRESSIONAL RECORD -- Senate, Wednesday, February 7, 1996 , 142 Cong Rec S 1060, Vol. 142 No. 17, THE SENATE SCHEDULE
104th Congress 2nd Session
MR. GLENN
... Prevention Council, Local **Climate Change,** Cops on the Beat, Drug ...

20. CONGRESSIONAL RECORD -- Senate, Wednesday, February 7, 1996 , 142 Cong Rec S 1087, Vol. 142 No. 17,

LUGAR AMENDMENT NO. 3444
104th Congress 2nd Session
MR. LUGAR
... SEC. 849. GLOBAL **CLIMATE CHANGE.** (a) Technical Advisory ...

21. CONGRESSIONAL RECORD -- Senate, Thursday, February 1, 1996 , 142 Cong Rec S 771, Vol. 142 No. 14, LUGAR AMENDMENT NO. 3252
104th Congress 2nd Session
MR. LUGAR
... SEC. 649. GLOBAL **CLIMATE CHANGE.** (a) Technical Advisory ...

22. CONGRESSIONAL RECORD -- Senate, Friday, January 26, 1996 , 142 Cong Rec S 401, Vol. 142 No. 11, THE BALANCED BUDGET DOWNPAYMENT ACT, I
104th Congress 2nd Session
MR. LOTT
... Prevention Council; GLOBE/**Climate change**-Internet; Cops on the Beat; ...

23. CONGRESSIONAL RECORD -- Senate, Friday, January 26, 1996 , 142 Cong Rec S 527, Vol. 142 No. 11, INDIGENOUS CONSERVATIONIST OF THE YEAR AWARD AWARDED TO GOV. A.P. LUTALI, GOVERNOR OF AMERICAN SAMOA
104th Congress 2nd Session
MR. INOUYE
... essential protection against **global warming,** contain hundreds of plants ...

24. CONGRESSIONAL RECORD -- Senate, Thursday, January 4, 1996 , (Legislative day of Wednesday, January 3, 1996), 142 Cong Rec S 44, Vol. 142 No. 2, ACCOMMODATIONS ON THE APPROPRIATIONS BILLS
104th Congress 1st Session
MR. NICKLES
... in environmental technology, the **climate change** action plan, and other ...

25. CONGRESSIONAL RECORD -- Senate, Wednesday, January 3, 1996 , 142 Cong Rec S 22, Vol. 142 No. 1, THE 1995 BUDGET AND APPROPRIATIONS PROCESS
104th Congress 2nd Session
MR. DASCHLE
... in environmental technology, the **climate change** action plan, and other ...

26. CONGRESSIONAL RECORD -- Senate, Thursday, November 16, 1995 , 141 Cong Rec S 17189, Vol. 141 No. 182, ELI 1995 ENVIRONMENTAL LEADERSHIP AWARD
104th Congress 1st Session
MR. CHAFEE,
... first financial effects of **global warming.** Conservative companies like ...
... government action to limit **climate change**-sounding more radical than the ...

27. CONGRESSIONAL RECORD -- Senate, Tuesday, October 31, 1995 , 141 Cong Rec S 16384, Vol. 141 No. 170, ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT, 1996-CONFERENCE REPORT
104th Congress 1st Session
MR. DOMENICI
... key areas, including the **Climate Change** Action Plan initiatives and the Department's global **climate change** research and technology development ...
... programs for reducing **greenhouse-gas** emissions. The Administration urges the ...

28. CONGRESSIONAL RECORD -- Senate, Tuesday, October 10, 1995 , 141 Cong Rec S 14944, Vol. 141 No. 156, SECOND MUNICIPAL LEADERS' SUMMIT ON CLIMATE CHANGE
104th Congress 1st Session
MR. GRAHAM
... Municipal Leaders Summit on **Climate Change.** It is important for our Nation to be ...
... Municipal Leaders' Summit on **Climate Change,** urge local authorities, ...
... reduce energy use and **greenhouse gas** emissions in the municipality's ...
... use and thus reduce net **greenhouse gas** emissions. 2.2 We urge ...
... implementing the Framework Convention on **Climate Change,** we urge the Conference of the Parties (...
... Subsidiary Bodies. (C) **GREENHOUSE GAS** REDUCTIONS IN ANNEX ...
... Nations Framework Convention on **Climate Change on Greenhouse Gas** Emission Reduction," proposed ...
... events and activities. (D) **GREENHOUSE GAS** REDUCTIONS IN NON- ...
... capacity for reducing **greenhouse-gas** emissions by ensuring that ...
... in the Framework Convention on **Climate Change**-through their respective national ...
... methodologies and policies to reduce **greenhouse gas** emissions. Second Municipal Leaders' Summit on **Climate Change,** Berlin, Germany, 29 ...
EMISSIONS (91%); **CLIMATE CHANGE** (90%); BIOMASS (89%); ...

29. CONGRESSIONAL RECORD -- Senate, Tuesday, September 26, 1995 (Legislative day of Monday, September 25, 1995), 141 Cong Rec S 14320, Vol. 141 No. 151, JEFFORDS (AND OTHERS) AMENDMENT NO. 2783
104th Congress 1st Session
MR. JEFFORDS
... facilitation fund and for the **climate change** action plan programs ...

30. CONGRESSIONAL RECORD -- Senate, Tuesday, September 19, 1995 (Legislative day of Tuesday, September 5, 1995), 141 Cong Rec S 13868, Vol. 141 No. 146, ABRAHAM (AND OTHERS) AMENDMENT NO. 2702
104th Congress 1st Session
MR. COCHRAN
... repealed. (b) Global **Climate Change** Technical Advisory Committee. - ...
CLIMATE CHANGE (81%); AGRICULTURE (80%);

31. CONGRESSIONAL RECORD -- Senate, Monday, July 31, 1995 (Legislative day of Monday, July 10, 1995), 141 Cong Rec S 10973, Vol. 141 No. 125, SIMPSON AMENDMENT NO. 1884
104th Congress 1st Session
MR. SIMPSON
... animal species, global **climate change,** waste management, and air and ...
... use, and local and global **climate change;** "(7) support for ...

32. CONGRESSIONAL RECORD -- Senate, Monday, July 31, 1995 (Legislative day of Monday, July 10, 1995), 141 Cong Rec S 11018, Vol. 141 No. 125, SARBANES (AND LEAHY) AMENDMENT NO. 1970
104th Congress 1st Session
MR. SARBANES
... biological diversity and global **climate change,** as well as efforts to address ...

33. CONGRESSIONAL RECORD -- Senate, Monday, July 31, 1995 (Legislative day of Monday, July 10, 1995), 141 Cong Rec S 11023, Vol. 141 No. 125, SARBANES (AND LEAHY) AMENDMENT NO. 1988
104th Congress 1st Session
MR. SARBANES
... biological diversity and global **climate change,** as well as efforts to address ...

34. CONGRESSIONAL RECORD -- Senate, Thursday, July 20, 1995 (Legislative day of Monday, July 10, 1995), 141 Cong Rec S 10433, Vol. 141 No. 118, ADDITIONAL STATEMENTS THE NASA AUTHORIZATION BILL FOR FISCAL YEAR 1996
104th Congress 1st Session
MR. BURNS
... understand and predict global **climate change.** For those of us representing farm ...
... in our ability to predict **climate change** and manage our scarce water ...

35. CONGRESSIONAL RECORD -- Senate, Tuesday, May 23, 1995 (Legislative day of Monday, May 15, 1995), 141 Cong Rec S 7263, Vol. 141 No. 86, HYDROGEN-AN ENERGY SOURCE FOR THE FUTURE
104th Congress 1st Session
MR. HARKIN
... Maybe no more **global warming,** either, because it emits no ...

36. CONGRESSIONAL RECORD -- Senate, Friday, May 12, 1995 (Legislative day of Monday, May 1, 1995), 141 Cong Rec S 6584, Vol. 141 No. 79, LOOKING AT THE FEDERAL BUDGET
104th Congress 1st Session
MR. KERRY
... examples like that. Global **climate change.** We do not know all the answers. We ...

37. CONGRESSIONAL RECORD -- Senate, Thursday, May 11, 1995 (Legislative day of Monday, May 1, 1995), 141 Cong Rec S 6554, Vol. 141 No. 78, POLITICAL TRANSITION IN CHINA
104th Congress 1st Session
MR. BAUCUS
... become the largest contributor to **global warming.** Its rapid coastal development, ...

38. CONGRESSIONAL RECORD -- Senate, Wednesday, May 3, 1995 (Legislative day of Monday, May 1, 1995), 141 Cong Rec S 6021, Vol. 141 No. 72, PUBLIC POWER
104th Congress 1st Session
MR. PRESSLER
... participation in this Global **Climate Change** Program. I congratulate ...

39. CONGRESSIONAL RECORD -- Senate, Tuesday, May 2, 1995 (Legislative day of Monday, May 1, 1995), 141 Cong Rec S 6001, Vol. 141 No. 71, THE 25TH ANNIVERSARY OF EARTH DAY
104th Congress 1st Session
MR. DASCHLE
... Geologists tell us that global **climate change** could increase the frequency of droughts and ...
... ENVIRONMENTAL LAW (90%); **CLIMATE CHANGE** (90%); POPULATION & DEMOGRAPHICS (...

40. CONGRESSIONAL RECORD -- Senate, Thursday, April 6, 1995 (Legislative day of Wednesday, April 5, 1995), 141 Cong Rec S 5325, Vol. 141 No. 64, RECESS
104th Congress 1st Session
MR. HELMS
... role of the oceans in **climate change.** NOAA's Climate and Global ...
... addresses is the NOAA Global **Climate Change** Program. This program seeks to ...
... gases in causing **global warming.** The Senate bill rescinds $ ...

41. CONGRESSIONAL RECORD -- Senate, Monday, January 30, 1995 , 141 Cong Rec S 1792, Vol. 141 No. 18, HEINZ AWARDS
104th Congress 1st Session
MR. DOLE
... supplies, agriculture and food, **global warming,** nuclear weapons, international ...

103rd Congress

LexisNexis *Congressional Record* search results for "climate change" or "global warming" or "greenhouse gas" or "greenhouse effect"

1. Congressional Record -- Senate, Thursday, January 21, 1993 (Legislative day of Tuesday, January 5, 1993), 139 Cong Rec S 93, Vol. 139 No. 5, EXECUTIVE SESSION; EXECUTIVE CALENDAR
103rd Cong. 1st Sess.
... by any nation to the Treaty on **Climate Change** signed in Rio. ...
... well as the debate on global **climate change,** energy conservation measures, and ...

2. Congressional Record -- Senate, Thursday, January 21, 1993 (Legislative day of Tuesday, January 5, 1993), 139 Cong Rec S 601, Vol. 139 No. 5, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Cong. 1st Sess.
... NEED TO ADDRESS THE PROBLEMS OF **GLOBAL WARMING,** OZONE DEPLETION, WATER, ...
... URGES THE ESTABLISHMENT OF AN INTERNATIONAL **GREENHOUSE GAS** MONITORING PROGRAM UNDER THE ...
... PLANET. PROBLEMS LIKE **GLOBAL WARMING** AND THE LOSS OF BIODIVERSITY HAVE BROUGHT THE ...
... STRATEGY FOR REDUCING **GREENHOUSE GAS** EMISSIONS. AGRICULTURAL POLICY ...

3. Congressional Record -- Extension of Remarks, Tuesday, January 26, 1993, 139 Cong Rec E 161, Vol. 139 No. 8, TRIBUTE TO LIONEL LINDER
103rd Cong. 1st Sess.
... dangers of nuclear power and **global warming.** Why, he wanted to know, do other ...

4. Congressional Record -- Extension of Remarks, Tuesday, January 26, 1993, 139 Cong Rec E 165, Vol. 139 No. 8, NATIONAL COMMISSION ON ENVIRONMENT AND NATIONAL SECURITY, H.R. 575
103rd Cong. 1st Sess.
... THREATS -- INCLUDING DEFORESTATION, **GLOBAL WARMING,** DEPLETION OF THE OZONE LAYER, ...

5. Congressional Record -- Extension of Remarks, Wednesday, January 27, 1993, 139 Cong Rec E 196, Vol. 139 No. 9, FRANCES TYSON TRIBUTE
103rd Cong. 1st Sess.
... using oil and contributing to the **greenhouse effect,**" she says. "Fifty percent of our ...

6. Congressional Record -- Senate, Thursday, January 28, 1993, 139 Cong Rec S 880, Vol. 139 No. 10, ELEVATION OF EPA TO CABINET LEVEL
103rd Cong. 1st Sess.
... ozone level of the atmosphere, **global warming** impacts, the cleanup of hazardous ...
... depletion of the ozone layer, and the **greenhouse effect.** The many challenges are complex and ...

7. Congressional Record -- Extension of Remarks, Tuesday, February 2, 1993, 139 Cong Rec E 222, Vol. 139 No. 12, THE POLLUTION PREVENTION, COMMUNITY RECYCLING, AND INCINERATOR CONTROL ACT
103rd Cong. 1st Sess.
... greenhouse gases that contribute to **global warming,** while recycling reduces the ...
PUBLIC FINANCE (90%); **CLIMATE CHANGE** (90%); SOLID WASTE ...

8. Congressional Record -- Extension of Remarks, Wednesday, February 3, 1993, 139 Cong Rec E 253, Vol. 139 No. 13, THE TIME FOR A CARBON TAX IS NOW
103rd Cong. 1st Sess.
... ENVIRONMENTAL PROBLEMS, ESPECIALLY **GLOBAL WARMING.** AN ENERGY TAX, BASED ON THE ...
... WORLD CITIZEN ON THE ISSUE OF **GLOBAL WARMING.** THIS IS THE TYPE OF SIGNAL THE EUROPEANS AND THE ...

9. Congressional Record -- Extension of Remarks, Wednesday, February 3, 1993, 139 Cong Rec E 270, Vol. 139 No. 13, CONCURRENT RESOLUTION OPPOSING ANY RESUMPTION OF COMMERCIAL WHALING
103rd Cong. 1st Sess.
... MARINE POLLUTION AND GLOBAL **CLIMATE CHANGES** THAT THREATEN TO DESTROY THEIR HABITATS, THE ...

10. Congressional Record -- Extension of Remarks, Thursday, February 4, 1993, 139 Cong Rec E 306, Vol. 139 No. 14, OPPOSITION TO COMMERCIAL WHALING AND SUPPORT FOR ESTABLISHING THE ANTARCTIC INTERNATIONAL WHALE SANCTUARY
103rd Cong. 1st Sess.
... IMPACTS RESULTING FROM ANY POSSIBLE **CLIMATE CHANGE.** WE HUMANS HAVE AN INSTINCTIVE RESPECT AND ...

11. Congressional Record -- House, Tuesday, February 16, 1993, 139 Cong Rec H 602, Vol. 139 No. 15, OPPOSING RESUMPTION OF COMMERCIAL WHALING
103rd Cong. 1st Sess.
... marine pollution and global **climate changes** that threaten to destroy their habitats, the ...

12. Congressional Record -- Senate, Wednesday, February 17, 1993 (Legislative day of Tuesday, January 5, 1993), 139 Cong Rec S 1735, Vol. 139 No. 16, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Cong. 1st Sess.
... PROBLEMS -- AIR POLLUTION, **GLOBAL WARMING,** AND MARINE PROTECTION -- CAN ...
... NATIONS ON THE LARGER QUESTION OF **GLOBAL WARMING,** CABINET RANK FOR ...

13. Congressional Record -- Extension of Remarks, Thursday, February 18, 1993, 139 Cong Rec E 364, Vol. 139 No. 17, INTRODUCTION OF THE ANTARCTIC ENVIRONMENTAL PROTECTION ACT OF 1993
103rd Cong. 1st Sess.
... PROVIDE AN EARLY WARNING OF **CLIMATE CHANGE.** THE 2-MILE THICK ...
... OZONE LAYER DEPLETION AND **CLIMATE CHANGE** ARE DETECTED THERE FIRST. IN ...
... ASTRONOMY & SPACE (89%); **CLIMATE CHANGE** (89%); SCIENCE NEWS (...

14. Congressional Record -- Daily Digest, Thursday, February 25, 1993, 139 Cong Rec D 147, Vol. 139 No. 21, Chamber Action
103rd Cong. 1st Sess.
... Environment, hearing on Global **Climate Change:** Adequacy of the National Action ...

15. Congressional Record -- Daily Digest, Monday, March 1, 1993, 139 Cong Rec D 156, Vol. 139 No. 22, See Resume of Congressional Activity., Chamber Action
103rd Cong. 1st Sess.
... continue tomorrow. GLOBAL **CLIMATE CHANGE** Committee on Foreign Affairs: ...
... a hearing on Global **Climate Change:** Adequacy of the National Action ...

16. Congressional Record -- Senate, Tuesday, March 2, 1993 (Legislative day of Tuesday, January 5, 1993), 139 Cong Rec S 2215, Vol. 139 No. 23, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Cong. 1st Sess.
... CHALLENGES SUCH AS UNDERSTANDING GLOBAL **CLIMATE CHANGE,** HYDROLOGIC MODELING, AND FUNDAMENTAL ...
... ENVIRONMENT, INCLUDING GLOBAL **CLIMATE CHANGE;** PROTECTION OF ECOLOGICAL SYSTEMS; ...

17. Congressional Record -- Daily Digest, Friday, March 5, 1993, 139 Cong Rec D 183, Vol. 139 No. 26, Chamber Action
103rd Cong. 1st Sess.
... Power, oversight hearing on **Global Warming,** 10 a.m., room to be ...

18. Congressional Record -- Extension of Remarks, Monday, March 8, 1993, 139 Cong Rec E 534, Vol. 139 No. 27, SENATE COMMITTEE MEETINGS
103rd Cong. 1st Sess.
... hearings on the science of global **climate change.** SD-366 10:00 ...

19. Congressional Record -- Daily Digest, Tuesday, March 9, 1993, 139 Cong Rec D 194, Vol. 139 No. 28, Chamber Action
103rd Cong. 1st Sess.
... Power, oversight hearing on **Global Warming,** 10 a.m., 2218 ...

20. Congressional Record -- Extension of Remarks, Wednesday, March 10, 1993, 139 Cong Rec E 591, Vol. 139 No. 29, SENATE COMMITTEE MEETINGS
103rd Cong. 1st Sess.
... hearings on the science of global **climate change.** SD-366 10:00 ...

21. Congressional Record -- Daily Digest, Wednesday, March 10, 1993, 139 Cong Rec D 201, Vol. 139 No. 29, House Committee on the Budget ordered reported Concurrent Budget Resolution for Fiscal 1994., Chamber Action
103rd Cong. 1st Sess.
... held an oversight hearing on **Global Warming.** Testimony was heard from Daniel ...

22. Congressional Record -- Senate, Thursday, March 11, 1993 (Legislative day of Wednesday, March 3, 1993), 139 Cong Rec S 2843, Vol. 139 No. 30, SENATE CONCURRENT RESOLUTION 17 -- RELATIVE TO TAXATION OF CERTAIN FUELS
103rd Cong. 1st Sess.

... greenhouse gases that contribute to **global warming.** There is no more environmentally ...

23. Congressional Record -- Senate, Monday, March 15, 1993 (Legislative day of Wednesday, March 3, 1993), 139 Cong Rec S 2889, Vol. 139 No. 31, NOTICES OF HEARINGS
103rd Cong. 1st Sess.
... science concerning global **climate change.** The hearing will take ...

24. Congressional Record -- Extension of Remarks, Monday, March 15, 1993, 139 Cong Rec E 627, Vol. 139 No. 31, SENATE COMMITTEE MEETINGS
103rd Cong. 1st Sess.
... hearings on the science of global **climate change.** SD-366 10:00 ...

25. Congressional Record -- Extension of Remarks, Tuesday, March 16, 1993, 139 Cong Rec E 631, Vol. 139 No. 32, PRESIDENT CLINTON'S MISGUIDED ENERGY TAX PROPOSAL
103rd Cong. 1st Sess.
... justifying the tax. But if the **greenhouse effect** is the greatest challenge facing ...

26. Congressional Record -- House, Wednesday, March 17, 1993, 139 Cong Rec H 1306, Vol. 139 No. 33, PROVIDING FOR CONSIDERATION OF H.R. 1335, EMERGENCY SUPPLEMENTAL APPROPRIATIONS ACT OF 1993
103rd Cong. 1st Sess.
... make regional predictions of **global warming** effects. This is a modification of an ...

27. Congressional Record -- Extension of Remarks, Wednesday, March 17, 1993, 139 Cong Rec E 680, Vol. 139 No. 33, SENATE COMMITTEE MEETINGS
103rd Cong. 1st Sess.
... hearings on the science of global **climate change.** SD-366 10:00 ...

28. Congressional Record -- Senate, Friday, March 19, 1993, 139 Cong Rec S 3240, Vol. 139 No. 35, THE MISSION OF FOREIGN AID IN THE POST-COLD-WAR ERA
103rd Cong. 1st Sess.
... community, we cannot stop **global warming,** pollution of the air and water, ...

29. Congressional Record -- Senate, Friday, March 19, 1993, 139 Cong Rec S 3242, Vol. 139 No. 35, CONCURRENT RESOLUTION ON THE BUDGET FOR FISCAL YEAR 1994
103rd Cong. 1st Sess.
... about the problem of global **climate change,** we are going to have to make a ...
... tax seeks to cut **greenhouse gas** emissions. The Btu tax ...
... product. Ethanol reduces **greenhouse gas** emissions, since the crops ...
... greenhouse gases that contribute to **global warming.** There is no more environmentally ...

30. Congressional Record -- Senate, Friday, March 19, 1993, 139 Cong Rec S 3253, Vol. 139 No. 35, THE BUDGET

RESOLUTION
103rd Cong. 1st Sess.
... use that actually reduce the **greenhouse gas** CO[2], according to the ...

31. Congressional Record -- Extension of Remarks, Monday, March 22, 1993, 139 Cong Rec E 727, Vol. 139 No. 36, SENATE COMMITTEE MEETINGS
103rd Cong. 1st Sess.
... hearings on the science of global **climate change.** SD-366 10:00 ...

32. Congressional Record -- Senate, Tuesday, March 23, 1993 (Legislative day of Wednesday, March 3, 1993), 139 Cong Rec S 3412, Vol. 139 No. 37, CONCURRENT RESOLUTION ON THE BUDGET FOR FISCAL YEARS 1994-98
103rd Cong. 1st Sess.
... terms of the life cycle **greenhouse gas** emissions, there are more in the ...
... actually exacerbate problems of **global warming** and poor air quality. The ...
... use that actually reduces the **greenhouse gas** CO[2], according to the ...

33. Congressional Record -- Senate, Tuesday, March 23, 1993 (Legislative day of Wednesday, March 3, 1993), 139 Cong Rec S 3455, Vol. 139 No. 37, REPORTS OF COMMITTEES
103rd Cong. 1st Sess.
... role, including aeronautics, **climate change** analysis, and space technology. The ...
... in advanced materials, **climate change,** manufacturing, high-performance ...

34. Congressional Record -- Senate, Wednesday, March 24, 1993 (Legislative day of Wednesday, March 3, 1993), 139 Cong Rec S 3661, Vol. 139 No. 38, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Cong. 1st Sess.
... Earth Summit: the Convention on **Climate Change,** the Convention on Biological Diversity, the ...
... advice and consent to the Convention on **Climate Change,** enabling the United States to ...
... 90%); BIODIVERSITY (90%); **CLIMATE CHANGE** (90%); TREATIES & AGREEMENTS (...

35. Congressional Record -- Extension of Remarks, Wednesday, March 24, 1993, 139 Cong Rec E 767, Vol. 139 No. 38, SENATE COMMITTEE MEETINGS
103rd Cong. 1st Sess.
... hearings on the science of global **climate change.** SD-366 10:00 ...

36. Congressional Record -- Daily Digest, Friday, March 26, 1993, 139 Cong Rec D 293, Vol. 139 No. 40, Chamber Action
103rd Cong. 1st Sess.
... hearings on the science of global **climate change,** 9:30 a.m., SD- ...

37. Congressional Record -- Daily Digest, Monday, March 29, 1993, 139 Cong Rec D 302, Vol. 139 No. 41, Chamber Action
103rd Cong. 1st Sess.

... hearings on the science of global **climate change,** 9:30 a.m., SD- ...

38. Congressional Record -- Senate, Tuesday, March 30, 1993 (Legislative day of Wednesday, March 3, 1993), 139 Cong Rec S 4036, Vol. 139 No. 42, AUTHORITY FOR COMMITTEES TO MEET
103rd Cong. 1st Sess.
... testimony on the science of global **climate change.** The PRESIDING OFFICER. Without ...
... HUMAN RESOURCES (72%); **CLIMATE CHANGE** (54%);

39. Congressional Record -- Daily Digest, Tuesday, March 30, 1993, 139 Cong Rec D 309, Vol. 139 No. 42, Chamber Action
103rd Cong. 1st Sess.
... Baltimore, Maryland. GLOBAL **CLIMATE CHANGE** Committee on Energy and Natural ...
... surrounding the issue of global **climate change,** focusing on the Administration's course ...
... United States global **climate change** research program, and U.S. ...

40. Congressional Record -- Senate, Thursday, April 1, 1993 (Legislative day of Wednesday, March 3, 1993), 139 Cong Rec S 4187, Vol. 139 No. 44, EMERGENCY SUPPLEMENTAL APPROPRIATIONS
103rd Cong. 1st Sess.
... year has the same effect on **global warming** as the fuel-burned power of ...

41. Congressional Record -- Senate, Thursday, April 1, 1993 (Legislative day of Wednesday, March 3, 1993), 139 Cong Rec S 4299, Vol. 139 No. 44, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Cong. 1st Sess.
... drilling. We have come to understand that the **greenhouse effect,** and the global disaster it threatens, is ...

42. Congressional Record -- Senate, Saturday, April 3, 1993, 139 Cong Rec S 4476, Vol. 139 No. 46, KEEPING FAITH WITH THE AMERICAN PEOPLE
103rd Cong. 1st Sess.
... shift the blame for **global warming** to livestock. Looking back at the ...

43. Congressional Record -- Senate, Monday, April 19, 1993, 139 Cong Rec S 4595, Vol. 139 No. 49, EMERGENCY SUPPLEMENTAL APPROPRIATIONS
103rd Cong. 1st Sess.
... one of the worst contributors to the **greenhouse effect** in our environment and only ...

44. Congressional Record -- Senate, Monday, April 19, 1993, 139 Cong Rec S 4611, Vol. 139 No. 49, SUMMER YOUTH JOBS PROGRAM
103rd Cong. 1st Sess.
... role, including aeronautics, **climate change** analysis, and space technology. The ...
... in advanced materials, **climate change,** manufacturing, high-performance ...

45. Congressional Record -- Extension of Remarks, Wednesday, April 21, 1993, 139 Cong Rec E 980, Vol. 139 No. 51,

A RADICAL SHIFT AWAY FROM NUCLEAR ENERGY
103rd Cong. 1st Sess.
... OPTIONS THAT REDUCE OR ELIMINATE **GREENHOUSE GAS** EMISSIONS. WHILE IT IS IMPORTANT THAT ...
... POWER PLANTS (90%); **CLIMATE CHANGE** (89%); EMISSIONS (89%); ...

46. Congressional Record -- Senate, Thursday, April 22, 1993 (Legislative day of Monday, April 19, 1993), 139 Cong Rec S 4785, Vol. 139 No. 52, EARTH DAY
103rd Cong. 1st Sess.
... by the year 2000. **Global warming** presents one of the greatest ...
... ENVIRONMENTAL LAW (90%); **CLIMATE CHANGE** (90%); LEGISLATION (90%); ...

47. Congressional Record -- Senate, Thursday, April 22, 1993 (Legislative day of Monday, April 19, 1993), 139 Cong Rec S 4786, Vol. 139 No. 52, EARTH DAY 1993
103rd Cong. 1st Sess.
... in addressing the challenge of **global warming** that could make our planet and its climate ...
... loss of biodiversity, and global **climate change.** He addressed that as well. These are serious ...

48. Congressional Record -- Senate, Thursday, April 22, 1993 (Legislative day of Monday, April 19, 1993), 139 Cong Rec S 4795, Vol. 139 No. 52, EARTH DAY 1993: TIME TO RECOMMIT TO THE SPIRIT OF UNCED
103rd Cong. 1st Sess.
... 21st century; the Convention on **Climate Change;** and the Convention on Biological Diversity. ...
... beyond the requirements of the Convention on **Climate Change** and reduce its emissions of greenhouse ...
... international efforts to combat **climate change.** It demonstrates the United States ...
... 59%); BIODIVERSITY (59%); **CLIMATE CHANGE** (59%); LEGISLATION (59%); ...

49. Congressional Record -- Senate, Thursday, April 22, 1993 (Legislative day of Monday, April 19, 1993), 139 Cong Rec S 4809, Vol. 139 No. 52, DEPARTMENT OF THE ENVIRONMENT ACT OF 1993
103rd Cong. 1st Sess.
... efficiency and the establishment of a **greenhouse gas** monitoring office. There are a ...
... need to address the problems of **global warming,** ozone depletion, water, ...
... thinning of the ozone layer, **greenhouse gas** emissions, loss of biodiversity, ...

50. Congressional Record -- Senate, Thursday, April 22, 1993 (Legislative day of Monday, April 19, 1993), 139 Cong Rec S 4851, Vol. 139 No. 52, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Cong. 1st Sess.
... ENACTING THIS BILL WOULD REDUCE **GREENHOUSE GAS** EMISSIONS, IT WOULD REDUCE OUR NEED ...
... WANT, WHAT CAN WE DO? NOW WHAT DOES THIS HAVE TO DO WITH **GLOBAL WARMING?** RECYCLING SAVES ENERGY. ...
... EFFORT TO REDUCE THE RISK OF **GLOBAL WARMING.** I ALSO LIKE THE WAY THAT ...
... RECYCLING AND HELP PREVENT **GLOBAL WARMING** WILL COME BEFORE THE ...

51. Congressional Record -- House, Thursday, April 22, 1993, 139 Cong Rec H 1997, Vol. 139 No. 52, EARTH DAY

103rd Cong. 1st Sess.
... Earth Summit conference's **global warming** treaty. I believe that it is our ...

52. Congressional Record -- Extension of Remarks, Monday, April 26, 1993, 139 Cong Rec E 1036, Vol. 139 No. 54, EARTH DAY 1993
103rd Cong. 1st Sess.
... TREATY AND TO REDUCE THE THREAT OF **GLOBAL WARMING.** THE BIODIVERSITY TREATY PROVIDES ...

53. Congressional Record -- Senate, Tuesday, April 27, 1993 (Legislative day of Monday, April 19, 1993), 139 Cong Rec S 4880, Vol. 139 No. 55, DEPARTMENT OF THE ENVIRONMENT ACT OF 1993
103rd Cong. 1st Sess.
... problem, ozone depletion, **global warming** and so on? The Office of Enforcement generally ...
... water quality to global **climate change.** The Commission on Improving Environmental ...

54. Congressional Record -- Extension of Remarks, Tuesday, April 27, 1993, 139 Cong Rec E 1047, Vol. 139 No. 55, EARTH DAY 1993
103rd Cong. 1st Sess.
... BY THE YEAR 2000. THE **CLIMATE CHANGE** TREATY, WHICH WAS WEAKENED BY THE ...
... CONFERENCES & CONVENTIONS (90%); **CLIMATE CHANGE** (90%); TREATIES & AGREEMENTS (...

55. Congressional Record -- Senate, Friday, April 30, 1993, 139 Cong Rec S 5258, Vol. 139 No. 58, ENVIRONMENTAL POLICY
103rd Cong. 1st Sess.
... taken seriously. Take the **global-warming** scare, for instance. ...
... falling into a disastrous **greenhouse effect.**" In the caption, Chicken ...
... every last detail of the (**global-warming**) crisis." "This sort of dithering ...

56. Congressional Record -- Senate, Tuesday, May 4, 1993 (Legislative day of Monday, April 19, 1993), 139 Cong Rec S 5315, Vol. 139 No. 60, DEPARTMENT OF THE ENVIRONMENT ACT OF 1993
103rd Cong. 1st Sess.
... in environmental issues is **global warming,** where he has been a very, very strong leader. He is ...

57. Congressional Record -- Senate, Tuesday, May 4, 1993 (Legislative day of Monday, April 19, 1993), 139 Cong Rec S 5337, Vol. 139 No. 60, DEPARTMENT OF THE ENVIRONMENT ACT OF 1993
103rd Cong. 1st Sess.
... problems -- air pollution, **global warming,** and marine protection -- can ...
... nations on the larger question of **global warming,** Cabinet rank for ...
... miners out of their jobs, **global-warming** activists want to keep the ...

58. Congressional Record -- Senate, Tuesday, May 4, 1993 (Legislative day of Monday, April 19, 1993), 139 Cong Rec S 5471, Vol. 139 No. 60, RELATIVE TO THE RESUMPTION OF COMMERCIAL WHALING
103rd Cong. 1st Sess.

... marine pollution, global **climate change,** and loss of whales' food ...

59. Congressional Record -- Extension of Remarks, Tuesday, May 4, 1993, 139 Cong Rec E 1125, Vol. 139 No. 60, SIXTH CONGRESSIONAL DISTRICT ESSAY CONTEST
103rd Cong. 1st Sess.
... issues and the mechanics of global **climate change.** When the system of market environmentalism ...
... a major cause of **global warming.** Although the funds would come from ...
... will dramatically slow **global warming** and create new jobs. ...

60. Congressional Record -- Daily Digest, Thursday, May 13, 1993, 139 Cong Rec D 509, Vol. 139 No. 67, Senate passed RTC Funding., HIGHLIGHTS
103rd Cong. 1st Sess.
... hearing on the Administration's Global **Climate Change** Policy, 10 a.m., ...
... Administration Views on Global **Climate Change,** 1:30 p.m., 2172 ...

61. Congressional Record -- Daily Digest, Monday, May 17, 1993, 139 Cong Rec D 525, Vol. 139 No. 69, Chamber Action
103rd Cong. 1st Sess.
... Administration Views on Global **Climate Change,** 1:30 p.m., 2172 ...

62. Congressional Record -- Daily Digest, Tuesday, May 18, 1993, 139 Cong Rec D 530, Vol. 139 No. 70, Chamber Action
103rd Cong. 1st Sess.
... Secretary of State. GLOBAL **CLIMATE CHANGE** Committee on Foreign Affairs: ...
... Administration Views on Global **Climate Change.** Testimony was heard from Tim ...

63. Congressional Record -- Senate, Thursday, May 20, 1993, 139 Cong Rec S 6204, Vol. 139 No. 72, ON MFN STATUS FOR CHINA
103rd Cong. 1st Sess.
... hope to make progress on **global warming;** if we hope to use the U.N. ...

64. Congressional Record -- Senate, Thursday, May 20, 1993, 139 Cong Rec S 6231, Vol. 139 No. 72, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Cong. 1st Sess.
... scientific evidence to back the **greenhouse effect.** "Stephen Schneider, a ...
... We've got to ride the **global warming** issue. Even if the theory of **global warming** is wrong, we will be doing the ...

65. Congressional Record -- Daily Digest, Friday, May 21, 1993, 139 Cong Rec D 559, Vol. 139 No. 73
103rd Cong. 1st Sess.
... hearing on the Administration's Global **Climate Change** Policy, 10 a.m., ...

66. Congressional Record -- Daily Digest, Tuesday, May 25, 1993, 139 Cong Rec D 574, Vol. 139 No. 75, Chamber

Action
103rd Cong. 1st Sess.
... hearing on the Administration's Global **Climate Change** Policy, 10 a.m., ...

67. Congressional Record -- Senate, Tuesday, May 11, 1993 (Legislative day of Monday, April 19, 1993), 139 Cong Rec S 5757, Vol. 139 No. 65, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Cong. 1st Sess.
... funds are used to combat **global warming,** ozone depletion, loss of ...
... Brazil last year, The **Climate Change** and Biodiversity Conventions accepted the ...

68. Congressional Record -- Daily Digest, Wednesday, May 26, 1993, 139 Cong Rec D 583, Vol. 139 No. 76 -- Part 2 No. 76, Chamber Action
103rd Cong. 1st Sess.
... hearing on the Administration's Global **Climate Change** Policy. Testimony was heard from ...

69. Congressional Record -- Senate, Friday, May 28, 1993, 139 Cong Rec S 6870, Vol. 139 No. 78, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Cong. 1st Sess.
... FURTHER DEPLETED AND GLOBAL **CLIMATE CHANGE** GROWS MORE PRONOUNCED? THE ...

70. Congressional Record -- Senate, Wednesday, June 9, 1993, 139 Cong Rec S 7028, Vol. 139 No. 81, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Cong. 1st Sess.
... ozone layer which is causing the **global warming.** If it warms up too much the ...

71. Congressional Record -- House, Wednesday, June 16, 1993, 139 Cong Rec H 3613, Vol. 139 No. 85, FOREIGN ASSISTANCE AUTHORIZATION ACT OF 1993
103rd Cong. 1st Sess.
... factors that may be contributing to **global warming** in the Earth's atmosphere; and "(...
... factors that may be contributing to **global warming** in the Earth's atmosphere; and "(...

72. Congressional Record -- House, Wednesday, June 16, 1993, 139 Cong Rec H 3657, Vol. 139 No. 85, STATE DEPARTMENT, USIA, AND RELATED AGENCIES AUTHORIZATION ACT, FISCAL YEARS 1994 AND 1995
103rd Cong. 1st Sess.
... famine, forest destruction, **global warming,** acid rain, and the pollution of the ...

73. Congressional Record -- House, Thursday, June 17, 1993, 139 Cong Rec H 3707, Vol. 139 No. 86, FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS APPROPRIATIONS ACT, 1994
103rd Cong. 1st Sess.
... four areas: First, **global warming,** second, biological diversity, ...
... AID biodiversity program and the **global warming** initiative are maintained, renewable ...
... a significant contribution to **global warming:** PROVIDED, That such assistance shall be ...

74. Congressional Record -- House, Thursday, June 17, 1993, 139 Cong Rec H 3749, Vol. 139 No. 86, FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS APPROPRIATIONS ACT, 1994
103rd Cong. 1st Sess.
... a significant contribution to **global warming:** PROVIDED, That such assistance shall be ...

75. Congressional Record -- Extension of Remarks, Thursday, June 17, 1993, 139 Cong Rec E 1541, Vol. 139 No. 86, INTERNATIONAL POPULATION STABILIZATION AND REPRODUCTIVE HEALTH ACT INTRODUCED
103rd Cong. 1st Sess.
... ANIMAL SPECIES, GLOBAL **CLIMATE CHANGE,** AND POLLUTION OF AIR, WATER, AND ...

76. Congressional Record -- House, Wednesday, June 23, 1993, 139 Cong Rec H 3925, Vol. 139 No. 90, ROEMER-ZIMMER AMENDMENT WOULD ELIMINATE SPACE STATION PROGRAM
103rd Cong. 1st Sess.
... data about global **climate change** were delayed for lack of ...

77. Congressional Record -- House, Monday, June 28, 1993, 139 Cong Rec H 4135, Vol. 139 No. 92, DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT, AND INDEPENDENT AGENCIES APPROPRIATIONS ACT, 1994
103rd Cong. 1st Sess.
... ozone layer and global **climate change** have been delayed. The satellite surveying ...
... in human dimensions of **climate change,** then certain management reforms ...

78. Congressional Record -- Senate, Tuesday, June 29, 1993 (Legislative day of Tuesday, June 22, 1993), 139 Cong Rec S 8207, Vol. 139 No. 93, ENERGY TAX POLICY
103rd Cong. 1st Sess.
... annual reduction in **greenhouse gas** emissions of 25 million ...
... President's commitment to return **greenhouse gas** emissions to 1990 levels ...

79. Congressional Record -- Senate, Tuesday, June 29, 1993 (Legislative day of Tuesday, June 22, 1993), 139 Cong Rec S 8221, Vol. 139 No. 93, THE FUTURE OF PUBLIC POWER IN AMERICA
103rd Cong. 1st Sess.
... unreasonable expense. Global **climate change** brought about by **greenhouse gas** emissions is the subject of continuing ...
... ideas will influence **global warming** debates unless we tell ...

80. Congressional Record -- House, Tuesday, June 29, 1993, 139 Cong Rec H 4189, Vol. 139 No. 93, The TEXT of this document exceeds 5,000 lines., AGRICULTURE, RURAL DEVELOPMENT, FOOD AND DRUG ADMINISTRATION, AND RELATED AGENCIES APPROPRIATIONS ACT, 1994
103rd Cong. 1st Sess.
... projects such as water quality, **climate change,** low-water tolerance ...

81. Congressional Record -- Senate, Wednesday, June 30, 1993, 139 Cong Rec S 8351, Vol. 139 No. 94, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

103rd Cong. 1st Sess.
... concerns over potential **climate change** prove justified. Renewable ...

82. Congressional Record -- House, Wednesday, June 30, 1993, 139 Cong Rec H 4392, Vol. 139 No. 94, NAFTA: WAGES AND PRODUCTIVITY
103rd Cong. 1st Sess.
... out of ground water. **Climate change,** harm to species and forests, ...

83. Congressional Record -- Senate, Thursday, July 1, 1993, 139 Cong Rec S 8413, THE ENERGY STAR PROGRAM
103rd Cong. 1st Sess.
... carbon dioxide, the primary **greenhouse gas,** by 20 million ...

84. Congressional Record -- House, Thursday, July 1, 1993, 139 Cong Rec H 4412, DEPARTMENTS OF COMMERCE, JUSTICE, AND STATE, THE JUDICIARY, AND RELATED AGENCIES APPROPRIATIONS ACT, 1994
103rd Cong. 1st Sess.
... IN OBSERVING GLOBAL **CLIMATE CHANGE** IN WAYS NOT ...

85. Congressional Record -- House, Wednesday, July 14, 1993, 139 Cong Rec H 4585, Vol. 139 No. 97, DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT, 1994
103rd Cong. 1st Sess.
... disposal. When it comes to the threat of **global warming,** pursuit of greater energy ...
... dealing with alternative fuels and **global warming.** That is also why I am disappointed that the Appropriations ...
... gases that may lead to **global warming.** According to recent DOE ...
... a baseline inventory of **greenhouse gas** emissions in the United ...
... Third, it is worse from a **global warming** perspective than all fossil fuels ...

86. Congressional Record -- Senate, Thursday, July 15, 1993 (Legislative day of Wednesday, June 30, 1993), 139 Cong Rec S 8752, Vol. 139 No. 98, SUPEREFFICIENT REFRIGERATORS
103rd Cong. 1st Sess.
... carbon dioxide, thereby reducing the **greenhouse effect.** The new refrigerators, which will ...

87. Congressional Record -- House, Friday, July 23, 1993, 139 Cong Rec H 5050, Vol. 139 No. 104, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AUTHORIZATION ACT, FISCAL YEARS 1994 AND 1995
103rd Cong. 1st Sess.
... research program -- and this is the predecessor of the **global warming** program -- we wrote into that bill, and ...
... problems created by **global warming,** this eminently qualified scientist should be ...
... programs in the entire **global warming** operation, and I ask ...

88. Congressional Record -- Daily Digest, Friday, July 23, 1993, 139 Cong Rec D 836, Vol. 139 No. 104, SENATE
103rd Cong. 1st Sess.
... help to prevent global **climate change,** as well as to provide sustainable and ...

89. Congressional Record -- Daily Digest, Wednesday, July 28, 1993, 139 Cong Rec D 860, Vol. 139 No. 107, House passed the National Community Service Act bill. House committees ordered reported 8 sundry measures., SENATE
103rd Cong. 1st Sess.
... help to prevent global **climate change,** as well as to provide sustainable and ...

90. Congressional Record -- Daily Digest, Friday, July 30, 1993, 139 Cong Rec D 881, Vol. 139 No. 109, Chamber Action
103rd Cong. 1st Sess.
... air pollution and global **climate change,** 9:45 a.m., 2123 ...

91. Congressional Record -- Senate, Thursday, July 29, 1993 (Legislative day of Wednesday, June 30, 1993), 139 Cong Rec S 9810, Vol. 139 No. 108, DEPARTMENT OF COMMERCE, JUSTICE, AND STATE, THE JUDICIARY, AND RELATED AGENCIES APPROPRIATIONS ACT OF 1994
103rd Cong. 1st Sess.
... for NOAA's Global **Climate Change** Research Program. NOAA is an ...

92. Congressional Record -- Daily Digest, Thursday, July 29, 1993, 139 Cong Rec D 875, Vol. 139 No. 108, Senate passed Commerce, Justice, State, Judiciary Appropriations, 1994., Senate
103rd Cong. 1st Sess.
... help to prevent global **climate change,** as well as to provide sustainable and ...

93. Congressional Record -- Extension of Remarks, Monday, August 2, 1993, 139 Cong Rec E 1938, Vol. 139 No. 110, THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION [NOAA] ATMOSPHERIC AND SATELLITE PROGRAM AUTHORIZATION ACT OF 1993
103rd Cong. 1st Sess.
... CONTRIBUTION TO THE U.S. GLOBAL **CLIMATE CHANGE** RESEARCH PROGRAM. IN ...
... TROPICAL STORMS (90%); **CLIMATE CHANGE** (90%); SCIENCE NEWS (...

94. Congressional Record -- Daily Digest, Tuesday, August 3, 1993, 139 Cong Rec D 899, Vol. 139 No. 111, Senate confirmed Ruth Bader Ginsburg as an Associate Justice of the Supreme Court. Senate passed National Community Service Act, and Treasury/Postal Service Appropriations, 1994., SENATE
103rd Cong. 1st Sess.
... air pollution and global **climate change,** followed by a ...

95. Congressional Record -- Daily Digest, Wednesday, August 4, 1993, 139 Cong Rec D 909, Vol. 139 No. 112, Senate passed Emergency Supplemental Appropriations/Disaster Assistance. House Committees ordered reported 10 sundry measures. House passed intelligence authorization bill., Chamber Action
103rd Cong. 1st Sess.
... AIR POLLUTION AND GLOBAL **CLIMATE CHANGE** Committee on Energy and Commerce: ...
... air pollution and global **climate change.** Testimony was heard from Robert ...

96. Congressional Record -- Daily Digest, Wednesday, August 4, 1993, 139 Cong Rec D 909, Vol. 139 No. 112 -- Part

II, Senate passed Emergency Supplemental Appropriations/Disaster Assistance. House Committees ordered reported 10 sundry measures. House passed intelligence authorization bill., Chamber Action
103rd Cong. 1st Sess.
... AIR POLLUTION AND GLOBAL **CLIMATE CHANGE** Committee on Energy and Commerce: ...
... air pollution and global **climate change.** Testimony was heard from Robert ...

97. Congressional Record -- Senate, Friday, August 6, 1993, 139 Cong Rec S 10961, Vol. 139 No. 114, REDEEMING THE ENVIRONMENTALISTS
103rd Cong. 1st Sess.
... CARBON EMISSIONS PRODUCING **GLOBAL WARMING** -- ALL SOUND THE WARNING. IN THE ...

98. Congressional Record -- Extension of Remarks, Friday, August 6, 1993, 139 Cong Rec E 2051, Vol. 139 No. 114, NATIONAL INSTITUTE FOR THE ENVIRONMENT STATEMENT
103rd Cong. 1st Sess.
... GLOBAL ENVIRONMENTAL PROBLEMS SUCH AS **CLIMATE CHANGE,** STRATOSPHERIC OZONE DEPLETION, AND THE ...

99. Congressional Record -- Extension of Remarks, Friday, August 6, 1993, 139 Cong Rec E 2074, Vol. 139 No. 114, LEGISLATION INTRODUCED TO ESTABLISH THE NATIONAL INSTITUTE FOR THE ENVIRONMENT
103rd Cong. 1st Sess.
... OZONE LAYER, AND GLOBAL **CLIMATE CHANGE** -- BECOME PRIORITIES DUE TO ...
... PUBLIC POLICY (59%); **CLIMATE CHANGE** (59%); SCIENCE NEWS (...

100. Congressional Record -- Senate, Friday, September 10, 1993, 139 Cong Rec S 11365, Vol. 139 No. 118, NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 1994
103rd Cong. 1st Sess.
... environmental issues such as global **climate change** and ozone depletion. So we must ...

101. Congressional Record -- Senate, Tuesday, September 14, 1993, 139 Cong Rec S 11629, Vol. 139 N, INTERIOR APPROPRIATIONS ACT OF 1994
103rd Cong. 1st Sess.
... even raised the issue of the **global warming,** although I could make ...

102. Congressional Record -- Senate, Wednesday, September 15, 1993, 139 Cong Rec S 11935, Vol. 139 No. 121, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Cong. 1st Sess.
... BURGEONING NUMBERS AS WELL. FROM **GLOBAL WARMING** TO STARVATION, ILLEGAL IMMIGRATION TO ...

103. Congressional Record -- Senate, Wednesday, September 22, 1993, 139 Cong Rec S 12179, Vol. 139 No. 125, DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT APPROPRIATIONS ACT FOR FISCAL YEAR 1994
103rd Cong. 1st Sess.

... Legislation Related to Global **Climate Change,** University of Maryland Center ...
... monitoring the global status of **climate change,** biological diversity ad ...

104. Congressional Record -- Senate, Wednesday, September 22, 1993, 139 Cong Rec S 12206, Vol. 139 No. 125, FOREIGN OPERATIONS APPROPRIATIONS ACT OF 1994
103rd Cong. 1st Sess.
... ACTIVITIES ASSOCIATED WITH THE GEF AND THE **GLOBAL WARMING** INITIATIVE. LIMITATION ON CALLABLE ...
... a significant contribution to **global warming:** PROVIDED, That such assistance shall be ...

105. Congressional Record -- Senate, Thursday, September 23, 1993, 139 Cong Rec S 12311, Vol. 139 No. 126, FOREIGN OPERATIONS APPROPRIATIONS ACT OF 1994
103rd Cong. 1st Sess.
... a Framework Convention on **Climate Change.** Later this year delegates ...

106. Congressional Record -- House, Tuesday, September 28, 1993, 139 Cong Rec H 7159, Vol. 139 No. 129, CONFERENCE REPORT ON H.R. 2295
103rd Cong. 1st Sess.
... ACTIVITIES ASSOCIATED WITH THE GEF AND THE **GLOBAL WARMING** INITIATIVE; and the Senate agree to the ...

107. Congressional Record -- Senate, Wednesday, September 29, 1993, 139 Cong Rec S 12674, Vol. 139 No. 130, ENERGY AND WATER APPROPRIATIONS ACT OF 1994
103rd Cong. 1st Sess.
... Environmental issues, such as global **climate change,** will play an important ...

108. Congressional Record -- Senate, Thursday, September 30, 1993, 139 Cong Rec S 12768, Vol. 139 No. 131, ENERGY AND WATER APPROPRIATIONS ACT OF 1994
103rd Cong. 1st Sess.
... carbon dioxide which could contribute to the **greenhouse effect,** and no oxides of sulphur or ...

109. Congressional Record -- House, Monday, October 4, 1993, 139 Cong Rec H 7364, Vol. 139 No. 132, CONFERENCE REPORT ON H.R. 2491, DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT AND INDEPENDENT AGENCIES APPROPRIATIONS ACT, 1994
103rd Cong. 1st Sess.
... for the Human Dimensions of **Climate Change** at a level of approximately $ ...
... for the Human Dimensions of **Climate Change** at a level of approximately $ ...

110. Congressional Record -- Extension of Remarks, Tuesday, October 12, 1993, 139 Cong Rec E 2397, Vol. 139 No. 136, INTRODUCTION OF THE NATIONAL SCIENCE FOUNDATION AUTHORIZATION ACT OF 1993
103rd Cong. 1st Sess.
... IMPORTANCE, INCLUDING GLOBAL **CLIMATE CHANGE** RESEARCH, HIGH PERFORMANCE ...

111. Congressional Record -- House, Friday, October 15, 1993, 139 Cong Rec H 8035, Vol. 139 No. 139, CONFERENCE REPORT ON H.R. 2520
103rd Cong. 1st Sess.
... preparation for the collection of **greenhouse gas** data. ADMINISTRATIVE PROVISIONS, ...

112. Congressional Record -- Extension of Remarks, Monday, October 18, 1993, 139 Cong Rec E 2464, Vol. 139 No. 140, GO PHILLIES
103rd Cong. 1st Sess.
... Action Plan on Global **Climate Change.** SD-406 2:30 ...

113. Congressional Record -- Extension of Remarks, Wednesday, October 20, 1993, 139 Cong Rec E 2496, Vol. 139 No. 142, SENATE COMMITTEE MEETINGS
103rd Cong. 1st Sess.
... Action Plan on Global **Climate Change.** SD-406 Foreign ...
... FORESTS & WOODLANDS (89%); **CLIMATE CHANGE** (89%); US ENVIRONMENTAL LAW (...

114. Congressional Record -- Senate, Thursday, October 21, 1993, 139 Cong Rec S 14207, Vol. 139 No. 143, ADDITIONAL STATEMENTS; CHINA TRIP REPORT
103rd Cong. 1st Sess.
... WORLD'S LARGEST CONTRIBUTOR TO **GLOBAL WARMING.** THE YELLOW SEA IS SERIOUSLY ...
... POSSIBLE TO ACID RAIN AND **GLOBAL WARMING.** MASS TRANSIT -- FOURTEEN ...

115. Congressional Record -- Daily Digest, Thursday, October 21, 1993, Vol. 139 No. 143, Routine Proceedings, pages S14039-S14229
103rd Cong. 1st Sess.
... Action Plan on Global **Climate Change,** 10 a.m., SD- ...
... pollutants associated with global **climate change,** 1 p.m., 2123 ...

116. Congressional Record -- Daily Digest, Monday, October 25, 1993, 139 Cong Rec D 1187, Vol. 139 No. 145, SENATE
103rd Cong. 1st Sess.
... Action Plan on Global **Climate Change,** 10 a.m., SD- ...
... pollutants associated with global **climate change,** 1 p.m., 2123 ...

117. Congressional Record -- Senate, Tuesday, October 26, 1993, 139 Cong Rec S 14438, Vol. 139 No. 146, AUTHORITY FOR COMMITTEES TO MEET
103rd Cong. 1st Sess.
... action plan on global **climate change.** The PRESIDING OFFICER. Without ...

118. Congressional Record -- House, Tuesday, October 26, 1993, 139 Cong Rec H 8461, Vol. 139 No. 146, NATIONAL BIOLOGICAL SURVEY ACT OF 1993
103rd Cong. 1st Sess.
... trade and travel, and, possibly, **climate change** propel species' movements. ...

119. Congressional Record -- Extension of Remarks, Tuesday, October 26, 1993, 139 Cong Rec E 2544, Vol. 139 No. 146, THE 30TH ANNIVERSARY OF BIOLOGY, BIOTECHNOLOGY, AND ENVIRONMENTAL SCIENCES PROGRAMS
103rd Cong. 1st Sess.
... EVALUATE QUANTITATIVELY THE POTENTIAL **GREENHOUSE EFFECTS** ON THE BIOSPHERE; PLAYED A ...

120. Congressional Record -- Extension of Remarks, Tuesday, October 26, 1993, 139 Cong Rec E 2545, Vol. 139 No. 146, A BANNER YEAR -- 1992 -- FOR THE AMERICAN NUCLEAR ENERGY INDUSTRY
103rd Cong. 1st Sess.
... POWER PLANTS (90%); **CLIMATE CHANGE** (90%); EXPORT TRADE (...

121. Congressional Record -- Daily Digest, Tuesday, October 26, 1993, 139 Cong Rec D 1191, Vol. 139 No. 146, House Committees ordered reported 10 sundry measures., Chamber Action
103rd Cong. 1st Sess.
... Washington, D.C. GLOBAL **CLIMATE CHANGE** Hearings were recessed subject to ...
... POLLUTANTS ASSOCIATED WITH GLOBAL **CLIMATE CHANGE** Committee on Energy and Commerce: ...
... pollutants associated with global **climate change.** Testimony was heard from Rafe ...

122. Congressional Record -- Senate, Wednesday, October 27, 1993, 139 Cong Rec S 14488, Vol. 139 No. 147, UNEMPLOYMENT COMPENSATION AMENDMENTS OF 1993
103rd Cong. 1st Sess.
... science programs studying the **greenhouse effect** at NASA. I do not ...

123. Congressional Record -- Senate, Wednesday, October 27, 1993, 139 Cong Rec S 14544, Vol. 139 No. 147, AUTHORITY FOR COMMITTEES TO MEET
103rd Cong. 1st Sess.
... Action Plan on Global **Climate Change.** The PRESIDING OFFICER. Without ...

124. Congressional Record -- Extension of Remarks, Thursday, October 28, 1993, 139 Cong Rec E 2718, Vol. 139 No. 148, CHICKEN LITTLE?
103rd Cong. 1st Sess.
... debate over so-called **greenhouse gas** emissions, which was given new ...
... announcing the plan declared that "**climate change** is the highest-risk environmental ...
... Nations Framework Convention on **Climate Change** at the Rio environmental summit ...
... national policies to reduce **greenhouse gas** emissions. In other ...
... benefit of the doubt, the predictions of **global warming** have been pretty scary and, if true, ...
... true? Despite its complexity, the **global warming** scare can be boiled ...
CLIMATE CHANGE (90%); EMISSIONS (90%); PUBLIC POLICY (89%); **GLOBAL WARMING** (89%);

125. Congressional Record -- Daily Digest, Thursday, October 28, 1993, 139 Cong Rec D 1211, Vol. 139 No. 148, . . Senate passed Unemployment Compensation.
103rd Cong. 1st Sess.
... Cambridge, Massachusetts. . GLOBAL **CLIMATE CHANGE** . Committee on Energy and Natural ...

... hearings to examine the Administration's **Climate Change** Action Plan to reduce **greenhouse gas** emissions to 1990 levels ...

126. Congressional Record -- House, Monday, November 1, 1993, 139 Cong Rec H 8664, Vol. 139 No. 150, TEN REASONS TO SUPPORT NAFTA
103rd Cong. 1st Sess.
... cooperation including problems such as **global warming,** the extinction of endangered species, ...

127. Congressional Record -- Extension of Remarks, Wednesday, November 3, 1993, 139 Cong Rec E 2750, Vol. 139 No. 152, INTRODUCTION OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION ACT (H.R. 3425)
103rd Cong. 1st Sess.
... GOVERNMENTS ON OCEAN DUMPING, **GLOBAL WARMING,** AND MANY OTHER CRITICAL ...

128. Congressional Record -- Extension of Remarks, Wednesday, November 3, 1993, 139 Cong Rec E 2762, Vol. 139 No. 152, LET THE CRY FOR JUSTICE SPREAD FAR AND WIDE
103rd Cong. 1st Sess.
... effort to ameliorate the worsening **greenhouse effect.** The United Nations launched ...

129. Congressional Record -- Extension of Remarks, Wednesday, November 3, 1993, 139 Cong Rec E 2770, Vol. 139 No. 152, ELEVATION OF EPA TO CABINET STATUS
103rd Cong. 1st Sess.
... NATIONS FRAMEWORK CONVENTION ON **CLIMATE CHANGE,** THE PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ...
... NEGOTIATIONS ON ISSUES SUCH AS GLOBAL **CLIMATE CHANGE** AND OZONE DEPLETION." DESPITE THE ...
... WILDLIFE ORGANIZATIONS (79%); **CLIMATE CHANGE** (79%); TREATIES & AGREEMENTS (...

130. Congressional Record -- House, Tuesday, November 9, 1993, 139 Cong Rec S 15463, Vol. 139 No. 156 -- Part 2, NEW OPPORTUNITIES FOR ENVIRONMENTAL POLICY
103rd Cong. 1st Sess.
... big to see, like **global warming** -- and you've taken on the things that are too ...

131. Congressional Record -- Senate No. 157, Wednesday, November 10, 1993 (Legislative day of Tuesday, November 2, 1993), 139 Cong Rec S 15569, Vol. 139 No. 157, INTELLIGENCE AUTHORIZATION ACT FOR FISCAL YEAR 1994
103rd Cong. 1st Sess.
... things as whale migration and **climate change,** data collected by ...

132. Congressional Record -- Daily Digest, Wednesday, November 10, 1993, 139 Cong Rec D 1285, Vol. 139 No. 157, SENATE
103rd Cong. 1st Sess.
... continue hearings on Global **Climate Change,** 10 a.m., room to be ...
... November 16, hearing on **Climate Change** Action Plan and Assessment, ...

133. Congressional Record -- House No. 158, Monday, November 15, 1993, 139 Cong Rec H 9574, Vol. 139 No. 158, FEDERAL EMPLOYEES CLEAN AIR INCENTIVES ACT
103rd Cong. 1st Sess.
... President Clinton released his **climate change** action plan which is intended to return the U.S. **greenhouse gas** emissions to 1990 levels ...

134. Congressional Record -- Daily Digest, Monday, November 15, 1993, 139 Cong Rec D 1301, Vol. 139 No. 158, Chamber Action Senate was not in session today. It will next meet on Tuesday, November 16, 1993, at 8 a.m. Committee Meetings
103rd Cong. 1st Sess.
... continue hearings on Global **Climate Change,** following full Committee, ...
... SPACE, AND TECHNOLOGY, hearing on **Climate Change** Action Plan and Assessment, ...

135. Congressional Record -- House, Wednesday, November 17, 1993, 139 Cong Rec H 10048, Vol. 139 No. 160 -- Part 2, The TEXT of this document exceeds 10,000 lines., NORTH AMERICAN FREE-TRADE AGREEMENT IMPLEMENTATION ACT
103rd Cong. 1st Sess.
... made goods producing **greenhouse gas** emissions would generally be consistent with ...
... new multilateral agreement on **climate change** contains trade obligations, it could be ...
... environmental problems such as global **climate change** might well be found to be ...
... likely pact for **climate change** -- could be found to violate the NAFTA and be ...
... trade restrictions, however, a **climate change** agreement would likely be ineffective. ...

136. Congressional Record -- Senate No. 159, Tuesday, November 16, 1993, 139 Cong Rec S 15776, Vol. 139 No. 159, NOTABLE QUOTABLES
103rd Cong. 1st Sess.
... TAX HIKES "When Clinton's '**Climate Change** Action Plan' finally ...

137. Congressional Record -- Daily Digest, Tuesday, November 16, 1993, 139 Cong Rec D 1307, Vol. 139 No. 159, Senate passed Freedom of Access to Medical Clinic Entrances., SENATE
103rd Cong. 1st Sess.
... continue tomorrow. GLOBAL **CLIMATE CHANGE** Committee on Energy and Commerce: ...
... concluded hearings on Global **Climate Change.** Testimony was heard from public ...
... forms of incarceration and probation. **CLIMATE CHANGE** ACTION PLAN AND ASSESSMENT ...
... Held a hearing on **Climate Change** Action Plan and Assessment. ...

138. Congressional Record -- House, Monday, November 22, 1993, 139 Cong Rec H 10729, Vol. 139 No. 165, The TEXT of this document exceeds 10,000 lines., GOVERNMENT REFORM AND SAVINGS ACT OF 1993
103rd Cong. 1st Sess.
... contribute to acid rain and **global warming** both of which would be major benefits to our ...

139. Congressional Record -- Extension of Remarks, Tuesday, November 23, 1993, 139 Cong Rec E 3023, Vol. 139 No. 166, LEGISLATION INTRODUCED URGING INCREASED RELIANCE ON ENERGY CONSERVATION AND RENEWABLE ENERGY

103rd Cong. 1st Sess.
... HELP MEET THE PRESIDENT'S **CLIMATE CHANGE** ACTION PLAN [CCAP], WHICH SEEKS TO REDUCE **GLOBAL WARMING** POTENTIAL BY STABILIZING **GREENHOUSE GAS** EMISSIONS AT THEIR 1990 LEVELS. ...
... CAN HELP MEET OUR **GLOBAL WARMING** COMMITMENTS. IF EVERY ORGANIZATION ...

140. Congressional Record -- Extension of Remarks, Wednesday, November 24, 1993, 139 Cong Rec E 3068, Vol. 139 No. 167, NUCLEAR POWER'S CONTRIBUTION TO A CLEANER WORLD ENVIRONMENT
103rd Cong. 1st Sess.
... NO CHANCE OF STABILIZING **GREENHOUSE GAS** EMISSIONS AT 1990 LEVELS ...

141. Congressional Record -- Senate, Saturday, November 20, 1993, 139 Cong Rec S 16719, Vol. 139 No. 163, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Cong. 1st Sess.
... patterns of energy use on **global warming,** acid rain, and other ...

142. Congressional Record -- House, Saturday, November 20, 1993, 139 Cong Rec H 10340, Vol. 139 No. 163, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, ATMOSPHERIC AND SATELLITE PROGRAM AUTHORIZATION ACT OF 1993
103rd Cong. 1st Sess.
... contribution to the U.S. Global **Climate Change** Research Program. In ...

143. Congressional Record -- Extension of Remarks No. 162 No. 162, Friday, November 19, 1993, 139 Cong Rec E 2949, Vol. 139 No. 162, INTRODUCTION OF THE ANTARCTIC ENVIRONMENTAL PROTECTION ACT OF 1993
103rd Cong. 1st Sess.
... PROVIDE AN EARLY WARNING OF **CLIMATE CHANGE.** THE 2-MILE THICK ...
... ADVANCE OUR UNDERSTANDING OF GLOBAL **CLIMATE CHANGE** AND TO MONITOR THE ENVIRONMENTAL EFFECTS OF ...

144. CONGRESSIONAL RECORD -- Extension of Remarks, Wednesday, February 2, 1994 , 140 Cong Rec E 82, Vol. 140 No. 7, FEDERAL ENERGY RESEARCH PRIORITIES ACT
103rd Congress 2nd Session
... FACE, LIKE GLOBAL **CLIMATE CHANGE,** AND THE NEW SOLUTIONS WE ARE DEVELOPING, ...

145. CONGRESSIONAL RECORD -- Senate, Friday, February 4, 1994 (Legislative day of Tuesday, January 25, 1994), 140 Cong Rec S 846, Vol. 140 No. 9, UNANIMOUS-CONSENT AGREEMENT
103rd Congress 2nd Session
... facing the world? (1) **global warming;** (2) hunger; (3) ...

146. CONGRESSIONAL RECORD -- Senate, Thursday, March 3, 1994 (Legislative day of Tuesday, February 22, 1994), 140 Cong Rec S 2323, Vol. 140 No. 22, THE PROPOSED RENEWABLE OXYGENATE REQUIREMENT
103rd Congress 2nd Session

... GAS INDUSTRY (89%); **CLIMATE CHANGE** (89%); IMPORT TRADE (...

147. CONGRESSIONAL RECORD -- Senate, Thursday, March 3, 1994 (Legislative day of Tuesday, February 22, 1994), 140 Cong Rec S 2323, Vol. 140 No. 22, RENEWABLE FUELS
103rd Congress 2nd Session
... says ethanol increases **greenhouse gas** emissions; that is, CO 2 . That is ...
... carbon monoxide, the main **greenhouse gas,** by 27.5 percent. ...

148. CONGRESSIONAL RECORD -- House, Thursday, March 3, 1994 , 140 Cong Rec H 1002, Vol. 140 No. 22, GLOBAL WARMING-LET US PUT IT IN PERSPECTIVE
103rd Congress 2nd Session
... sure is on everybody's mind, **global warming.** I say this with tongue ...
... snowstorm here that the blistering apocalypse of **global warming** is putting everything in ...
... equally ridiculous claims of **global warming** have been made based on short- ...
GLOBAL WARMING (92%); WEATHER (90%);

149. CONGRESSIONAL RECORD -- Daily Digest, Thursday, March 3, 1994 , 140 Cong Rec D 189, Vol. 140 No. 22, SENATE Chamber Action Routine Proceedings, pages S2311-S2351 Measures Introduced: Two bills were introduced, as follows: S. 1887-1888. Page S2345 Measures Reported: Reports were made as follows: S. 1224, to prohibit an agency, or entity, that receives Federal assistance and is involved in adoption or foster care programs from delaying or denying the placement of a child based on the race, color, or national origin of the child or adoptive or foster parent or parents involved, with an amendment in the nature of a substitute. Page S2345 Messages From the President: Senate received the following messages from the President of the United States: Transmitting the report on the national emergency with Iraq; referred to the Committee on Banking, Housing, and Urban Affairs. (PM-93). Pages S2342-44 Nominations Received: Senate received the following nominations: Joe Scroggins, Jr., of Florida, to be a Federal Maritime Commissioner. 1 Army nomination in the rank of lieutenant general. 1 Army nomination in the rank of Chief, Army Reserve, United States Army. 5 Navy nominations in the rank of rear admiral. Pages S2350-51 Messages From the President: Pages S2342-44 Messages From the House: Page S2344 Petitions: Pages S2344-45 Statements on Introduced Bills: Pages S2345-47 Additional Cosponsors: Pages S2347-48 Notices of Hearings: Page S2348 Authority for Committees: Page S2348 Additional Statements: Pages S2348-50 Recess: Senate convened at 10 a.m., and recessed at 3:50 p.m., until 12:30 p.m., on Monday, March 7, 1994. (For Senate's program, see the remarks of the Majority Leader in today's Record on page S2350.)
103rd Congress 2nd Session
... oceans in global **climate change,** 2:30 p.m., SD- ...

150. CONGRESSIONAL RECORD -- Senate, Wednesday, March 2, 1994 (Legislative day of Tuesday, February 22, 1994), 140 Cong Rec S 2306, Vol. 140 No. 21, NOTICES OF HEARINGS
103rd Congress 2nd Session
... oceans in global **climate change.** The hearing will take ...

151. CONGRESSIONAL RECORD -- Extension of Remarks, Monday, April 11, 1994 , 140 Cong Rec E 605, Vol. 140 No. 37, SENATE COMMITTEE MEETINGS
103rd Congress 2nd Session
... examine implementation of the Administration's **Climate Change** Action Plan and issues ...
... may result from potential **climate change.** SD-406 10:00 ...

152. CONGRESSIONAL RECORD -- Daily Digest, Monday, April 11, 1994 , 140 Cong Rec D 343, Vol. 140 No. 37, SENATE Chamber Action Routine Proceedings, pages S4049-S4089 Measures Introduced: Three bills were introduced, as follows: S. 2007-2009. Page S4076 Measures Reported: Reports were made as follows: Reported on Tuesday, April 5, during the adjournment: S. 1814, to amend the Internal Revenue Code of 1986 to provide that a taxpayer may elect to include in income crop insurance proceeds and disaster payments in the year of the disaster or in the following year, with amendments. (S. Rept. No. 103-244) S. 859, to reduce the restrictions on lands conveyed by deed under the Act of June 8, 1926, with an amendment in the nature of a substitute. (S. Rept. No. 103-245) H.R. 1305, to make boundary adjustments and other miscellaneous changes to authorities and programs of the National Park Service, with an amendment in the nature of a substitute. (S. Rept. No. 103-246) H.R. 2947, to extend for an additional two years the authorization of the Black Revolutionary War Patriots Foundation to establish a memorial, with amendments. (S. Rept. No. 103-247) Reported today: S. 318, to provide for the energy security of the Nation through encouraging the production of domestic oil and gas resources in deep water on the Outer Continental Shelf in the Gulf of Mexico, with amendments. (S. Rept. No. 103-248) Page S4076 California Desert Protection Act: Senate began consideration on the motion to proceed to the consideration of S. 21, to designate certain lands in the California desert as wilderness, and to establish Death Valley, Joshua Tree, and Mojave National Parks. Pages S4054-61, S4063-68 By unanimous consent the vote on the motion to invoke cloture on the motion to proceed was vitiated and the Senate will begin consideration of the bill on Tuesday, April 12, 1994 at 10 a.m. Page S4087 Measure Indefinitely Postponed: Federal Workforce Restructuring Act: Senate indefinitely postponed S. 1535, to amend title 5, United States Code, to eliminate narrow restrictions on employee training, and to provide a temporary voluntary separation incentive. Page S4087 Appointments: Mexico-United States Interparliamentary Group: The Chair, on behalf of the Vice President, pursuant to 22 U.S.C. 276h-276k, as amended, appointed Senator Coverdell as Vice Chairman of the Senate Delegation to the Mexico-United States Interparliamentary Group during the Second Session of the 103d Congress, vice Senator Gramm. Page S4068 Nominations Received: Senate received the following nominations: Carol Jones Carmody, of Louisiana, for the rank of Minister during her tenure of service as Representative of the United States of America on the Council of the International Civil Aviation Organization. Peter R. Chaveas, of Pennsylvania, a Career Member of the Senior Foreign Service, Class of Minister-Counselor, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to the Republic of Malawi. Myles Robert Rene Frechette, of Maryland, a Career Member of the Senior Foreign Service, Class of Minister-Counselor, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to the Republic of Columbia. Donna Jean Hrinak, of Virginia, a Career Member of the Senior Foreign Service, Class of Minister-Counselor, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to the Dominican Republic. Joseph Edward Lake, of Texas, a Career Member of the Senior Foreign Service, Class of Minister-Counselor, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to the Republic of Albania. Johnny Young, of Pennsylvania, a Career Member of the Senior Foreign Service, Class of Minister-Counselor, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to the Republic of Togo. Bonnie O'Day, of Massachusetts, to be a Member of the National Council on Disability for a term expiring September 17, 1995, vice George H. Oberle, Jr., term expired. Leo J. O'Donovan, of the District of Columbia, to be a Member of the National Council on the Arts for a term expiring September 3, 1998, vice David N. Baker, term expired. Judity O. Rubin, of New York, to be a member of the National Council on the Arts for a term expiring September 3, 1998, vice Sally Brayley Bliss, term expired. Rhonda Reid Winston, of the District of Columbia, to be an Associate Judge of the Superior Court of the District of Columbia for a term of fifteen years, vice Peter Henry Wolf, term expired. 5 Air Force nominations in the rank of general. 2 Army nominations in the rank of general. 1 Navy nomination in the rank of admiral. Routine lists in the Coast Guard, NOAA, and Air Force. Pages S4087-89 Messages From the President: Page S4075 Messages From the House: Page S4075 Measures Placed on Calendar: Page S4075 Communications: Pages S4075-76 Statements on Introduced Bills: Pages S4076-82 Additional Cosponsors: Page S4083 Notices of Hearings: Page S4084 Authority for Committees: Page S4084 Additional Statements: Page S4085 Text of S. 1569 as Previously Passed: Pages S4068-75 Recess: Senate convened at 1 p.m., and recessed at 5:36 p.m., until 10 a.m., on Tuesday, April 12, 1994. (For Senate's program, see the remarks of the Acting Majority Leader in today's Record on page S4087.)

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... examine implementation of the Administration's **Climate Change** Action Plan and issues ...

... may result from potential **climate change,** 9:30 a.m., SD- ...

153. CONGRESSIONAL RECORD -- Senate, Thursday, February 10, 1994 (Legislative day of Tuesday, January 25, 1994), 140 Cong Rec S 1350, Vol. 140 No. 13, REDUCTION IN SPENDING ON FEDERAL BUILDINGS
103rd Congress 2nd Session
... satellite to support global **climate change** research and national security. The ...

154. CONGRESSIONAL RECORD -- Senate, Thursday, February 10, 1994 (Legislative day of Tuesday, January 25, 1994), 140 Cong Rec S 1350, Vol. 140 No. 13, REDUCTION IN SPENDING ON FEDERAL BUILDINGS
103rd Congress 2nd Session
... satellite to support global **climate change** research and national security. The ...

155. CONGRESSIONAL RECORD -- Senate, Tuesday, February 22, 1994 , 140 Cong Rec S 1618, Vol. 140 No. 15, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Congress 2nd Session
... biological diversity and global **climate change,** as well as efforts to address ...

156. CONGRESSIONAL RECORD -- Extension of Remarks, Wednesday, Arpil 19, 1994 , 140 Cong Rec E 707, Vol. 140 No. 43, DAN WATERS, GENERAL MANAGER OF THE LOS ANGELES DEPARTMENT OF WATER AND POWER, RETIRES
103rd Congress 2nd Session
... ADDRESS THE THREAT OF GLOBAL **CLIMATE CHANGE.** HE ALSO IMPLEMENTED SEVERAL INNOVATIVE ...

157. CONGRESSIONAL RECORD -- Senate, Thursday, March 10, 1994 (Legislative day of Tuesday, February 22, 1994), 140 Cong Rec S 2731, Vol. 140 No. 26, NATIONAL COMPETITIVENESS ACT
103rd Congress 2nd Session
... environment. However, as the world political **climate changes** with the end of the Cold War, the ...

158. CONGRESSIONAL RECORD -- Senate, Thursday, April 14, 1994 (Legislative day of Monday, April 11, 1994), 140 Cong Rec S 4352, Vol. 140 No. 40, AUTHORITY FOR COMMITTEES TO MEET
103rd Congress 2nd Session
... examine implementation of the administration's **climate change** action plan and issues ...
... may result from potential **climate change.** The PRESIDING OFFICER. Without ...

159. CONGRESSIONAL RECORD -- Daily Digest, Thursday, April 14, 1994 , 140 Cong Rec D 375, Vol. 140 No. 40, SENATE Chamber Action Routine Proceedings, pages S4275-S4380 Measures Introduced: Eight bills and two resolutions were introduced, as follows: S. 2016-2023, and S.J. Res. 180 and 181. Page S4334 Measures Reported: Reports were made as follows: S. 1341, to establish the Wheeling National Heritage Area in the State of West Virginia, with an amendment in the nature of a substitute. (S. Rept. No. 103-249) S. 2019, to reauthorize and amend title XIV of the Public Health Service Act (commonly known as the "Safe Drinking Water Act"). (S. Rept. No. 103-250) S. 1904, to amend title 38, United States Code, to improve the organization and procedures of the Board of Veterans' Appeals, with amendments. Page S4334 Measures Passed: Capitol Preservation Commission/Executive Secretary: Senate passed S.J.

Res. 180, to provide for the appointment of an executive secretary for the United States Capitol Preservation Commission. Page S4357 Temporary Duty Suspension: Senate passed H.R. 4066, to suspend temporarily the duty on the personal effects of participants in, and certain other individuals associated with, the 1994 World Cup Soccer Games, the 1994 World Rowing Championships, the 1995 Special Olympics World Games, the 1996 Summer Olympics, and the 1996 Paralympics, clearing the measure for the President. Pages S4378-79 Bankruptcy Amendments Act-Agreement: A unanimous-consent agreement was reached providing for the consideration of S. 540, to improve the administration of the bankruptcy system, address certain commercial issues and consumer issues in bankruptcy, and establish a commission to study and make recommendations on problems with the bankruptcy system, on Tuesday, April 19. Page S4357 Appointments: Federal Council on the Aging: The Chair, on behalf of the President pro tempore, pursuant to Public Law 93-29, as amended by Public Laws 98-459 and 102-375, reappointed Rudolph Cleghorn, of Oklahoma, and Stephen M. Farnham, of Maine, to the Federal Council on the Aging, each to a three-year term. Page S4374 Nominations Confirmed: Senate confirmed the following nominations: By 61 yeas to 37 nays (Vote No. 92), Rosemary Barkett, of Florida, to be United States Circuit Judge for the Eleventh Circuit. Pages S4281-90, S4292-98, S4299-S4326 Larry Brown, Jr., of Maryland, to be a Member of the National Council on Disability for a term expiring September 17, 1995. Mary Lucille Jordan, of Maryland, to be a Member of the Federal Mine Safety and Health Review Commission for the remainder of the term expiring August 30, 1996. Shirley Mahaley Malcom, of Maryland, to be a Member of the National Science Board, National Science Foundation, for a term expiring May 10, 1998. Martha B. Gould, of Nevada, to be a Member of the National Commission on Libraries and Information Science for a term expiring July 19, 1997. Gary N. Sudduth, of Minnesota, to be a Member of the National Commission on Libraries and Information Science for a term expiring July 19, 1997. Frank J. Lucchino, of Pennsylvania, to be a Member of the National Commission on Libraries and Information Science for a term expiring July 19, 1998. Bobby L. Roberts, of Arkansas, to be a Member of the National Commission on Libraries and Information Science for a term expiring July 19, 1998. Alexander Fletcher Watson, of Massachusetts, to be a Member of the Board of Directors of the Inter-American Foundation for a term expiring September 20, 1996. Rodney A. McCowan, of Oklahoma, to be Assistant Secretary for Human Resources and Administration, Department of Education. Robert S. Willard, of Ohio, to be a Member of the National Commission on Libraries and Information Science for the remainder of the term expiring July 19, 1994. Robert S. Willard, of Ohio, to be a Member of the National Commission on Libraries and Information Science for a term expiring July 19, 1999. Routine lists in the Public Health Service. Pages S4378, S4380 Nominations Received: Senate received the following nominations: Rachelle B. Chong, of California, to be a Member of the Federal Communications Commission for a term of five years from July 1, 1992. Susan Ness, of Maryland, to be a Member of the Federal Communications Commission for the remainder of the term expiring June 30, 1994. Susan Ness, of Maryland, to be a Member of the Federal Communications Commission for a term of five years from July 1, 1994. Cynthia A. Metzler, of the District of Columbia, to be an Assistant Secretary of Labor. Ronald K. Noble, of New York, to be Under Secretary of the Treasury for Enforcement. Raymond G. Romero, of Illinois, to be an Assistant Secretary of Transportation. Alan Sagner, of New Jersey, to be a Member of the Board of Directors of the Corporation for Public Broadcasting for the remainder of the term expiring January 31, 1998. Dharmendra K. Sharma, of California, to be Administrator of the Research and Special Programs Administration, Department of Transportation. 4 Army nominations in the rank of general. 19 Navy nominations in the rank of admiral. A routine list in the Coast Guard. Pages S4379-80 Messages From the House: Page S4333 Measures Referred: Page S4333 Communications: Pages S4333-34 Executive Reports of Committees: Page S4334 Statements on Introduced Bills: Pages S4334-50 Additional Cosponsors: Pages S4350-51 Notices of Hearings: Pages S4351-52 Authority for Committees: Page S4352 Additional Statements: Pages S4352-57 Record Votes: One record vote was taken today. (Total-92) Page S4326 Recess: Senate convened at 9 a.m., and recessed at 7:44 p.m., until 8:55 a.m., on Friday, April 15, 1994, for a pro forma session.

103rd Congress 2nd Session

... Oil and Gas Association. **CLIMATE CHANGE** ACTION PLAN Committee on ...

... Protection Agency's implementation of the **climate change** action plan and issues ...

... may result from potential **climate change,** receiving testimony from Robert ...

160. CONGRESSIONAL RECORD -- Daily Digest, Wednesday, April 13, 1994 , 140 Cong Rec D 366, Vol. 140 No.

39, SENATE Chamber Action Routine Proceedings, pages S4187-S4274 Measures Introduced: Five bills were introduced, as follows: S. 2011-2015. Page S4266 Measures Passed: California Desert Protection Act: By 69 yeas to 29 nays (Vote No. 89), Senate passed S. 21, to designate certain lands in the California desert as wilderness, and to establish Death Valley, Joshua Tree, and Mojave National Parks, as amended. Pages S4190-S4210 Payments in Lieu of Taxes Act: By 78 yeas to 20 nays (Vote No. 90), Senate passed S. 455, to amend title 31, United States Code, to increase Federal payments to units of general local government for entitlement lands, after agreeing to committee amendments, and the following amendment proposed thereto: Pages S4210-33 Hatfield (for Johnston) Amendment No. 1629, of a technical nature. Page S4215 Department of Agriculture Reorganization Act: By 98 yeas to 1 nay (Vote No. 91), Senate passed S. 1970, to authorize the Secretary of Agriculture to reorganize the Department of Agriculture, after taking action on amendments proposed thereto, as follows: Pages S4244-47, S4251-64 Adopted: (1) Leahy (for Daschle) Amendment No. 1630, to provide for the elimination of duplicative inspection requirements by the Department of Agriculture. Page S4254 (2) Leahy (for Simpson) Amendment No. 1631, to clarify certain authorities and prevent compensation increases of any person serving as an Administrator. Page S4254 Nomination Returned to Committee: By unanimous consent, the nomination of Sam W. Brown, Jr., of California, for the rank of Ambassador during his tenure of service as Head of Delegation to the Conference on Security and Cooperation in Europe (CSCE) was returned to the Committee on Foreign Relations and the cloture motion filed on Tuesday, April 12, with respect to consideration of this nomination, was withdrawn. Page S4240 Nomination-Agreement: A unanimous-consent time agreement was reached providing for the consideration of the nomination of Rosemary Barkett, of Florida, to be United States Circuit Judge for the Eleventh Circuit, on Thursday, April 14. Page S4264 Subsequently, the cloture motion filed on Tuesday, April 12, with respect to consideration of this nomination, was withdrawn. Page S4264 Nomination Confirmed: Senate confirmed the following nomination: Rodney A. Coleman, of Michigan, to be an Assistant Secretary of the Air Force. Pages S4237-40 Nominations Received: Senate received the following nominations: Robert Krueger, of Texas, to be Ambassador to the Republic of Burundi. Steven Mark Hart Wallman, of Virginia, to be a Member of the Securities and Exchange Commission for the term expiring June 5, 1997. Page S4274 Messages From the House: Page S4264 Measures Placed on Calendar: Page S4265 Communications: Page S4265 Petitions: Pages S4265-66 Executive Reports of Committees: Page S4266 Statements on Introduced Bills: Pages S4266-70 Additional Cosponsors: Pages S4270-71 Amendments Submitted: Page S4271 Notices of Hearings: Page S4271 Authority for Committees: Pages S4271-72 Additional Statements: Pages S4272-74 Record Votes: Three record votes were taken today. (Total-91) Pages S4195, S4232, S4255 Recess: Senate convened at 9:30 a.m., and recessed at 4:50 p.m., until 9 a.m., on Thursday, April 14, 1994. (For Senate's program, see the remarks of the Acting Majority Leader in today's Record on page S4274.)
103rd Congress 2nd Session
... examine implementation of the Administration's **Climate Change** Action Plan and issues ...
... may result from potential **climate change,** 9:30 a.m., SD- ...

161. CONGRESSIONAL RECORD -- Daily Digest, Monday, March 7, 1994 , 140 Cong Rec D 202, Vol. 140 No. 23, SENATE Chamber Action Routine Proceedings, pages S2353-S2429 Measures Introduced: Nine bills and one resolution were introduced, as follows: S. 1889-1897, and S.J. Res. 166. Page S2415 Measures Reported: Reports were made as follows: S. 1597, to amend the Public Health Service Act to revise certain organ procurement and transplantation programs, with an amendment in the nature of a substitute. (S. Rept. No. 103-233) Page S2415 National Competitiveness Act: Senate began consideration of S. 4, to promote the industrial competitiveness and economic growth of the United States by strengthening and expanding the civilian technology programs of the Department of Commerce, amending the Stevenson-Wydler Technology Innovation Act of 1980 to enhance the development and nationwide deployment of manufacturing technologies, and authorizing appropriations for the Technology Administration of the Department of Commerce, including the National Institute of Standards and Technology, with a modified committee amendment in the nature of a substitute. Pages S2366-S2410, S2412-14 Senate will resume consideration of the bill and amendments to be proposed thereto, on Tuesday, March 8. Appointments: Glass Ceiling Commission: The Chair, on behalf of the Majority Leader of the Senate and the Speaker of the House, pursuant to Public Law 102-166, appointed John Jenkins, of Maine, as a member of the Glass Ceiling Commission. Page S2428 Messages From the President: Senate received the following message from the President of the United States:

Transmitting a notice of intent to add Ukraine to the list of beneficiary developing countries under the Generalized System of Preferences (GSP); referred to the Committee on Finance. (PM-94). Pages S2414-15 Nominations Received: Senate received the following nominations: Received on Friday, March 4, during the recess: Jamie S. Gorelick, of Maryland, to be Deputy Attorney General. Page S2428 Received today: David Elias Birenbaum, of the District of Columbia, to be Representative of the United States of America to the United Nations for U.N. Management and Reform, with the rank of Ambassador. Edward William Gnehm, Jr., of Georgia, to be the Deputy Representative of the United States of America to the United Nations, with the rank and status of Ambassador Extraordinary and Plenipotentiary. Routine lists in the Air Force and Navy. Pages S2428-29 Messages From the President: Pages S2414-15 Communications: Page S2415 Statements on Introduced Bills: Pages S2415-24 Additional Cosponsors: Pages S2424-25 Notices of Hearings: Page S2425 Additional Statements: Pages S2425-28 Recess: Senate convened at 12:30 p.m., and recessed at 5:09 p.m., until 10 a.m., on Tuesday, March 8, 1994. (For Senate's program, see the remarks of the Acting Majority Leader in today's Record on page S2428.)
103rd Congress 2nd Session
... oceans in global **climate change,** 2:30 p.m., SD- ...

162. CONGRESSIONAL RECORD -- Senate, Tuesday, April 26, 1994 (Legislative day of Monday, April 11, 1994), 140 Cong Rec S 4835, Vol. 140 No. 47, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Congress 2nd Session
... environment in the prevention of **climate change,** ozone depletion, loss of ...
... pollution of international waters. The **Climate Change** and Biodiversity Conventions have accepted the ...
... PUBLIC FINANCE (90%); **CLIMATE CHANGE** (90%); APPROPRIATIONS (90%);

163. CONGRESSIONAL RECORD -- Senate, Tuesday, April 26, 1994 (Legislative day of Monday, April 11, 1994), 140 Cong Rec S 4903, Vol. 140 No. 47, NOTICES OF HEARINGS
103rd Congress 2nd Session
... testimony on Implementation of the Administration's **Climate Change** Action Plan and the Energy ...

164. CONGRESSIONAL RECORD -- House, Tuesday, April 26, 1994 , 140 Cong Rec H 2714, Vol. 140 No. 47, PROVIDING FOR CONCURRENCE WITH S. 1636, MARINE MAMMAL PROTECTION ACT AMENDMENTS OF 1994
103rd Congress 2nd Session
... needed to test theories of **global warming.** Given the nature of the likely ...

165. CONGRESSIONAL RECORD -- Extension of Remarks, Thursday, April 28, 1994 , 140 Cong Rec E 793, Vol. 140 No. 48, AMERICA'S ENERGY OPTION
103rd Congress 2nd Session
... NO CHANCE OF STABILIZING **GREENHOUSE GAS** EMISSIONS AT 1990 LEVELS ...
... PUBLIC POLICY (90%); **CLIMATE CHANGE** (90%); NUCLEAR ENERGY (...

166. CONGRESSIONAL RECORD -- Senate, Monday, May 2, 1994 (Legislative day of Monday, April 11, 1994), 140 Cong Rec S 4994, Vol. 140 No. 50, THE RETIREMENT OF DEPUTY CHIEF OF INTERNATIONAL FORESTRY JEFF SIRMON
103rd Congress 2nd Session
... transboundary threats such as global **climate change,** toxic contaminants in ...
... deforestation contribute to global **climate change** and loss of biodiversity-issues that ...

167. CONGRESSIONAL RECORD -- Extension of Remarks, Monday, May 2, 1994 , 140 Cong Rec E 820, Vol. 140 No. 50, HAITI: THE POLICY MUST BE CHANGED
103rd Congress 2nd Session
... hearings on implementation of the Administration's **Climate Change** Action Plan and the Energy ...

168. CONGRESSIONAL RECORD -- House, Wednesday, February 23, 1994 , 140 Cong Rec H 676, Vol. 140 No. 16, EXECUTIVE COMMUNICATION FROM THE PRESIDENT OF THE UNITED STATES-ECONOMIC REPORT OF THE PRESIDENT
103rd Congress 2nd Session
... comprehensive, cost-effective **Climate Change** Action Plan, comprising ...
... initiatives to reduce U.S. **greenhouse gas** emissions to 1990 levels ...

169. CONGRESSIONAL RECORD -- Senate, Tuesday, May 10, 1994 (Legislative day of Monday, May 2, 1994), 140 Cong Rec S 5469, Vol. 140 No. 56, AUTHORITY FOR COMMITTEES TO MEET
103rd Congress 2nd Session
... testimony on implementation of the administration's **climate change** action plan and the Energy ...

170. CONGRESSIONAL RECORD -- Daily Digest, Tuesday, May 10, 1994 , 140 Cong Rec D 513, Vol. 140 No. 56, SENATE Chamber Action Routine Proceedings, pages S5405-S5481 Measures Introduced: Twelve bills and one resolution were introduced, as follows: S. 2090-2101, and S. Res. 212. Page S5449 Measures Reported: Reports were made as follows: S. 2093, to amend and reauthorize the Federal Water Pollution Control Act. (S. Rept. No. 103-257) Page S5449 Measures Passed: Honoring Paul "Bear" Bryant: Senate agreed to S. Res. 212, expressing the sense of the Senate that a commemorative postage stamp should be issued to honor coach Paul "Bear" Bryant. Pages S5405-06, S5467 Forest Lands Management: Senate passed S. 2100, to provide for rural development, multiple-use management, expenditures under the Knutson-Vandeburg Act of 1930, and ecosystem-based management of certain forest lands. Pages S5446-47 Bosnia Arms Embargo: Senate resumed consideration of S. 2042, to remove the United States arms embargo of the Government of Bosnia and Herzegovina, with the following amendments proposed thereto: Pages S5414-36, S5441-42, S5444-45, S5476-79 Pending: (1) Dole Amendment No. 1695, to provide for the termination of the United States arms embargo of the Government of Bosnia and Herzegovina. Page S5479 (2) Mitchell Amendment No. 1696, to approve and authorize the use of United States airpower to implement the North Atlantic Treaty Organization (NATO) exclusion zones around the U.N. designated safe areas in Bosnia and Herzegovina, to protect UNPROFOR forces, and to seek the removal of the arms embargo of the government of Bosnia and Herzegovina. Pages S5476-79 Withdrawn: Dole Amendment No. 1692, in the nature of a substitute. Pages S5414-36, S5441-42, S5444-45, S5476 Dole Amendment No. 1693 (to Amendment No. 1692), to provide for the termination of the United States arms embargo of the Government of Bosnia and Herzegovina. Pages S5414-36, S5441-42, S5444-45, S5476 Dole Modified Amendment No. 1694 (to Amendment No. 1693), in the nature of a substitute. Pages S5414-36, S5441-42, S5444-45, S5476 A unanimous-consent time-agreement was reached providing for further consideration of the pending amendments on Thursday, May 12, 1994, with votes to occur thereon. Page S5476 Freedom of Access to Clinic Entrances Act/Conference Report-Agreement: A unanimous-consent time-agreement was reached providing for the consideration of the conference report on S. 636, to amend the Public Health Service Act to permit individuals to have freedom of access to certain medical clinics and facilities, on Thursday, May 12, 1994, with a vote to occur thereon. Pages S5436-37 Messages From the President: Senate received the following messages from the President of the United States: Transmitting a report on the Nation's achievements in aeronautics and space during fiscal year 1993; referred to the Committee on Commerce, Science, and Transportation. (PM-110). Pages S5447-48 Transmitting the annual report of the Department of Housing and Urban Development for calendar year 1992; referred to the Committee on Banking, Housing, and Urban Affairs. (PM-111). Page S5448 Nominations Received: Senate received the following nominations: Colleen Jennings-Roggensack, of Arizona, to be a Member of the National Council on the Arts for a term

expiring September 3, 1996. Clyde Arlie Wheeler, Jr., of Oklahoma, to be a Member of the Board of Directors of the Federal Agricultural Mortgage Corporation. 1 Army nomination in the rank of general. 3 Navy nominations in the rank of admiral. Page S5481 Messages From the President: Pages S5447-48 Messages From the House: Page S5448 Petitions: Pages S5448-49 Statements on Introduced Bills: Pages S5449-66 Additional Cosponsors: Pages S5466-67 Amendments Submitted: Pages S5467-69 Notices of Hearings: Page S5469 Authority for Committees: Page S5469 Additional Statements: Pages S5470-76 Recess: Senate convened at 9:45 a.m., and recessed at 8:17 p.m., until 9 a.m. on Wednesday, May 11, 1994. (For Senate's program, see the remarks of the Acting Majority Leader in today's Record on page S5481.)
103rd Congress 2nd Session
... Senator Lautenberg. GLOBAL **CLIMATE CHANGE** Committee on Energy and Natural ...
... examine the implementation of the Administration's **climate change** action plan for reducing **greenhouse gas** emissions, and related provisions ...

171. CONGRESSIONAL RECORD -- House, Tuesday, May 3, 1994 , 140 Cong Rec H 2967, Vol. 140 No. 51, NATIONAL SCIENCE FOUNDATION AUTHORIZATION ACT OF 1994
103rd Congress 2nd Session
... projects including those on global **climate change,** critical materials, advanced ...

172. CONGRESSIONAL RECORD -- Extension of Remarks, Monday, May 9, 1994 , 140 Cong Rec E 876, Vol. 140 No. 55, NEW ORLEANS VA BENEFITS OFFICE EMPLOYS OWN COMPUTER PROGRAM FOR GREATER EFFICIENCY
103rd Congress 2nd Session
... science concerning global **climate change.** SD-366 10:00 ...

173. CONGRESSIONAL RECORD -- Daily Digest, Monday, May 9, 1994 , 140 Cong Rec D 509, Vol. 140 No. 55, SENATE Chamber Action Routine Proceedings, pages S5383-S5404 Measures Introduced: Two bills and one resolution were introduced, as follows: S. 2088-2089, and S. Con. Res. 69. Pages S5398-99 Measures Passed: Private Relief: Senate passed S. 116, for the relief of Fanie Phily Mateo Angeles. Page S5404 National Environmental Technology Act: Senate resumed consideration of S. 978, to establish programs to promote environmental technology, taking action on the following amendment proposed thereto: Pages S5389-94 Withdrawn: Stevens Amendment No. 1687, to authorize a rural water sanitation-health technology fund to make grants for technologies to improve sanitation conditions on Indian reservations and in Alaska Native villages and in other rural places, to eliminate the "honey bucket" sewage disposal method through innovative technologies, to develop new technologies to reduce and eliminate sanitation-related health problems and deaths, and to uphold the national trust responsibility of the United States to the American Indian and Alaska Native. Pages S5389-93 A unanimous-consent agreement was reached providing for a vote on final passage of the bill to occur on Wednesday, May 11, 1994. Page S5404 Safe Drinking Water Act: Senate began consideration of S. 2019, to reauthorize and amend title XIV of the Public Health Service Act (commonly known as the "Safe Drinking Water Act"). Pages S5394-97 Interstate Banking and Branching Act-Conferees: The Chair, pursuant to the order of Tuesday, April 26, 1994, appointed conferees on H.R. 3841, to amend the Bank Holding Company Act of 1956, the Revised Statutes of the United States, and the Federal Deposit Insurance Act to provide for interstate banking and branching, as follows: Senators Riegle, Sarbanes, Dodd, Sasser, D'Amato, Gramm, and Roth. Page S5404 Messages From the President: Senate received the following message from the President of the United States: Transmitting notification of additional sanctions with respect to the national emergency with Haiti; referred to the Committee on Banking, Housing, and Urban Affairs. (PM-109). Pages S5397-98 Nominations Received: Senate received the following nominations: Received on Friday, May 6, during the recess: Linda Marie Hooks, of Georgia, to be an Assistant Secretary of Veterans Affairs (Acquisition and Facilities). Page S5404 Messages From the President: Pages S5397-98 Statements on Introduced Bills: Pages S5398-99 Additional Cosponsors: Page S5399 Amendments

Submitted: Pages S5399-S5402 Notices of Hearings: Page S5402 Additional Statements: Pages S5402-04 Recess: Senate convened at 3 p.m., and recessed at 4:48 p.m., until 9:45 a.m. on Tuesday, May 10, 1994 (For Senate's program, see the remarks of the Acting Majority Leader in today's Record on page S5404).
103rd Congress 2nd Session
... hearings on implementation of the Administration's **Climate Change** Action Plan and the Energy ...

174. CONGRESSIONAL RECORD -- Daily Digest, Friday, May 6, 1994 , 140 Cong Rec D 501, Vol. 140 No. 54, SENATE Chamber Action Routine Proceedings, pages S5323-S5382 Measures Introduced: Three bills and one resolution were introduced, as follows: S. 2085-2087, and S.J. Res. 186. Pages S5368-69 Congressional Gifts Reform Act: Senate continued consideration of S. 1935, to prohibit lobbyists and their clients from providing to Legislative Branch officials certain gifts, meals, entertainment, reimbursements, or loans and to place limits on and require disclosure by lobbyists of certain expenditures, with a committee amendment in the nature of a substitute, taking action on amendments proposed thereto, as follows: Pages S5324-26, S5328-44 Pending: D'Amato Amendment No. 1685, to express the sense of the Senate that the conferees on H.R. 3355, Violent Crime and Control Act, should reject the Racial Justice Act provisions. Pages S5328-44 Withdrawn: Exon Amendment No. 1682, to express the sense of the Senate that any Member who voted to reduce the pay of Members of the Senate should return to the U.S. Treasury any pay that would not have been received had the amendment been enacted into law. Page S5324 A unanimous-consent time agreement was reached providing for further consideration of the bill and the pending amendment, on Wednesday, May 11, 1994. Page S5344 National Environmental Technology Act: Senate began consideration of S. 978, to establish programs to promote environmental technology, agreeing to the committee amendment in the nature of a substitute, and taking action on amendments proposed thereto, as follows: Pages S5347-62 Adopted: (1) Baucus Amendment No. 1686, in the nature of a substitute. Pages S5352-62 (2) Baucus (for Kerrey) Amendment No. 1688, to add a proposed new safeguard. Pages S5359-60 A unanimous-consent time agreement was reached providing for further consideration of the bill and an amendment to be proposed thereto, on Monday, May 9, at 3:30 p.m., and further consideration of bill and the proposed amendment on Wednesday, May 11, with final disposition to occur thereon. Page S5362 Bosnia Arms Embargo: Senate began consideration of S. 2042, to remove the United States arms embargo of the Government of Bosnia and Herzegovina. Pages S5380-81 Senate will resume consideration of the bill on Tuesday, May 10, 1994. Arson Prevention Act: Senate concurred in the amendment of the House to the amendment of the Senate to H.R. 1727, to establish a program of grants to States for arson research, clearing the measure for the President. Pages S5378-80 Measure Indefinitely Postponed: Arms Control and Nonproliferation Act: Senate indefinitely postponed further consideration of S. 1182, to amend the Arms Control and Disarmament Act to strengthen the Arms Control and Disarmament Agency and to improve congressional oversight of the activities of the Agencies. Page S5380 Nominations Confirmed: Senate confirmed the following nominations: Edmund T. DeJarnette, Jr., of Virginia, to be Ambassador to the Republic of Angola. Melvyn Levitsky, of Maryland, to be Ambassador to the Federative Republic of Brazil. Henry Howard, Jr., of Virginia, to be an Associate Director of the United States Information Agency. Philip G. Hampton, II, of the District of Columbia, to be an Assistant Commissioner of Patents and Trademarks. Saul A. Green, of Michigan, to be United States Attorney for the Eastern District of Michigan for the term of four years. Lawrence J. Goffney, Jr., of Michigan, to be an Assistant Commissioner of Patents and Trademarks. Fortunato P. Benavides, of Texas, to be United States Circuit Judge for the Fifth Circuit. Carl E. Stewart, of Louisiana, to be United States Circuit Judge for the Fifth Circuit. Deborah A. Batts, of New York, to be United States District Judge for the Southern District of New York. James G. Carr, of Ohio, to be United States District Judge for the Northern District of Ohio. Ruben Castillo, of Illinois, to be United States District Judge for the Northern District of Illinois. Audrey B. Collins, of California, to be United States District Judge for the Central District of California. Mary M. Lisi, of Rhode Island, to be United States District Judge for the District of Rhode Island. Willie Grace Campbell, of California, to be a Member of the Board of Directors of the African Development Foundation for a term expiring September 22, 1999. Mark L. Schneider, of California, to be a Member of the Board of Directors of the Inter-American Foundation for a term expiring September 20, 1998. Joseph Clyde Fowler, Jr., of Tennessee, to be United States Marshal for the Eastern District of Tennessee for the term of four years. Michael Kane Kirk, of Florida, to be Deputy Commissioner of Patents and Trademarks. James W. Lockley, of Florida, to be United States Marshal for the Northern District of Florida for the

term of four years. Robert Harlan Henry, of Oklahoma, to be United States Circuit Judge for the Tenth Circuit. Frank M. Hull, of Georgia, to be United States District Judge for the Northern District of Georgia. W. Louis Sands, of Georgia, to be United States District Judge for the Middle District of Georgia. Sheldon Whitehouse, of Rhode Island, to be United States Attorney for the District of Rhode Island for the term of four years. Ryan Clark Crocker, of Washington, to be Ambassador to the State of Kuwait. Arvonne S. Fraser, of Minnesota, for the rank of Ambassador during her tenure of service as the Representative of the United States of America on the Commission on the Status of Women of the Economic and Social Council of the United Nations. Edward S. Walker, Jr., of Maryland, to be Ambassador to the Arab Republic of Egypt. Ralph R. Johnson, of Virginia, a Career Member of the Senior Foreign Service, Class of Minister-Counselor, for the Rank of Ambassador during his tenure of service as Coordinator of the Support for East European Democracy (SEED) Program. Charles H. Twining, of Maryland, to be Ambassador to Cambodia. Marion M. Dawson, of Connecticut, to be a Member of the Board of Directors of the African Development Foundation for a term expiring September 22, 1999. Edward William Gnehm, Jr., of Georgia, to be the Deputy Representative of the United States of America to the United Nations, with the rank and status of Ambassador Extraordinary and Plenipotentiary. Barbara C. Jurkas, of Michigan, to be United States Marshal for the Western District of Michigan for the term of four years. Ernestine Rowe, of Colorado, to be United States Marshal for the District of Colorado for the term of four years. Leonard Trupo, of West Virginia, to be United States Marshal for the Northern District of West Virginia for the term of four years. Clarence Cooper, of Georgia, to be United States District Judge for the Northern District of Georgia. Solomon Oliver, Jr., of Ohio, to be United States District Judge for the Northern District of Ohio. Raymond L. Finch, of the Virgin Islands, to be a Judge for the District Court of the Virgin Islands for a term of ten years. Peter R. Chaveas, of Pennsylvania, to be Ambassador to the Republic of Malawi. Myles Robert Rene Frechette, of Maryland, to be Ambassador to the Republic of Colombia. Donna Jean Hrinak, of Virginia, to be Ambassador to the Dominican Republic. Johnny Young, of Pennsylvania, to be Ambassador to the Republic of Togo. Irvin Hicks, of Maryland, to be Ambassador to Ethiopia. Gregory Moneta Sleet, of Delaware, to be United States Attorney for the District of Delaware for the term of four years. Faith S. Hochberg, of New Jersey, to be United States Attorney for the District of New Jersey for the term of four years. Robert Krueger, of Texas, to be Ambassador to the Republic of Burundi. Simon Ferro, of Florida, to be a Member of the Board of Directors of the Overseas Private Investment Corporation for a term expiring December 17, 1994. Simon Ferro, of Florida, to be a Member of the Board of Directors of the Overseas Private Investment Corporation for a term expiring December 17, 1997. John William Marshall, of Virginia, to be United States Marshal for the Eastern District of Virginia for the term of four years. Routine lists in the Foreign Service. Pages S5367-68, S5382 Statements on Introduced Bills: Pages S5369-71 Additional Cosponsors: Page S5371 Amendments Submitted: Pages S5371-75 Notices of Hearings: Page S5375 Authority for Committees: Page S5376 Additional Statements: Pages S5376-78 Recess: Senate convened at 10 a.m., and recessed at 3:39 p.m., until 3 p.m. on Monday, May 9, 1994 (For Senate's program, see the remarks of the Acting Majority Leader in today's Record on pages S5381-82.)
103rd Congress 2nd Session
... hearings on implementation of the Administration's **Climate Change** Action Plan and the Energy ...

175. CONGRESSIONAL RECORD -- Extension of Remarks, Wednesday, May 4, 1994 , 140 Cong Rec E 853, Vol. 140 No. 52, COMMEMORATING THE 100TH ANNIVERSARY OF THE DEATH OF THE LAST MEXICAN GOVERNOR OF CALIFORNIA, DON PIO DE JESUS PICO
103rd Congress 2nd Session
... hearings on implementation of the Administration's **Climate Change** Action Plan and the Energy ...

176. CONGRESSIONAL RECORD -- Extension of Remarks, Monday, May 16, 1994 , 140 Cong Rec E 935, Vol. 140 No. 60, BETTER PHARMACEUTICALS FOR CHILDREN
103rd Congress 2nd Session
... science concerning global **climate change.** SD-366 Indian ...

177. CONGRESSIONAL RECORD -- Extension of Remarks, Wednesday, May 11, 1994 , 140 Cong Rec E 906, Vol. 140 No. 57, SENATE COMMITTEE MEETINGS
103rd Congress 2nd Session
... science concerning global **climate change.** SD-366 10:00 ...

178. CONGRESSIONAL RECORD -- Daily Digest, Friday, May 20, 1994 , 140 Cong Rec D 581, Vol. 140 No. 64, SENATE Chamber Action The Senate was not in session today. It will next meet on Monday, May 23, 1994, at 11:30 a.m. Committee Meetings (Committees not listed did not meet) APPROPRIATIONS-VA/HUD Committee on Appropriations: Subcommittee on VA, HUD, and Independent Agencies held hearings on proposed budget estimates for fiscal year 1995 for programs of the Departments of Veterans Affairs and Housing and Urban Development and independent agencies, receiving testimony from numerous public witnesses. Subcommittee will meet again on Thursday, May 26. MEDICAL DEVICE MATERIALS LIABILITY Committee on Governmental Affairs: Subcommittee on Regulation and Government Information concluded hearings to examine the impact of supplier liability on the manufacture and development of life-saving medical devices, diagnostic products, and health care information systems, after receiving testimony from Paul Citron, Medtronic, Inc., Minneapolis, Minnesota; Eleanor Gackstatter, Meadox Medicals, Inc., Oakland, New Jersey; Katherine F. Knox, Dupont Company, Wilmington, Delaware; James S. Benson, Health Industry Manufacturers Association, and M. Kristen Rand, on behalf of Consumers Union, Consumer Federation of America, and Public Citizen's Congress Watch, both of Washington, D.C.; J. Donald Hill, California Pacific Medical Center, San Francisco, and Bernard N. Stulberg, Cleveland Center for Joint Reconstruction, Cleveland, Ohio, both on behalf of the Biomaterials Availability Coalition; Pierre M. Galletti, Brown University, Providence, Rhode Island, on behalf of the American Institute for Medical and Biological Engineering; Mark Reily, Houston, Texas; and Peggy A. Phillips, Falls Church, Virginia.
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... science concerning global **climate change,** 9:30 a.m., SD- ...

179. CONGRESSIONAL RECORD -- Daily Digest, Monday, May 23, 1994 , 140 Cong Rec D 589, Vol. 140 No. 65, SENATE Chamber Action Routine Proceedings, pages S6151-S6209 Measures Introduced: Three bills and one resolution were introduced, as follows: S. 2142-2144, and S. Res. 215. Page S6196 Measures Reported: Reports were made as follows: S. 1066, to restore Federal services to the Pokagon Band of Potawatomi Indians. (S. Rept. No. 103-266) S. 1626, to amend title 38, United States Code, to revise the Veterans' Home Loan Program, with an amendment in the nature of a substitute. (S. Rept. No. 103-267) S. 1974, to authorize the Secretary of Veterans Affairs to conduct pilot programs in order to evaluate the feasibility of the participation of the Department of Veterans Affairs health care system in the health care systems of States that have enacted health care reform, with an amendment in the nature of a substitute. (S. Rept. No. 103-268) Page S6196 Measures Passed: Social Security Administrative Reform Act: Senate passed H.R. 4277, to establish the Social Security Administration as an independent agency and to make other improvements in the Old-Age, Survivors, and Disability Insurance Program, after striking all after the enacting clause and inserting in lieu thereof the text of S. 1560, as passed by the Senate on March 2, 1994. Senate insisted on its amendment, requested a conference with the House thereon, and the Chair appointed the following conferees: Senators Moynihan, Baucus, Breaux, Packwood, and Dole. Pages S6186-92 Authorizing Testimony: Senate agreed to S. Res. 215, to authorize testimony and representation of former employees of the Senate in Sonja I. Anderson v. Kaiser Engineers Hanford Co. Page S6193 King Holiday and Service Act: Senate began consideration of H.R. 1933, to authorize appropriations for the Martin Luther King, Jr., Federal Holiday Commission, and establish a National Service Day to promote community service, taking action on amendments proposed thereto, as follows: Pages S6160-79, S6186 Adopted: (1) Helms Amendment No. 1739 (to Amendment No. 1738), in the nature of a substitute. Pages S6164-75, S6178 (2) Helms Amendment No. 1740 (as modified), to restrict the detailing of Federal civil servants to the Martin Luther King, Jr., Federal Holiday Commission to one year. Pages S6175-79 (3) Helms Amendment No. 1741, to prohibit the use of funds by the Commission to pay for first class air travel or hotel accommodations. Page S6177 (4) Helms (for Brown) Amendment No. 1742, to require the Commission to follow generally accepted accounting

standards. Page S6178 (5) Helms (for Brown) Amendment No. 1743, to require the Commission to report to Congress and the President about activities and programs the Commission undertakes. Page S6178 Pending: Helms Amendment No. 1738, to ensure that only private funds are used by the Commission. Pages S6163-75, S6178, S6186 A unanimous-consent agreement was reached providing for further consideration of the bill and the amendment pending thereto, at 2:30 p.m., on Tuesday, May 24, 1994, with votes to occur thereon. Page S6186 Product Liability Fairness Act-Agreement: A unanimous-consent agreement was reached providing for the consideration of S. 687, to regulate interstate commerce by providing for uniform product liability law. Page S6186 Nominations Considered: Senate resumed consideration of the nominations of Derek Shearer, of California, to be Ambassador to Finland, and Sam W. Brown, Jr., of California, for the rank of Ambassador during his tenure of service as Head of Delegation to the Conference on Security and Cooperation in Europe (CSCE). Page S6193 Second motions were entered to close further debate on the aforementioned nominees and, in accordance with the provisions of Rule XXII of the Standing Rules of the Senate, votes on the cloture motions will occur on Wednesday, May 25, 1994. Page S6193 Messages From the President: Senate received the following messages from the President of the United States: Transmitting notice of the prohibition of certain transactions with respect to Haiti; referred to the Committee on Banking, Housing and Urban Affairs. (PM-117). Pages S6193-94 Transmitting a report relative to the activities taken pursuant to the national emergency with respect to the proliferation of chemical and biological weapons; referred to the Committee on Banking, Housing and Urban Affairs. (PM-118). Pages S6194-95 Transmitting the text of an amendment to the Agreement Between the Government of the United States of America and the Government of the United Kingdom of Great Britain and Northern Ireland for Cooperation on the Uses of Atomic Energy for Mutual Defense Purposes; to the Committee on Foreign Relations. (PM-119). Page S6195 Messages From the President: Pages S6193-95 Messages From the House: Page S6195 Measures Referred: Page S6195 Measures Read First Time: Page S6195 Communications: Pages S6195-96 Statements on Introduced Bills: Pages S6196-99 Additional Cosponsors: Pages S6199-S6200 Amendments Submitted: Page S6201 Notices of Hearings: Page S6201 Additional Statements: Pages S6201-09 Recess: Senate convened at 11:30 a.m., and recessed at 6:39 p.m., until 9 a.m., on Tuesday, May 24, 1994 (For Senate's program, see the remarks of the Majority Leader in today's Record on page S6209). Committee Meetings No committee meetings were held.
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... science concerning global **climate change,** 9:30 a.m., SD- ...

180. CONGRESSIONAL RECORD -- Senate, Wednesday, May 18, 1994 (Legislative day of Monday, May 16, 1994), 140 Cong Rec S 5856, Vol. 140 No. 62, MFN FOR CHINA
103rd Congress 2nd Session
... a huge contributor to **global warming.** We risk a cold ...
... a chance to slow **global warming;** protect our fisheries; and help ...

181. CONGRESSIONAL RECORD -- Extension of Remarks, Wednesday, May 18, 1994 , 140 Cong Rec E 977, Vol. 140 No. 62, U.N. CONFERENCE ON SUSTAINABLE DEVELOPMENT OF SMALL ISLAND DEVELOPING STATES
103rd Congress 2nd Session
... PROGRAM OF ACTION. THEY INCLUDE: **CLIMATE CHANGE,** SEA LEVEL RISE, AND ...
... sea level rise from **climate change.** Although AOSIS is not ...
... address the areas of biodiversity, **climate change,** and international waters. AT THE CONFERENCE, ...
... First we must begin with **climate change,** which, with its potential for sea ...
... States considers addressing **climate change** to be a very high priority and we are ...
... committed to limiting U.S. **greenhouse gas** emissions to their 1990 levels ...
... developing States face from **climate change**-or the challenges they confront in ...
... WATERS. THE U.S. ALSO RECOGNIZES THAT **CLIMATE CHANGE** AND ITS ASSOCIATED IMPACTS, ESPECIALLY ...
... RATIFY THE FRAMEWORK CONVENTION ON **CLIMATE CHANGE,** AND PRESIDENT CLINTON HAS

PROMISED THAT THE U.S. WILL REDUCE ITS **GREENHOUSE GAS** EMISSIONS TO THEIR 1990 LEVELS ...
... ACTION PLAN FOR **CLIMATE CHANGE,** WHICH IS THE U.S. BLUEPRINT FOR ...
... NEXT CENTURY. THE U.S. **CLIMATE CHANGE** COUNTRY STUDY INITIATIVE IS ...
... ADDRESS THE POTENTIAL IMPACTS OF **CLIMATE CHANGE,** INCLUDING SEA LEVEL ...
... SUPPORT TO CONDUCT INVENTORIES OF **GREENHOUSE GAS** EMISSIONS, AND TO DEVELOP ADAPTATION ...
... GLOBAL FACTORS-INCLUDING **CLIMATE CHANGE** AND OZONE DEPLETION. THE RESPONSE. THEREFORE, ...
... WORK TOGETHER TO ADDRESS **CLIMATE CHANGE** AND OZONE DEPLETION. WE BELIEVE THAT ...
... science concerning global **climate change.** SD-366 Environment and ...
... RAIN FORESTS (79%); **CLIMATE CHANGE** (79%); US FEDERAL GOVERNMENT (...

182. CONGRESSIONAL RECORD -- Senate, Wednesday, May 25, 1994 (Legislative day of Monday, May 16, 1994), 140 Cong Rec S 6397, Vol. 140 No. 67, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Congress 2nd Session
... important questions as the impact of **climate change** on forests, forest health, ...

183. CONGRESSIONAL RECORD -- House, Wednesday, May 25, 1994 , 140 Cong Rec H 4028, Vol. 140 No. 67, FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED PROGRAMS APPROPRIATIONS ACT, 1995
103rd Congress 2nd Session
... signed the Framework Convention on **Climate Change** and the Convention on Biodiversity. These treaties ...
... promote biodiversity and arrest **climate change.** GEF is a means ...
... Protocol Facilitation Fund, and the **Global Warming** Initiative. Efforts to protect and ...
... a significant contribution to **global warming:** Provided, That such assistance shall be ...
... world's efforts on preventing **climate change,** on preventing environmental degradation and ...
... last winter that there is really any such thing as **global warming.** It may exist, but ...
... going to investigate and/or treat **global warming,** we have a responsibility to see to it that the ...
... Convention and the Framework Convention on **Climate Change.** Its genesis is bipartisan. President ...
... environmental areas: biodiversity, **climate change,** pollution of international waters, and ...
... new global conventions on **climate change,** biodiversity, and other environmental ...

184. CONGRESSIONAL RECORD -- Extension of Remarks, Wednesday, April 19, 1994 , 140 Cong Rec E 707, Vol. 140 No. 43 , DAN WATERS, GENERAL MANAGER OF THE LOS ANGELES DEPARTMENT OF WATER AND POWER, RETIRES
103rd Congress 2nd Session
... ADDRESS THE THREAT OF GLOBAL **CLIMATE CHANGE.** HE ALSO IMPLEMENTED SEVERAL INNOVATIVE ...

185. CONGRESSIONAL RECORD -- Senate, Tuesday, May 24, 1994 (Legislative day of Monday, May 16, 1994), 140 Cong Rec S 6292, Vol. 140 No. 66, AUTHORITY FOR COMMITTEES TO MEET
103rd Congress 2nd Session
... science concerning global **climate change.** The PRESIDING OFFICER. Without ...

186. CONGRESSIONAL RECORD -- Daily Digest, Tuesday, May 24, 1994 , 140 Cong Rec D 597, Vol. 140 No. 66,

SENATE Chamber Action Routine Proceedings, pages S6211-S6297 Measures Introduced: Three bills were introduced, as follows: S. 2145-2147. Page S6288 Measures Reported: Reports were made as follows: S. 1952, to authorize the minting of coins to commemorate the 175th anniversary of the founding of the United States Botanic Garden, with an amendment in the nature of a substitute. Page S6288 Measures Passed: King Holiday and Service Act: By 94 yeas to 4 nays (Vote No. 128), Senate passed H.R. 1933, to authorize appropriations for the Martin Luther King, Jr., Federal Holiday Commission, and establish a National Service Day to promote community service, as amended, and after taking action on the following amendment proposed thereto: Pages S6239-44 Rejected: By 28 yeas to 70 nays (Vote No. 127), Helms Amendment No. 1738, to ensure that only private funds are used by the Commission, as amended. Pages S6239-43 Lead Exposure Reduction Act: Senate completed consideration of S. 729, to amend the Toxic Substances Control Act to reduce the levels of lead in the environment, after agreeing to a modified committee amendment in the nature of a substitute, and taking action on an amendment proposed thereto, as follows: Pages S6252-82 Adopted: Smith (for Nickles/Simpson) Amendment No. 1744, to express the sense of the Senate concerning the manufacture, sale, and use of lead fishing sinkers, jigs, and lures. Pages S6281-82 A unanimous-consent agreement was reached providing for a vote on final passage of the bill to occur on Wednesday, May 25, 1994. Page S6282 Additional Conferees: By unanimous consent, the following Senators were added as conferees to H.R. 3474, the Community Development Banking Act: from the Committee on Finance for matters solely within the Finance Committee's jurisdiction, including Sections 209, 210, and 408 of the Senate Amendment-Senators Moynihan, Baucus, and Packwood. Page S6295 Measures Indefinitely Postponed: Senate indefinitely postponed further consideration of the following measures: International Criminal Court: S.J. Res. 32, calling for the United States to support efforts of the United Nations to conclude an international agreement to establish an international criminal court. Page S6295 Coast Guard Authorization: S. 1052, to authorize appropriations for fiscal year 1994 for the Coast Guard. Page S6295 Arson Prevention: S. 798, to amend the Federal Fire Prevention and Control Act of 1974 to establish a program of grants to States for arson research, prevention, and control. Page S6295 Budget Authority Rescission: S. 1608, to rescind certain budget authority proposed to be rescinded in a special message transmitted to the Congress by the President on Nov. 1, 1993, in accordance with title X of the Congressional Budget and Impoundment Control Act of 1974, as amended. Page S6295 Budget Authority Rescission: S. 1832, to rescind certain budget authority proposed to be rescinded in a special message transmitted to the Congress by the President on Feb. 7, 1994, in accordance with title X of the Congressional Budget and Impoundment Control Act of 1974, as amended. Page S6295 Nomination-Cloture Vote: By 54 yeas to 44 nays (Vote No. 131), three-fifths of those Senators duly chosen and sworn not having voted in the affirmative, Senate failed to agree to close further debate on the nomination of Sam W. Brown, Jr., of California, for the rank of Ambassador during his tenure of service as Head of Delegation to the Conference on Security and Cooperation in Europe (CSCE). Pages S6211-28, S6230-39, S6251-52 A unanimous-consent agreement was reached providing for further consideration of the motion to invoke cloture on the nomination of Mr. Brown with a vote on a second motion to close further debate on the nomination to occur on Wednesday, May 25, 1994, at 1 p.m. Page S6250 Nominations Confirmed: Senate confirmed the following nominations: By 67 yeas to 31 nays (Vote No. 130), Derek Shearer, of California, to be Ambassador to Finland. Pages S6211-28, S6230-39, S6244-45, S6249-51 During consideration of this nomination today, Senate also took the follow action: By 63 yeas to 35 nays (Vote No. 129), three-fifths of those Senators duly chosen and sworn having voted in the affirmative, Senate agreed to close further debate on the nomination of Mr. Shearer. Pages S6244-45 Clark G. Fiester, of California, to be an Assistant Secretary of the Air Force. 2 Air Force nominations in the rank of general. 1 Army nomination in the rank of Chief, Army Reserve, United States Army. 12 Army nominations in the rank of general. 1 Marine Corps nomination in the rank of colonel. 1 Marine Corps nomination in the rank of colonel. 12 Marine Corps nominations in the rank of general. 1 Navy nomination in the rank of admiral. Routine lists in the Air Force, Army, Marine Corps, Navy. Pages S6228-29, S6296-97 Nominations Received: Senate received the following nominations: Patricia Fry Godley, of Texas, to be an Assistant Secretary of Energy (Fossil Energy). Larry Reed Mattox, of Virginia, to be United States Marshal for the Western District of Virginia for the term of four years. Harriet C. Babbitt, of Arizona, to be a Member of the Board of Directors of the Inter-American Foundation for a term expiring September 20, 2000. Michael Marek, of Illinois, to be United States Alternate Executive Director of the International Bank for Reconstruction and Development for a term of two years. Jose A. Cabranes, of Connecticut, to be United States Circuit Judge for the Second Circuit. 4 Air Force nominations in the rank of general. 1 Army nomination in the rank of general. A routine list in the Foreign Service. Pages S6295-96

Communications: Page S6288 Executive Reports of Committees: Page S6288 Statements on Introduced Bills: Pages S6288-91 Additional Cosponsors: Pages S6291-92 Amendments Submitted: Page S6292 Authority for Committees: Pages S6292-93 Additional Statements: Pages S6293-94 Recored Votes: Five record votes were taken today. (Total-131) Pages S6243-44, S6251-52 Recess: Senate convened at 9 a.m., and recessed at 7:07 p.m., until 9 a.m., on Wednesday, May 25, 1994 (For Senate's program, see the remarks of the Majority Leader in today's Record on page S6295). Committee Meetings (Committees not listed did not meet) USDA MEAT INSPECTION POLICY Committee on Agriculture, Nutrition, and Forestry: Subcommittee on Agricultural Research, Conservation, Forestry and General Legislation held hearings to examine Department of Agriculture activities to improve the meat and poultry inspection system, focusing on the impact of the E. coli outbreak, receiving testimony from Patricia Jensen, Acting Assistant Secretary of Agriculture for Marketing and Inspection Services; John W. Harman, Director, Food and Agriculture Issues, Resources, Community, and Economic Development Division, General Accounting Office; J. Patrick Boyle, American Meat Institute, Arlington, Virginia; and Carol Tucker Foreman, Foreman and Heiderpriem, Inc., on behalf of the Safe Food Coalition, and Gary Wilson, National Cattlemen's Association, both of Washington, D.C. Hearings were recessed subject to call. APPROPRIATIONS-DEFENSE Committee on Appropriations: Subcommittee on Defense held hearings on proposed budget estimates for fiscal year 1995 for the Department of Defense, focusing on strategic programs, receiving testimony from Adm. Henry G. Chiles, Jr., USN, Commander-in-Chief, U.S. Strategic Command; and Lt. Gen. Malcolm O'Neill, USA, Director, Ballistic Missile Defense Organization, Department of Defense. Subcommittee recessed subject to call. APPROPRIATIONS-FOREIGN ASSISTANCE Committee on Appropriations: Subcommittee on Foreign Operations concluded hearings on proposed budget estimates for fiscal year 1995 for foreign assistance programs, focusing on export promotion, after receiving testimony from Ruth R. Harkin, President, Overseas Private Investment Corporation, Terrence J. Brown, Officer in Charge for Guatemala/Guatemala City, Agency for International Development, and J. Joseph Grandmaison, Director, Trade and Development Agency, all of the United States International Development Cooperation Agency; and Kenneth D. Brody, President, Export-Import Bank of the United States. AUTHORIZATION-DEFENSE Committee on Armed Services: Committee met to discuss procedural issues relating to the markup of proposed legislation authorizing funds for certain national defense programs. Committee will meet again on Thursday, May 26. BUSINESS MEETING Committee on Banking, Housing, and Urban Affairs: Committee ordered favorably reported the following business items: An original bill to improve the administration of export controls; S. 1952, to authorize the minting of coins to commemorate the 175th anniversary of the founding of the United States Botanic Garden, with an amendment in the nature of a substitute; and The nominations of Alan S. Blinder, of New Jersey, to be a Member and Vice Chairman of the Board of Governors of the Federal Reserve System; Steven Mark Hart Wallman, of Virginia, to be a Member of the Securities and Exchange Commission; and Philip N. Diehl, of Texas, to be Director of the Mint, Department of the Treasury. TELECOMMUNICATIONS Committee on Commerce, Science, and Transportation: Committee resumed hearings on S. 1822, to safeguard and protect the public interest while permitting the growth and development of new communications technologies, focusing on public interest considerations, receiving testimony from Paul W. Schroeder, American Council of the Blind, Mark Goldfarb, Gallaudet University, Robert Peck, American Civil Liberties Union, Anthony L. Pharr, United Church of Christ, and James L. Winston, National Association of Black Owned Broadcasters, all of Washington, D.C.; Margaret R. Pfanstiehl, Metropolitan Washington Ear, Silver Spring, Maryland; and Susan Hadden, Alliance for Public Technology, Austin, Texas. Hearings continue tomorrow. GLOBAL CLIMATE CHANGE Committee on Energy and Natural Resources: Committee concluded hearings to examine the role of greenhouse gases in global warming and the implementation of the Administration's climate change action plan for reducing greenhouse gas emissions, after receiving testimony from Robert T. Watson, Associate Director for Environment, Office of Science and Technology Policy; Jerry D. Mahlman, Director, Geophysical Fluid Dynamics Laboratory (Princeton, New Jersey), National Oceanic and Atmospheric Administration, Department of Commerce; Judith Lean, Research Physicist, E.O. Hulburt Center for Space Research, Naval Research Laboratory; Richard S. Lindzen, Massachusetts Institute of Technology, and Sallie Baliunas, Harvard-Smithsonian Center for Astrophysics, both of Cambridge, Massachusetts; and Stephen E. Schwartz, Brookhaven National Laboratory, Upton, New York. ENERGY SUPPLY SECURITY Committee on Energy and Natural Resources: Committee concluded hearings on S. 2032, to ensure that insular areas of the United States have guaranteed access to the Strategic Petroleum Reserve during an oil supply disruption, and proposed legislation authorizing funds for fiscal years 1995-1999 for programs of the

Energy Policy and Conservation Act, receiving testimony from John A. Riggs, Principal Deputy Assistant Secretary of Energy for Policy Planning and Program Evaluation; Mufi Hannemann and Tak Yoshihara, both of the Hawaii Department of Business, Economic Development and Tourism, and Harwood D. Williamson, Hawaiian Electric Company, all of Honolulu. SOCIAL SECURITY RETIREMENT EARNINGS TEST Committee on Finance: Committee held hearings to examine how the current Social Security retirement earnings test is working and its impact on beneficiaries, focusing on whether to eliminate or modify the test, receiving testimony from Senator McCain; Representative Hastert; Shirley S. Chater, Commissioner of Social Security, Department of Health and Human Services; Robert M. Ball, former Commissioner of Social Security, Max Richtman, National Committee to Preserve Social Security and Medicare, and C. Eugene Steuerle, The Urban Institute, all of Washington, D.C.; and Joseph S. Perkins, American Association of Retired Persons, Danvers, Massachusetts. Hearings were recessed subject to call. NOMINATION Committee on Foreign Relations: Committee concluded hearings on the nomination of Frank G. Wisner, of the District of Columbia, to be Ambassador to the Republic of India, after the nominee testified and answered further questions in his own behalf. MEDICAL MALPRACTICE REFORM Committee on the Judiciary: Subcommittee on Courts and Administrative Practice concluded hearings to examine reforms to the medical malpractice system as contained in the proposed Health Security Act, after receiving testimony from Cynthia C. Lebow, Senior Counsel for Policy, Civil Division, Department of Justice; Philip H. Corboy, Chicago, Illinois, on behalf of the American Bar Association; Paul B. Ginsburg, Physician Payment Review Commission, and John H. Niles, Columbia Hospital For Women, on behalf of the Health Care Liability Alliance, and Victor E. Schwartz, Crowell & Moring, all of Washington, D.C.; and Laura Wittkin, Center for Patients' Rights, New York, New York. HEALTH CARE REFORM Committee on Labor and Human Resources: Committee resumed markup of proposed legislation to ensure individual and family security through health care coverage for all Americans in a manner that contains the rate of growth in health care costs and promotes responsible health insurance practices, but did not complete action thereon, and will meet again tomorrow. AUTHORIZATION-INDIAN CHILD PROTECTION AND FAMILY VIOLENCE PREVENTION Committee on Indian Affairs: Committee concluded hearings on S. 2075, to authorize funds for and strengthen programs of the Indian Child Protection and Family Violence Prevention Act, and provisions of S. 2074, to increase the special assessment for felonies and improve the enforcement of sentences imposing criminal fines, after receiving testimony from Michael H. Trujillo, Director, Indian Health Service, Department of Health and Human Services; Walter R. Mills, Acting Deputy Commissioner of Indian Affairs, Department of the Interior; Howard B. Apple, Unit Chief, Interstate Theft/Government Reservation Crimes Unit, Violent Crimes and Major Offenders Section, Criminal Investigative Division, Federal Bureau of Investigation, Department of Justice; Ferrell Secakuku, Hopi Tribe, Kykotsmovi, Arizona; Cecil Antone, Gila River Indian Community, Sacaton, Arizona; Pamela Iron, Cherokee Nation of Oklahoma, Tahlequah; and Genevieve Jackson, Navajo Nation Council, Window Rock, Arizona. COUNTERINTELLIGENCE AND SECURITY ENHANCEMENTS ACT Select Committee on Intelligence: Committee ordered favorably reported, with amendments, S. 2056, to revise the National Security Act of 1947 to improve the counterintelligence and security posture of the United States.
103rd Congress 2nd Session
... CARE POLICY (93%); **CLIMATE CHANGE** (93%); EXPORT TRADE (...
... BOARDS OF DIRECTORS (90%); **GLOBAL WARMING** (90%); HEALTH DEPARTMENTS (...

187. CONGRESSIONAL RECORD -- Senate, Thursday, May 5, 1994 (Legislative day of Monday, May 2, 1994), 140 Cong Rec S 5313, Vol. 140 No. 53, NOTICES OF HEARINGS
103rd Congress 2nd Session
... science concerning global **climate change.** The hearing will take ...

188. CONGRESSIONAL RECORD -- Extension of Remarks, Wednesday, April 19, 1994 , 140 Cong Rec E 707, Vol. 140 No. 43 , DAN WATERS, GENERAL MANAGER OF THE LOS ANGELES DEPARTMENT OF WATER AND POWER, RETIRES
103rd Congress 2nd Session

... ADDRESS THE THREAT OF GLOBAL **CLIMATE CHANGE.** HE ALSO IMPLEMENTED SEVERAL INNOVATIVE ...

189. CONGRESSIONAL RECORD -- Extension of Remarks, Thursday, June 9, 1994 , 140 Cong Rec E 1138, Vol. 140 No. 71, NEW DIRECTION FOR U.S. ASSISTANCE
103rd Congress 2nd Session
... TYPES OF ENVIRONMENTAL DAMAGE, SUCH AS **GLOBAL WARMING** AND THE THINNING OF THE OZONE LAYER, ...

190. CONGRESSIONAL RECORD -- Extension of Remarks, Thursday, June 9, 1994 , 140 Cong Rec E 1171, Vol. 140 No. 71, AGRICULTURAL RESEARCH REMAINS A FOREIGN AID PRIORITY
103rd Congress 2nd Session
... unlikely stresses like **climate change)** of the situation in 2020 are ...

191. CONGRESSIONAL RECORD -- House, Tuesday, June 14, 1994 , 140 Cong Rec H 4404, Vol. 140 No. 74, ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT, 1995
103rd Congress 2nd Session
... electricity. Those of us who are concerned about **global warming** in the Third World ...
... CONTRIBUTE TO ACID RAIN OR **GLOBAL WARMING** AND FUSION ENERGY DOES NOT ...
... security. Those of us who worry about **global warming** realize that we cannot continue to ...

192. CONGRESSIONAL RECORD -- Extension of Remarks, Wednesday, June 15, 1994 , 140 Cong Rec E 1217, Vol. 140 No. 75, DRUG LEGALIZATION/THE NATURE OF EVIL
103rd Congress 2nd Session
... DIOXIDE (ONE OF THE MAJOR "**GREENHOUSE EFFECT**" CHEMICALS), THEY SUPPORT USING ...

193. CONGRESSIONAL RECORD -- House, Wednesday, June 22, 1994 , 140 Cong Rec H 4789, Vol. 140 No. 80, H.R. 4602, DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT, 1995
103rd Congress 2nd Session
... Northwest forest plan; the **climate change** action plan; the South ...
... largest reductions in **greenhouse gas** emissions. The overall increase ...

194. CONGRESSIONAL RECORD -- House, Thursday, June 23, 1994 , 140 Cong Rec H 4889, Vol. 140 No. 81, DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATION ACT, 1995
103rd Congress 2nd Session
... reach the goals of both **global warming** and also reach the goals that are stated ...

195. CONGRESSIONAL RECORD -- House, Friday, June 24, 1994 , 140 Cong Rec H 4976, Vol. 140 No. 82, DEPARTMENTS OF COMMERCE, JUSTICE, AND STATE, THE JUDICIARY, AND RELATED AGENCIES APPROPRIATIONS ACT, 1995, AND SUPPLEMENTAL APPROPRIATIONS, 1994
103rd Congress 2nd Session
... collecting observations of global **climate change** of dubious scientific value. ...
... budget for global **climate change** research or to cut back on its ...

... monitoring and evaluating global and **climate change.** This program, I think, ...
... account, as is long-term **climate change** research and oceanic observation and ...

196. CONGRESSIONAL RECORD -- Senate, Wednesday, June 29, 1994 (Legislative day of Tuesday, June 7, 1994), 140 Cong Rec S 7855, Vol. 140 No. 85, FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED AGENCIES APPROPRIATIONS ACT, 1995
103rd Congress 2nd Session
... a significant contribution to **global warming** , and for the purpose of supporting ...

197. CONGRESSIONAL RECORD -- Senate, Wednesday, June 29, 1994 (Legislative day of Tuesday, June 7, 1994), 140 Cong Rec S 7898, Vol. 140 No. 85, FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED AGENCIES APPROPRIATIONS ACT, 1995
103rd Congress 2nd Session
... emissions that contribute to global **climate change.** This dramatic increase more than ...
... million to combat the effects of **global warming;** however, allowing United States ...

198. CONGRESSIONAL RECORD -- Senate, Wednesday, June 29, 1994 (Legislative day of Tuesday, June 7, 1994), 140 Cong Rec S 7971, Vol. 140 No. 85, FOREST ECOSYSTEM RESEARCH LABORATORY AUTHORIZATION ACT OF 1994
103rd Congress 2nd Session
... important questions as the impact of **climate change** on forest, forest health, ...

199. CONGRESSIONAL RECORD -- Senate, Thursday, June 30, 1994 (Legislative day of Tuesday, June 7, 1994), 140 Cong Rec S 7973, Vol. 140 No. 86, ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT OF 1995
103rd Congress 2nd Session
... met-and concerns over **global warming** dealt with-only through ...
... role in mitigating **global warming** (should that phenomenon turn out to be ...
... avoid the possibility of a **global warming** disaster. Given the need to ...
... unprecedented rate and level of **global warming** of which ultimate potential impacts could be ...
... carbon dioxide and other **greenhouse effect** gases is one of the most ...

200. CONGRESSIONAL RECORD -- Senate, Thursday, June 30, 1994 (Legislative day of Tuesday, June 7, 1994), 140 Cong Rec S 8020, Vol. 140 No. 86, ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT
103rd Congress 2nd Session
... urban smog, and global **climate change.** The Clean Air Act ...

201. CONGRESSIONAL RECORD -- Extension of Remarks, Friday, July 1, 1994 , 140 Cong Rec E 1414, Vol. 140 No. 87, DEPARTMENT OF ENERGY STUDY ON ALASKA NORTH SLOPE OIL RECOMMENDS THE RIGHT POLICY CHOICE
103rd Congress 2nd Session
... U.S. waters. (d) **Greenhouse gas** emissions from generating steam to ...

202. CONGRESSIONAL RECORD -- House, Monday, June 27, 1994 , 140 Cong Rec H 5094, Vol. 140 No. 83, 1430
DEPARTMENTS OF COMMERCE, JUSTICE, AND STATE, THE JUDICIARY, AND RELATED AGENCIES APPROPRIATIONS ACT, 1995, AND SUPPLEMENTAL APPROPRIATIONS, 1994
103rd Congress 2nd Session
... OCEANOGRAPHIC APPROACHES TO GLOBAL **CLIMATE CHANGE** PROGRAMS. WITH ADVANCED UNDERSEA ...

203. CONGRESSIONAL RECORD -- Senate, Monday, July 11, 1994 , 140 Cong Rec S 8458, Vol. 140 No. 88,
HEALTH REFORM AND JOBS: THE CLINTON PLAN
103rd Congress 2nd Session
... regulatory agenda ranging from **global warming** to new logging policies. ...

204. CONGRESSIONAL RECORD -- Senate, Wednesday, July 13, 1994 (Legislative day of Monday, July 11, 1994), 140 Cong Rec S 8922, Vol. 140 No. 90, INTRODUCTION OF THE NATIONAL INSTITUTE FOR THE ENVIRONMENT ACT
103rd Congress 2nd Session
... face today. Global **climate change,** loss of biodiversity, resource ...
... ENVIRONMENTAL LAW (59%); **CLIMATE CHANGE** (59%); ENDANGERED SPECIES (...

205. CONGRESSIONAL RECORD -- Senate, Thursday, July 14, 1994 (Legislative day of Monday, July 11, 1994), 140 Cong Rec S 8930, Vol. 140 No. 91, CHARACTER BUILDING IN THE UNITED STATES
103rd Congress 2nd Session
... I believe a **climate of change** will be a source of ...

206. CONGRESSIONAL RECORD -- Senate, Thursday, July 14, 1994 (Legislative day of Monday, July 11, 1994), 140 Cong Rec S 8943, Vol. 140 No. 91, IS CONGRESS IRRESPONSIBLE? YOU BE THE JUDGE
103rd Congress 2nd Session
... directly related to overpopulation. **Global warming,** stagnating economies in ...

207. CONGRESSIONAL RECORD -- Senate, Friday, July 15, 1994 (Legislative day of Monday, July 11, 1994), 140 Cong Rec S 9056, Vol. 140 No. 92, FOREIGN OPERATIONS, EXPORT FINANCING, AND RELATED AGENCIES APPROPRIATIONS ACT, 1995
103rd Congress 2nd Session
... global environment. These include **global warming,** the loss of biological diversity, the ...
... Diversity and the Framework Convention on **Climate Change.** We appreciate the funding levels that ...
... mechanism for the Conventions on **Climate Change** and Biodiversity. We must back our ...
... global problems of biodiversity, **climate change** and international waters. The fund is ...
... two international treaties on **Climate Change** and Biodiversity that the US has ratified (**Climate Change**) or in the process of ratifying (...
... Biological Diversity Treaty and the **Climate Change** Treaty. The Senate has already given its advice and consent on the **Climate change** Treaty and the Foreign Relations ...
... environment in the areas of **climate change,** biodiversity, ozone depletion, and ...
... protective layer. The Convention on **Climate Change** works to halt the growth ...
... financial commitments under the **Climate Change** Convention and the Biodiversity Convention. The ...
... for both the conventions on **climate change** and biodiversity, among other ...

208. CONGRESSIONAL RECORD -- Senate, Wednesday, July 20, 1994 , 140 Cong Rec S 9269, Vol. 140 No. 95, THE 25TH ANNIVERSARY OF THE "APOLLO"
103rd Congress 2nd Session
... entire Earth on global **climate change.** This will help us to save our ...

209. CONGRESSIONAL RECORD -- Senate, Monday, July 25, 1994 (Legislative day of Wednesday, July 20, 1994), 140 Cong Rec S 9588, Vol. 140 No. 98, DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT, 1995
103rd Congress 2nd Session
... fund the highest priority **climate change** initiatives requested by the ...
... begin implementing the President's **Climate Change** Action Plan. Indian ...

210. CONGRESSIONAL RECORD -- Senate, Tuesday, July 26, 1994 (Legislative day of Wednesday, July 20, 1994), 140 Cong Rec S 9699, Vol. 140 No. 99, INTERIOR APPROPRIATIONS BILL FOR FISCAL YEAR 1995
103rd Congress 2nd Session
... programs contained in the **climate change** action plan, many of which are ...
... voluntary measures under the **climate change** action plan. The House ...

211. CONGRESSIONAL RECORD -- Senate, Wednesday, July 27, 1994 (Legislative day of Wednesday, July 20, 1994), 140 Cong Rec S 9948, Vol. 140 No. 100, ADDITIONAL STATEMENTS STARS OF ENERGY EFFICIENCY
103rd Congress 2nd Session
... production. With the coming into force of the **Climate Change** Convention, and the Biodiversity Convention ...
... Blue skies and reduced **greenhouse gas** emissions are not yet ...

212. CONGRESSIONAL RECORD -- Senate, Wednesday, August 3, 1994 (Legislative day of Wednesday, July 20, 1994), 140 Cong Rec S 10397, Vol. 140 No. 105, VA-HUD APPROPRIATIONS ACT
103rd Congress 2nd Session
... use will reduce **greenhouse gas** emissions, including reports from ...
... significant benefits in * * * **greenhouse gas** emmissions," and goes on to say that there could be as ...
... rule that will decrease **greenhouse gas** emissions and smog. Second, it ...
... calculated the energy security and **global warming** benefits? Mr. Riggs. ...
... lead to long-term **global warming** benefits. Short-term **global warming** benefits would occur if methanol from ...
... ROS will decrease **greenhouse gas** emissions as well. The Department of ...
... lead to long-term **global warming** benefits. Short-term **global warming** benefits would occur if methanol from ...
... ozone-related benefits and **global warming** benefits. Summer ozone- ...
... examine the implementation of the administration's **Climate Change** Action Plan and the Energy ...
... consider energy security or **climate change** concerns when establishing the performance ...
... program also have important global **climate change** implications since these pollutants have ...
... 270 times greater **climate change** impacts than carbon dioxide (...
... O) is also troubling because of the global **climate change** implications associated with increased ...
... actually offer any global **climate change** benefits. CONCLUSION While the ...
... by pointing to projected **greenhouse gas** emission reductions and attempts to ...
... believes that the potential global **climate change** benefits would be marginal, at best and that the ...
... implementing measures to reduce **greenhouse gas** emissions. Unfortunately, the ROR ...
... only modest global **climate change** benefits at a significant ...
... emissions (a potent **greenhouse gas**) while also reducing the federal ...

... a greater impact on **greenhouse gas** emissions, and at worst will ...
... quality, reductions in **greenhouse gas** emissions and reductions in ...
... in reformulated gasoline. **GREENHOUSE GAS** EMISSIONS In addition to ...
... biofuel does little to reduce **greenhouse gas** emissions. According to scientists at the ...
... corn would have negative effects on **greenhouse gas** reductions. Fertilizer is a ...
... will have on air quality and **greenhouse gas** emissions, it makes far ...
... Program Does Not Provide **Global Warming** and Air Quality Benefits. As ...
... a net reduction of **global warming** gases. In proposing the ...
... energy use, and global **greenhouse gas** emissions. The following table ...
... additional fertilizer use to **global warming** caused by nitrous ...
... program as potentially increasing **global warming,** increasing smog, increasing ...
... full fuel-cycle **greenhouse gas** emissions. As we point out ...
... environmental impacts-including **global warming**-and with stimulating truly renewable ...
... appreciably reduce the threat of **global, warming. In** a study of ...
... greenhouse benefit. Calculating the **greenhouse gas** emissions for vehicles ...
... made from corn-would increase **greenhouse gas** emissions by 20 ...
... corn-to-ethanol cycle on **global warming.**" Like CNG, ethanol is ...
... employment and contribute to reduction of **greenhouse gas** emissions. A RFF ...
... rather than created, and global **climate change** benefits would be marginal or negative. This is ...
... investment policy and global **climate change** policy. Benefits could potentially ...
... entirely clear that total **greenhouse gas** emissions are lower for ...
... issue is, rather, whether the net **greenhouse gas** impact of the renewable oxygenate ...
... gasoline blended with ethanol. **Greenhouse gas** emissions would consequently be lower ...
... reformulated gasoline program the **greenhouse gas** effects of using ETBE would be ...
... carbon dioxide or other **greenhouse gas** emissions. EPA's presumption of ...
... cleaner air and lower **greenhouse gas** emissions. Ethanol and ETBE ...
... proposal be justified by **global warming** benefits. EPA retreated from its ...
... states that there will be no **global warming** benefits in the short- ...
... speculates that there will be potential **global warming** benefits in the long ...
... x emissions in its **global warming** calculations. I am also extremely ...
... lead to long-term **global warming** benefits. Short-term **global warming** benefits would occur if methanol from ...
... environmental benefits. BENEFITS **Greenhouse gas** emissions will be reduced ...
... fuels. Ethanol reduces **greenhouse gas** emissions, promotes rural ...
... used-and the prospect of global **climate change** makes urgent the need to ...

213. CONGRESSIONAL RECORD -- Senate, Wednesday, August 3, 1994 (Legislative day of Wednesday, July 20, 1994), 140 Cong Rec S 10490, Vol. 140 No. 105, VA-HUD APPROPRIATIONS ACT
103rd Congress 2nd Session
... key to understanding global **climate change.** The Arctic produces the cold, ...
... nearly every global **climate change** model shows the first and most substantial **climate changes,** if they occur, will occur ...
... want to study global **climate change,** there is a great deal of it you do ...

214. CONGRESSIONAL RECORD -- Senate, Thursday, August 4, 1994 (Legislative day of Wednesday, July 20, 1994), 140 Cong Rec S 10559, Vol. 140 No. 106, VA-HUD APPROPRIATIONS ACT
103rd Congress 2nd Session
... fund things like **climate change,** the environmental technology initiative, and also ...

215. CONGRESSIONAL RECORD -- Extension of Remarks, Monday, August 8, 1994 , 140 Cong Rec E 1675, Vol. 140 No. 108, CONSENSUS FOR CHANGE BROCHURE
103rd Congress 2nd Session
... U.N. Framework Convention on **Climate Change** and the U.N. Convention on Biological ...

216. CONGRESSIONAL RECORD -- Extension of Remarks, Friday, August 12, 1994 , 140 Cong Rec E 1721, Vol. 140 No. 112, U.S. INTERNATIONAL POSITION ON GLOBAL CLIMATE CHANGE TREATY
103rd Congress 2nd Session
... INTERNATIONAL ENVIRONMENTAL ISSUE-**GLOBAL WARMING** OR GLOBAL **CLIMATE CHANGE.** IN 1992, THE UNITED ...
... CLAIM MAY CAUSE **GLOBAL WARMING.** THE U.S. SENATE RATIFIED THE ...
... DEAL WITH THE ISSUE OF GLOBAL **CLIMATE CHANGE** AND THAT MORE NEEDS TO BE DONE. ...
... BY THE STATE OF THE SCIENCE ON **CLIMATE CHANGE.** IN FACT, THE U.N.' ...
... STATE OF SCIENTIFIC UNDERSTANDING OF **CLIMATE CHANGE** IS STILL IN THE PROCESS OF ... TREATIES & AGREEMENTS (92%); **CLIMATE CHANGE** (91%); INTERNATIONAL RELATIONS (...

217. CONGRESSIONAL RECORD -- Senate, Friday, August 19, 1994 (Legislative day of Thursday, August 18, 1994), 140 Cong Rec S 12141, Vol. 140 No. 118, THWARTING THE WILL OF THE SENATE
103rd Congress 2nd Session
... floor. THE ISSUE OF GLOBAL **CLIMATE CHANGE** Mr. CRAIG. Mr. ...
... a Framework Convention on **Climate Change,** or "INC" as it is known. At the last ...
... commitments contained in the **Climate Change** Treaty were inadequate. In ...
... further concern is the fact that the **Climate Change** Treaty already outlines ...
... scientific information and assessment on **climate change** and its impacts, as well as relevant ...
... full scientific assessment of **climate change** is not due until ...
... much of the data gathered on **climate change** since the last scientific ...
... protocols setting mandatory **greenhouse gas** emissions reduction targets and ...
... a 50-point **climate change** action plan that commits the United States to reduce its **greenhouse gas** emissions to their 1990 level ...
... growth has led to increased **greenhouse gas** emissions. Mr. President, the ...
... world. It is widely acknowledged that **greenhouse gas** emissions from developing nations ...
... careful understanding of the science of **climate change.**

218. CONGRESSIONAL RECORD -- House, Friday, August 19, 1994 , 140 Cong Rec H 8707, Vol. 140 No. 118, HYDROGEN, FUSION, AND HIGH ENERGY AND NUCLEAR PHYSICS RESEARCH ACT OF 1994
103rd Congress 2nd Session
... research, including global **climate change,** at DOE labs and universities. To me, this ...

219. CONGRESSIONAL RECORD -- House, Friday, August 26, 1994 , 140 Cong Rec H 9014, Vol. 140 No. 125, CONFERENCE REPORT ON H.R. 4624, DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT AND INDEPENDENT AGENCIES APPROPRIATIONS ACT, 1995
103rd Congress 2nd Session
... related activities. $ 4,500,000 from **climate change** plan activities. $ 12,000,000 from ...
... for a global **climate change** initiative for a ...
... human dimensions of global **climate change.** +$ 2,000,000 for an interdisciplinary ...
... research. $ 33,000,000 from the global **climate change** initiative. $ 15,000,000 from the high ...

220. CONGRESSIONAL RECORD -- House, Wednesday, September 21, 1994 , 140 Cong Rec H 9383, Vol. 140 No. 133, HEADWATERS FOREST ACT
103rd Congress 2nd Session
... Time rolls on. The weather, the **climate change.** I have seen clearcutting and do ...

221. CONGRESSIONAL RECORD -- House, Monday, September 26, 1994 , 140 Cong Rec H 9607, Vol. 140 No. 136, CONFERENCE REPORT ON H.R. 4650, DEPARTMENT OF DEFENSE APPROPRIATIONS ACT, 1995
103rd Congress 2nd Session
... shared, near-term **Climate Change** Fuel Cell Program, and ...

222. CONGRESSIONAL RECORD -- House, Monday, September 26, 1994 , 140 Cong. Rec. 9 603, Vol. 140 No. 136, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AUTHORIZATION ACT OF 1994
103rd Congress 2nd Session
... ENVIRONMENT-WITH SPECIAL EMPHASIS ON **CLIMATE CHANGE** AND GREENHOUSE WARMING, OZONE ...
... IN THE U.S. GLOBAL **CLIMATE CHANGE** RESEARCH PROGRAM. THE KEY TO ...
... CONDUCT RESEARCH ON GLOBAL **CLIMATE CHANGE,** MOVEMENT OF CONTAMINANTS IN THE ...
... 4008, INCLUDING: GLOBAL **CLIMATE CHANGE** RESEARCH; THE NATIONAL UNDERSEA ...
... oceans worldwide on global **climate change** and concerning the condition of the oceans. (...
... RESEARCH LABORATORY, GLOBAL **CLIMATE CHANGE,** THE SALTONSTALL-KENNEDY FISHERY ...

223. CONGRESSIONAL RECORD -- Senate, Tuesday, September 27, 1994 (Legislative day of Monday, September 12, 1994), 140 Cong Rec S 13386, Vol. 140 No. 137, VA, HUD, AND RELATED AGENCIES APPROPRIATIONS ACT FOR FISCAL YEAR 1995-CONFERENCE REPORT
103rd Congress 2nd Session
... for the Human Dimensions of **Climate Change** at a level of approximately $ ...
... human dimensions of global **climate change,**" and for which $ 6 million was ...

224. CONGRESSIONAL RECORD -- Senate, Tuesday, September 27, 1994 (Legislative day of Monday, September 12, 1994), 140 Cong Rec S 13449, Vol. 140 No. 137, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
103rd Congress 2nd Session
... repealed. (3) Global **climate change** technical advisory committee .- ...
... appoint a Global **Climate Change** Technical Advisory Committee, is ...
... concerned. (3) Global **Climate Change** Technical Advisory Committee. The ...

225. CONGRESSIONAL RECORD -- House, Friday, September 30, 1994 , 140 Cong Rec H 10430, Vol. 140 No. 140, WORLD POPULATION AWARENESS WEEK
103rd Congress 2nd Session
... animal species, global **climate changes,** waste management, and air and ...

226. CONGRESSIONAL RECORD -- House, Thursday, September 29, 1994 , 140 Cong Rec H 10257, Vol. 140 No. 139, WAIVING POINTS OF ORDER AGAINST CONFERENCE REPORT ON H.R. 4650, DEPARTMENT OF DEFENSE APPROPRIATIONS ACT, 1995

103rd Congress 2nd Session
... climate-changing phenomena as **global warming.** $ 850,000 to look into concerns ...

227. CONGRESSIONAL RECORD -- House, Thursday, September 29, 1994 , 140 Cong Rec H 10283, Vol. 140 No. 139, CONFERENCE REPORT ON S. 349, LOBBYING DISCLOSURE ACT OF 1994
103rd Congress 2nd Session
... S. 1220. Global **Climate Change,** H.R. 4750. National ...

228. CONGRESSIONAL RECORD -- Daily Digest, Thursday, October 6, 1994 , 140 Cong Rec D 1221, Vol. 140 No. 144, 613 words, SENATE
103rd Congress 2nd Session
... Act Amendments, with emphasis on **global warming.** Testimony was heard from Hazel ...

229. CONGRESSIONAL RECORD -- Daily Digest, Thursday, October 6, 1994 , 140 Cong Rec D 1221, Vol. 140 No. 144-Part II, 520 words, SENATE
103rd Congress 2nd Session
... Act Amendments, with emphasis on **global warming.** Testimony was heard from Hazel ...

230. CONGRESSIONAL RECORD -- Daily Digest, Wednesday, October 5, 1994 , 140 Cong Rec D 1210, Vol. 140 No. 143, SENATE Chamber Action Routine Proceedings, pages S14127-S14276 Measures Introduced: Nine bills and two resolutions were introduced, as follows: S. 2501-2509, and S. Con. Res. 78-79. Measures Reported: Reports were made as follows: S. 1203, to establish a Center for Rare Disease Research in the National Institutes of Health, with an amendment in the nature of a substitute. (S. Rept. No. 103-399) S. 1697, to improve the ability of the Federal Government to prepare for and respond to major disasters, with an amendment in the nature of a substitute. (S. Rept. No. 103-400) S. 1020, to promote economic growth and job creation in the United States by facilitating worker involvement in the development and implementation of advanced workplace technologies and advanced workplace practices and by identifying and disseminating information on best workplace practices, with an amendment in the nature of a substitute. (S. Rept. No. 103-401) H.R. 3300, to amend the Act popularly known as the "Sikes Act" to enhance fish and wildlife conservation and natural resources management programs on military installations. Measures Passed: Railroad Dispute Extension: Senate passed H.J. Res. 417, providing for temporary extension of the application of the final paragraph of section 10 of the Railway Labor Act with respect to the dispute between the Soo Line Railroad Company and certain of its employees, clearing the measure for the President. NASA Authorization: Senate passed H.R. 4489, to amend the National Aeronautics and Space Act of 1958, after agreeing to a committee amendment in the nature of a substitute, and the following amendment proposed thereto: Ford (for Rockefeller) Amendment No. 2615, in the nature of a substitute. Export-Import Bank Authorization: Senate passed H.R. 4455, to authorize the Export-Import Bank of the United States to provide financing for the export of nonlethal defense articles and defense services the primary end use of which will be for civilian purposes, after agreeing to the following amendment proposed thereto: Craig (for D'Amato) Amendment No. 2616, in the nature of a substitute. Hong Kong Council Elections: Senate agreed to S. Res. 265, to express the sense of the Senate concerning district council elections in Hong Kong on September 18, 1994. United States-Taiwan Relations: Senate agreed to S. Res. 270, to express the sense of the Senate concerning United States relations with Taiwan. Agricultural Exports: Senate passed H.R. 4379, to amend the Farm Credit Act of 1971 to enhance the ability of the banks for cooperatives to finance agricultural exports, clearing the measure for the President. Petroleum Marketing Practices: Senate passed H.R. 1520, to amend the Petroleum Marketing Practices Act. Federal Power Act Amendments: Senate passed S. 2384, to extend the deadlines applicable to certain hydroelectric projects under the Federal Power Act, after agreeing to the following amendments proposed thereto: Ford (for Johnston) Amendment No. 2617, to extend the deadline for projects in Kentucky. Ford (for Byrd/Rockefeller) Amendment No.

2318, to provide for the extension of certain projects located in West Virginia. Ford (for Simon) Amendment No. 2319, to extend the license period for projects in Illinois. Ford (for Specter) Amendment No. 2320, to extend the deadline for the commencement of construction of an Allegheny River hydroelectric power project. SBA Amendments-Conference Report: Senate agreed to the conference report on S. 2060, to amend the Small Business Act and the Small Business Investment Act of 1958, clearing the measure for the President. Elementary and Secondary Education Amendments-Conference Report: By 77 yeas to 20 nays (Vote No. 321), Senate agreed to the conference report on H.R. 6, to extend for six years the authorizations of appropriations for the programs under the Elementary and Secondary Education Act of 1965, clearing the measure for the President. During consideration of this measure today, Senate took the following action: By 75 yeas to 24 nays (Vote No. 320), three-fifths of those Senators duly chosen and sworn having voted in the affirmative, Senate agreed to close further debate on the conference report. Lobbying Disclosure Act-Conference Report: A unanimous-consent agreement was reached providing for further consideration of the conference report on S. 349, to provide for the disclosure of lobbying activities to influence the Federal Government, on Thursday, October 6, 1994, with a cloture vote to occur thereon. Subsequently, by unanimous consent, the cloture vote scheduled to occur on Thursday, October 6, 1994, pursuant to Rule XXII of the Standing Rules of the Senate, will now occur, if necessary, on Friday, October 7, 1994. Nominations Received: Senate received the following nominations: David Folsom, of Texas, to be United States District Judge for the Eastern District of Texas. Thad Heartfield, of Texas, to be United States District Judge for the Eastern District of Texas vice Robert M. Parker. Lacy H. Thornburg, of North Carolina, to be United States District Judge for the Western District of North Carolina. 1 Marine Corps nomination in the rank of general. Messages From the House: Measures Referred: Measures Placed on Calendar: Executive Reports of Committees: Statements on Introduced Bills: Additional Cosponsors: Amendments Submitted: Authority for Committees: Additional Statements: Record Votes: Two record votes were taken today. (Total-321) Recess: Senate convened at 9 a.m., and recessed at 7:07 p.m., until 8:30 a.m., Thursday, October 6, 1994. (For Senate's program, see the remarks of the Acting Majority Leader in today's Record on page S14276.) Committee Meetings (Committees not listed did not meet) NOMINATIONS Committee on Armed Services: Committee ordered favorably reported the nominations of Bernard Daniel Rostker, of Virginia, to be an Assistant Secretary of the Navy; Gil Coronado, of Texas, to be Director, Selective Service System; A. J. Eggenberger, of Montana, and Herbert Kouts, of New York, both to be Members of the Defense Nuclear Facilities Safety Board; Albert H. Nahmad, of Florida, and Clifford B. O'Hara, of Connecticut, both to be Members of the Board of Directors of the Panama Canal Commission; Alan J. Dixon, of Illinois, to be a Member and Chairman of the Defense Base Closure and Realignment Commission; and 4,158 military nominations in the Army, Marine Corps, and Air Force. Prior to this action, committee concluded hearings on the nomination of former Senator Dixon, after the nominee, who was introduced by Senators Simon and Moseley-Braun, testified and answered questions in his own behalf. BUSINESS MEETING Committee on Banking, Housing, and Urban Affairs: Committee ordered favorably reported the nominations of Bruce A. Morrison, of Connecticut, and J. Timothy O'Neill, of Virginia, each to be a Director of the Federal Housing Finance Board, Department of Housing and Urban Development; James C. Hudson, of Oklahoma, to be a Director of the Securities Investor Protection Corporation; and Mary Ellen R. Fise, of the District of Columbia, H. Terry Rasco, of Arkansas, and Christine M. Warnke, of the District of Columbia, each to be a Member of the Board of Directors of the National Institute of Building Sciences. NATIONAL EXPORT STRATEGY Committee on Banking, Housing, and Urban Affairs: Committee concluded hearings to examine the second annual report of the Trade Promotion Coordinating Committee, which was created to establish, formulate, and coordinate a sound national export strategy, after receiving testimony from Ronald H. Brown, Secretary of Commerce; Kenneth D. Brody, President and Chairman, Export-Import Bank of the United States; Cassandra M. Pulley, Acting Administrator, Small Business Administration; and Alice M. Rivlin, Director, Office of Management and Budget, all on behalf of the Trade Promotion Coordinating Committee. LINE-ITEM VETO AUTHORITY Committee on the Budget: Committee concluded hearings on proposals to provide the President with the authority to rescind or line-item veto appropriated funds, including S. 9, S. 224, S. 437, S. 690, S. 740, S. 2458, H.R. 1578, and H.R. 4600, after receiving testimony from Senators Bradley, Specter, Craig, Cohen, and Byrd. NOMINATION Committee on Commerce, Science, and Transportation: Committee concluded hearings on the nomination of Christine A. Varney, of the District of Columbia, to be a Federal Trade Commissioner, after the nominee, who was introduced by Representative Harmon, testified and answered questions in her own behalf. GATT Committee on Commerce, Science, and Transportation: Committee continued hearings on S. 2467, to approve and implement the

trade agreements concluded in the Uruguay Round of multilateral trade negotiations, receiving testimony from Michael Kantor, United States Trade Representative; and Sir James Goldsmith, European Parliament, Strasbourg, France. Hearings were recessed subject to call. NATIONAL PARKS AND FORESTS Committee on Energy and Natural Resources: Subcommittee on Public Lands, National Parks and Forests concluded hearings on the following bills: H.R. 3905, to provide for the establishment and management of the Opal Creek Forest Preserve in the State of Oregon, after receiving testimony from Representative Kopetski; James R. Lyons, Assistant Secretary of Agriculture for Natural Resources and Environment; George Atiyeh, Friends of Opal Creek, Elkhorn, Oregon; James C. Geisinger, Northwest Forestry Association, Portland, Oregon; Tom Hirons, Oregon Lands Coalition, Gates, Oregon; and John Borowski, Dayton High School, Philomath, Oregon; S. 2359, to modify the boundaries of Walnut Canyon National Monument in the State of Arizona, after receiving testimony from Mr. Lyons (listed above); and Denis P. Galvin, Associate Director, Planning and Development, National Park Service, Department of the Interior; and S. 2434 and H.R. 3516, bills to increase the amount authorized to be appropriated for assistance for highway relocation regarding the Chickamauga and Chattanooga National Military Park in Georgia, and S. 2280, to provide for an orderly process to ensure compensation for the termination of an easement or the taking of real property used for public utility purposes at the Manassas National Battlefield Park, Virginia, after receiving testimony from Mr. Galvin (listed above). NOMINATIONS Committee on Environment and Public Works: Committee ordered favorably reported the nominations of Frederic J. Hansen, of Oregon, to be Deputy Administrator, Environmental Protection Agency; Paul L. Hill, Jr., of West Virginia, to be a Member and Chairperson, and Devra Lee Davis, of the District of Columbia, and Gerald V. Poje, of Virginia, both to be Members, all of the Chemical Safety and Hazard Investigation Board; and Kenneth Burton, of Virginia, D. Michael Rappoport, of Arizona, and Anne J. Udall, of North Carolina, each to be a Member of the Board of Trustees of the Morris K. Udall Scholarship and Excellence in National Environmental Policy Foundation. FARM TAX ISSUES Committee on Finance: Subcommittee on Energy and Agricultural Taxation held hearings on various farm-related tax proposals, including S. 226, S. 531, S. 545, S. 882, S. 1615, S. 1691, and S. 1814, receiving testimony from Representatives Castle and Minge; Norman B. Richter, Acting International Tax Counsel, Department of the Treasury; James H. Harris, Racine County Farm Bureau, Union Grove, Wisconsin; J. Gary McDavid, McDermott, Will & Emery, on behalf of the National Council of Farmer Cooperatives; Alan C. Sobba, National Cattlemen's Association, and Barbara G. Webb, National Farmers Union, all of Washington, D.C.; Thomas G. Tepas, Hercules Incorporated, Wilmington, Delaware; and Robert Woodbury, Kollmorgen Corporation, Waltham, Massachusetts. Hearings were recessed subject to call. NOMINATION Committee on Foreign Relations: Committee concluded an additional hearing on the nomination of Thomas E. McNamara, of the District of Columbia, to be Assistant Secretary of State for Politico-Military Affairs, after the nominee testified and answered further questions in his own behalf. BUSINESS MEETING Committee on Governmental Affairs: Committee ordered favorably reported the following business items: S. 1946, to provide for the repurchase of land taken by eminent domain from organizations that had held such land in trust for Native Americans; and The nominations of Martha F. Riche, of Maryland, to be Director of the Census, Department of Commerce; James H. Atkins, of Arkansas, and Scott B. Lukins, of Washington, each to be a Member of the Federal Retirement Thrift Investment Board; George J. Opfer, of Virginia, to be Inspector General, Federal Emergency Management Agency; Vanessa Ruiz, to be an Associate Judge of the District of Columbia Court of Appeals; and Luise S. Jordan, of Maryland, to be Inspector General, Corporation for National and Community Service. Also, committee ordered reported, without recommendation, S. 2467, to approve and implement the trade agreements concluded in the Uruguay Round of multilateral trade negotiations. BUSINESS MEETING Committee on the Judiciary: Committee ordered favorably reported the nominations of Fred I. Parker, of Vermont, to be United States Circuit Judge for the Second Circuit; Diane E. Murphy, of Minnesota, to be United States Circuit Judge for the Eighth Circuit; Helen W. Gillmor, to be United States District Judge for the District of Hawaii; David A. Katz, to be United States District Judge for the Northern District of Ohio; Sean J. McLaughlin, to be United States District Judge for the Western District of Pennsylvania; William T. Moore, to be United States District Judge for the Southern District of Georgia; Roslyn M. Silver, to be United States District Judge for the District of Arizona; Alvin W. Thompson, to be United States District Judge for the District of Connecticut; Elaine F. Bucklo, to be United States District Judge for the Northern District of Illinois; Robert W. Gettleman, to be United States District Judge for the Northern District of Illinois; Sven E. Holmes, to be United States District Judge for the Northern District of Oklahoma; Vicki Miles-LaGrange, to be United States District Judge for the Western District of Oklahoma; William H. Walls, to be United States District Judge for the

District of New Jersey; Reginald B. Madsen, to be United States Marshal for the District of Oregon; William Henry Von Edwards III, to be United States Marshal for the Northern District of Alabama; Robert Henry McMichael, to be United States Marshal for the Northern District of Georgia; John Edward Rouille, to be United States Marshal for the District of Vermont; Eddie J. Jordan, Jr., to be United States Attorney for the Eastern District of Louisiana; Sheldon C. Bilchik, of Maryland, to be Administrator, Office of Juvenile Justice and Delinquency Prevention, Department of Justice; Rose Ochi, of California, to be Associate Director, Bureau of State and Local Affairs, Office of National Drug Control Policy; Richard Thomas White, of Michigan, to be a Member of the Foreign Claims Settlement Commission, Department of Justice; Joseph Francis Baca, of New Mexico, Robert Nelson Baldwin, of Virginia, and Florence K. Murray, of Rhode Island, each to be a Member of the Board of Directors of the State Justice Institute; and Richard P. Conaboy, of Pennsylvania, to be a Member and Chairman, and Deanell Reece Tacha, of Kansas, Wayne Anthony Budd, of Massachusetts, and Michael Goldsmith, of Utah, each to be a Member, all of the United States Sentencing Commission. NATIONAL DRUG STRATEGY Committee on the Judiciary: Committee concluded oversight hearings to examine the Administration's drug strategy and how it relates to the Violent Crime Control and Law Enforcement Act (P.L. 103-322), after receiving testimony from Lee P. Brown, Director, and John P. Walters, former Acting Director, both of the Office of National Drug Control Policy; Robert L. Smith, City of Tampa Department of Public Safety, and Robert L. Allen, both of Tampa, Florida; Claire McCaskill, Kansas City, Missouri, on behalf of the National Association of Drug Court Professionals; and John Ratelle, Richard J. Donovan Correctional Facility, San Diego, California. CONSTITUTIONAL RIGHT TO TRAVEL Committee on the Judiciary: Subcommittee on the Constitution concluded hearings on the constitutional right to international travel, focusing on United States' restrictions on travel to Cuba, after receiving testimony from Representative Berman; Robert F. Turner, United States Naval War College, Newport, Rhode Island; and Kate Martin, American Civil Liberties Union, Peter Hakim, Inter-American Dialogue; Alicia M. Torres, Cuban American Committee Research and Education Fund; Mary W. Gray, American University; and George J. Du-Breuil, Cuban Committee for Democracy, all of Washington, D.C. INDIAN EDUCATION Committee on Indian Affairs: Committee approved for reporting S. Res. 264, expressing the sense of the Senate that the President should issue an Executive order to promote and expand Federal assistance for Indian institutions of higher education and foster the advancement of the National Education Goals for Indians.
103rd Congress 2nd Session
... Act Amendments, with emphasis on **global warming,** 9:30 a.m. and 1 ...

231. CONGRESSIONAL RECORD -- Senate, Tuesday, October 4, 1994 (Legislative day of Monday, September 12, 1994), 140 Cong Rec S 14046, Vol. 140 No. 142, CONVENTION ON BIOLOGICAL DIVERSITY
103rd Congress 2nd Session
... UN Framework Convention on **Climate Change;** the Antarctic Environmental Protocol; the ...

232. CONGRESSIONAL RECORD -- Extension of Remarks, Saturday, October 8, 1994 , 140 Cong Rec E 2201, Vol. 140 No. 146, IN MEMORY OF JAMES MATTHEW BROADUS III
103rd Congress 2nd Session
... MARINE MINERALS AND GLOBAL **CLIMATE CHANGE.** JIM WAS THE FIRST SOCIAL ...
... SCIENCE NEWS (73%); **CLIMATE CHANGE** (72%);

233. CONGRESSIONAL RECORD -- Senate, Friday, October 7, 1994 (Legislative day of Monday, September 12, 1994), 140 Cong Rec S 14926, Vol. 140 No. 145-Part II, IS IMMIGRATION A THREAT TO NATIONAL SECURITY?
103rd Congress 2nd Session
... medicines; acid rain, **climate change,** depletion of water resources, ...

234. CONGRESSIONAL RECORD -- Senate, Thursday, December 1, 1994 (Legislative day of Monday, September 12, 1994), 140 Cong Rec S 15271, Vol. 140 No. 149, URUGUAY ROUND AGREEMENTS ACT
103rd Congress 2nd Session
... Montreal Protocol, the Global **Climate Change** Convention, the Biodiversity Convention, and our ...

235. CONGRESSIONAL RECORD -- House, Tuesday, November 29, 1994 , 140 Cong Rec H 11493, Vol. 140 No. 147, URUGUAY ROUND AGREEMENT ACT-CONTINUED
103rd Congress 2nd Session
... RAIN FOREST PRESERVATION, **GLOBAL WARMING** AND EARLIER WORK ON CHLOROFLUORCARBONS (...

102nd Congress

LexisNexis *Congressional Record* search results for "climate change" or "global warming" or "greenhouse gas" or "greenhouse effect"

1. Thursday, October 29, 1992, 138 Cong Rec S 18290, Vol. 138 No. 146, REPORT ON THE IMPLEMENTATION OF THE HUMANITARIAN AND TECHNICAL ASSISTANCE PROGRAM TO THE NEW INDEPENDENT STATES OF THE FORMER SOVIET UNION
102nd Cong. 2nd Sess.
MR. LEAHY
... LABORATORIES TO MEASURE GLOBAL **CLIMATE CHANGE** AT FIVE PAIRED MONITORING ...

2. Thursday, October 29, 1992, 138 Cong Rec S 18330, Vol. 138 No. 146, RETIREMENT OF SENATOR TIM WIRTH
102nd Cong. 2nd Sess.
MR. JOHNSTON
... AUTHORITIES ON THE NATION'S ENVIRONMENT, THE **GREENHOUSE EFFECT,** AND OTHER GLOBAL ENVIRONMENTAL ...

3. Thursday, October 8, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 17625, Vol. 138 No. 144, VOTE
102nd Cong. 2nd Sess.
Mr. AKAKA; **Mr.** BENTSEN; **Mr.** BINGAMAN; **Mr.** BRADLEY; **Mr.** BUMPERS; **Mr.** COCHRAN; **Mr.** CONRAD; **Mr.** DOLE; **Mr.** DURENBERGER; **Mr.** FORD; **Mr.** FOWLER; **Mr.** GLENN; **Mr.** HATFIELD; **Mr.** INOUYE; **Mr.** JOHNSTON; **Mr.** KERREY; **Mr.** LIEBERMAN; **Mr.** LOTT; **Mr.** METZENBAUM; **Mr.** MOYNIHAN; **MR.** MURKOWSKI; **Mr.** NICKLES; **Mr.** RIEGLE; **Mr.** ROCKEFELLER; **Mr.** ROCKFELLER; **MR.** SANFORD; **Mr.** SIMON; **Mr.** SIMPSON; **Mr.** STEVENS; **Mr.** WALLOP; **Mr.** WARNER; **Mr.** WIRTH
... provisions on energy efficiency, **global warming,** and renewable energy. In the ...
... steps to stop the growth of **greenhouse gas** emissions. Under this provision, these ...
... understanding of the potential for **global warming.** We believe our actions make ...
... corporate commitments to offset **greenhouse gas** emissions. Working with the World ...
... seeking to reduce voluntarily their **greenhouse gas** emissions. Without this provision, those ...
... positive steps to reduce **greenhouse gas** emissions. The provision also preserves ...
... carbon dioxide emissions and **global warming.** while I am disappointed that ...
... might, based on the evidence of **global warming,** decide to consume less ...
... abate our concerns about **global warming.** But there are many conservation ...
... address pollution including **global warming,** small subsidies for ...
... must focus on the threat of **global warming** and should be employing all the measures that are available at ...
... efficiency, renewable energy and **global warming** provisions; John D. ...
... efficiency, alternative fuels, and **global warming.** Sam Fowler, all purpose ...

4. Thursday, October 8, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 17763, Vol. 138 No. 144, THE FOREIGN RELATIONS COMMITTEE'S RECORD IN THE 102D CONGRESS AND ITS AGENDA FOR THE 103D
102nd Cong. 2nd Sess.
Mr. PELL
... Nations Framework Convention on **Climate Change,** which the Senate approved on October ...
... efforts to address the threat of **climate change** caused by greenhouse ...
... by building on the Global **Climate Change** Convention approved by our ...

5. Thursday, October 8, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 17795, Vol. 138 No. 144, SENATOR TIM WIRTH
102nd Cong. 2nd Sess.
Mr. METZENBAUM
... leader on issues of conservation, **global warming,** and fuel efficiency. As many of us ...
... 90%); WILDERNESS (69%); **GLOBAL WARMING** (54%);

6. Thursday, October 8, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 17811, Vol. 138 No. 144, TRIBUTE TO SENATOR TIM WIRTH
102nd Cong. 2nd Sess.
Mr. LAUTENBERG
... wakeup call about the **greenhouse effect,** stressing the need for ...
... addition to his efforts to combat **global warming,** he has fought hard for ...

7. Thursday, October 8, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 17822, Vol. 138 No. 144, H.R. 776, NATIONAL ENERGY POLICY ACT
102nd Cong. 2nd Sess.
Mr. CHAFEE
... combat the threat of global **climate change.** These characterizations make great ...
... a role in **global warming.** Managing these competing objectives ...
... energy policy is the possibility of **global warming** and other **climate changes** caused by human ...
... PRICE CHANGES (59%); **CLIMATE CHANGE** (59%); IMPORT TRADE (...

8. Thursday, October 8, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 17944, Vol. 138 No. 144, EXPORT-IMPORT BANK REAUTHORIZATION -- CONFERENCE REPORT
102nd Cong. 2nd Sess.
Mr. BIDEN; **Mr.** FORD; **Mr.** GARN; **Mr.** RIEGLE; **Mr.** ROCKEFELLER; **Mr.** SARBANES; **Mr.** SIMPSON
... in particular global **climate change** -- are promoting revolutionary transformations ...

9. Thursday, October 8, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 18229, Vol. 138 No. 144, TRIBUTE TO HON. JAMES H. SCHEUER
102nd Cong. 2nd Sess.
MR. D'AMATO
... BIODIVERSITY, ENERGY EFFICIENCY, **GLOBAL WARMING,** THE PROTECTION OF OUR FORESTS -- LONG ...

10. Wednesday, October 7, 1992, 138 Cong Rec S 17131, Vol. 138 No. 143, LAND REMOTE SENSING POLICY ACT OF 1992
102nd Cong. 2nd Sess.
Mr. FORD; **Mr.** PRESSLER; **Mr.** SIMPSON
... regional and local impacts on **climate change.** For this reason, we have included ...

11. Wednesday, October 7, 1992, 138 Cong Rec S 17149, Vol. 138 No. 143, EXECUTIVE SESSION; U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE

102nd Cong. 2nd Sess.
Mr. FORD
... U.N. Framework Convention on **Climate Change.** I further ask ...
... TREATIES & AGREEMENTS (90%); **CLIMATE CHANGE** (90%);

12. Wednesday, October 7, 1992, 138 Cong Rec S 17149, Vol. 138 No. 143, THE GLOBAL CLIMATE CHANGE TREATY
102nd Cong. 2nd Sess.
Mr. CHAFEE
... historic treaty on global **climate change** and urge all of our colleagues to vote ...
... environmental threat of global **climate change.** This threat is frequently referred to as "the **greenhouse effect**". Now, what is the **greenhouse effect** -- is it really a serious environmental ...
... massive, uncontrolled global **climate change.** The skeptics like to point out that the **greenhouse effect** is natural and that, without a **greenhouse effect** -- without an atmospheric thermal ...
... pollution has already caused any **climate change** -- that the current warming trend is ...
... problem is not a **greenhouse effect** per se. It is the expected intensification of the **greenhouse effect** -- an intensified effect caused ...
... environment is threatened by the **greenhouse effect,** that it is everyone's problem, and that we must ...
... Convention *** is to achieve *** stabilization of **greenhouse gas** concentrations in the atmosphere at ...
... ecosystems to adapt naturally to **climate change,** to ensure that food production is ...
... about the threat of global **climate change.** More work needs to be ...
CLIMATE CHANGE (94%); TREATIES & AGREEMENTS (...

13. Wednesday, October 7, 1992, 138 Cong Rec S 17150, Vol. 138 No. 143, FRAMEWORK CONVENTION ON CLIMATE CHANGE
102nd Cong. 2nd Sess.
Mr. BAUCUS; **Mr.** BIDEN; **Mr.** CRAIG; **Mr.** FORD; **Mr.** GORE; **Mr.** LOTT; **Mr.** McCONNELL; **Mr.** MITCHELL; **Mr.** PELL; **Mr.** SIMPSON
... up the Framework Convention on **Climate Change,** I want to make ...
... effective policies to prevent **climate change** will preserve jobs as they ...
... a sober assessment of the **climate change** issue and calls for ...
... significant long-term **global warming.** Our understanding of the Earth's climate is ...
... current policies would lead to **global warming.** This is hardly a consensus on global **climate change** requiring us to limit economic ...
... Clearly, the potential for **climate change** is something that must be carefully ...
... minimize the potential for **climate change.** But these measures should be the least ...
... plans to monitor and limit **greenhouse gas** emissions. It provides for ...
... in funding for **climate change** research in fiscal ...
... reservations that the Framework Convention on **Climate Change** could be convoluted in a ...
... targets and timetables for **greenhouse gas** emissions. However, I am satisfied that we have ...
... simply to study and analyze **greenhouse gas** emissions are subject to overriding ...
... mitigating the potential for **climate change,** leave unchecked the burgeoning ...
... United States to stabilize **greenhouse gas** emissions, that it would be subject to ratification ...
... leadership on the issue of global **climate change.** In this year of sloganeering and ...
... U.N. Framework Convention on **Climate Change.** I believe that the approach to the issue of potential global **climate change** in the convention is responsible and ...
... timetable for limitation of **greenhouse gas** emissions. The convention's statement of ...
... approach to limiting the growth of **greenhouse gas** emissions. The U.S. national ...

... U.S. obligations concerning **greenhouse gas** emissions. It contains initiatives ...
... mean that U.S. net **greenhouse gas** emissions in the year ...
... result would be remarkable, given that **greenhouse gas** emissions typically bear some ...
... projected increase in **greenhouse gas** emissions under the U.S. ...
... factors affecting the level of **greenhouse gas** emissions. Others include ...
... difficult to predict with confidence. The **Climate Change** Convention wisely takes all these ...
... a Framework Convention on **Climate Change.** On May 4, 1992, ...
... achieve specific levels of **greenhouse gas** emissions, my view is that we ...
... by the Intergovernmental Panel on **Climate Change,** whose findings and recommendations are quoted so ...
... report, it cautioned: The consideration of **climate change** response strategies presents ...
... actually averting potential **climate change;** (b) uncertainty with respect to the ...
... issues are and who, therefore, negotiated a **climate change** convention that provides for ...
... U.N. Framework Convention on **Climate Change,** and I urge my ...
... consent to its ratification. The Convention on **Climate Change** marks a significant ...
... efforts to address the threat of **climate change** caused by anthropogenic ...
... uncertainty associated with projections of **climate change** precluded us from taking serious ...
... second, that efforts to reduce **greenhouse gas** emissions will be extremely ...
... timing, magnitude, and rate of **climate change,** and that this presents policymakers with difficult ...
... state of knowledge about **climate change,** I think is it useful to ...
... available scientific projections of **climate change.** At the fifth round of INC ...
... U.S. Views on Global **Climate Change**" which presented a consensus view of scientists on **climate change:** While scientists cannot ...
... rates of increase in **greenhouse gas** concentrations are faster than at any time ...
... years. The projected rate of **climate change** may outpace the ability of ...
... Assessment. In its study of **climate change,** the National Academy of Sciences ...
... United States could reduce its **greenhouse gas** emissions by between ...
... addressed the Intergovernmental Panel on **Climate Change** and articulated four principles to guide the international response to **climate change.** They are: First, that we cannot afford to ...
... justified on grounds other than **climate change** -- this has come to be called the no ...
... gases and thus in limiting **climate change,** and authoritative analysis which shows that such ...
... protocol that would limit anthropogenic **greenhouse gas** emissions. Mr. BAUCUS. The Framework Convention on **Climate Change** before the Senate is a ...
... Nation's need to curb its **greenhouse gas** emissions as part of a ...
... aggressive action to curb **greenhouse gas** emissions. The President claims it ...
... international environmental agreement on **greenhouse gas** emissions would only increase the ...
... Summit. I support the **climate change** treaty before us today, ...
... consider the Framework Convention on **Climate Change.** This convention does not take the ...
... planet from the risks associated with **climate change.** The Bush administration prevented ...
... certainty on every aspect of **climate change,** but there is consensus that **greenhouse gas** emissions from industrialized societies are ...
... conclusion of the Intergovernmental Panel on **Climate Change.** Waiting for absolute ...
... course of action and reduce our **greenhouse gas** emissions. Despite my ...
... for an action agenda on **climate change** by January 1993. We ...
... address the need to reduce **greenhouse gas** emissions, not merely ...
... analysis, about the science of **climate change** and what strategies can best ...
... support of the Framework Convention on **Climate Change** that the president signed in ...
... serious threat of global **climate change** -- and I think it is clear that the ...
... process leading to the conclusion of the **Climate Change** Treaty was initiated -- and driven -- ...
... taking action to combat **climate change** is also an economic imperative. The fact is that ...
... in confronting global **climate change.** The environmental and economic imperatives are therefore ...

... move ahead. While the **climate change** convention -- at Mr. Bush's ...
... a national dialogue on **climate change** and specifically, provide a ...
... action strategy to stem **greenhouse gas** emissions. The challenges that the threat of **climate change** poses are not too great ...
... U.N. Framework Convention on **Climate Change,** as I shall. The formal ...
... carbon dioxide or other **greenhouse gas** emissions at any time. Instead, the ...
... nation's plans to limit **greenhouse gas** emissions may take into ...
... Nation's obligations concerning **greenhouse gas** emissions. Some of the participants were pleased with the ...
... a Framework Convention on **Climate Change** [INC] the international negotiating ...
... industrialized countries to limit **greenhouse gas** emissions, which text subsequently was ...
... commitments regarding limitations on **greenhouse gas** emissions by the industrialized ...
... measures, "with the aim of returning" **greenhouse gas** emissions to their 1990 levels, ...
... Nations Framework Convention on **Climate Change,**" dated September 1992. ...
... illustrations that the governments which negotiated the **Climate Change** Convention, as well as the environmental and ...
... issue of potential global **climate change.** I am glad we saw ...
... U.N. Framework Convention on **Climate Change.** At the same time, I ...
... issue of potential global **climate change.** Interestingly, one of the most ...
... emissions but reduces **greenhouse gas** emissions by 50 ...
... current path, then worldwide **greenhouse gas** emissions will, by the ...
... thinking of the nations that negotiated the **Climate Change** Convention, it noted: [T]here was ...
... around half of global **greenhouse gas** emissions. However, the relative contribution of ...
... a consequence of the increased **greenhouse gas** emissions from these other countries, it is ...
... growth of developing countries' **greenhouse gas** emissions will more than ...
... will dwarf -- any amount of **greenhouse gas** emissions that would be avoided by the ...
... countries if they and we had agreed in the **Climate Change** Convention, or in the future would ...
... unacceptable, potential global **climate change,** if any, would be avoided during the next ...
... DE MINIMIS avoidance of **climate change,** as a result of what industrialized ...
... material amount of global **climate change,** there is no justification for our ...
... endure the economic burdens. The **Climate Change** Convention, as written, goes ...
... supported efforts to put **global warming** on the U.S. agenda and to create ...
... U.N. Framework Treaty on **Climate Change** that is only a faint ...
... effort to further document the **climate changes** that are underway and understand their effect on our ...
... commitment to reduce the threat of **global warming.** An obligation merely to assess ...
... House effect to battle the **greenhouse effect.** But, in my ...
... worst effects of global **climate change.** Contrary to the administration's predictions, these ...
... Nations Framework Convention on **Climate Change,** adopted May 9, ...
... a Framework Convention on **Climate Change** ("Convention"), and signed on behalf of the ...
CLIMATE CHANGE (91%); TREATIES & AGREEMENTS (...

14. Wednesday, October 7, 1992, 138 Cong Rec S 17194, Vol. 138 No. 143, INTER-AMERICAN SCIENTIFIC COOPERATION ACT OF 1992
102nd Cong. 2nd Sess.
Mr. BINGAMAN; **Mr.** FORD; **Mr.** HOLLINGS; **Mr.** SIMPSON
... Basin and its contribution to global **climate change** and species diversity, United ...

15. Wednesday, October 7, 1992, 138 Cong Rec S 17323, Vol. 138 No. 143 -- Part 2, SENATOR WIRTH
102nd Cong. 2nd Sess.

Mr. BROWN
... examining the possibility of global **climate change.** In addition to calling ...
... Senate. It addresses the issue of **global warming,** and aims to develop an energy ...

16. Wednesday, October 7, 1992, 138 Cong Rec S 17333, Vol. 138 No. 143 -- Part 2, TRIBUTE TO SENATOR TIM WIRTH
102nd Cong. 2nd Sess.
Mr. PELL
... areas. He has worked hard on **global warming,** ozone depletion, and protection of ...

17. Wednesday, October 7, 1992, 138 Cong Rec S 17393, Vol. 138 No. 143 -- Part 2, THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AUTHORIZATION AND THE LAND REMOTE SENSING POLICY ACT
102nd Cong. 2nd Sess.
Mr. BRYAN; **Mr.** DANFORTH; **Mr.** FORD; **Mr.** HOLLINGS
... about the climate threats such as **global warming** and ozone depletion. It is vital ...
... scope and impact of these global **climate changes.** Mission to Planet Earth ...

18. Wednesday, October 7, 1992, 138 Cong Rec S 17411, Vol. 138 No. 143 -- Part 2, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AUTHORIZATION ACT OF 1992
102nd Cong. 2nd Sess.
Mr. CHAFEE; **Mr.** CRAIG; **Mr.** FORD; **Mr.** HOLLINGS; **Mr.** KERRY; **Mr.** LAUTENBERG; **Mr.** MITCHELL; **Mr.** MOYNIHAN; **Mr.** SARBANES
... ocean circulation and global **climate change,** for charting the Nation's ...

19. Monday, October 5, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 16829, Vol. 138 No. 142 -- Part 2, BURST OF ENERGY
102nd Cong. 2nd Sess.
Mr. JOHNSTON
... breaks that subsidize parking; **global warming** provisions; simplified nuclear ...
... passing. On measures to combat **global warming,** the bill also represents a ...

20. Monday, October 5, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 16939, Vol. 138 No. 142 -- Part 4, TRIBUTE TO DR. STANLEY P. WILSON
102nd Cong. 2nd Sess.
Mr. HEFLIN
... Agriculture for Global **Climate Change."** This document provided resource ...

21. Monday, October 5, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 16957, Vol. 138 No. 142 -- Part 4, ENERGY BILL CONFERENCE REPORT
102nd Cong. 2nd Sess.
Mr. JEFFORDS
... help reduce our emissions of **global warming** gasses. Here is how he described the ...

22. Monday, October 5, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 17067, Vol. 138 No. 142 -- Part 4, HONORING A GREAT PUBLIC SERVANT
102nd Cong. 2nd Sess.
MR. SIMON; **MR.** WIRTH
... COMMENT ON THE FRAMEWORK CONVENTION ON **CLIMATE CHANGE** NOW BEFORE THE SENATE. ...
... ENORMOUS CHALLENGE OF GLOBAL **CLIMATE CHANGE.** I WENT TO THE EARTH ...
... ABOUT THE IMPACT OF MANMADE **GREENHOUSE GAS** EMISSIONS ON OUR CLIMATE, ONLY ...
... WORLD ATTENTION TO THE ISSUE OF **CLIMATE CHANGE,** FORCING THE ISSUE FROM THE PAGES OF ...
... POLICIES FOR REDUCING **GREENHOUSE GAS** EMISSIONS. AS I NEARED ...
... EFFORT TO COMBAT GLOBAL **CLIMATE CHANGE.** CONSENSUS EMERGED AT THE TORONTO ...
... YEAR, THE INTERGOVERNMENTAL PANEL ON **CLIMATE CHANGE** [IPCC] WAS ESTABLISHED TO DEVELOP ...
... OPTIONS RELATED TO GLOBAL **CLIMATE CHANGE.** THE UNITED NATIONS REINFORCED THE ...
... FIRST, THERE IS A NATURAL **GREENHOUSE EFFECT;** SECOND, HEAT-TRAPPING ...
... WILL CAUSE THE GLOBAL **CLIMATE TO CHANGE.** ACTING ON THIS BROAD INTERNATIONAL ...
... A FRAMEWORK CONVENTION ON **CLIMATE CHANGE** THAT WOULD BE AVAILABLE FOR SIGNATURE AT THE ...
... BINDING TARGETS FOR **GREENHOUSE GAS** REDUCTIONS WAS WASTED. AND ABSENT ANY ...
... REDUCING THEIR CONTRIBUTION TO THE PROBLEM OF **GLOBAL WARMING.** THIS WAS A SIGNIFICANT MISSED ...
... CONVENTION *** IS TO ACHIEVE *** STABILIZATION OF **GREENHOUSE GAS** CONCENTRATIONS IN THE ATMOSPHERE AT ...
... CLIMATE SYSTEM. STABILIZING **GREENHOUSE GAS** CONCENTRATIONS IN THE ATMOSPHERE IS THE ...
... NATIONAL POLICIES TO MITIGATE **CLIMATE CHANGE,** LIMIT MANMADE EMISSIONS OF GREENHOUSE GASES AND ENHANCE **GREENHOUSE GAS** SINKS. SECOND, DEVELOP ...
... PLANS FOR REDUCING **GREENHOUSE GAS** EMISSIONS AND ENHANCING SINKS, WITH THE ...
... PROBLEM BY STABILIZING OUR **GREENHOUSE GAS** EMISSIONS AT 1990 LEVELS ...
... ACTIVITY TO INHIBIT GLOBAL **CLIMATE CHANGE?** AS A WITNESS TO THE NEGOTIATIONS ...
... TERM OBJECTIVE OF STABILIZING **GREENHOUSE GAS** CONCENTRATIONS IN THE ATMOSPHERE. ...
... VAST MAJORITY OF GLOBAL **GREENHOUSE GAS** EMISSIONS. THAT WILL NOT BE ...
... CONTRIBUTOR TO THE GLOBAL INVENTORY OF **GREENHOUSE GAS** EMISSIONS. AND FINALLY, MR. ...
... TAKE ON THE ISSUE OF GLOBAL **CLIMATE CHANGE.** THEREFORE, THE UNITED STATES -- WHICH HAS PLEDGED TO ...
... RESPONSIBILITY FOR STABILIZING **GREENHOUSE GAS** EMISSIONS AT 1990 LEVELS ...
... SYSTEM; THE WAR AGAINST **GLOBAL WARMING.** ON THE ROAD AHEAD -- THE ROAD FROM ...
... TOWARD PREVENTING GLOBAL **CLIMATE CHANGE.** LET US SEND A ...

23. Saturday, October 3, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 16510, Vol. 138 No. 140, SENATOR TIM WIRTH
102nd Cong. 2nd Sess.
Mr. PRYOR
... Member of the Senate on the issue of **global warming and the greenhouse effect.** What I have always found ...

24. Friday, October 2, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 16276, Vol. 138 No.

139, NATURAL GAS
102nd Cong. 2nd Sess.
Mr. BURNS; **Mr.** DOLE
... developed. Also, in global **climate change,** it directs EIA to establish a baseline inventory of **greenhouse gas** emissions, establishes a ...
... for the voluntary reporting of **greenhouse gas** emissions, and it directs the Secretary to ...
... mitigating or adopting to global **climate change** including the economic, environmental, ...

25. Friday, October 2, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 16302, Vol. 138 No. 139, TRIBUTE TO SENATOR TIM WIRTH
102nd Cong. 2nd Sess.
Mr. CRANSTON
... provided critical leadership on **global warming,** ozone depletion, and protection of ...

26. Thursday, October 1, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 15913, Vol. 138 No. 138, UNITED STATES-CHINA ACT-VETO
102nd Cong. 2nd Sess.
Mr. BAUCUS; **Mr.** BENTSEN; **Mr.** BRADLEY; **Mr.** CHAFEE; **Mr.** DeCONCINI; **Mr.** DODD; **Mr.** DOLE; **Mr.** DURENBERGER; **Mr.** EXON; **Mr.** GLENN; **Mr.** GORTON; **Mr.** HELMS; **Mr.** KENNEDY; **Mr.** KERREY; **Mr.** MITCHELL; **Mr.** PACKWOOD; **Mr.** SIMPSON; **Mr.** STEVENS; **Mr.** WELLSTONE
... explosion, human rights, **global warming** and aspects of life on our common ...

27. Thursday, October 1, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 15974, Vol. 138 No. 138, LEGISLATIVE BRANCH APPROPRIATIONS ACT, 1993
102nd Cong. 2nd Sess.
Mr. BROWN; **Mr.** BYRD; **Mr.** DANFORTH; **Mr.** DODD; **Mr.** DOMENICI; **Mr.** FORD; **Mr.** GORTON; **Mr.** GRASSLEY; **Mr.** McCain; **Mr.** NICKLES; **Mr.** REID; **Mr.** RIEGLE; **Mr.** SASSER; **Mr.** SEYMOUR; **Mr.** STEVENS
... well as global problems -- **climate change,** loss of control over ...

28. Thursday, October 1, 1992 (Legislative day of Wednesday, September 30, 1992), 138 Cong Rec S 16143, Vol. 138 No. 138 -- Part 2, EXECUTIVE REPORTS OF COMMITTEES
102nd Cong. 2nd Sess.
Mr. PELL
... Nations Framework Convention on **Climate Change** (Exec. Rept. No. ...
... Nations Framework Convention on **Climate Change,** adopted May 9, ...
... a Framework Convention on **Climate Change** ("Convention"), and signed on behalf of the ...
... CONFERENCES & CONVENTIONS (90%); **CLIMATE CHANGE** (90%); ENVIRONMENTAL TREATIES & ...

29. Wednesday, September 30, 1992, 138 Cong Rec S 15751, Vol. 138 No. 137, FOREIGN OPERATIONS APPROPRIATIONS FOR FISCAL YEAR 1993
102nd Cong. 2nd Sess.
Mr. KASTEN; **Mr.** LEAHY; **Mr.** METZENBAUM
... activities associated with the GEF and the **Global Warming** Initiative. LIMITATION ON CALLABLE ...

... for the Intergovernmental Panel on **Climate Change;** $2,000,000 for the International ...
... foreign country. environment and **global warming** Sec. 532. (a) It is the ...
... address the problems of global **climate change** through requirements to -- (1) ...
... address the problems of global **climate change** through requirements to -- (1) ...
... bureaus detailing the elements of the "**Global Warming** Initiative", which will continue to ...
... a significant contribution to **global warming,** except that such assistance shall be ...
... for activities consistent with the **Global Warming** Initiative. ENVIRONMENT Sec. ...
... continue to implement all elements of the "**Global Warming** Initiative" as defined in, and which ...
... for activities consistent with the **Global Warming** Initiative. (h) Funds ...
... Development, particularly those involved with the "**Global Warming** Initiative" described in this ...

30. Wednesday, September 30, 1992, 138 Cong Rec S 15833, Vol. 138 No. 137 -- Part 2, FOREIGN OPERATIONS APPROPRIATIONS, FISCAL YEAR 1993
102nd Cong. 2nd Sess.
Mr. CRANSTON; **Mr.** DeCONCINI: **Mr.** DOLE; **Mr.** DOMENICI; **Mr.** HATFIELD; **Mr.** KASTEN; **Mr.** KENNEDY; **Mr.** LEAHY; **Mr.** LEVIN; **Mr.** LIEBERMAN; **Mr.** PRESSLER; **Mr.** REID; **Mr.** RIEGLE; **Mr.** SANFORD; **Mr.** SASSER; **Mr.** SIMON: **Mr.** SIMPSON; **Mr.** SPECTER; **Mr.** WARNER; **Mr.** WIRTH
... one, a global **climate change** treaty which everyone in the ...
... program for the Global **Climate Change** Treaty. There was also signed by ...

31. Wednesday, September 30, 1992, 138 Cong Rec S 15868, Vol. 138 No. 137 -- Part 2, HAWAII TROPICAL FOREST RECOVERY ACT
102nd Cong. 2nd Sess.
Mr. Akaka; **Mr.** CRANSTON; **Mr.** DANFORTH; **Mr.** LEAHY
... better understanding of global **climate change** and the significance of achieving a ...
... section 2407 of the Global **Climate Change** Prevention Act of 1990 (...

32. Tuesday, September 29, 1992, 138 Cong Rec S 15611, Vol. 138 No. 136 -- Part 2, ATOMS-FOR-PEACE IN THE 1990'S
102nd Cong. 2nd Sess.
Mr. PRESSLER
... fuels -- because of concern over the **greenhouse effect** and acid rain, and technical or ...

33. Monday, September 28, 1992 (Legislative day of Wednesday, September 23, 1992), 138 Cong Rec S 15435, Vol. 138 No. 135, FOR ETHANOL -- THE FUTURE IS NOW
102nd Cong. 2nd Sess.
Mr. PRESSLER
... actually reduces the threat of **global warming.** The main reason for this is that ...
... blended fuels add to **global warming** because methanol is derived from coal and ...

34. Saturday, September 26, 1992, 138 Cong Rec S 15337, Vol. 138 No. 134, TAX ENTERPRISE ZONES ACT
102nd Cong. 2nd Sess.
Mr. CHAFEE; **Mr.** BAUCUS; **Mr.** BENSTEN; **Mr.** BENTSEN; **Mr.** BIDEN; **Mr.** BRADLEY; **Mr.** BREAUX; **Mr.** CHAFEE; **Mr.** COCHRAN; **Mr.** CONRAD; **Mr.** CRAIG; **Mr.** Dixon; **Mr.** DOLE; **Mr.** DOMENICI; **Mr.** DOMINICI; **Mr.** EXON; **Mr.** GRASSLEY; **Mr.** HOLLINGS; **MR.** KASTEN; **Mr.** KENNEDY; **Mr.** KERRY; **Mr.** KOHL; **Mr.**

LAUTENBERG; **Mr.** LEVIN; **Mr.** LIEBERMAN; **Mr.** MACK; **Mr.** McCAIN; **Mr.** METZENBAUM; **Mr.** MITCHELL; **Mr.** MOYNIHAN; **Mr.** MURKOWSKI; **Mr.** PACKARD; **Mr.** PACKWOOD; **Mr.** PRYOR; **Mr.** RIEGLE; **Mr.** SASSER; **Mr.** SIMON; **Mr.** SPECTER; **Mr.** SYMMS; **Mr.** WOFFORD
... serving with the Intergovernmental Panel on **Climate Change.** Such extension may be made ...
... activities of the intergovernmental panel on **Climate Change** or any successor organization. SEC. ...

35. Friday, September 25, 1992 (Legislative day of Wednesday, September 23, 1992), 138 Cong Rec S 15285, Vol. 138 No. 133 -- Part 2, THE PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY
102nd Cong. 2nd Sess.
MR. GORE
... CONCERNED ABOUT GLOBAL **CLIMATE CHANGES,** WE BEGIN TO UNDERSTAND ANTARCTICA. ...
... 1988, TO GATHER EVIDENCE ON **GLOBAL WARMING** AND OZONE DEPLETION. IN ...
... ISSUES. IN THE GLOBAL **CLIMATE CHANGE** NEGOTIATIONS, THE BIODIVERSITY NEGOTIATIONS -- AND ...
... MINES & MINING (89%); **CLIMATE CHANGE** (89%); LEGISLATION (89%); ...

36. Wednesday, September 23, 1992, 138 Cong Rec S 14735, Vol. 138 No. 131, TAX ENTERPRISE ZONES ACT
102nd Cong. 2nd Sess.
Mr. BAUCUS; **Mr.** BENTSEN; **Mr.** BINGAMAN; **Mr.** BRADLEY; **Mr.** BREAUX; **Mr.** BURNS; **Mr.** BYRD; **Mr.** CONRAD; **Mr.** DOLE; **Mr.** DOMENICI; **Mr.** FORD; **Mr.** HATCH; **Mr.** HEFLIN; **Mr.** NICKLES; **Mr.** PACKWOOD; **Mr.** ROCKEFELLER; **Mr.** SHELBY; **Mr.** SIMPSON; **Mr.** WARNER
... contributing a lot of the **greenhouse effect.** Companies in my ...
... well as at concerns about **global warming,** it would be most unwise to allow these ...
... methane, a potent **greenhouse gas,** which will in turn ...
... meet its goal of stabilizing **greenhouse gas** emissions. In addition, ...

37. Tuesday, September 22, 1992 (Legislative day of Tuesday, September 8, 1992), 138 Cong Rec S 14675, Vol. 138 No. 130, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 2nd Sess.
Mr. BIDEN; **Mr.** LIEBERMAN; **Mr.** ROCKEFELLER; **Mr.** WIRTH
... respond constructively to global **climate change.** The result was that rather than protecting the ...
... carbon dioxide, a **greenhouse gas,** have slashed energy consumption ...
... for sending world **greenhouse gas** emissions plunging by the ...
... technical fix for **global warming** and ozone depletion in ...
... term technological approach to **global warming** is unparalleled elsewhere. "[Even] ...
... best way to tackle **global warming.** The logic is simple: Most ...
... technologies for reducing **greenhouse gas** emissions and protecting the ozone ...
... chemicals, hazardous wastes and **global warming.** As a result, says ...
... dioxide, principal cause of **global warming,** by 25 percent ...
... off. But if threats such as **global warming** and ozone depletion prove to be the ...
... 6, 1990] FIGHTING **GLOBAL WARMING** IS GOOD FOR BUSINESS (...
... rapid action to combat **global warming.** We are told that a severe ...
... dioxide is the principal cause of **global warming** -- for the global economy, the ...
... a draft agreement on **climate change** -- a compromise released ...
... carbon dioxide and confront **global warming** in time for the ...
... U.S. Views on Global **Climate Change,**" shows not only that we ...
... by the effort to curb **global warming** embodied in specific ...

... Congress, "Limiting Net **Greenhouse Gas** Emissions in the United ...
... opposition to a strict **climate change** agreement -- indeed, to any serious ...
... solutions. Without agreement such as the **climate-change** treaty, with its specific deadlines and ...
... emissions will be reduced and **global warming** will be confronted. The situation is ...
... deferring policy action on **global warming,** we are betting high stakes that ...
... scientific uncertainty about **global warming** should lead us to action rather than ...
... for ways to curb **global warming** by reducing Japan's ...
... taxes. Its panel of experts on **global warming** has called for a ...
... virtuous cause of curbing **global warming,** some countries might decide that ...

38. Friday, September 18, 1992 (Legislative day of Tuesday, September 8, 1992), 138 Cong Rec S 14152, Vol. 138 No. 128, AUTHORITY FOR COMMITTEES TO MEET
102nd Cong. 2nd Sess.
Mr. FORD; **Mr.** FORD
... Nations framework convention on **climate change** -- Treaty Doc. 102- ...
... IMPACT ASSESSMENT (77%); **CLIMATE CHANGE** (72%); NATIVE AMERICANS (...

39. Thursday, September 17, 1992 (Legislative day of Tuesday, September 8, 1992), 138 Cong Rec S 13905, Vol. 138 No. 127 -- Part 2, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 2nd Sess.
MR. GORE
... ENVIRONMENTAL PROBLEMS, INCLUDING **GLOBAL WARMING,** TROPICAL DEFORESTATION, WATER ...

40. Monday, September 14, 1992 (Legislative day of Tuesday, September 8, 1992), 138 Cong Rec S 13328, Vol. 138 No. 124, UNITED STATES-CHINA ACT
102nd Cong. 2nd Sess.
Mr. ADAMS; **Mr.** BENTSEN; **Mr.** BINGAMAN; **Mr.** BRADLEY; **Mr.** COCHRAN; **Mr.** CRAIG; **Mr.** CRANSTON; **Mr.** DANFORTH; **Mr.** DeCONCINI; **Mr.** DODD; **Mr.** DOLE; **Mr.** FORD; **Mr.** GORTON; **Mr.** HELMS; **Mr.** HOLLINGS; **Mr.** KENNEDY; **MR.** KERRY; **Mr.** MITCHELL; **Mr.** PACKARD; **Mr.** PACKWOOD; **Mr.** PELL; **Mr.** SANFORD; **Mr.** SEYMOUR; **Mr.** SIMPSON
... about population control and **global warming** without one-fifth of the ...

41. Thursday, September 10, 1992 (Legislative day of Tuesday, September 8, 1992), 138 Cong Rec S 13160, Vol. 138 No. 122, PASSAGE OF THE FISCAL YEAR 1993, VA, HUD APPROPRIATIONS BILL
102nd Cong. 2nd Sess.
Mr. DODD; **Mr.** DURENBERGER; **Mr.** LAUTENBERG; **Mr.** WIRTH
... researchers with valuable information on **global warming** well into the next century. ...

42. Wednesday, September 9, 1992 (Legislative day of Tuesday, September 8, 1992), 138 Cong Rec S 12971, Vol. 138 No. 121, The TEXT of this document exceeds 5,000 lines., DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT AND INDEPENDENT AGENCIES APPROPRIATIONS ACT, FISCAL YEAR 1993
102nd Cong. 2nd Sess.
Mr. ADAMS; **Mr.** BENTSEN; **Mr.** BIDEN; **Mr.** BINGAMAN; **Mr.** BOND; **Mr.** BROWN; **Mr.** BUMPERS; **Mr.**

BYRD; **Mr.** CHAFEE; **Mr.** COATS; **Mr.** COCHRAN; **Mr.** COHEN; **Mr.** CRANSTON; **Mr.** DASCHLE; **Mr.** DeCONCINI; **Mr.** DIXON; **Mr.** DODD; **Mr.** DOLE; **Mr.** DOMENICI; **Mr.** DURENBERGER; **Mr.** EXON; **Mr.** FORD; **Mr.** FOWLER; **Mr.** GARN; **Mr.** GLENN; **Mr.** GRAMM; **Mr.** GRANSTON; **Mr.** HATFIELD; **Mr.** HEFLIN; **Mr.** HOLLINGS; **Mr.** INOUYE; **Mr.** JOHNSTON; **Mr.** KERREY; **Mr.** LAUTENBERG; **Mr.** LEAHY; **Mr.** LEVIN; **Mr.** McCAIN; **Ms.** MIKULSKI; **Mr.** MITCHELL; **Mr.** MOYNIHAN; **Mr.** MURKOWSKI; **Mr.** NICKLES; **Mr.** RIEGLE; **Mr.** SANFORD; **Mr.** SASSER; **Mr.** SEYMOUR; **Mr.** SHELBY; **Mr.** SIMON; **Mr.** SIMPSON; **Ms.** Singer is not alone; **Mr.** SMITH; **Mr.** SPECTER; **Mr.** SYMMS; **Mr.** WALLOP; **Mr.** WARNER; **Mr.** WELLSTONE; **Mr.** WIRTH

... lot of environmental issues, from **global warming** to the ozone holes, and all of that, that we will ...
... dioxin contamination, wetlands, **climate change,** and other important environmental ...
... Wetlands research; Global **climate change;** Exotic species research. ...
... scientific areas such as global **climate change,** biotechnology, advanced materials and ...
... Nation's effort to reduce **greenhouse gas** emissions and increase our energy ...
... businesses to profitably reduce **greenhouse gas** emissions. The administration has stated its ...
... called for under the **Climate Change** Convention signed recently ...
... U.S. efforts to reduce **greenhouse gas** emissions. The Green Lights ...

43. Tuesday, September 8, 1992, 138 Cong Rec S 12909, Vol. 138 No. 120
102nd Cong. 2nd Sess.
Mr. BAUCUS; **Mr.** BUMPERS; **Mr.** DANFORTH; **Mr.** GARN; **Mr.** GLENN; **Mr.** HOLLINGS; **Mr.** LEAHY; **Ms.** MIKULSKI; **Mr.** ROCKEFELLER

... ozone layer and global **climate change** to the control of AIDS. Such matters ...
... lot of environmental issues, from **global warming** to the ozone holes, and all of that, that we will ...

44. Tuesday, September 8, 1992, 138 Cong Rec S 12929, Vol. 138 No. 120, REMOVAL OF INJUNCTION OF SECRECY
102nd Cong. 2nd Sess.
Ms. MIKULSKI

... Nations Framework Convention on **Climate Change** (Treaty Document No. ...
... Nations Framework Convention on **Climate Change,** adopted May 9, ...
... a Framework Convention on **Climate Change** ("Convention"), and signed by me on ...
... objective of the Convention is to stabilize **greenhouse gas** concentrations (not emissions) ...
... programs to mitigate and adapt to **climate change,** promote technology cooperation (...
... potential adverse effects of **climate change.** The Convention will enter into ...
CLIMATE CHANGE (91%); INJUNCTIONS (90%); ...

45. Wednesday, August 12, 1992 (Legislative day of Wednesday, August 5, 1992), 138 Cong Rec S 12484, Vol. 138 No. 119, CLIMATE CHANGE
102nd Cong. 2nd Sess.
Mr. MITCHELL; **Mr.** PELL

... majority leader the Convention on **Climate Change** and the prospects for its consideration ...
... fully consider the Convention on **Climate Change,** but I am concerned that the ...
CONFERENCES & CONVENTIONS (92%); **CLIMATE CHANGE** (91%); TREATIES & AGREEMENTS (...

46. Wednesday, August 12, 1992 (Legislative day of Wednesday, August 5, 1992), 138 Cong Rec S 12516, Vol. 138 No. 119, UNITED NATIONS INTERNATIONAL DRIFTNET FISHERY CONSERVATION PROGRAM

102nd Cong. 2nd Sess.
Mr. LEAHY; **Mr.** MITCHELL; **Mr.** PACKWOOD
... serving with the Intergovernmental Panel on **Climate Change.** Such extension may be made ...
... activities of the Intergovernmental Panel on **Climate Change** or any successor organization. SEC. ...

47. Wednesday, August 12, 1992 (Legislative day of Wednesday, August 5, 1992), 138 Cong Rec S 12525, Vol. 138 No. 119, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AUTHORIZATION ACT
102nd Cong. 2nd Sess.
Mr. BREAUX; **MR.** BURDICK; **Mr.** CHAFEE; **MR.** HOLLINGS; **Mr.** KERRY; **MR.** LAUTENBERG; **Mr.** MITCHELL
... ocean circulation and global **climate change,** charting the U.S. exclusive ...

48. Wednesday, August 12, 1992 (Legislative day of Wednesday, August 5, 1992), 138 Cong Rec S 12720, Vol. 138 No. 119, TIM WIRTH: UNDERSTANDING HIS DECISION TO LEAVE
102nd Cong. 2nd Sess.
MR. DASCHLE
... EMERGING CRISIS OF GLOBAL **CLIMATE CHANGE.** BUT AS FOOD WAS SERVED, ...

49. Thursday, August 6, 1992 (Legislative day of Wednesday, August 5, 1992), 138 Cong Rec S 11640, Vol. 138 No. 115, COMMENDING YVONNE RILEY AND MERLE ENGLISH
102nd Cong. 2nd Sess.
Mr. MOYNIHAN
... new millenium facing **global warming** and threatened by the plague of ...

50. Wednesday, August 5, 1992, 138 Cong Rec S 11513, Vol. 138 No. 114, DEPARTMENT OF INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT, FISCAL YEAR 1993
102nd Cong. 2nd Sess.
Mr. BUMPERS; **Mr.** BYRD; **Mr.** CRAIG; **Mr.** DeCONCINI; **Mr.** REID; (**Mr.** ROBB assumed the chair; **Mr.** SHELBY; **Mr.** STEVENS
... old, $40 million **greenhouse effect** satellite by reflecting ...

51. Friday, July 31, 1992 (Legislative day of Thursday, July 23, 1992), 138 Cong Rec S 11042, Vol. 138 No.111, EFFECTIVENESS OF UNITED NATIONS INTERNATIONAL DRIFTNET FISHERY CONSERVATION PROGRAM
102nd Cong. 2nd Sess.
Mr. ADAMS; **Mr.** GORTON; **Mr.** HOLLINGS; **Mrs.** KASSEBAUM; **Mr.** PACKWOOD; **Mr.** RIEGLE; **Mr.** STEVENS; **Mr.** WIRTH
... serving with the Intergovernmental Panel on **Climate Change.** Such extension may be made ...
... activities of the Intergovernmental Panel on **Climate Change** or any successor organization. SEC. ...

52. Friday, July 31, 1992 (Legislative day of Thursday, July 23, 1992), 138 Cong Rec S 11048, Vol. 138 No.111, THE ENVIRONMENT
102nd Cong. 2nd Sess.
Mrs. KASSEBAUM; **Mr.** WIRTH

... position related to the global **climate change** convention -- the treaty other ...
... halt the precipitous rise of **greenhouse gas** concentrations in the atmosphere -- ...
... taking the issue of global **climate change** seriously. So the rest of the world ...
... for specific treaties on **climate change** and biodiversity; for a ...
... Achievement: Framework Convention on **Climate Change.** 154 countries committed to ...
... economics and technology relevant to **climate change.** And I believe the United ...
... year. In sum, on **climate change,** as the British Secretary of State ...

53. Thursday, July 30, 1992 (Legislative day of Thursday, July 23, 1992), 138 Cong Rec S 10863, Vol. 138 No. 110, QUORUM CALL
102nd Cong. 2nd Sess.
Mr. BAUCUS; **Mr.** BENTSEN; **Mr.** BRADLEY; **Mr.** D'AMATO; **Mr.** DODD; **Mr.** DOMENICI; **Mr.** FORD; **Mr.** FOWLER; **Mr.** JOHNSTON; **Mr.** KERREY; **Mr.** MACK; **Ms.** MIKULSKI; **Mr.** MITCHELL; **Mr.** MOYNIHAN; **Mr.** ROCKEFELLER; **Mr.** SIMON; **Mr.** SIMPSON; **Mr.** SYMMS; **Mr.** WALLOP; **Mr.** WARNER; **Mr.** WELLSTONE; **Mr.** WIRTH
... for example, the so-called **global warming** matter is a highly ...
... go forward without **global warming.** Believe me, **global warming** is so exceedingly contentious. Frankly, ...
... willing to do some things in **global warming** perhaps that my other ...
... solve or prevent from solution the **global warming** problems in this measure. My guess is that **global warming** will not end ...
... respect to CO[2] and **global warming.** Again, it directly refers to the ...
... dioxide credit systems and **global warming** and other kinds of things, we ...
... respect to carbon dioxide and **global warming,** emissions; and portions of section ...
... urgent problem -- global **climate change.** In deciding how to ...

54. Wednesday, July 29, 1992 (Legislative day of Thursday, July 23, 1992), 138 Cong Rec S 10558, Vol. 138 No. 109, The TEXT of this document exceeds 10,000 lines., COMPREHENSIVE NATIONAL ENERGY POLICY ACT
102nd Cong. 2nd Sess.
Mr. AKAKA; **Mr.** BAUCUS; **Mr.** BENTSEN; **Mr.** BIDEN; **Mr.** BINGAMAN; **Mr.** BOND; **Mr.** BOREN; **Mr.** BRADLEY; **Mr.** BROWN; **Mr.** BYRD; **Mr.** CHAFEE; **Mr.** COCHRAN; **Mr.** DASCHLE; **Mr.** DODD; **Mr.** DOLE; **Mr.** DOMENICI; **Mr.** DURENBERGER; **Mr.** EXON; **Mr.** FORD; **Mr.** FOWLER; **Mr.** GLENN; **Mr.** GORTON; **Mr.** GRAHAM; **Mr.** GRAMM; **Mr.** JEFFORDS; **Mr.** JOHNSTON; **Mr.** KENNEDY; **Mr.** KERRY; **Mr.** LAUTENBERG; **Mr.** LIEBERMAN; **Mr.** METZENBAUM; **Mr.** MITCHELL; **Mr.** MURKOWSKI; **Mr.** NICKLES; **Mr.** PACKWOOD; **Mr.** PRESSLER; **Mr.** PRYOR; **Mr.** ROBB; **Mr.** ROCKEFELLER; **Mr.** ROTH; **Mr.** SASSER; **Mr.** SIMON; **Mr.** SIMPSON; **Mr.** SPECTER; **Mr.** SYMMS; **Mr.** WALLOP; **Mr.** WELLSTONE; **Mr.** WIRTH; **Mr.** WOFFORD
... mechanisms for addressing **greenhouse gas** emissions. Sec.1605. ...
... Sec.1607.Global **Climate Change** Response Fund. TITLE ...
... dioxide, a major **"greenhouse" gas;** (4) save consumers ...
... including the projected reduction of **greenhouse gas** emissions and indoor air ...
... Nation's economy and reducing **greenhouse gas** emissions. (b) Development ...
... development; and (5) determine the **greenhouse gas** emission implications of increasing the ...
... replacement fuel; and (4) the **greenhouse gas** emissions likely to result from ...
... information necessary to determine the **greenhouse gas** emissions of the replacement fuels ...
... reduce the potential for **global warming;** (3) would rely on secure ...
... may contribute to global **climate change.** SEC. 1214. OUTREACH. (...
... energy resources, and reducing **greenhouse gas** emissions and should, therefore, be encouraged by ...
... Credits. -- For purposes of any **greenhouse gas** reduction program under any ...

... efficiency improvements in any **greenhouse gas** reduction program enacted ...
... Cost-minimizing low **greenhouse gas** emissions scenario, low ...
... reduction goals for **greenhouse gas** emissions at the lowest lifecycle ...
... Cost-minimizing low **greenhouse gas** emissions scenario, high ...
... reduction goals for **greenhouse gas** emissions at the lowest lifecycle ...
... MECHANISMS FOR ADDRESSING **GREENHOUSE GAS** EMISSIONS. Within 1 ...
... mechanisms for reducing **greenhouse gas** emissions. Such assessment shall, at ...
... 2) Federal efficiency or **greenhouse gas** emission standards, including ...
... for all greenhouse gases and all **greenhouse gas** sources; (B) trading ...
... include -- (1) baseline **greenhouse gas** emission estimates, calculated, ...
... official certification of net **greenhouse gas** emission reductions relative to the ...
... requirements that may apply to **greenhouse gas** emissions; (3) the establishment of ...
... net reductions in **greenhouse gas** emissions achieved in ...
... entity's baseline includes all **greenhouse gas** emissions from all sources under the ...
... certification, only after the **greenhouse gas** reduction or the **greenhouse gas** fixation has occurred; (8) provisions that ensure that reductions of **greenhouse gas** emissions which are specifically required ...
... appropriate for the certification of **greenhouse gas** emission reductions generated ...
... annually describing the amount of **greenhouse gas** emission reductions certified ...
... State agency to certify **greenhouse gas** emission reductions if the person ...
... registration in the National **Greenhouse Gas** Reduction Registry established ...
... for the certification of voluntary **greenhouse gas** emission reductions, relative to the ...
... fuels which produce less **greenhouse gas** emissions from major sources; (...
... manufacture of vehicles with reduced **greenhouse gas** emissions, based on the statistically ...
... sludge facilities; (7) **greenhouse gas** emission reductions attributable ...
... basis, produce fewer **greenhouse gas** emissions than gasoline; (9) **greenhouse gas** emission reductions attributable ...
... existing powerplant; (10) **greenhouse gas** emission reductions attributable ...
... result in net **greenhouse gas** emission reductions. (c) ...
... emitted from the combustion of such fuels. **Greenhouse gas** emission reductions may be ...
... 2). (f) National **Greenhouse Gas** Reduction Registry. -- The rule ...
... for the purpose of tracking **greenhouse gas** emission reductions. At a ...
... persons who have obtained certification of **greenhouse gas** emission reductions under this ...
... amounts reduced and the source of the **greenhouse gas** emission reductions. SEC. ...
... SEC. 1607. GLOBAL **CLIMATE CHANGE** RESPONSE FUND. (a) ...
... known as a "Global **Climate Change** Response Fund" which shall ...
... in adapting and responding to **climate change.** (b) Deposits to the Fund. -- (...
... Lands Act into the Global **Climate Change** Response Fund. Nothing ...
... No deposits to the Global **Climate Change** Response Fund shall be ...
... signed the Framework Convention on **Climate Change;** and (B) the United States has ...
... Nations Framework Convention on **Climate Change,** including any protocol or agreement ...
... 1990 level in **greenhouse gas** emissions from energy production and ...
... concepts, including global **climate change;** and (5) other matters as the ...
... reduce the possibility of global **climate change;** and (4) the achievement of energy ...
... under an international global **climate change** framework convention or agreement. (...
... addressing potential global **climate change,** it is the goal of the United States to ...
... framework convention on global **climate change** through the activities of the Negotiating ...
... policy discussions of global **climate change;** (2) monitor domestic and ...
... sea ranching and global **climate change;** and (5) such other matters as the ...
... rate and scope of global **climate change;** (2) utilize modular ...
... dioxide, a key "**greenhouse" gas.** (b) Sense of the Senate. -- It is the ...

... fuels, and reduce the risk of **global warming.** Omission of the gas tax ...
... parking, air pollution, **global warming,** national security risks, ...

55. Tuesday, July 28, 1992 (Legislative day of Thursday, July 23, 1992), 138 Cong Rec S 10404, Vol. 138 No. 108, COMMERCE, JUSTICE, AND STATE, THE JUDICIARY AND RELATED AGENCIES APPROPRIATIONS ACT, FISCAL YEAR 1993
102nd Cong. 2nd Sess.
Mr. BENTSEN; **Mr.** BRYAN; **Mr.** DANFORTH; **Mr.** DOLE; **Mr.** DOMENICI; **Mr.** FORD; **Mr.** GRAHAM; **Mr.** HOLLINGS; **Mr.** INOUYE; **Mr.** KERRY; **Mr.** KOHL; **Mr.** MACK; **Mr.** McCONNELL; **Mr.** MITCHELL; **Mr.** PRYOR; **Mr.** RIEGLE; **Mr.** ROBB; **Mr.** ROCKEFELLER; **Mr.** RUDMAN; **Mr.** SASSER; **Mr.** SIMPSON; **Mr.** WOFFORD
... million for global and **climate change** research, which is universally supported on the ...

56. Monday, July 27, 1992 (Legislative day of Thursday, July 23, 1992), 138 Cong Rec S 10325, Vol. 138 No. 107, COMMERCE, JUSTICE, AND STATE, THE JUDICIARY AND RELATED AGENCIES APPROPRIATIONS ACT, FISCAL YEAR 1993
102nd Cong. 2nd Sess.
Mr. ADAMS; **Mr.** BAUCUS; **Mr.** BIDEN; **Mr.** BINGAMAN; **Mr.** BROWN; **Mr.** BUMPERS; **Mr.** CHAFEE; **Mr.** CRAIG; **Mr.** DANFORTH; **Mr.** DeCONCINI; **Mr.** DIXON; **Mr.** DODD; **Mr.** DOLE; **Mr.** DURENBERGER; **Mr.** DURENBURGER; **Mr.** GORTON; **Mr.** HATFIELD; **Mr.** HOLLINGS; **Mr.** KERREY; **Mr.** KERRY; **Mr.** KOHL; **Mr.** McCONNELL; **Mr.** METZENBAUM; **Ms.** MIKULSKI; **Mr.** PELL; **Mr.** RUDMAN; **MR.** SANFORD; **Mr.** SEYMOUR; **Mr.** SIMON; **Mr.** SIMPSON; **Mr.** SMITH; **Mr.** WELLSTONE
... environmental issues, including **climate change** and antarctic environmental protection. This ...

57. Thursday, July 23, 1992, 138 Cong Rec S 10242, Vol. 138 No. 105, SENATE RESOLUTION 326 -- RELATING TO THE ESTABLISHMENT OF A NATIONAL INSTITUTES FOR THE ENVIRONMENT
102nd Cong. 2nd Sess.
MR. SANFORD
... LOSS OF BIOLOGICAL DIVERSITY TO **GLOBAL WARMING** AND GROUNDWATER CONTAMINATION, AND THESE ARE ONLY ...
... LAYER RESEARCH EARLIER. **GLOBAL WARMING** IS ANOTHER EXAMPLE OF CONTROVERSY AND ...
... ATMOSPHERIC SCIENCES (89%); **GLOBAL WARMING** (79%); RESEARCH (79%); ...

58. Wednesday, July 22, 1992 (Legislative day of Monday, July 20, 1992), 138 Cong Rec S 10068, Vol. 138 No. 104, RESPONSE TO MR. FITZWATER'S STATEMENT
102nd Cong. 2nd Sess.
Mr. CHAFEE; **Mr.** WIRTH
... leadership. And what did we do in the global **climate change** treaty? We fudged it, we weaved, we ...

59. Monday, July 20, 1992, 138 Cong Rec S 9964, Vol. 138 No. 102, POPULATION AND THE EARTH SUMMIT
102nd Cong. 2nd Sess.
MR. WIRTH
... DEVELOPMENT ISSUES -- FROM POVERTY TO **GLOBAL WARMING** TO DEFORESTATION -- THE EARTH SUMMIT ...

60. Wednesday, July 1, 1992; (Legislative day of Tuesday, June 16, 1992), 138 Cong Rec S 9370, Vol. 138 No. 97 -- Part 2, DEPARTMENT OF ENERGY LABORATORY TECHNOLOGY PARTNERSHIP ACT
102nd Cong. 2nd Sess.
Mr. BINGAMAN; **Mr.** DOMENICI; **Mr.** FORD; **Mr.** JOHNSTON; **Mr.** STEVENS
... challenges such as understanding global **climate change,** hydrologic modeling, and fundamental ...
... environment, including global **climate change;** protection of ecological systems; ...
... challenges such as understanding global **climate change,** hydrologic modeling, and fundamental ...
... environment, including global **climate change;** protection of ecological systems; ...

61. Wednesday, July 1, 1992; (Legislative day of Tuesday, June 16, 1992), 138 Cong Rec S 9502, Vol. 138 No. 97 -- Part 2, DEPARTMENT OF ENERGY LABORATORY TECHNOLOGY PARTNERSHIP ACT
102nd Cong. 2nd Sess.
Mr. BINGAMAN; **Mr.** DOMENICI; **Mr.** FORD; **Mr.** JOHNSTON; **Mr.** STEVENS
... challenges such as understanding global **climate change,** hydrologic modeling, and fundamental ...
... environment, including global **climate change;** protection of ecological systems; ...
... challenges such as understanding global **climate change,** hydrologic modeling, and fundamental ...
... environment, including global **climate change;** protection of ecological systems; ...

62. Thursday, June 25, 1992; (Legislative day of Tuesday, June 16, 1992), 138 Cong Rec S 8881, Vol. 138, FEDERAL HOUSING ENTERPRISES REGULATORY REFORM ACT
102nd Cong. 2nd Sess.
Mr. BROWN; **Mr.** BURNS; **Mr.** BYRD; **Mr.** COATS; **Mr.** CRAIG; **Mr.** CRANSTON; **Mr.** D'AMATO; **Mr.** DANFORTH; **Mr.** DURENBERGER; **Mr.** FOWLER; **Mr.** GORTON; **Mr.** GRAMM; **Mr.** KASTEN; **Mr.** KERREY; **Mr.** LEAHY; **Mr.** McCAIN; **Mr.** MOYNIHAN; **Mr.** MURKOWSKI; **Mr.** NICKLES; **Mr.** SARBANES; **Mr.** SASSER; **Mr.** SEYMOUR; **Mr.** SIMON; **Mr.** STEVENS; **Mr.** THURMOND
... Endangered Species Act, the **global warming** scare wetlands regulation; ...

63. Tuesday, June 23, 1992 (Legislative day of Tuesday, June 16, 1992), 138 Cong Rec S 8656, Vol. 138 No. 91, RHODE ISLAND GENERAL ASSEMBLY ADDRESSES THE U.N. CONFERENCE ON ENVIRONMENT AND DEVELOPMENT
102nd Cong. 2nd Sess.
Mr. PELL
... Conference, to sign the Conventions on **Climate Change** and Biological Diversity, and to support ...
... risk of a runaway **greenhouse effect,** which threatens life on the plant and ...
... crisis by signing the **Global Warming** Treaty to curb emissions of ...
... CONFERENCES & CONVENTIONS (91%); **CLIMATE CHANGE** (90%);

64. Thursday, June 18, 1992 (Legislative day of Tuesday, June 16, 1992), 138 Cong Rec S 8503, Vol. 138 No. 88, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 2nd Sess.
Mr. DOMENICI; **Mr.** GORE
... carbon dioxide and other **greenhouse gas** emissions; and (ii) the development of ...
... in the ozone layer, the **greenhouse effect,** the loss of entire species ...

65. Thursday, June 18, 1992 (Legislative day of Tuesday, June 16, 1992), 138 Cong Rec S 8542, Vol. 138 No. 88, U.N.

CONFERENCE ON ENVIRONMENT AND DEVELOPMENT
102nd Cong. 2nd Sess.
MR. MCCONNELL
... BY THE WAY, CONTRIBUTES TO **GLOBAL WARMING.** PRESIDENT BUSH BRAVED THE ...
... TIMETABLES TO THE FRAMEWORK CONVENTION ON **CLIMATE CHANGE,** AND AN INARTFULLY DRAFTED BIODIVERSITY ...
... BUSH ON THE ISSUE OF GLOBAL **CLIMATE CHANGE.** THE PRESIDENT STOOD FIRM ...
... SUBSTANTIAL RISKS OF POTENTIAL **CLIMATE CHANGE.** MR. PRESIDENT, THERE IS NO ...
... SIGNIFICANT LONG-TERM **GLOBAL WARMING.** OUR UNDERSTANDING OF THE EARTH'S CLIMATE IS ...
... MINIMIZE THE POTENTIAL FOR **CLIMATE CHANGE,** THESE MEASURES SHOULD BE THE LEAST COST ...
... MITIGATE THE POSSIBILITY OF GLOBAL **CLIMATE CHANGE** THROUGH CAREFULLY CALCULATED ...
... A HYSTERIA OVER **GLOBAL WARMING** THAT MAY WASTE BILLIONS OF ...
... IN PRINT AND ON TELEVISION THAT **GLOBAL WARMING** IS AN IMMINENT MENACE TO THE EARTH -- ...
... BOOK DECLARING THAT THE SO-CALLED **GREENHOUSE EFFECT** IS "THE MOST SERIOUS THREAT THAT WE HAVE EVER ...
... PAUL TSONGAS'S ASSESSMENT THAT **GLOBAL WARMING** IS "THE MOST SERIOUS ENVIRONMENTAL ...
... GLOBAL STANDARDS ON A **GLOBAL WARMING** AND WE ARE GOING TO AGREE RIGHT ...
... BUT THE INTERGOVERNMENTAL PANEL ON **CLIMATE CHANGE,** A U.S.-APPOINTED ...
... BUSH'S MODERATE POLICY ON **GLOBAL WARMING** AND ON ENVIRONMENTAL ISSUES IN ...
... SPITE OF THE COSTS INVOLVED. ON **GLOBAL WARMING,** THE ADMINISTRATION HAS TAKEN A ...
... INSURANCE AGAINST THE POSSIBILITY THAT THE **GREENHOUSE EFFECT** IS REAL, WHILE REJECTING ...
... PREDICTING GLOBAL DESTRUCTION FROM THE **GREENHOUSE EFFECT** HAVE SEVERE FLAWS. SOME OF THIS EVIDENCE ...
... BY THE CLAMOR ABOUT **GLOBAL WARMING** IS THAT THE MOST FAVORED REMEDY OF ...
... FAVOR WHEN THEY WORRY ABOUT **GLOBAL WARMING.**" AL GORE AND BILL ...
... 79%); BIODIVERSITY (79%); **CLIMATE CHANGE** (79%); **GLOBAL WARMING** (79%); EMISSIONS (79%); ...

66. Thursday, June 18, 1992 (Legislative day of Tuesday, June 16, 1992), 138 Cong Rec S 8545, Vol. 138 No. 88,
STUDENTS FOR A BETTER ENVIRONMENT
102nd Cong. 2nd Sess.
MR. SIMON
... ANIMALS, AND THE FIGHT AGAINST **GLOBAL WARMING.** A SAMPLING OF SBE'S ...

67. Wednesday, June 17, 1992 (Legislative day of Tuesday, June 16, 1992), 138 Cong Rec S 8375, Vol. 138 No. 87,
BIOLOGICAL DIVERSITY CONVENTION
102nd Cong. 2nd Sess.
Mr. NICKLES
... sign the Framework Convention on **Climate Change,** the other multilateral treaty ...

68. Tuesday, June 16, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 8222, Vol. 138 No. 86,

THE EARTH SUMMIT
102nd Cong. 2nd Sess.
Mr. GORE
... received the most attention, the **Climate Change** Convention, was signed by ...
... action plans related to **greenhouse gas** emissions. And it is likely, because of the initiative of our ...
... President that the first treaty on **climate change** not be so watered down as to be ...
... by the earlier controversy on **climate change.** Now, fourth, there was a ...
... atmosphere by combating **climate change,** ozone depletion, and transboundary ...

69. Tuesday, June 16, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 8224, Vol. 138 No. 86,
THE EARTH SUMMIT
102nd Cong. 2nd Sess.
Mr. WIRTH
... eloquently about global **climate change;** to have Presidents of republics in ...
... specific issues -- from global **climate change** and the treaty setting targets and ...
... out there. We are signing the global **climate change** convention. The President has changed his ...

70. Friday, June 12, 1992, 138 Cong Rec S 8137, Vol. 138 No. 84, PRESIDENT BUSH AND THE SUMMIT IN RIO
102nd Cong. 2nd Sess.
Mr. KERRY
... in the areas of global **climate change,** biodiversity, forest management, and ...
... opposition to combating global **climate change** on economic grounds, when the administration's ...
... CO[2] and other **greenhouse gas** emissions, could generate $50 ...

71. Wednesday, June 10, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 7729, Vol. 138 No. 82,
THE ENVIRONMENT
102nd Cong. 2nd Sess.
Mr. JEFFORDS
... lead poisoning, about **global warming,** about recycling, yet ...
... action? What about the issue of **global warming.** One of the main goals of the ...
... potential for global **climate change.** In the game partisan ...
... call for action on **global warming** is met with global whining. ...
... shadow of doubt whether or not **global warming** will or will not ...
... possibilities. What is so different about **global warming?** Why do the opponents counter our concerns about **global warming** with their global whining? I ...
... not unlike our own on **global warming.** For example, in ...
... ways we could begin to address **global warming.** And, none of these initiatives are that complex or that ...
... Americans to work. It would reduce **greenhouse gas** emissions, it would reduce our need ...
... want, what can we do? Now what does this have to do with **global warming?** Recycling saves energy. ...
... effort to reduce the risk of **global warming.** I also like the way that ...
... recycling and help prevent **global warming** will come before the ...
GLOBAL WARMING (79%); **CLIMATE CHANGE** (59%);

72. Wednesday, June 10, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 7783, Vol. 138 No. 82,
THE EARTH SUMMIT IN RIO DE JANEIRO
102nd Cong. 2nd Sess.

Mr. AKAKA
... carbon dioxide and other **greenhouse gas** emissions could cause a ...
EMISSIONS (94%); **CLIMATE CHANGE** (90%); TREATIES & AGREEMENTS (...

73. Tuesday, June 9, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 7637, Vol. 138 No. 81,
GLOBAL FORUM: LEADERSHIP 2000
102nd Cong. 2nd Sess.
Mr. GORE
... plan, framework conventions on **climate change** and biodiversity, and principles for the ...
... plan, the framework convention on **climate change,** and the other multilateral and regional ...
... ozone layer depletion, **climate change,** marine pollution, deforestation, and the ...
... 1992, the framework convention on **climate change,** and other completed or forthcoming ...
... environment and development, energy and **climate change,** and environmental technologies and markets. The ...
... nongovernmental organizations. ENERGY AND **CLIMATE CHANGE** Energy use is among the ...
... pollutants. The framework convention on **climate change** is a first, important ...
... strategies for reductions of **greenhouse gas** emissions, with a focus on ...
... savings from low-cost **greenhouse gas** reductions in developing ...
... new policy instruments, such as **greenhouse gas** offset or permit trading ...
... seek cost-effective **greenhouse gas** reductions in developing ...

74. Thursday, June 4, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 7509, Vol. 138 No. 79,
THE EARTH SUMMIT
102nd Cong. 2nd Sess.
Mr. GORE; **Mr.** KERRY; **Mr.** REID
... treaties which have been negotiated. The first is the **climate change** treaty. The second is the biodiversity ...
... about ways to strengthen the **climate change** treaty which was greatly watered ...
... threat of ozone depletion, of **climate change,** of deforestation, of ocean and fresh ...
... called, in the area of **global warming.** The resolution approved overwhelmingly ...
... posed by global **climate change.** We were looking for more than ...
... posed to us by global **climate change.** They state, accurately, that there is no ...
... serious scientists have predicted that **global warming** could disrupt agricultural patterns, ...
... distinguished scientists, called **climate change** "the most serious environmental ...
... find that the consensus is that global **climate change** is real, deadly and irreversible -- all because at ...
... progress, not only on **global warming** but on the full range of ...

75. Thursday, June 4, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 7515, Vol. 138 No. 79,
THE ENVIRONMENT
102nd Cong. 2nd Sess.
Mr. SYMMS
... times of the negotiations on the global **climate change** treaty phase. It was a very ...
... played very well. On global **climate change,** we really dug in our heels ...
... kind of process on global **climate change,** on biodiversity, on timber, and on all of the other ...
... DEVELOPING COUNTRIES (76%); **CLIMATE CHANGE** (75%); TREATIES (74%); ...

76. Thursday, June 4, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 7515, Vol. 138 No. 79,
EARTH SUMMIT IN RIO -- A CHALLENGE TO THE WORLD

102nd Cong. 2nd Sess.
Mr. NICKLES; **Mr.** SIMPSON; **Mr.** SYMMS; **Mr.** WALLOP
... warning of impending doom and **global warming.** So let me close by ...
... television stations about **global warming,** just recently a ...
... argument over global **climate change.** I have discussed this issue at ...
... opinion that the scientific evidence on **climate change** is still more guesswork than ...
... insurance against any adverse **climate change** in the immediate future. They ...
... solve the problem of global **climate change.** One of the most irritating ...
... much of the debate on global **climate change,** biodiversity, and other environmental ...
... couple of the proposals. One is the **Global Warming** Treaty regarding which many have been ...
... well, the President gutted the **Global Warming** Treaty because he would not abide ...
... saying, both in the **Climate Change** Treaty and also by his refusal to ...
... rules and treaties -- to stop **global warming,** close the ozone hole, ...
... extreme rhetoric about the **greenhouse effect,** and global **climate change,** and the positions taken by the ...
... addressing that important matter. **Global warming** is simply not the same ...
... cannot seem to agree at all on **global warming.** They agree that the Earth has been getting ...
... CONSENSUS STILL LACKING ON **GLOBAL WARMING'S** CAUSE (By Boyce ...
... set policy on coping with **global warming,** most of the scientists who specialize ...
... scientific knowledge about **global warming,** the United Nations Environment ...
... group, the Intergovernmental Panel on **Climate Change** (IPCC), produced a ...
... certain": There is a natural **greenhouse effect** that keeps Earth warmer than it would ...
... mean warming to the enhanced **greenhouse effect** [the extra warming attributable to those ...
... announcing in 1988 that "**global warming** has reached a level such that we ...
... effect relationship between the **greenhouse effect** and observed warming. It is already ...
... cautions and qualifications." And he agrees that **global warming** is likely to continue but ...
... hear the debate over **global warming,** you'd think Earth's ...
... extinctions. Tracking natural **climate change** is complicated by the fact that ...
... began, a spell of **global warming** set in again. ...
... climate, there are others that would cool it. **Climate change** depends on which of the two forces is ...
... warm (by a **greenhouse effect**), but it has not been clear whether ...
... degrees in predicted **global warming.** Some climate experts predict ...
... last 40 years. ---------- THE **GREENHOUSE EFFECT:** WHAT IT IS, HOW IT WORKS When sunlight ...
... Earth's atmosphere -- which makes "**greenhouse effect**" a misleading term. ...
... no role in the **greenhouse effect.** Nitrogen and oxygen (which makes ...
... Environmentalists may damn the **greenhouse effect,** but it has been happening for ...
... not for the natural **greenhouse effect,** scientists have calculated, Earth's ...
... Venus, where a runaway **greenhouse effect** is blamed for boosting the ...
... not the main contributor to the **greenhouse effect.** Water vapor is. But ...
... may be enhancing the natural **greenhouse effect.** ---------- ESTIMATING EMISSIONS: FOSSIL ...
... 61 percent of the enhanced **greenhouse effect.** The other sizable contributors are ...
... 20 to 60 times the **greenhouse effect** of CO[2], the effect ...
... a different phenomenon from **global warming,** ozone is a **greenhouse gas.** So its destruction offsets much of the ...
... convert to nitrous oxide. ---------- **GLOBAL WARMING:** DISPARATE IMPACT Even if ...
... computer simulations that predict **global warming** are right, Earth's climate should ...
... simulate a century of **climate change,** the world's fastest supercomputers ...

77. Wednesday, June 3, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 7454, Vol. 138 No. 78, GLOBAL WARMING AND POPULATION GROWTH
102nd Cong. 2nd Sess.
Mr. HATFIELD; **Mr.** WIRTH
... legislation to address the threat of **global warming,** the atmospheric concentration of carbon ...
... Carbon dioxide -- the primary **greenhouse gas** resulting from fossil fuel ...
... indeed may be masking **global warming** that otherwise would have occurred. It is extremely ...
... debate about the science of **global warming.** In fact, this issue has been ...
... since the first postulation of **global warming** was written by the Swedish ...
... assessment. Thus, the Intergovernmental Panel on **Climate Change** [IPCC] was formed in ...
... state of scientific understanding of **global warming.** The major conclusion of this assessment, ...
... address the issue of global **climate change** for more than 2 ...
... Europe, and Asia, the issue of **global warming** exploded in our consciousness. It is ...
... response to prevent rapid **global warming.** Despite the best efforts from the ...
... strategy for a **climate change** convention has entailed many ...
... partnership to tackle the challenge of **global warming.** That was the promise of 2 years of ...
... President, any discussion of global **climate change** or global environmental crisis is ...
... issues of population growth and **global warming,** as well as a host of ...
... How Bush Achieved **Global Warming** Pact With Modest Goals ...
... gases feared to cause **global warming.** Mr. Bush, who as a ...
... House manage to set the **global-warming** agenda for the coming ...
... hands in dealing with the **climate-change** issue, with a substantial ...
... will cause significant **global warming** by the middle of the next ...
... likely to be needed to combat **global warming.** This worries American industry and ...
... fear that a strong **climate-change** accord would slow economic ...
... action to head off **global warming.** Although others in the ...
... Brent Scowcroft who saw **climate change** as a global issue that ...
... reaching a compromise on **climate change** would give great impetus to the ...
... off on the U.S.-authored **climate change** agreement that has now been accepted at the ...
... U.N. committee that negotiated the **climate-change** accord, defended the vague ...
... strict measures to control **global warming** and tighten environmental protections. ...
... above all, it contributes to the threat of **global warming,** the Earth Summit's hinge ...
... energy think tank, **global warming** will be "an artifact of the economically ...
POPULATION GROWTH (90%); **GLOBAL WARMING** (90%); EMISSIONS (90%); ...

78. Tuesday, June 2, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 7265, Vol. 138 No. 77, THE UNCED BIODIVERSITY CONVENTION
102nd Cong. 2nd Sess.
Mr. WIRTH
... carbon dioxide -- the primary **greenhouse gas** -- from the atmosphere. Preserving forests ...
... others on forests and global **climate change** -- while not as comprehensive as the ...
... lost. During negotiations on the **climate change** convention, the United States was ...
... incentives or commitments. Like the **climate change** convention, the biodiversity convention is ...
... a country, and the threat of **global warming** to biological resources. As expected, the ...
... absorbed with the treaty to reduce **global warming.** But another treaty on the ...

79. Tuesday, June 2, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 7382, Vol. 138 No. 77, POPULATION AND ENVIRONMENT

102nd Cong. 2nd Sess.
MS. MIKULSKI
... VARIOUS THREATS TO THE ENVIRONMENT -- **GLOBAL WARMING,** DEFORESTATION, AIR AND WATER ...

80. Thursday, May 21, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 7082, Vol. 138, PRESERVATION FOR THE SPOTTED OWL
102nd Cong. 2nd Sess.
Mr. ADAMS; **Mr.** GORTON; **Mr.** SANFORD
... pollution thought to cause **global warming.** He turned next month's ...
... trying to ease the danger of **global warming.** His Administration's reaction to the owl ...
... acting against the so-called **greenhouse effect** wonder why they bothered to make any ...

81. Thursday, May 21, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 7197, Vol. 138, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 2nd Sess.
MR. BOREN; **MR.** CHAFEE; **MR.** DANFORTH; **MR.** MOYNIHAN
... GAS, BUT IT ALSO CONTRIBUTED TO THE **GREENHOUSE EFFECT.** SECTION 29 IS SCHEDULED TO ...

82. Wednesday, May 20, 1992; (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 7041, Vol. 138 No. 71 -- Part 2, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 2nd Sess.
Mr. GORE; **Ms.** MIKULSKI
... list them. We now have a **climate change** treaty that is deprived of any commitments ...
... But it is unfortunate in the **climate change** negotiation that President Bush ...
... efforts to get a **climate change** treaty that actually does something ...

83. Wednesday, May 20, 1992; (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 7050, Vol. 138 No. 71 -- Part 2, AUTHORITY FOR COMMITTEES TO MEET
102nd Cong. 2nd Sess.
Mr. FORD
... global change research: **global warming** and the oceans. The PRESIDING OFFICER. ...

84. Thursday, May 14, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6691, Vol. 138 No. 67, CONFRONTING THE GLOBAL WARMING THEORY DIRECTLY
102nd Cong. 2nd Sess.
Mr. DODD; **Mr.** SYMMS
... aimed at reducing the threat of **global warming** -- that is if there actually is a threat -- ...
... point in this whole **global warming** question that we need to be discussing some ...
... overwhelming factor in **climate change** is the intensity of the Sun which varies with ...
... core drillings of the glaciers, that there have been **climate changes** throughout time, as long as this Earth has existed. There have been some **climate changes** over a gradual ...
... after cycle. The enhanced **greenhouse effect** theory is just a ...
... in explaining past **climate change** and is therefore likely to perform as badly ...

... mongers screaming about **global warming** and the threat that it is, thank God we have a **greenhouse effect** on planet Earth or it would be 212 ...
... side of the Earth. So without the **greenhouse effect,** this would not be a very habitable ...
... scaring the public about **global warming,** who were then saying we are going to have the glacial ...
... global cooling, not **global warming.** The same people were making those ...
... Humankind has proven its adaptability to **climate change** in the past and it can ...
... simply do not understand **global warming.** The scientific community does not ...
... dismiss the catastrophic theory of **greenhouse effects.** We need to give prominence to the ...
... summit in terms of the **climate change** agreement, has not been discussed ...
... terrible travesty happening, **global warming** is going to destroy the planet so we have to ...
... Bush administration has caved on **global warming.** It has agreed to sign a **climate change** treaty that includes a ...
... humbug of global warning and the **greenhouse effect.** They could have said: The overwhelming factor in **climate change** is the intensity of the sun, which varies with sunspot cycles. The enhanced **greenhouse effect** theory is just a ...
... in explaining past **climate change** and is therefore likely to perform as badly ...
... Mankind has proven its adaptability to **climate change** in the past and can ...
... dismiss the catastrophe theory of **greenhouse effects.** Given prominence to the views of ...
... By not confronting the **global warming** theory directly, where it is highly ...
GLOBAL WARMING (90%); TREATIES & AGREEMENTS (...

85. Thursday, May 14, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6809, Vol. 138 No. 67,
NOTICE OF HEARING
102nd Cong. 2nd Sess.
Mr. JOHNSTON
... rise resulting from global **climate change,** and its consequences for the Pacific ...

86. Wednesday, May 13, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6552, Vol. 138 No. 66,
JOINT APPEAL ON THE ENVIRONMENT
102nd Cong. 2nd Sess.
Mr. MITCHELL
... more actions to curb **greenhouse gas** emissions, better protection of ...
... Alden Meyer, Director, **Climate Change** and Energy Program, Union of ...

87. Wednesday, May 13, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6591, Vol. 138 No. 66,
FRAMEWORK CONVENTION ON CLIMATE CHANGE
102nd Cong. 2nd Sess.
Mr. DOMENICI; **Mr.** MITCHELL
... one of the Senate observers to the **climate change** negotiations I am pleased that ...
... a Framework Convention on **Climate Change.** Yesterday, I asked that this ...
... take the threat of global **climate change** seriously. In fact, ...
... hearing on the science of global **climate change,** we heard four eminent ...
... Lindzen who is considered to be a **global warming** skeptic, to Dr. Schneider who is ...
... U.S. position in the **climate change** negotiations made sense ...
... week said: The scientists told us that **greenhouse effect** is a well-established ...
... severe. These scientists agreed that **climate change** could be a serious problem and we should ...
... positions on both sides of the **global warming** debate are very genuine, although there is also ...
... in the Framework Convention on **Climate Change.** I urge my ...
CLIMATE CHANGE (95%); SCIENCE & TECHNOLOGY (...

88. Tuesday, May 12, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6472, Vol. 138 No. 65,
THE EARTH SUMMIT
102nd Cong. 2nd Sess.
Mr. DOMENICI; **Mr.** GORE; **Mr.** WIRTH
... written assurances that the treaty on **climate change** does not, and I quote: " *** ...
... something about the problem of **climate change** -- and there are other subjects that will be ...
... problem. The head of the negotiations on **climate change,** Mr. Jean Ripert, ...
... close, all of the attention is focused on the **climate change** treaty which is the subject of this letter. ...
... available the final text on **climate change** as it will emerge from the New ...
... gasses and also protect and enhance **greenhouse gas** sinks and reservoirs (such as forests). The ...
... information with the aim of returning **greenhouse gas** emissions to their 1990 levels. The ...
... seriously, and we take the challenge of **climate change** seriously. I believe the ...
... Mr. President, all of the attention has been on the **climate change** treaty. But just ...
CLIMATE CHANGE (59%); TREATIES & AGREEMENTS (...

89. Tuesday, May 12, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6474, Vol. 138 No. 65,
THE EARTH SUMMIT
102nd Cong. 2nd Sess.
Mr. DOMENICI; **Ms.** MUKULSKI; **Mr.** WIRTH
... will result in **climate change.** Where other nations have signaled their ...
... urging him to commit to a **greenhouse gas** reduction goal and they said: We have come to the ...
... forward with efforts to reduce **greenhouse gas** emissions, and the list goes on. ...
... DEVELOPING COUNTRIES (89%); **CLIMATE CHANGE** (77%); EMISSIONS (74%);

90. Tuesday, May 12, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6475, Vol. 138 No. 65,
GLOBAL WARMING
102nd Cong. 2nd Sess.
Mr. CHAFEE; **Mr.** DASCHLE; **Mr.** DOMENICI; **Mr.** McCAIN; **Mr.** WIRTH
... Nations Framework Convention on **Climate Change.** This far-reaching agreement ...
... measures that will mitigate **climate change** by limiting their anthropogenic ...
... enable us to address the issue of **climate change** through a process that ...
... public and private sectors that **climate change** is a common concern. The Framework Convention on **Climate Change** provides the means for us to ...
... leads in controlling **climate change** in the world. That means we have to ...
... President the "scapegoat" for **climate change** problems; never used the ...
CONFERENCES & CONVENTIONS (59%); **GLOBAL WARMING** (59%);

91. Tuesday, May 12, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6511, Vol. 138 No. 65,
AUTHORITY FOR COMMITTEES TO MEET
102nd Cong. 2nd Sess.
Mr. DASCHLE
... policy implications of global **climate change** and international agreements regarding ...

92. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6243, Vol. 138 No. 62,
ORDER OF PROCEDURE
102nd Cong. 2nd Sess.

Mr. GORE
... discussion about global **climate change** and remedies which we can adopt ...
... must do about global **climate change.**
CLIMATE CHANGE (87%);

93. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6243, Vol. 138 No. 62, GLOBAL CLIMATE PROTECTION ACT
102nd Cong. 2nd Sess.
Mr. CRANSTON; **Mr.** GORE; **Mr.** JEFFORDS
... increasing the natural concentrations of this **greenhouse gas** in the Earth's atmosphere; (...
... including the Intergovernmental Panel on **Climate Change** and the United States National ...
... ecological system with the threat of **climate change,** stratospheric ozone depletion, ...
... scientists call global **climate change and global warming,** which is in turn only the ...
... preparation for a **climate change** convention that is due to be signed ...
... reach a successful **climate-change** agreement and begin moving into the ...
... lot of controversy about whether **global warming or climate change** is a real, potential, or imaginary problem. Some would say that **global warming** is a hoax, a ...
... problem. I believe that is because **climate change** of any kind is likely to hit them the ...
... reasonable to me that they would be very concerned about any **climate change.** Now as to the probability that **climate change** will occur, I ...
... amount of frustration to those that say **climate change** is unlikely, that we do not know when it ...
... exits? I believe **global warming** is a threat. It may be too ...
... take action to stop **climate change** from occurring, the point is can we ...
... take action to ensure that **climate change** does not occur. The risk of significant **climate change** may be 1 in ...
... can we afford the outcome if **climate change** does occur? I do not ...
... least in terms of **global warming.** Releasing the billions of tons of ...
... toward protecting our planet from **climate change** is to begin to think in ...
... measures we could implement to stabilize **greenhouse gas** levels. Next week, ...
... about how action on **global warming** will cost jobs is ...
... compare with each other on **greenhouse gas** emissions. Let us see whether ...
... can take action on **global warming.** I am proud to support the ...
... heard many speeches on **global warming** over the past few ...
... worked with me on another part of the **global warming** puzzle, and that is how important it is that we ...
... will not add to the **global warming** problem. So I would urge all of those who are ...
... seriously and effectively with the issue of **global warming.** President Bush's "vision" ...
... comes to addressing global **climate change.** The United States has now ...
... solid scientific consensus that **global warming** will occur due to the ...
CLIMATE CHANGE (90%); LEGISLATION (89%); ...

94. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6250, Vol. 138 No. 62, ETHANOL AND THE REFORMU- LATED GASOLINE PROGRAM
102nd Cong. 2nd Sess.
Mr. BAUCUS; **Mr.** BOND; **Mr.** COATS; **Mr.** DASCHLE; **Mr.** DIXON; **Mr.** DURENBERGER; **Mr.** EXON; **Mr.** GRASSLEY; **Mr.** HARKIN; **Mr.** JEFFORDS; **Mr.** KERREY; **Mr.** LUGAR; **Mr.** PRESSLER; **Mr.** SANFORD; **Mr.** SIMON; **Mr.** WIRTH
... I briefly spoke on the **global warming** issues which is one of the main ...
... fuels that does not contribute to **global warming** but actually keeps us ...
... able to get control of the **climate change** problem. That is the first reason why any ...

... greenhouse gases that contribute to **global warming.** There is no more environmentally ...
... explicitly address the issue of **global warming.** But ethanol also contributes to the ...
... carbon dioxide, the primary **greenhouse gas,** since carbon dioxide is ...
... ethanol will reduce **greenhouse gas** emissions, as well as helping to ...

95. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6258, Vol. 138 No. 62,
INTERNATIONAL EFFORTS TO ADDRESS GLOBAL WARMING
102nd Cong. 2nd Sess.
Mr. BAUCUS; **Mr.** MITCHELL; **Mr.** WELLSTONE; **Mr.** WIRTH
... convention to address global **climate change** and the legislation just introduced ...
... enormous challenge of preventing **global warming** and global **climate change.** I know about that ...
... look at the problem of global **climate change** and determine what we could do to contribute to an international effort to prevent **climate change** -- that unwillingness and obstructionism created this ...
... effort to address the threat of **global warming.** Two weeks ago, the ...
... U.S. Views on Global **Climate Change."** This document is the only notable ...
... scientific information indicates that if **greenhouse gas** concentrations in the atmosphere ...
... reduce our disproportionate share of **greenhouse gas** emissions, or to lead the world ...
... Earth summit -- a **global warming** convention -- has been watered down to the ...
... leadership on the issue of global **climate change.** I rise today to ...
... say on the question of global **climate change.** We had a very good hearing ...
... U.S. Views on Global **Climate Change,"** which I ask unanimous ...
... testrightwing issue on global **climate change.** Company after company are ...
... going on in global **climate change** is becoming clear, and the global **climate change** issue is that old right ...
... a Framework Convention on **Climate Change,** an article by me entitled "U.N. Treaty on **Global Warming** Fizzles under U.S. ...
... U.S. VIEWS ON GLOBAL **CLIMATE CHANGE** THE SCIENCE For some time the ...
... activities to contribute to global **climate change,** while recognizing that there is still ...
... sound response to the problem of **climate change** should be built. The following represents ...
... effort to understand the issue: **Climate Change:** While scientists cannot ...
... factors. Potential impacts of **climate change** are likely to vary considerably from ...
... Precise evaluations of the impacts of **climate change** are not likely to be available ...
... water vapor has the largest **greenhouse effect;** however, on a global scale, its ...
... approximately 60% of the total **greenhouse effect** of these anthropogenically produced gases. (This is ...
... over time, expressed as "**global warming** potential" or GWP.) The economically ...
... around half of global **greenhouse gas** emissions; by 2025, ...
... Mitigation and Adaptation: Some of the consequences of **climate change** can be reduced through ...
... achieved by limiting **greenhouse gas** emissions from sources and protecting and enhancing **greenhouse gas** sinks and reservoirs such as oceans, ...
... in agricultural practices. **Greenhouse gas** sinks can be enhanced ...
... reduce vulnerability to projected **climate change.** A global adaptive ...
... scientific information indicates that if **greenhouse gas** concentrations in the atmosphere ...
... reasons, including responding to **climate change.** Such actions include activities aimed at mitigating or adapting to **climate change** and continued research on the science, ...
... response to concerns about **climate change,** the United States also favors ...
... efficient actions to mitigate **climate change** -- actions that reduce net ...
... believe these actions and their effects on **greenhouse gas** emissions in the United ...
... reduce projected net **greenhouse gas** emissions in the United ...
... federal level and their impacts on **greenhouse gas** emissions. State and local ...
... will have the effect of reducing **greenhouse gas** emissions. These actions are being ...

... programs will affect **greenhouse gas** emissions. ADAPTATION The United ...
... social and economic consequences of **climate change.** While many of these programs are ...
... migration under conditions of **climate change;** Research and development of technologies and ...
... modelling of local and regional **climate changes;** Analyses of the susceptibility of the Tennessee ...
... understanding of the science and economics of **climate change,** including natural and human- ...
... in the area of climate and **climate change.** The goal of the research program is to ...
... Groups of the Intergovernmental Panel on **Climate Change** (IPCC). The U.S. Global ...
... will be the primary source of **greenhouse gas** emissions in the next ...
... technology cooperation related to **climate change** including the following areas: ...
... clearer understanding of the science of **climate change** and the measures individual countries ...
... developing sound responses to **climate change** in the context of overall ...
... countries in responding to **climate change** concerns over the long ...
... effect of mitigating and/or adapting to **climate change.** In addition, industrialized ...
... current emissions and vulnerability to **climate change.** Many of these countries may ...
... 2 A PERSPECTIVE ON THE **GLOBAL WARMING** DEBATE (Testimony of Stephen ...
... Several years after "**global warming**" hit the headlines in the ...
... much misinformation about the '**greenhouse effect**' has been circulated that public understanding is ...
... alleged seriousness or triviality of **global warming.** As a climatologist identified with this ...
... possible long-term **climate change** and its effects on, for example, ...
... scientists" debate over **global warming,** regardless of whether the debating scientists are ...
... speculative. The public debate on **global warming** rarely separates those components, thereby ...
... polemicists and ideologues. It is sad that the **climate change** debate recently has taken on ...
... COMPRISE A CONSENSUS ON **GLOBAL WARMING?** Just to illustrate this point that ...
... offer the following list of **global warming** related points accepted ...
... Research Council's study on **global warming** and its implications (NAS 1991). (The ...
... Certain) 2. The natural **greenhouse effect** from clouds, water vapor, ...
... Humans have altered the natural **greenhouse effect** by adding 25% ...
... years given standard **greenhouse gas** emission scenarios, and they portend ...
... human-induced rates of **climate change** are on the order of 1 degrees ...
... globally-averaged rates of **climate change** to which human civilization evolved and the ...
... behavioral activities that create **greenhouse gas** emissions, biological factors that ...
... A major criticism of **global warming** has been the nonperfect match between the ...
... century cannot be attributed to **greenhouse gas** buildup, because most of the warming ...
... cool the planet, counteracting any **greenhouse effect,** at least regionally. Very recently, ...
... extra human-caused **greenhouse effect** surface-layer heating from ...
... effect combined with the anticipated **global warming from greenhouse gas** emissions would, at least over ...
... critics have contended) to the confidence that **greenhouse gas** buildup equivalent to a ...
... update of the Intergovernmental Panel on **Climate Change** (IPCC 1992) report. ...
... particles will "save us" from **global warming** for two reasons. ...
... short, we cannot "cure" **global warming** with sulphur dioxide emissions and ...
... concern over the prospect of **global warming** -- and I am unabashedly one of them -- ...
... Methane, another very potent **greenhouse gas,** also was lower by about ...
... estimate the sensitivity of climate to **greenhouse gas** concentration changes. Such studies ...
... scale temperature changes from **greenhouse gas** variations roughly of the magnitude that ...
... years old, some have suggested that **global warming** is a "good thing" as it ...
... whereas the potential for **global warming** is 2-10 degrees ...
... sustained, natural global **climate changes** in geological history. WHAT IS ...
... ecological or health consequences of **global warming.** However, we can construct a ...
... ecological implications of most **global warming** scenarios (Peters and Lovejoy ...
... chaos" are plausible "forecasts" should **global warming** materialize at typically projected ...

... years. Other aspects of the **global warming** issue that are highly speculative are the ...
... proposing action to slow **global warming** is that the immediate policy steps to ...
... carbon dioxide (the principal **greenhouse gas**) pollution if efficient, modern ...
... reductions: reduced magnitude of **global warming,** reduced acid rain, ...
... controls. It is unconscionable that some critics of **global warming** action could cite these already very ...
... yet to be performed, and dismayed that some **global warming** critics were actually citing these ...
... 30% reduction in **global warming** by 2105, only " ...
... unpredictably rapid rates of **climate change** with potentially serious risks to ...
... benefits of different specific **climate change** or emission scenarios, these tools are ...
... change. CLIMATIC INSURANCE The **global warming** debate then is both science and ...
... over what to DO about the prospect of **global warming** (i.e., a political value ...
... scientific debate) that unprecedented **climate change** is being built into the 21st- ...
... detailed consequences of our continuing **greenhouse gas** emissions in less than ...
... gases that threaten unprecedented **global warming** does not require economically ...
... ludicrous simply to charge that **greenhouse gas** emission cuts are too costly ...
... make sense, even if **global warming** turns out to be as insignificant as the ...
... flipping probabilities of unprecedented **climate change** and attendant ecological disarray that ...
... in forests. In "**Global Warming** and Biological Diversity," R. ...
... 1990. Effects of global **climate change** on the patterns of terrestrial biological ...
... 292. Intergovernment Panel on **Climate Change,** 1992: "**Climate Change** 1992: The Supplementary Report to the ...
... Policies for Responding to **Climate Change,** A Summary of the Discussions and ...
... B. Fu, 1992: **Global warming:** Evidence for asymmetric ...
... Greenhouse: Planning for **Climate Change,**" SCIRO, Melbourne, Australia, ...
... Lovejoy (eds.), 1992: "**Global Warming** and Biological Diversity," Yale ...
... 1992: Effects of global **climate change** on North American birds and their ...
... Potential Effects of Global **Climate Change** on the United States: Draft ...
... E., (ed), 1990: "**Climate Change** and U.S. Water Resources." ...
... impact (sensitivity times **climate change)** will thus be positive or negative depending on the direction of **climate change.** Many things can ...
... 1988 to a century of **greenhouse gas** buildups in the atmosphere: That is, even if there were certain evidence of **global warming** this century (which I have never ...
... own recent book, **GLOBAL WARMING** (which, ironically, The Detroit News ...
... few recent anti-**global warming** articles that have yet to be published ...
... risk (of potentially disastrous **climate change)** we need to get some broad ...
... Schneider, author of the book **GLOBAL WARMING** (Sierra Club), in an ...
... congressional hearings on the subject of **global warming,** and he does indeed receive "loads of ...
... in stories about **climate change.** In his book he warns that the ...
... up, creating a **greenhouse effect** of catastrophic proportions. Yet ...
... body of research suggests that **global warming** may soon go the ...
... appears to have been little or no **global warming** over the past century." The ...
... hard evidence that the enhanced **greenhouse effect** has arrived." Mr. Solow ...
... Nations' Intergovernmental Panel on **Climate Change** (IPCC) concluded last ...
... easy way out of **global warming.** The cooling effects of manmade ...
... a factor in **climate change.** In fact, researchers ...
... equal -- and thus largely cancel -- the **global warming** by greenhouse gases, ...
... sensitive than the real world to **greenhouse gas.** The distribution of temperature change ...
... breather from a growing **greenhouse effect,** the long-term prognosis ...
... aerosols should lose out to the **greenhouse effect,** in part because they are so short- ...
... text) -- seems to be skewing **climate change.** But whatever the cause, predicting the effects of future **climate change**

on living things will be ...
... stronger efforts to limit **greenhouse gas** emissions. **Global warming** is now a real ...
... United States, the largest **greenhouse gas** producer, to lag behind ...
... strategy to reduce the risks of **global warming.** In that respect, it could become the ...
... a Framework Convention on **Climate Change,** Fifth session, second ...
... A FRAMEWORK CONVENTION ON **CLIMATE CHANGE** WORKING PAPERS BY THE ...
... containing measures to mitigate **climate change** by limiting their emissions of ...
... facilitate adequate adaption to **climate change;** (See former para. (...
... processes that reduce or eliminate **greenhouse gas** emissions in all sectors, ...
... for adaption to the impacts of **climate change;** develop and elaborate appropriate and ...
... g)) (f) Take **climate change** considerations into account, to the extent ...
... by them to mitigate or adapt to **climate change;** (See former para. (...
... regarding causes and effects of **climate change** and regarding the economic and social ...
... related to the climate system and **climate change,** and to the economic and social consequences of ...
... public awareness related to **climate change** and encourage the widest participation ...
... corresponding measures on the mitigation of **climate change,** by limiting anthropogenic ...
... gases and protecting and enhancing **greenhouse gas** sinks and reservoirs. These policies and ...
... capacity of sinks and the respective **global warming** potentials of such gases, in ...
... scientific information and assessment on **climate change** and its impacts, as well as relevant ...
... ability of those Parties to deal with **climate change.** (See former Article ...
... arising from the adverse effects of **climate change,** especially the needs and concerns of ...
... vulnerable to the adverse effects of **climate change,** including. (See former ...
... effects of measures to respond to **climate change.** This applies notably to Parties with ...
... a Framework Convention on **Climate Change,** Fifth session, second ...
... A FRAMEWORK CONVENTION ON **CLIMATE CHANGE** WORKING PAPERS BY THE ...
... estimate of the costs and the reductions of **greenhouse gas** emissions associated with those projects. ...
... 1992] U.N. TREATY ON **GLOBAL WARMING** FIZZLES UNDER U.S. ...
... a U.N. treaty on **global warming,** drawing a barrage of ...
... hope to sign some sort of **global warming** agreement. "The fact that this confused ...
... gases that can lead to **global warming.** The Europeans had proposed that emissions be ...
... timetables for controlling **greenhouse gas** emissions. As a result, this ...
... New York on a **climate change** convention may agree that ...
... may not control **greenhouse gas** emissions. Such a convention would do ...
... caused by global **climate change** will rightly ask why we did ...
... emissions of gases that cause **global warming.** The United States emits ...
... Monday night why the proposed **climate change** text was so hollow, so devoid of ...
... talk about "global **climate change."** They do not put it that way. ...
... something about global **climate change** has to do with whether or not we are going to have a ...
... serious about global **climate change** it will somehow damage our ...
... something about global **climate changes** and focus on what Senator Wirth has been ...
CLIMATE CHANGE (90%); **GLOBAL WARMING** (90%); SCIENCE & TECHNOLOGY (...

96. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6273, Vol. 138 No. 62,
EARTH SUMMIT
102nd Cong. 2nd Sess.
Mr. BAUCUS; **Mr.** GORE; **Mr.** LIEBERMAN; **Mr.** WIRTH
... international agreement to control **global warming.** That should come as no surprise. Because it is ...
... in immune systems, the **global warming** threat, we are all victims of that threat. The ...
... legislation. There are two questions: Is **global warming** a real problem? Does it really ...

... U.S. Views on Global **Climate Change,** " the administration reported that -- The best ...
... weeks ago that they agree **global warming** is a threat. They have concluded ...
... specific program of dealing with **global warming** and protecting us from that threat. And that, in ...
... threat to the world environment from **global warming** is hard for us to imagine and the ...
... for the enormity of the costs of **global warming** and the damage it will bring to us, some ...
... in the fight against **global warming,** is an ideological haze, a ...
... around the world agree that **climate changes** might have devastating impacts on our ...
... water. The potential effects of **climate change** include increased frequency and ...
... stated: If the projected rates of **climate change** have any validity at all, then we have no historical ...
... report "Policy Implications of **Global Warming,**" concludes that -- The United States could reduce or offset its **greenhouse gas** emissions by between ...
... initiatives that will reduce **greenhouse gas** emissions were not even ...
... understanding of the potential for **global warming.** *** We believe (our actions) make ...
... can face the threat of **global warming,** if we are prepared to be leaders, at little or ...
... ENVIRONMENTAL LAW (79%); **GLOBAL WARMING** (79%); US ENVIRONMENTAL LAW (...

97. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6281, Vol. 138 No. 62, GLOBAL WARMING
102nd Cong. 2nd Sess.
Mr. BURNS; **Mr.** DOLE; **Mr.** SIMPSON
... Member of this body, with regard to **global warming** and the efforts that we are trying to put ...
... look at this issue called "**global warming,**" because they only see what they want to ...
... problem, or so-called problem, of **global warming,** we have to use a little ...
... a policy we have to understand what **global warming** is all about. I would suggest and ...
... fact greatly more to the **greenhouse effect** and that would not go away if ...
... a cold region. **Climate change** is a natural evolution of this ...
... ATMOSPHERIC SCIENCES (89%); **GLOBAL WARMING** (89%);

98. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6283, Vol. 138 No. 62, RESPONSE TO STATEMENTS ON RIO SUMMIT
102nd Cong. 2nd Sess.
Mr. SIMPSON; **Mr.** SYMMS
... for his commonsense policy on **global warming** are frustrated because they are not in the ...
... I understand that. With regard to **global warming** and carbon dioxide emissions -- ...
... serious international issue, and **global warming,** which does not have the same level of ...
... scientists think about **global warming.** I think it is useful to ...
... not attributable to an enhanced **greenhouse effect.** So I do not think it is ...
... For, at least on the issue of the **greenhouse effect and global warming,** many of the scientists who are telling us what they are ...

99. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6284, Vol. 138 No. 62, A COMMONSENSE APPROACH TO GLOBAL WARMING
102nd Cong. 2nd Sess.
Mr. SYMMS
... emissions and protect and enhance **greenhouse gas** sinks and reservoirs. It is a ...
... 2]. When we speak about the **greenhouse effect,** I think it is worthwhile to ...
... radiation, thereby producing the warming **greenhouse effect.** It would be difficult to sustain life on this ...

... uncertainty surrounding the science of **climate change.** It places a premium on ...
... Alaska since the so-called **global warming** has started and across the northern ...
EMISSIONS (90%); **CLIMATE CHANGE** (89%); **GLOBAL WARMING** (89%); EARTH & ATMOSPHERIC ...

100. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6285, Vol. 138 No. 62,
THE UNITED STATES MUST TAKE A CAUTIOUS APPROACH
102nd Cong. 2nd Sess.
Mr. McCONNELL
... natural sources. You would think that **global warming** is a scientific certainty ...
... mitigate the possibility of global **climate change** carefully calculated to produce the ...
... magnitude of its effect on global **climate change,** is a solution in ...
... known about global **climate change.** I am troubled by ...
... substantial risks of potential **climate change.** I am also concerned that in this ...
CLIMATE CHANGE (90%);

101. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6287, Vol. 138 No. 62,
POLLUTION IN CITIES
102nd Cong. 2nd Sess.
Mr. GORE; **Mr.** SIMPSON; **Mr.** WALLOP
... science behind the global **climate change** debate. It was rare and, most ...
... about the possibility of global **climate change** has been distorted by emotional ...
... misinterpreting the scientific investigation of **climate change,** and for a whole ...
... international convention on global **climate change.** Legislation is even being ...
... Community's proposal on global **climate change.** Mr. President, how very ...
... perspectives of the science on global **climate change.** First, their first conclusion was that ...
... result in catastrophic **climate change** in the next century. All of them ...
... response to the potential threat of **climate change** is the policy proposed by ...
... over the details of global **climate change.** Yet, they all agreed that the posture ...
... guise of combating the so-called **global warming.** Had they attended the hearing, their understanding of the ...
... a scientific consensus that **global warming** is occurring and that it will have catastrophic ...
... by the International Panel on **Climate Change,** known as IPCC, supporting their ...
... IPCC assessment of global **climate change.** Resolution of these scientific uncertainties ...
... corrections into these models, the threat of **global warming** diminishes. This is anathema to those with a ...
... temperature change resulting from **global warming** increases as the political rhetoric ...
... dispute is over the potential **climate change.** Some believe the range is from one- ...
... culprits in global **climate change.** The basic culprit is nature ...
... involved in global **climate change.** Dr. Lindzen pointed ...
... major contributor to global **greenhouse effects.** It is a natural phenomenon. He said that ...
... SCIENTIFIC BASIS FOR **GLOBAL WARMING** SCENARIOS (By Richard ...
... only a MINOR **greenhouse gas.** If all CO[2] were removed from the ...
... over 98% of the present **greenhouse effect.** Predictions of larger equilibrium ...
... refers to the Intergovernmental Panel on **Climate Change.** This panel is sponsored by the ...
... by the Intergovernmental Panel on **Climate Change** Working Group I. As it ...
... common popular presentation of the **greenhouse effect.** The crude idea is that the atmosphere is ...
... radiation to space. This is what is called the **greenhouse effect.** The fact that the Earth's average ...
... over 98% of the current **greenhouse effect.** Nevertheless, it is presumed that increases ...
... interesting to note that these estimates of the **greenhouse effect** assume that in the absence of ...
... radiative heat transfer, the **greenhouse effect** would warm the Earth to about ...

... C. In fact, the **greenhouse effect** is only about 25% of what it would be ...
... water vapor, the major **greenhouse gas,** increases as surface temperatures ...
... water vapor is the main **greenhouse gas** in the atmosphere, this reduction would ...
... altitudes can also supplement the **greenhouse effect.** Indeed, the effect of clouds ...
... light and in enhancing the **greenhouse effect** are roughly in balance (...
... models to predict substantial **global warming** from increasing CO[2]. It is ...
... respond to the purported danger of **global warming** hinges on one's interpretation of and ...
... M. Prather, 1989: **Greenhouse effect** of chlorofluorocarbons and other trace ...
... Ephraums, editors, 1990: "**Climate Change,** The IPCC Scientific Assessment," ...
... al., 1992: Update to "**Climate Change,** The IPCC Scientific Assessment," ...
... 1990a: Some coolness concerning **global warming.** Bull. Amer. Meteor. ...
... 1989: Observational determination of the **greenhouse effect.** Nature, 342, 758- ...
... Forecast cloudy: the limits of **global warming** models. "Technology Review," ...
... scientific understanding of global **climate change.** I will summarize the ...
... findings of the Intergovernmental Panel on **Climate Change** (IPCC) 1992 Supplement: ...
... I: Scientific Assessment of **Climate Change),** reviewed by several ...
... fundamental understanding of the science of the **greenhouse effect** and either confirm or do not ...
... magnitude and regional patterns of **climate change** due to our incomplete understanding; ...
... unequivocal detection of the enhanced **greenhouse effect** from observations is not likely ...
... in quantifying its effect. The **Global Warming** Potential (GWP) remains ...
... analysis of the dependence of future **greenhouse gas** emissions on socio-economic ...
... coordinated policy response to **climate change.** Modeling Climate models have ...
... suggest a rate of **global warming** that is consistent, within the range of ...
... for Scenario A of **greenhouse gas** emissions. The large-scale ...
... for future projections of **global warming** and somewhat modify the estimated ...
... per decade for the **greenhouse gas** emissions Scenario A of the ...
... in the atmosphere their effect on **global warming** rapidly adjusts to increases or ...
... likely in the rate of **global warming** during the next few ...
... in concentration of each **greenhouse gas,** the radiative properties of the gases ...
... variation with height of the concentration of the **greenhouse gas,** a consideration that may be ...
... O[3]) is an effective **greenhouse gas** both in the stratosphere and ...
... emissions Scenarios of net **greenhouse gas** and aerosol precursor emissions ...
... Sub-group scenario of **greenhouse gas** emissions to 2025; political ...
... affecting how future **greenhouse gas** emissions might evolve ...
... study of future emissions of **greenhouse gas** and aerosol precursors. Scenario Results The range of possible **greenhouse gas** futures is very wide, as the Figure ...
... costs reduce them.) The highest **greenhouse gas** levels result from the new ...
... nuclear power. The lowest **greenhouse gas** levels result from IS92c which ...
... Overall, the scenarios indicate that **greenhouse gas** emissions could rise substantially ...
... a small impact on **greenhouse gas** emissions over the next ...
... development and diffusion of low **greenhouse gas** technologies, nor possible resulting ...
... emissions of greenhouse gases, **greenhouse gas** precursors and aerosol precursors to ...
... in the prediction of future **climate change** compared with uncertainties in ...
... forcing and of the limitations of the concept of the **Global Warming** Potential. Radiative Forcing ...
... heating due to anthropogenic **greenhouse gas** emissions up to the present. The ...
... 1992, copy attached. **Global Warming** Potentials Gases can ...
... gas itself is a **greenhouse gas;** indirect forcing occurs when ...
... greenhouse gases. The concept of the **Global Warming** Potential (GWP) has been developed ...
... need to be quantified. DIRECT **GLOBAL WARMING** POTENTIALS: The direct components of the **Global Warming** Potentials (GWPs) have been recalculated, ...

... time horizon. Indirect **Global Warming** Potentials: Because of our incomplete understanding of ...
... associated with our assessment of global **climate change.** Resolution of these scientific uncertainties ...
... Clouds, which control the magnitude of **climate change;** Sources and sinks of greenhouse ...
... atmospheric concentrations, hence the magnitude of **climate change;** Oceans, which control the timing and regional patterns of **climate change;** Land-surface hydrological ...
... availability and regional patterns of **climate change;** Cryosphere, which affects sea ...
... rise and regional patterns of **climate change;** and Ecological systems, which affect, and are affected by **climate change.** The USGCRP will provide the ...
... exist and that the magnitude and rate of **global warming** may have been overestimated or underestimated. The scientific evidence for **global warming,** coupled with the long atmospheric ...
... measures that reduce net **greenhouse gas** emissions is prudent. - - - - - - - - - - - - - - - - - - - (Testimony of ...
... review report Energy and **Climate Change** n3 at the request of DOE and ...
... n6 n3 "Energy and **Climate Change,**" Report of the DOE Multi-Laboratory **Climate Change** Committee, Lewis Publishers, ...
... n6 Intergovernmental Panel on **Climate Change,** Working Group I ...
... status of scientific understanding of **greenhouse gas** induced **climate change,** and, very briefly, on consequent impacts and ...
... In thinking about the **greenhouse gas** issue, it is important to consider ...
... uncertain. 5. Although **global warming** of 0.3 to 0.6 degrees ...
... association of the observed warming with the **greenhouse gas**-induced climatic change is ...
... moderating effects of aerosols on **global warming,** however, the models and observations are no ...
... 3 degrees C **global warming,** to which society may be committed ...
... Thank you. ATTACHMENT: GLOBAL **CLIMATE CHANGE:** OVERVIEW OF KNOWNS AND UNCERTAINTIES ...
... See Intergovernmental Panel on **Climate Change** 1990 report. The best ...
... exert a direct **greenhouse effect.** Sustaining the steady cutbacks ...
... depletion and to prevent augmentation of **greenhouse effects.** The sulfate aerosol concentration is ...
... a strong warming (**greenhouse**) **effect** at the surface. Because of the **greenhouse effect,** the surface receives about ...
... trapping of infrared radiation and **global warming.** Satellite data demonstrate that the ...
... compensating for at least some of the **greenhouse effect** of the CFC's that contributed to the ozone ...
... for understanding and projecting **climate change.** There is no comparable or fully ...
... concentration would lead to a **global warming** of about 1.5 to 5 ...
... able to make significant **global warming** "go away". Most models suggest an amplification of the **global warming** in high latitudes, with the ...
... changes. 5. Although **global warming** of 0.3 to 0.6 degrees ...
... association of the observed warming with the **greenhouse gas**-induced climatic change is ...
... moderating effects of aerosols on **global warming,** however, the models and observations are no ...
... often referred to as "detection" of the **greenhouse effect**) requires both a comprehensive model calculation of the **greenhouse effect** since the beginning of the Industrial ...
... must then be able to distinguish the **greenhouse effect** with confidence from the effects induced ...
... includes the effects of each **greenhouse gas** individually, and such models are only ...
... parallel with the changes in **greenhouse gas** concentrations, as models would suggest. ...
... indicative of how the real **climate changes** (this would indicate that our models are inadequate and that ...
... a long-term **global warming.** An important difficulty, however, is that we do not ...
... sign and temporarily hiding the **greenhouse effect.** A simple best- ...
... C per decade if **greenhouse gas** emissions continued to increase ...
... environmental reasons. Thus, the slow **global warming** rate of recent decades and the ...
... certainly deleterious, especially if **climate change** is rapid. While there is no ...
... study on "Policy Implications of the **Greenhouse Effect**" (1989-91). U.S. ...

... Project 11 (Climate and **Climate Change)** of U.S./U.S.S.R. Working ...
... Advisory Panel on Global **Climate Change,** Environmental Protection Agency (...
... U.S.S.R. Report on Climate and **Climate Change,**" Lewis Publishers, Boca ...
... discuss the scientific disputes on **global warming,** and Dr. MacCracken discusses the ...
... entire planet -- including **global warming,** the demonstrable proof of which, as I ...
CLIMATE CHANGE (90%); WATER POLLUTION (...

102. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6300, Vol. 138 No. 62,
GLOBAL CLIMATE CHANGE
102nd Cong. 2nd Sess.
Mr. MURKOWSKI
... devastating realities of global **climate change.** On the other side, we have many ...
... own State of Alaska, we had some **climate changes** suggesting not **global warming,** Mr. President, but on the ...
... economic impact of global **climate change** with the emphasis of scientific research on that ...
... determined the magnitude of observable **climate change** attributable to industrial production. ...
... activity, El Nino, **global-warming** trends, and temperature changes that ...
SCIENCE NEWS (92%); **CLIMATE CHANGE** (91%); SCIENCE & TECHNOLOGY (...

103. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6306, Vol. 138 No. 62,
NATIONAL VOTER REGISTRATION ACT
102nd Cong. 2nd Sess.
Mr. BREAUX; **Mr.** DOMENICI; **Mr.** FORD; **Mr.** McCONNELL; **Mr.** WELLSTONE
... incumbency? Motor-voter. **Global warming?** Motor-voter. Cannot ...

104. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6354, Vol. 138 No. 62,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 2nd Sess.
Mr. GRAHAM
... Americans, from the protection of our planet from **global warming** to the impacts of the failure to do so on this and future ...

105. Thursday, May 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6386, Vol. 138 No. 62,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 2nd Sess.
Mr. AKAKA
... can moderate global **climate change,** and to promote responsible forest ...
... better understanding of global **climate change** and the significance of achieving a ...
... section 2407 of the Global **Climate Change** Prevention Act of 1990 (...
... itself, also spurs the danger of **global warming** as the burned trees shed their ...

106. Wednesday, May 6, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6107, Vol. 138 No. 61,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 2nd Sess.
MR. BINGAMAN; **Mr.** PELL
... BASIN AND ITS CONTRIBUTION TO GLOBAL **CLIMATE CHANGE** AND SPECIES DIVERSITY, U.S. ...

107. Wednesday, May 6, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 6233, Vol. 138 No. 61,
AUTHORITY FOR COMMITTEES TO MEET
102nd Cong. 2nd Sess.
Mr. MITCHELL
... science concerning global **climate change.** The PRESIDING OFFICER. Without ...

108. Tuesday, May 5, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 5928, Vol. 138 No. 60,
GLOBAL ENVIRONMENT
102nd Cong. 2nd Sess.
Mr. DURENBERGER; **Mr.** GORE
... a principal cause of **global warming,** at 1990 levels by the ...
... observing the negotiations on, namely, **climate change** agreement at the United Nations. The ...
... in the problem of global **climate change.** The lowest common denominator ...
... CO[2] emissions or **greenhouse gas** emissions, the larger category ...
... a commitment to stabilize our **greenhouse gas** emissions at the 1990 levels ...
... U.S. Views on Global **Climate Change**" which essentially admits that the Department of ...
... in order to stabilize **greenhouse gas** emissions in this country? The ...
... REGULATORY AGENCIES (89%); **CLIMATE CHANGE** (89%); LEGISLATION (89%); ...

109. Tuesday, May 5, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 5929, Vol. 138 No. 60,
EXTENSION OF MORNING BUSINESS
102nd Cong. 2nd Sess.
Mr. GORE
... record that our country should stabilize **greenhouse gas** emissions at 1990 levels ...

110. Tuesday, May 5, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 5934, Vol. 138 No. 60,
RESCISSION OF CERTAIN BUDGET AUTHORITY
102nd Cong. 2nd Sess.
Mr. BYRD
... presence of learning with application of **global warming**"; "Conflict paradigms and the instance ...

111. Tuesday, May 5, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 5950, Vol. 138 No. 60,
RESCISSION OF CERTAIN BUDGET AUTHORITY
102nd Cong. 2nd Sess.
Mr. BUMPERS; **Mr.** BYRD; **Mr.** CHAFEE; **Mr.** DODD; **Mr.** FORD; **Mr.** GORTON; **Mr.** HATFIELD; **Mr.** INOUYE; (**Mr.** KOHL assumed the chair; **Mr.** LIEBERMAN; **Mr.** McCAIN; **Mr.** MITCHELL; **Mr.** PELL; **Mr.** SEYMOUR; **Mr.** STEVENS; **Mr.** WARNER
... presence of learning with application of **global warming**"; "Conflict paradigms and the instance ...
... presence of learning with application of **global warming**"; "Conflict paradigms and the instance ...

112. Tuesday, May 5, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 5978, Vol. 138 No. 60,
RESCISSION OF CERTAIN BUDGET AUTHORITY
102nd Cong. 2nd Sess.
Mr. BROWN; **Mr.** BYRD; **Mr.** FORD; **Mr.** HATFIELD; **Mr.** INOUYE; **Mr.** KOHL; **Mr.** MITCHELL; **Mr.** SIMPSON; **Mr.** SMITH

... developing strategies to combat **global warming.** The Delta College Learning ...

113. Wednesday, April 29, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 5821, Vol. 138 No. 56, WES BIRDSALL OF OSAGE, IA
102nd Cong. 2nd Sess.
MR. HARKIN
... CARBON DIOXIDE, THE MAIN **GLOBAL WARMING GREENHOUSE GAS,** WHILE CUTTING DOWN OUR ...

114. Friday, April 10, 1992, 138 Cong Rec S 5493, Vol. 138 No. 54, CONFRONTING THE GLOBAL ECOLOGICAL CRISIS
102nd Cong. 2nd Sess.
Mr. GORE
... international negotiations to stop **global warming,** the loss of forestland and the devastation of ...
... agreement. There is no agreement on **climate change.** The biodiversity talks have broken ...
... a strong and effective **climate change** convention that, at a minimum, ...
... forward measures to address **climate change,** we need to support, rather than ...
CONFERENCES & CONVENTIONS (59%); **CLIMATE CHANGE** (59%);

115. Friday, April 10, 1992, 138 Cong Rec S 5551, Vol. 138 No. 54, ELECTRIC VEHICLES
102nd Cong. 2nd Sess.
MR. SIMON
... SMOG AND A QUARTER OF THE **GREENHOUSE GAS** CARBON DIOXIDE. THE CALIFORNIA ...
... SCIENTIFIC RESEARCH ON POLLUTION AND THE **GREENHOUSE EFFECT** IS STILL CONTRADICTORY. HE WARNS THAT ...

116. Thursday, April 9, 1992; (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 5203, Vol. 138 No. 53, REALITY VERSUS THE EARTH SUMMIT
102nd Cong. 2nd Sess.
Mr. HELMS
... emissions control to deal with "**global warming.**" Poor nations are too poor to do it. ...
... sense. If, for example, "**global warming**" should ever evolve from environmental theology to ...

117. Thursday, April 9, 1992; (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 5226, Vol. 138 No. 53, STATEMENT OF SENATOR J. BENNETT JOHNSTON, CHAIRMAN, COMMITTEE ON ENERGY AND NATURAL RESOURCES DEPARTMENT OF ENERGY NATIONAL LABORATORY PARTNERSHIP ACT OF 1992
102nd Cong. 2nd Sess.
MR. BINGAMAN; **MR.** CRAIG; **MR.** DOMENICI; **MR.** JOHNSTON; **MR.** WALLOP
... CHALLENGES SUCH AS UNDERSTANDING GLOBAL **CLIMATE CHANGE,** HYDROLOGIC MODELING, AND FUNDAMENTAL ...
... ENVIRONMENT, INCLUDING GLOBAL **CLIMATE CHANGE;** PROTECTION OF ECOLOGICAL SYSTEMS; ...

118. Thursday, April 9, 1992; (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 5329, Vol. 138 No. 53,
AUTHORITY FOR COMMITTEES TO MEET
102nd Cong. 2nd Sess.
Mr. FORD
... Global Change Research: **Global Warming** and the Biosphere. The PRESIDING OFFICER. ...

119. Thursday, April 9, 1992; (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 5345, Vol. 138 No. 53,
U.N. CONFERENCE ON ENVIRONMENT AND DEVELOPMENT
102nd Cong. 2nd Sess.
MR. MCCONNELL
... MITIGATE THE POSSIBILITY OF GLOBAL **CLIMATE CHANGE** CAREFULLY CALCULATED TO PRODUCE THE ...
... MAGNITUDE OF ITS EFFECT ON GLOBAL **CLIMATE CHANGE,** IS A SOLUTION IN ...
... KNOWN ABOUT GLOBAL **CLIMATE CHANGE.** I AM TROUBLED BY ...
... SUBSTANTIAL RISKS OF POTENTIAL **CLIMATE CHANGE.** I AM ALSO CONCERNED THAT IN THIS ...
... CONFERENCES & CONVENTIONS (90%); **CLIMATE CHANGE** (90%);

120. Wednesday, April 8, 1992; (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 4977, Vol. 138 No. 52, LEADERSHIP FROM PRESIDENT BUSH?
102nd Cong. 2nd Sess.
Mr. GORE; **Mrs.** KASSEBAUM; **Mr.** McCAIN
... round of negotiations on global **climate change,** for the convening of the Earth ...
... dioxide, the principal cause of **global warming?** Will he sign broader ...
... hundreds of scientists have concluded: **Global warming** is real. The depletion of the ozone ...
... enough yet about **global warming** to decide whether or not it is really a ...
... carbon dioxide, the principal **greenhouse gas,** President Bush has said no. Why? His ...
... Bush vowed that he would combat the **greenhouse effect** with the White House effect. ...
... but three times, that **global warming** is the worst environmental crisis ...
... afford to confront global **climate change."** Welcome to voodoo economics, ...
... show that we can confront **global warming** and simultaneously strengthen our economy. ...
CLIMATE CHANGE (59%);

121. Wednesday, April 8, 1992; (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 4982, Vol. 138 No. 52, UNCED
102nd Cong. 2nd Sess.
Mr. MURKOWSKI; **Mr.** SYMMS
... Rio, for the conference, the **global warming** conference, saying the American ...
... evidence that says that somehow there is any **global warming** catastrophe taking place. There is ...
... a bigger impact on **global warming** than anything the human race does. ...
... fuels is enhancing the atmospheric **greenhouse effect.** By the next century, so we are told, the resulting **global warming** will present clear and ...
... more ardent proponents of **global warming** theorize that this is somehow inappropriate, if ...
... emphasize the evident uncertainties of **global warming** theory. The proponents of **global warming** theories, who in many ...
... by the Intergovernmental Panel on **Climate Change,** IPCC, which operates under the ...
... unsupported assumption that catastrophic **global warming** follows from the burning of fossil ...
... contributing factor at that time, or whether there is **global warming** actually occurring; and that the theory is that the

...
... talk about the crisis of **global warming** Governor Ray in her ...
... thank God there is a **greenhouse effect** or else it would be 200 below ...
... not question the premise of the **global warming** debate? It is worth repeating that ...
... other surveys and declarations on **global warming,** which drew upon scientists from ...
... more impact on the climate, or any **climate changes** that may be in the offing, than we have from ...
... 1980's about the **global warming** impact of the **greenhouse effect.** He pulled up a ...
... believe human-induced **global warming** has occurred and 30 percent do ...
... feel there is now some evidence of **global warming** in the climate record -- ...
... projections, even among **global warming** true believers, are considerably ...
... understood the basics of an enhanced **greenhouse effect** for 100 years, with ...
... delay in controlling **greenhouse gas** emissions would have negligible -- I ...
... about climatic changes and **global warming** but the reality is we want to ...
... SCIENCE NEWS (90%); **GLOBAL WARMING** (90%); **CLIMATE CHANGE** (79%); CONFERENCES & CONVENTIONS (...

122. Wednesday, April 8, 1992; (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 5007, Vol. 138 No. 52, SENATOR TIMOTHY E. WIRTH
102nd Cong. 2nd Sess.
Mr. MITCHELL; **Mr.** RIEGLE
... early herald of the dangers of **global warming** and deforestation, and a far- ...
... ominous trends toward **global warming** and the mounting dependency of the U.S. on ...
... defend our climate against **global warming.** I entered the Senate ...
... initiatives on population, global **climate change** and biodiversity. But on these and other ...
... Population Growth and Global **Climate Change** I authored the first ...
... seem distant, like **global warming,** but are potentially catastrophic. ...

123. Wednesday, April 8, 1992; (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 5101, Vol. 138 No. 52, ON SENATE CONCURRENT RESOLUTION 89 AND IN PRAISE OF THE SUCCESSFUL CONCLUSION OF THE PREPARATORY COMMITTEE MEETING FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT
102nd Cong. 2nd Sess.
MR. DOMENICI
... UNCED ARE MUCH BROADER THAN **GLOBAL WARMING.** BUT THE ISSUES BEHIND **GLOBAL WARMING** DISPUTE: THE CLASSIC ENVIRONMENTAL ...
... IPCC SCIENTISTS TELL US THAT **GREENHOUSE EFFECT** IS A WELL ESTABLISHED ...
... ENVIRONMENTAL LAW (59%); **CLIMATE CHANGE** (59%); **GLOBAL WARMING** (59%); US ENVIRONMENTAL LAW (...

124. Tuesday, April 7, 1992 (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 4869, Vol. 138 No. 51, U.N. CONFERENCE ON ENVIRON- MENT AND DEVELOPMENT
102nd Cong. 2nd Sess.
Mr. BAUCUS; **Mr.** BIDEN; **Mr.** CHAFEE; **Mr.** CRANSTON; **Mr.** DODD; **Mr.** DOLE; **Mr.** FORD; **Mr.** GORE; **Mr.** GORTON; **Mr.** HOLLINGS; **Mr.** KENNEDY; **Mr.** KERRY; **Mr.** LEAHY; **Mr.** LIEBERMAN; **Mr.** MITCHELL; **Mr.** PELL; **Mr.** ROTH; **Mr.** SANFORD; **Mr.** SIMPSON; **Mr.** SYMMS; **Mr.** WALLOP; **Mr.** WELLSTONE; **Mr.** WIRTH; **Mr.** WOFFORD
... in Brazil. So much has been said on the **climate change** negotiations that we have lost sight of the ...

... track. The INC negotiations on **climate change** is a legal process which is ...
... human induced global **climate change.** In the 1970's their ...
... man's potential to induce **global warming.** Through both Government and ...
... scientific research to understand the **climate change** phenomenon and its consequences. Sound ...
... response to the potential for **climate change.** Through the IPCC process ...
... precise evaluations of the impacts of **climate change** are not likely to be available ...
... aspect of the negotiations on global **climate change** is the assumption that the so-called **greenhouse effect** is a scientifically verified ...
... by some organizations about **global warming.** Many may recall that ...
... quickly discredited, so now we have the **global warming** alarm which is also based on incomplete ...
... begin it was envisioned that the treaty would be on **climate change** and would consider all greenhouse gases, such as ...
... developed nations. Even if the **climate change** treaty were to be limited to carbon ...
... for addressing global **climate change,** then we need an approach that provides ...
... a broad approach to **climate change** that addresses all sources, not ...
... 2] alone. If the phenomenon of **climate change** is real, the challenge will be to ...
... agree as I do not, that **global warming** is occurring, it makes no ...
... dispute through the Global **Climate Change** Convention. Both the Group of ...
... actions to reduce or stabilize its **greenhouse gas** emissions. For the last ...
... rather than condemnation. The issue of **climate change** challenges developing countries as ...
... knowledge of the causes and effects of **climate change.** Emissions from sources can be ...
... in agricultural practices. **Greenhouse gas** sinks can be enhanced ...
... desertification, deforestation, global **climate change,** ozone depletion, and population ...
... important of these two treaties is on **climate change;** the other is on the protection of biodiversity. ...
... binding commitments on limiting **greenhouse gas** emissions, then we, the developing nations, are ...
... timetables for controlling **greenhouse gas** emissions. Every other ...
... Action Plan Agreements on **Climate Change,** biodiversity, forests, and oceans. The **climate change** agreement was to have been completed even ...
... go through them briefly. On **climate change,** we are again the sole hold ...
... take action, and it is this issue of **climate change** that is at the heart of the possibility of agreement at the ...
... House. These nations understand that if the **climate change** agreement crumbles, the Earth ...
... beginning to understand: If there is no **climate change** agreement, if the Earth summit ...
... still blind to the threat of **climate change** and ignore the issue. At the Bush ...
... increase in temperature, **global warming.** The sentence I read, the ...
... likely effect of increasing **greenhouse gas** emissions in the atmosphere ...
... occurred as a result of **greenhouse gas** emissions. Those are two separate ...
... will lead to warming and **climate change.** I have more to say ...
... 2], it is as though that is the only **greenhouse gas.** I would say to my friend that it is not the only **greenhouse gas,** and there are others that are involved in that. And it is, ...
... a different process from the **climate change** negotiations as well as the forestation ...
... can go on. And the Global **Climate Change** Convention is not part of ...
... carbon into the atmosphere. Rapid **climate change** poses an especially pressing danger; **global warming** threatens future generations and the ...
... world awake to the threat of **global warming** and other environmental dangers and ...
... inaction on clean air -- and on **global warming** -- would be all too clearly displayed. But ...
... threatened by global **climate change.** This is still an issue in ...
... potential for global **climate change** and its effects. Next month, the ...
... another hearing on global **climate change,** and this will be an appropriate opportunity to ...
... concept of potential to the threat of **climate change.** Mr. KERRY. Mr. ...
... posed by global **climate change.** That extent is clearly an uncertainty. ...

... scientific research on the possibility of **global warming.** The science is tailored to fit ...
... considered. If you accept their theory on **global warming,** then all the greenhouse gases should be included ...
... for only half of all the **greenhouse gas** emissions. The negotiations on global **climate change** only focus on this one so- ...
... major growth in **greenhouse gas** emissions over the next ...
... growth in their portion of **greenhouse gas** emissions be printed in the ...
... CONTRIBUTION TO ANNUAL GLOBAL **GREENHOUSE GAS** EMISSIONS Any unilateral action ...
... little, if any, impact on total **greenhouse gas** emissions over the next ...
... Major increases in **greenhouse gas** emissions will come from the ...
... years. The U.S. percentage of **greenhouse gas** emissions has decreased dramatically ...
... other economics. CONTRIBUTION TO **GREENHOUSE GAS** EMISSIONS [In percent] ...
... WALLOP. Mr. President, if **global warming** is occurring, and if it is harmful, the UNCED ...
... made to the threat of global **climate change** and the necessity to "support an international ...
... reduce the threat of global **climate change.**" I inquire of the sponsor what he would ...
... reduce the threat of global **climate change.**" The resolution does not specify the ...
... lastly, does the resolution support **greenhouse gas** emissions by all nations? ...
... not refer specifically to **greenhouse gas** emissions other than to urge ...
... in the threat of global **climate change.** Obviously, appropriate controls on **greenhouse gas** emissions, taking into account the ...
... not refer specifically to those **greenhouse gas** emissions. Mr. WALLOP. ...
... emissions into the atmosphere cause **climate change.** Indeed, as we have all agreed here this morning, there is ...
... continues, then there will be warming and **climate change.** The question of whether or not the warming, which has ...
... a problem with global **climate change,** it is probably OK to push ...
... methane, the other principal **greenhouse gas,** the other negotiators have said we will ...
... around the world agree that **climate changes** might have devastating impacts on our ...
... water. The potential effects of **climate change** include increased frequency and ...
... stated: If the projected rates of **climate change** have any validity at all, then we have no historical ...
... administration contends that controlling **global warming** would wreak economic havoc ...
... Efforts to head off **global warming** could actually save money or ...
... report, "Policy Implications of **Global Warming,**" concludes that "the United States could reduce or offset its **greenhouse gas** emissions by between ...
... understanding of the potential for **global warming.** *** We believe (our actions) make ...
... environmental problems we face. **Global warming,** ozone depletion, deforestation, ...
... something about global **climate change?** Where is the commitment of doing something ...
... something about global **climate change** that will have catastrophic consequences ...
... reduce the threat of global **climate change,** not footdragging and excuses. They ...
... say with certainty this is the beginning of **global warming,** they do warn us that global temperatures are ...
... convention to reduce the threat of **climate change,** not foot dragging and ...
... happening, CFC's to biodiversity and **global warming,** how we could not deem such ...
... States of America, the leading **greenhouse gas** emitter, ought to be willing to be ...
... beginning with the issue of global **climate change.** The resolution urges the President to ...
... distinguished scientists, called **climate change** "the most serious environmental ...
... for decades, the leading **greenhouse gas** emitter, including carbon ...
... get with respect to global **climate change,** there is the very obvious benefits you get, ...
... reduce the threat of global **climate change** is clearly in our interests because the ...
... posed by global **climate change,** and we leave it up to his leadership to ...
... times: biological diversity, **global warming,** the loss of tropical forests, ...
... may not be a **climate change** treaty signed in ...
... support international agreements on **global warming,** biological diversity, and world ...

... appears to have been little or no **global warming** over the past century. The ...
... reading that the debate over the **greenhouse effect** is "settled" and that all "serious" scientists ...
... appears to have been little or no **global warming** over the past century." The ...
... models that foretell a **greenhouse effect** predict that there already should have been about ...
... warning was caused by the **greenhouse effect.** This of course got the desired ...
... fallback position. They say the **greenhouse effect** may or may not be ...
... available evidence around the **greenhouse effect.** The public will watch on ...
... think is "settled" about **global warming** and, most important, how ...
... KERRY. The statement with respect to **greenhouse gas** emissions from the United States, ...
... a whole and measure the **greenhouse gas** emissions, they are not close to the ...
... CO[2]is the only **greenhouse gas** worthy of control, then it is worthy of ...
... mind about global **climate change.** I am fully aware of ...
... But when you get into global **climate change,** it seems to me in my ...
... half-baked global **climate change** policy that would not work and would have ...
... biggest role in **climate changes?** We do know that CO[2] ...
... emissions but reduces **greenhouse gas** emissions by 50 ...
... current path, then worldwide **greenhouse gas** emissions will, by the ...
... contemplated in the global **climate change** agreement. I urge ...
... occasion -- a commitment to the **climate change** negotiations. But that does not ...
... talking about global **climate change,** deforestation, loss of biological ...
... unprecedented pressure on the environment, **global warming,** destruction of forests, ocean ...
... emissions of gases that contribute to **global warming** -- the only country that has opposed such ...
... far the largest contributor to **global warming.** Mr. President, this administration's ...
... oppose any targets or timetables on **global warming?** That support an agreement only if it is so ...
... Mr. President, whether you believe the **greenhouse effect** has already begun or has not ...
... related problems of deforestation and the **greenhouse effect.** One of the lessons I ...
... hands. The threat of global **climate change** as a result of the **greenhouse effect** is a good example of this ...
... Brazilian deforestation contributes to the **greenhouse effect** in two ways. ...
... estimated 7 percent to the **greenhouse effect.** By comparison, the United ...
... more than 20 percent of the **greenhouse effect** through our automobiles and wasteful ...
... global environmental problems -- **global warming,** ozone depletion, deforestation, ...
... years we have been facing the threat of **global warming** and a rapid deterioration of the ...
... problem does not exist. On **global warming,** the President announced 2 ...
... Bush promised that he would do battle with **global warming,** using the White House effect to fight the **greenhouse effect.** Now we have before the Senate ...
... international efforts against the **greenhouse effect** and other global threats. The ...
... for opposition any action on **global warming** in the future. First, ...
... concerned about harmful **climate change.** This distinction creates a theory of good **climate change** and bad **climate change.** Acceptance of this premise is a ...
... no action of any kind on **climate change.** If one accepts that some **climate change** will have beneficial effects, then we are ...
... better future. The good **climate change** proponents would have us believe that with just the ...
... expected under most **global warming** scenarios, the notion that we can somehow control **climate changes** so that they are all beneficial to mankind is absurd, as is the ...
... economy if we take action on **global warming.** One underlying belief ...
... But opponents of action on **global warming** would have the public believe that we must ...
... used by those who would do nothing on **global warming,** it is important to understand the science that is ...
... world's ecosystem and how **global warming** could affect each region of the ...
... concern about global **climate change** -- that the cumulative effect of each of our ...
... support action against **global warming.** The contrast shows how ...

... alone on its position on global **climate change,** in opposition to anything ...
... national strategies to address **climate change** *** and to make public the elements of such ...
... respected researchers are convinced that **global warming** is a real threat, ...
... progress on a global **climate change** convention. Several areas of ...
... meaningful limits on U.S. **greenhouse gas** emissions. Negotiations have progressed ...
... carbon dioxide, the dominant **greenhouse gas.** The European Community has committed to ...
... refusing to commit to any controls on **greenhouse gas** emissions. The world cannot ...
... reverse the position of his administration on **global warming.** It is time to act for ...
CONFERENCES & CONVENTIONS (90%); **CLIMATE CHANGE** (90%); ECONOMIC DEVELOPMENT (...

125. Thursday, April 2, 1992; (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 4854, Vol. 138 No. 49, NOTICES OF HEARINGS
102nd Cong. 2nd Sess.
Mr. JOHNSTON
... science concerning global **climate change.** A second hearing has been ...
... policy implications of global **climate change** and international agreements regarding ...

126. Wednesday, April 1, 1992; (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 4575, Vol. 138 No. 48, FURTHER CONTINUING APPRO- PRIATIONS, FISCAL YEAR 1992
102nd Cong. 2nd Sess.
Mr. BRADLEY; **Mr.** BREAUX; **Mr.** BUMPERS; **Mr.** D'AMATO; **Mr.** DOLE; **Mr.** HATFIELD; **Mr.** HELMS; **Mr.** INOUYE; **Mr.** KASTEN; **Mr.** LAUTENBERG; **Mr.** LEAHY; **Ms.** MIKULSKI; **Mr.** PELL; **Mr.** SEYMOUR; **Mr.** SIMON; **Mr.** WELLSTONE; **Mr.** WIRTH
... AID Energy Assistance and **Global Warming**" concludes that "no substantial ...
... patterns can be attributed to the **global warming** initiative legislation." The primary goal of the **global warming** initiative is to maximize the effectiveness of ...
... countries that are the major contributors of **greenhouse gas** emissions that cause **global warming.** It is intended that the allocation of these funds ...
... contributions of each of these countries to **global warming.** AID office of energy ...
... efficient, and do not contribute to **global warming;** Take steps to encourage the ...

127. Tuesday, March 31, 1992; (Legislative day of Thursday, March 26, 1992), 138 Cong Rec S 4433, Vol. 138 No. 47, NATIONAL LABS=INDUSTRIAL POLICY
102nd Cong. 2nd Sess.
Mr. JOHNSTON
... model and research global **climate change** or to design a more ...

128. Thursday, March 26, 1992, 138 Cong Rec S 4257, Vol. 138 No. 44, GLOBAL ENVIRONMENTAL POLICY
102nd Cong. 2nd Sess.
Mr. WALLOP
... international agreements on global **climate change** and on biodiversity. And, there is a third ...
... several involving the global **climate change** convention. One element of this ...
... aspect of the negotiations on global **climate change** is the assumption that the so-called **greenhouse effect** is a scientifically verified ...
... by some organizations about **global warming.** Many may recall that ...
... quickly discredited, so now we have the **global warming** alarm which is also based on incomplete ...

... science behind global **climate change** will occur at that hearing. ...
... dispute through the Global **Climate Change** Convention. Both the Group of ...
... a chart showing **greenhouse gas** emissions over the next ...
... point. If one were to agree that **global warming** is occurring, it makes no ...
... CONTRIBUTION TO ANNUAL GLOBAL **GREENHOUSE GAS** EMISSIONS Any unilateral action ...
... little, if any, impact on total **greenhouse gas** emissions over the next ...
... Major increases in **greenhouse gas** emissions will come from the ...
... years. The U.S. percentage of **greenhouse gas** emissions has decreased dramatically ...
... other economics. CONTRIBUTION TO **GREENHOUSE GAS** EMISSIONS [In percent] ...

129. Thursday, March 26, 1992, 138 Cong Rec S 4259, Vol. 138 No. 44, MONTANA NATIONAL FOREST MANAGEMENT ACT OF 1991
102nd Cong. 2nd Sess.
Mr. ADAMS; **Mr.** BAUCUS; **Mr.** BUMPERS; **Mr.** BURNS; **Mr.** FORD; **Mr.** GORE; **Mr.** HELMS; **Mr.** JOHNSTON; **Mr.** KASTEN; **Mr.** KOHL; **Mr.** LEAHY; **Mr.** MITCHELL; **Mr.** WELLSTONE
... Senator from Tennessee alluding to **global warming,** how this is going to denude our ...

130. Wednesday, March 25, 1992, 138 Cong Rec S 4143, Vol. 138 No. 43, NOT A BLEAK ENVIRONMENT
102nd Cong. 2nd Sess.
Mr. JEFFORDS
... biodiversity. We must address **global warming.** It is interesting to me that some point the finger at the ...
... being interested in **global warming.** Again, three fingers ...
... resist efforts to address **global warming.** Clearly, one side ...

131. Wednesday, March 18, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 3810, Vol. 138 No. 39, PRESIDENT VACLAV HAVEL ON "THE END OF THE MODERN ERA"
102nd Cong. 2nd Sess.
Mr. KENNEDY
... danger. The population explosion and the **greenhouse effect,** holes in the ozone and ...

132. Wednesday, March 18, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 3841, Vol. 138 No. 39, UNITED STATES-CHINA ACT -- VETO
102nd Cong. 2nd Sess.
Mr. CHAFEE; **Mr.** DASCHLE; **Mr.** DeCONCINI; **Mr.** DOLE; **Mr.** DOMENICI; **Mr.** FOWLER; **Mr.** GORTON; **Mrs.** KASSEBAUM; **Mr.** PACKWOOD; **Mr.** RIEGLE; **Mr.** SIMPSON; **Mr.** WOFFORD
... ozone depletion, issues of **global warming,** issues of population control -- which ...

133. Friday, March 13, 1992, 138 Cong Rec S 3722, Vol. 138 No. 36, CONSULTATION ON THE ENVI- RONMENT AND JEWISH LIFE
102nd Cong. 2nd Sess.
MR. GORE
... DEPLETION OF THE OZONE LAYER, **GLOBAL WARMING,** MASSIVE DEFORESTATION, THE LOSS OF ...
... FACE OF SUCH UNPRECEDENTED THREATS AS **GLOBAL WARMING,** IS TO RETURN TO SUCH BASIC CONVICTIONS. THE ...

... DEPLETION OF THE OZONE LAYER, **GLOBAL WARMING,** MASSIVE DEFORESTATION, THE EXTINCTION OF ...
... ACCIDENTS & DISASTERS (90%); **GLOBAL WARMING** (90%); CHRISTIANS & CHRISTIANITY (...

134. Thursday, March 12, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 3445, Vol. 138 No. 35 -- Part 2, TAX FAIRNESS AND ECONOMIC GROWTH ACT
102nd Cong. 2nd Sess.
Mr. BENTSEN; **Mr.** HATCH; **Mr.** KENNEDY; **Mr.** REID; **Mr.** ROCKEFELLER; **Mr.** WIRTH
... oil. It is important to reducing the **greenhouse effect.** And it is important for us to develop these ...

135. Thursday, March 12, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 3577, Vol. 138 No. 35 -- Part 2, DESALINATION
102nd Cong. 2nd Sess.
MR. SIMON
... POLLUTION, ACID RAIN, **GREENHOUSE GAS** EMISSIONS, AND FOSSIL FUEL ...

136. Thursday, March 5, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 2931, Vol. 138 No. 30, SENATE RESOLUTION 265 -- RELATING TO THE YEAR OF THE TREE
102nd Cong. 2nd Sess.
MR. SIMON
... ways to help reduce **global warming** and other environmental problems; ...
... TREES HELP REDUCE **GLOBAL WARMING.** TREES HELP SAVE ...

137. Wednesday, March 4, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 2791, Vol. 138 No. 29, WARREN T. BROOKES
102nd Cong. 2nd Sess.
Mr. METZENBAUM; **Mr.** PRYOR; **Mr.** SYMMS
... official Washington "knew" that **global warming** was on the way. Warren found ...

138. Tuesday, March 3, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 2659, Vol. 138 No. 28, EARTH IN THE BALANCE: ECOLOGY AND THE HUMAN SPIRIT
102nd Cong. 2nd Sess.
Mr. INOUYE; **Mr.** PRESSLER
... someone starts in on the **greenhouse effect** or the ozone layer or chlorofluorocarbons. ...
... ATMOSPHERIC SCIENCES (79%); **CLIMATE CHANGE** (79%);

139. Tuesday, March 3, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 2660, Vol. 138 No. 28, PUBLIC TELECOMMUNICATIONS ACT OF 1991
102nd Cong. 2nd Sess.
Mr. INOUYE; **Mr.** SMITH
... scientific program about the **greenhouse effect.** Science fiction might be ...

140. Thursday, February 27, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 2515, Vol. 138

No. 25, CLIMATE CHANGE NEGOTIATIONS
102nd Cong. 2nd Sess.
Mr. CHAFEE; **Mr.** MITCHELL
... a framework convention on **climate change** -- these are the negotiations dealing with **climate change, the global warming** problem -- the U.S. delegation ...
... denying that the threat of global **climate change** is a real and serious ...
... counter the threat of global **climate change.** Time is of the essence because the current ...
... a Framework Convention on **Climate change** that is being held in ...
... combat the threat of global **climate change.** The carping critics should be ignored. The ...
... will limit the U.S. **greenhouse gas** emissions starting immediately. ...
CLIMATE CHANGE (92%); AIR POLLUTION (...

141. Thursday, February 27, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 2592, Vol. 138 No. 25, INTRODUCTION OF THE REAL ESTATE BILLS REFERRED TO THE SENATE BANKING COMMITTEE
102nd Cong. 2nd Sess.
MR. COATS; **MR.** RIEGLE
... LESSEN THE POTENTIAL OF GLOBAL **CLIMATE CHANGE.** THE AGREEMENT'S CHARGE WILL BE ...

142. Thursday, February 27, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 2598, Vol. 138 No. 25, AUTHORITY FOR COMMITTEES TO MEET
102nd Cong. 2nd Sess.
Mr. MITCHELL
... 10 a.m. on indications of **global warming** and solar variability. The PRESIDING ...

143. Tuesday, February 25, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 2133, Vol. 138 No. 23, CONFERENCE AGREEMENT ON CHINA MOST-FAVORED-NATION BILL
102nd Cong. 2nd Sess.
Mr. BAUCUS; **Mr.** BENTSEN; **Mr.** BIDEN; **Mr.** CRANSTON; **Mr.** DeCONCINI; **Mr.** DIXON; **Mr.** GLENN; **Mr.** KENNEDY; **Mr.** KERRY; **Mr.** METZENBAUM; **Mr.** MITCHELL; **Mr.** MOYNIHAN; **Mr.** MURKOWSKI; **Mr.** PACKWOOD; **Mr.** PELL; **Mr.** SIMPSON
... environment, such as ozone depletion, **global warming,** population control, nuclear ...

144. Thursday, February 20, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 1935, Vol. 138 No. 20, GLOBAL POPULATION GROWTH
102nd Cong. 2nd Sess.
MR. ADAMS
... OVERWORKED AGRICULTURAL LANDS, **GLOBAL WARMING,** AN EXPANDING HOLE IN THE ...

145. Wednesday, February 19, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 1632, Vol. 138 No. 19, The TEXT of this document exceeds 5,000 lines., NATIONAL ENERGY SECURITY ACT
102nd Cong. 2nd Sess.
Mr. BENTSEN; **Mr.** BIDEN; **Mr.** BOND; **Mr.** BRADLEY; **Mr.** BRYAN; **Mr.** BUMPERS; **Mr.** BYRD; **Mr.** CHAFEE; **Mr.** CRAIG; **Mr.** CRANSTON; **Mr.** DeCONCINI; **Mr.** DODD; **Mr.** DOLE; **Mr.** DOMENICI; **Mr.** DURENBERGER; **Mr.** FORD; **Mr.** GRAHAM; **Mr.** GRASSLEY; **Mr.** HATFIELD; **Mr.** HOLLINGS; **Mr.**

JEFFORDS; **Mr.** Johnson of Texas; **Mr.** JOHNSTON; **Mr.** MACK; **Mr.** McDowell; **Mr.** MITCHELL; **Mr.** Rees of Kansas; **Mr.** SANFORD; **Mr.** SEYMOUR; **Mr.** SIMPSON; **Mr.** SPECTER; **Mr.** WALLOP; **Mr.** WELLSTONE; **Mr.** WIRTH
... Carbon dioxide is the principal **greenhouse gas,** and a major tailpipe ...
... ozone layer, the threat of the **greenhouse effect,** and long-term **climate change,** and much posturing. The fact ...
... take on this floor to arrest **global warming** is to vote for stronger ...
... gases, and thus helps slow the **global warming** trend. Mr. President, ...
... energy strategy to stabilize **greenhouse gas** emissions. When implemented, the provisions ...
... resources, such as nuclear, which reduce **greenhouse gas** emissions. They successfully opposed ...
... wringing our hands over **global warming** and dirty air while ...
... say it's good for **global warming.** Well, that's rubbish. We know how to solve the **global warming** problem. We could do that right now with ...
... urgent problem -- global **climate change.** Our planet is threatened by the ...
... Leslie Cordes on renewables and **global warming** did such a good job, as ...

146. Wednesday, February 19, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 1719, Vol. 138 No. 19, SOUND COAL TECHNOLOGIES
102nd Cong. 2nd Sess.
MR. WALLOP
... NEGOTIATIONS ON A GLOBAL **CLIMATE CHANGE** CONVENTION. AN INTEGRAL PART OF THESE ...
... LIGHT OF ON-GOING GLOBAL **CLIMATE CHANGE** NEGOTIATIONS. COAL, THE WORLD'S ...
... CONVENTION OR AGREEMENT ON GLOBAL **CLIMATE CHANGE** MUST ENCOURAGE PARTICIPATION OF THE ...
... ACT, ANY REDUCTIONS IN **GREENHOUSE GAS** EMISSIONS ARE LIKELY TO BE TRANSITORY IF THE ...
... SOLVING APPROACH TO GLOBAL **CLIMATE CHANGE** IN WHICH ALL PARTIES CAN ...
... BENEFITS, INCLUDING GLOBAL **CLIMATE CHANGE** BENEFITS, AT MINIMUM COST. THERE IS ...
... INTERNATIONAL AGREEMENT ON GLOBAL **CLIMATE CHANGE.** IN THE EARLY 1960' ...
... POTENTIAL CONSEQUENCES OF GLOBAL **CLIMATE CHANGE.** THE CONGRESS IS SIMILARLY AWARE THAT THE ...
... STRATEGY, INCLUDING GLOBAL **CLIMATE CHANGE,** INTEGRATED RESOURCE PLANNING, ...
... SIGNIFICANT REDUCTIONS IN **GREENHOUSE GAS** EMISSIONS OVER THE NEXT ...
... UNITED STATES' TOTAL **GREENHOUSE GAS** EMISSIONS ARE ESTIMATED TO DECLINE FROM ...
... IMPORTANT TRADE AND GLOBAL **CLIMATE CHANGE** BENEFITS THAT CAN ACCOMPANY THE ...
... IN RESPONSE TO GLOBAL **CLIMATE CHANGE** CONCERNS, THERE NEEDS TO BE GREATER ...
... EFFICIENCY IMPROVEMENTS AND REDUCED **GREENHOUSE GAS** EMISSIONS, THERE IS BROAD SUPPORT ...
... TRANSFER THE BURDEN OF GLOBAL **CLIMATE CHANGE** REMEDIATION TO OTHERS. CLEARLY, AS THIS ...
... IN THE CASE OF GLOBAL **CLIMATE CHANGE,** THIS PRACTICE OFTEN IS BEING ...
... STRATEGIES FOR GLOBAL **CLIMATE CHANGE.** CONSISTENT WITH THIS THINKING, PRESIDENT ...
... INTENDED TO ADDRESS GLOBAL **CLIMATE CHANGE** OR OTHER ENVIRONMENTAL ISSUES. ...
... INTERNATIONAL AGREEMENT ON GLOBAL **CLIMATE CHANGE** MUST BE STRUCTURED TO REFLECT ...
... ECONOMIC DEVELOPMENT (79%); **CLIMATE CHANGE** (79%); ECONOMIC NEWS (...

147. Tuesday, February 18, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 1515, Vol. 138 No. 18, CLIMATE CHANGE CONVENTION

102nd Cong. 2nd Sess.
Mr. GORE
... round of negotiations on a **climate change** convention will begin ...
... combat the problem of global **climate change,** our Nation, the largest single ...
... Earth summit is supposed to be the **climate change** treaty being negotiated ...
... subject of the convention -- global **climate change.** It is symptomatic of drafting thus far that the ...
... objective of the Convention is to control **greenhouse gas** concentrations in the atmosphere ...
... priorities, and capabilities, to respond to **climate change,** including, as appropriate, cost ...
... measures aimed at: The limitation of **greenhouse gas** emissions through, for ...
... practices; Adaptation to the impacts of **climate change** through, for example, ...
... related to mitigating or adapting to **climate change.** Base those measures on periodically ...
... implementing measures to address **climate change,** such measures are integrated in ...
... technical cooperation with respect to **climate change,** its impacts and potential responses thereto [...
... related to the climate system and **climate change** [currently Article V. ...
... public awareness related to **climate change** [currently Article V. ...
... agreed criteria and methodology, and all **greenhouse gas** sink enhancement and destruction; ...
... strategies to mitigate and adapt to **climate change,** including those taken jointly with ...
... estimate of the costs and net **greenhouse gas** emissions reductions associated therewith; ...
... economic sciences pertaining to **climate change** and responses [currently VI. ...
CLIMATE CHANGE (90%); ENERGY POLICY (...

148. Tuesday, February 18, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 1518, Vol. 138 No. 18, CLIMATE CHANGE NEGOTIATIONS
102nd Cong. 2nd Sess.
Mr. MITCHELL
... a Framework Convention on **Climate Change.** This is a critical round of ...
... substantive international agreement on **global warming.** Negotiations have progressed slowly ...
... carbon dioxide, the dominant **greenhouse gas.** The European Community has committed to ...
... refusing to commit to any controls on **greenhouse gas** emissions. The administration says it ...
... acting to control global **climate change.** We have heard this before. The administration ...
... certain of all the causes and effects of **global warming,** it will be too late. Even if we ...
... hesitating for so long. **Climate change** is not simply a ...
... effects that some believe to be attributable to **climate change.** For example, four ...
CLIMATE CHANGE (92%); EMISSIONS (92%); **GLOBAL WARMING** (91%); TALKS & MEETINGS (...

149. Tuesday, February 18, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 1520, Vol. 138 No. 18, NATIONAL ENERGY SECURITY ACT
102nd Cong. 2nd Sess.
Mr. ADAMS; **Mr.** BAUCUS; **Mr.** BYRD; **Mr.** CONRAD; **Mr.** DOLE; **Mr.** FOWLER; **Mr.** HATFIELD; **Mr.** JOHNSTON; **Mr.** McCAIN; **Mr.** MITCHELL; **Mr.** MURKOWSKI; **Mr.** STEVENS; **Mr.** SYMMS; **Mr.** WALLOP; **Mr.** WELLSTONE; **Mr.** WIRTH
... Claudine, 1989. "Preventing **Climate Change,**" Issues in Science and ...
... number of pieces on global **climate change.** I believe that yesterday or the ...
... about the impact of global **climate change** on rising sea levels and what this is ...
... goals and timetables to fight **global warming.** The issue of global **climate change** was referred to earlier this morning ...
... coming in global **climate change.** They are going to come in ...
... atmosphere with the gases causing the **greenhouse effect,** the leader is exporting toxic ...

... achieving a global **climate change** convention. We cannot bury our ...
... reduce our contribution to global **climate change** in a way that ...
... 1992] GLOBAL SNUB ON **GLOBAL WARMING** The United States heads into ...
... trying to reduce the threat of **global warming.** Several European countries and ...
... gas implicated in the "**greenhouse" effect** that traps heat in the ...
... developing countries to curb **global warming** activities. Such aid might ...
... international agreement to combat **global warming.** The goal is to sign the agreement at the ...
... made gases that contribute to **global warming** the most important is, unfortunately, ...
... disruption. But since **global warming** could also cause enormous disruption, the ...
... try to avert the threat of **global warming,** the Bush Administration finds ...
... for believing in **global warming** was flawed, that curbing carbon ...
... a meaningful convention on **global warming** that could be signed, as planned, at the Earth ...
... right, the stakes in the **global warming** talks are high. Carbon ...
... expressed skepticism about the **global warming** threat. Collectively, they are demanding that the ...
... sources that produce less **greenhouse gas.** But many say they are ...
... chief of staff, to discuss **global warming.** Although Mr. Skinner ...
... a start on the control of **global warming** while reaping savings on ...
... country's overall contribution to **global warming** by the end of the decade. ...
... out their own contribution to **global warming.** The finding has been cited in ...
... by the Intergovernmental Panel on **Climate Change,** the international group of scientists ...
... early auction to combat **global warming,** including those in the Administration, have ...
... Feb. 18, 1992] **GLOBAL WARMING** PACT TALKS TO RESUME (...
... international treaty to curb **global warming,** the United States remains the ...
... pressure for a **global warming** agreement with concrete plans to ...
... carbon dioxide, the principal **greenhouse gas.** Scientists say that limits on ...
... questioned the scientific certitude of **global warming,** the very subject of carbon dioxide ...
... strong interest or views on **global warming.** Environmental Protection Agency ...

150. Tuesday, February 18, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 1551, Vol. 138 No. 18, SENATOR GORE'S LEADERSHIP
102nd Cong. 2nd Sess.
Mr. WIRTH
... others are diminished oxidation and **global warming.** All three have the power to change the ...
... pollutants like methane. **Global warming** increases the amount of long- ...
... serious threat of global **climate change.** In the past, it was safe to ...

151. Tuesday, February 18, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 1566, Vol. 138 No. 18, NATIONAL ENERGY SECURITY ACT
102nd Cong. 2nd Sess.
Mr. BRYAN; **Mr.** CRAIG; **Mr.** DOMENICI; **Mr.** FORD; **Mr.** GRAMM; **Mr.** JEFFORDS; **Mr.** JOHNSTON; **Mr.** KERRY; **Mr.** LIEBERMAN; **Mr.** LOTT; **Mr.** METZENBAUM; **Mr.** MITCHELL; **Mr.** SHELBY; **Mr.** SIMPSON; **Mr.** STEVENS; **Mr.** WALLOP; **Mr.** WELLSTONE; **Mr.** WIRTH
... vote on legislation dealing with **global warming** and then flip flop to the other ...
... many who give speeches on **global warming** do not want us to develop the ...
... shores which could mitigate the effects of **global warming.** There has been active exploration for ...

152. Tuesday, February 18, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 1611, Vol. 138 No.

18, GLOBAL WARMING
102nd Cong. 2nd Sess.
MR. LIEBERMAN
... KEY ROUND OF NEGOTIATIONS ON **GLOBAL WARMING,** I WANT TO AGAIN ...
... IN THE WAY OF ACTION ON **GLOBAL WARMING.** THE U.S. POSITION AT THE FINAL ...
... MEASURES TO RESPOND TO GLOBAL **CLIMATE CHANGE** IN ACCORDANCE WITH THEIR NATIONAL ...
... U.S. TOTAL INTRANSIGENCE ON **GLOBAL WARMING** WAS MADE CRYSTAL CLEAR ...
... EITHER REDUCED THEIR OWN **GREENHOUSE GAS** EMISSIONS OR UNDERTAKE PROGRAMS TO ...
... CITIZENS WHO VOLUNTARILY CONTRIBUTE TO **GREENHOUSE GAS** EMISSIONS WILL HAVE AN OPPORTUNITY TO ...
... REGISTRATION SCHEME FOR **GREENHOUSE GAS** REDUCTIONS -- ADMINISTRATION OPPOSITION ...
... GOOD CORPORATE CITIZENSHIP OF **GREENHOUSE GAS** EMITTING INDUSTRIES THAT ACT TO ...
... OVER A GLOBAL **GREENHOUSE GAS** REDUCTION AGREEMENT. LAST ...
... SYSTEM FOR CONTROLLING **GREENHOUSE GAS** EMISSIONS THROUGH A ...
... NEGOTIATIONS ON A GLOBAL **CLIMATE CHANGE** AGREEMENT, THE UNITED STATES ...
... POLLUTANTS BLAMED FOR **GLOBAL WARMING.** THE PLAN, COMMISSIONED BY THE ...
... CUTS. "EVERYONE RECOGNIZES THAT **CLIMATE CHANGE** IS A GLOBAL PROBLEM, SO THIS IS ... EMISSIONS (93%); **GLOBAL WARMING** (90%); EMISSION CREDITS (...
... QUALITY REGULATION (89%); **CLIMATE CHANGE** (79%); TREATIES & AGREEMENTS (...

153. Friday, February 7, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 1359, Vol. 138 No. 15, NATIONAL ENERGY STRATEGY
102nd Cong. 2nd Sess.
Mr. ROBB
... fuels, and reduce the risk of **global warming.** And yet, none of us has ventured to ...
... a major contributor to **global warming.** It is my hope that the Senate ...
... more about the dangers of **global warming.** Each gallon of gasoline ...
... dioxide, a key **greenhouse gas.** We now know that more than ...
... 59%); LEGISLATION (59%); **GLOBAL WARMING** (59%); TAX RELIEF (...

154. Thursday, February 6, 1992, 138 Cong Rec S 1128, Vol. 138 No. 14, NATIONAL ENERGY SECURITY ACT
102nd Cong. 2nd Sess.
Mr. BUMPERS; **Mr.** CHAFEE; **Mr.** DOMENICI; **Mr.** FORD; **Mr.** GORE; **Mr.** GRAHAM; **Mr.** JOHNSTON; **Mr.** LIEBERMAN; **Mr.** MITCHELL; **Mr.** SIMPSON; **Mr.** WALLOP; **Mr.** WELLSTONE; **Mr.** WIRTH
... lesson in this incident where **global warming** is concerned. Most of the chemicals that are ...
... a lesson here about **global warming.** Right now we are continuing to ...
... White House position on **global warming** and global **climate change** and that has been the White House position on ...
... Before they would not. What about **global warming?** What is the White House going to ...
... know one of the consequences of **global warming** that the scientists have told us about ...
... now. It is exactly the same where **global warming** is concerned. All of those oil well ...
... include them over on the Global **Climate Change** Treaty? The answer is that President ...
... nothing about global **climate change** except phasing out ...
... a part of the global **climate change** negotiation because that is the only thing we ...
... in Ozone Layer, **Global Warming,**" and he says, "Who? Me?" President Bush has ...
... lessons that it holds for **global warming** and global **climate change** will be heeded in this ...
... emissions of gases which cause **global warming.** I recognize that the political ...

... critical stage where global **climate change** is concerned. I do not ...
... system has made the problem of **climate change** abundantly obvious even to ...
... similar message on global **climate change.** Mr. President, I ...
... harm that ozone depletion and **global warming** is causing our climate and our people. And he ...
... spoken of the allied problem of **global warming.** He talked about the refusal of the ...
... in the way of action on **global warming.** As part of this energy bill, the ...
... either reduced their own **greenhouse gas** emissions or undertake programs to ...
... citizens who voluntarily contribute to **greenhouse gas** emissions will have an opportunity to ...
... registration scheme for **greenhouse gas** reductions" -- administration opposition ...
... good corporate citizenship of **greenhouse gas** emitting industries that act to ...
... foreseen when the true impact of **global warming** is realized and we will probably ...
... doing and can do to protect us from **global warming.** "Taking prudent, reasonable ...
... understanding of the potential for **global warming.** Our actions" -- that is the actions of Southern ...
... over a global **greenhouse gas** reduction agreement. It would have removed and would ...
... seek to voluntarily reduce their **greenhouse gas** emissions who might feel that their ...
... toward protecting our planet from **global warming.** Mr. President, to reiterate, ...
... by the Bush administration on **global warming.** In essence, the administration is ...
... report, "Policy Implications of **Global Warming**" states: Despite the great ...
... magnitude of climatic effects from **greenhouse gas** emissions with accuracy. But it is ...
... either reduce their own **greenhouse gas** emissions or undertake programs to ...
... citizens who voluntarily contribute to **greenhouse gas** emissions will have an opportunity to ...
... registry scheme for **greenhouse gas** reductions." Let me give you some ...
... understanding of the potential for **global warming.** Our actions are consistent with the recent ...
... over a global **greenhouse gas** reduction agreement. Historically, the ...
... seeking to voluntarily reduce their **greenhouse gas** emissions. Without this amendment, those ...
... know whether today's voluntary **greenhouse gas** reduction program will be ...
... voluntary steps to reduce **greenhouse gas** emissions. This amendment would have allowed ...
... administration that complained that congressional **global warming** proposals needed to include ...
... amendment because it wants to control **global warming** through the measures in ...
... representative said about global **climate change:** We are not going to do anything, because we do ...
... going to be related to global **climate change** and the burning, the carbon dioxide, ...
... cannot repair global **climate change.** We cannot repair the destruction of ...
... charge, namely, global **climate change.** Well, Mr. President, it is too ...
... further -- on the subject of global **climate change,** let us see. The jury is ...
... in and testify about the **greenhouse effect,** which was not totally unrelated, ...
... deficit, whether it is nuclear weaponry, whether it is the **greenhouse effect** or ozone depletion -- as a ...

155. Thursday, February 6, 1992, 138 Cong Rec S 1140, Vol. 138 No. 14, OPEN DOOR
102nd Cong. 2nd Sess.
Mr. BENTSEN; **Mr.** BRADLEY; **Mr.** COCHRAN; **Mr.** DOLE; **Mr.** DOMENICI; **Mr.** DURENBERGER; **Mr.** FORD; **Mr.** FOWLER; **Mr.** GRAHAM; **Mr.** GRASSLEY; **Mr.** JOHNSTON; **Mr.** KENNEDY; **Mr.** MITCHELL; **Mr.** REID; **Mr.** SANFORD; **Mr.** SEYMOUR; **Mr.** SIMPSON; **Mr.** SYMMS; **Mr.** WALLOP; **Mr.** WELLSTONE; **Mr.** WIRTH
... gases, which may be producing **global warming,** as well as other conventional ...
... about the need to avoid **global warming.** If they will not even ...
... not very serious about **global warming.** Because, Mr. President, all of these other ...

156. Thursday, February 6, 1992, 138 Cong Rec S 1186, Vol. 138 No. 14, NATIONAL ENERGY SECURITY ACT

102nd Cong. 2nd Sess.
Mr. AKAKA; **Mr.** BINGAMAN; **Mr.** BREAUX; **Mr.** BUMPERS; **Mr.** DOMENICI; **Mr.** FORD; **Mr.** GORE; **Mr.** GRAMM; **Mr.** HATFIELD; **Mr.** INOUYE; **Mr.** JOHNSONTON; **Mr.** JOHNSTON; **Mr.** MITCHELL; **Mr.** NICKLES; **Mr.** PRYOR; **Mr.** RIEGLE; **Mr.** SEYMOUR; **Mr.** SPECTER; **Mr.** SYMMS; **Mr.** WALLOP; **Mr.** WIRTH
... now with regard to global **climate change** instead of waiting, as we have, with ozone ...
... phase and we have catastrophic global **climate changes** before we are willing to move ...
... agreed that there should be a convention on **climate change** that controls the emission of greenhouse ...
... Kennebunkport. It is the same thing where **global warming** is concerned. Extra emissions of ...
... 140 nations in the **climate change** negotiations offers us the possibility to ...
... a daily basis, and the **climate change** negotiations that are the centerpiece of the UNCED ...
... indeed the cause of global **climate change** is woven into the sinews of our civilization; ...
... will cause global **climate change.** We are threatening climatic changes ...
... storms as a result of **global warming?** They measure storms by their ...
... icecap. One of the effects of **global warming** is to warm up the poles ...
... will cause catastrophic **climate change."** So why do we not stop doing it? This ...
... can happen with global **climate change.** The entire pattern of world ...
... say things about **global warming,** and they will say America you do it, you do it. What is the ...
... flexibility, assuming that the only **greenhouse effect** is not CO[2]. There is ...
... States to an international convention on **climate change** that stabilizes U.S. emissions of ...
... negotiations on a global **climate change** convention to address net **greenhouse gas** emission.* * * Not just the ...
... Senator from Tennessee, but **greenhouse gas** emissions. Back to the letter: ...
... emissions, however, is an inadequate response to **climate change,** will not invite ...
... current and projected net **greenhouse gas** emissions and develop a ...
... address projected global **climate change.** Not an action that commits the ...
... threat of potential global **climate change,** while also taking into account the ...
... reach agreement on a **climate change** framework convention that is both ...
... States to an international convention on **climate change** that stabilizes U.S. emissions of ...
... negotiations on a global **climate change** convention to address net **greenhouse gas** emissions on a comprehensive ...
... emissions, however, is an inadequate response to **climate change,** will not invite ...
... current and projected net **greenhouse gas** emissions and develop a ...
... address projected global **climate change.** These analyses and measures would comprise ...
... threat of potential global **climate change,** while also taking into account the ...
... reach agreement on a **climate change** framework convention that is both ...
... century we are undergoing global **climate change.** Nobody really knows why that took ...
... without a global **climate change** consequence to our competitors overseas. ...
... hearings on the subject of global **climate change** in the Energy Committee as ...
... society contributes more to **global warming** than any other nation. The administration ...
... country will act. **Global warming** is a similar threat to the ...
... up with his very startling testimony on **global warming** and have had since then a number of ...
... not if we are forcing global **climate change,** but how much, ...
... respond. This crisis of global **climate change** is coming at us, according to most ...
... deliberations concerning global **climate change,** the United States properly and ...
... Recent international global **climate change** include First, the July ...
... a Framework Convention on **Climate Change.** The United States also has endorsed and ...
... for reasons other than **climate change,** such as energy efficiency. Examples ...
... more trees, the net **greenhouse gas** emissions of the United States ...
... Madam President, global **climate change** is a very complex concept. The ...
... understanding of the causes of global **climate change** and the social, economic, energy, ...
... actions to stabilize or reduce **greenhouse gas.** Second, a commitment to ...

... scientific research on global **climate change** to remove the scientific uncertainties that ...
... causes and consequences of global **climate change** and on the consequences of any proposed courses of ...
... strategies to address the causes of **climate change** as well as courses of action to ...
... in the implementation of any global **climate change** agreement. The goals and schedules for limitations on **greenhouse gas** emissions that are currently being ...
... commits itself to global **climate change** goals that go beyond ...
... investigate the feasibility of any such global **climate change** goals is reflected in ...
... intended to address global **climate change** other than a no ...
... a framework global **climate change** convention in time ...
... scientific knowledge of global **climate change** and to the formulation of multinational strategies ...
... Secretary Watkins' comments on **global warming** in his letter to Sen. ...
... Nations Intergovernmental Panel on **Climate Change** (IPCC). In his letter, ...
... fundamental understanding of the science of the **greenhouse effect** and either confirm or do not ...
... responsible Congressional action on **climate change** and energy policy, nor DOE's ...
... Alden Meyer, DIRECTOR, **CLIMATE CHANGE** AND ENERGY PROGRAM, UNION OF ...
... lessen the potential of global **climate change.** This is not a substitute ...
... get into upcoming global **climate change** hearings in the Energy ...
... largest aggregate impact on **global warming** -- has a smaller per- ...
... Contribution of Various Gases to the **Greenhouse Effect.**" SCIENCE 248(1990): ...
... energy sources and reducing **greenhouse gas** emissions. In developing ...
... not: This is not a **global warming** bill. The potential environmental ...

157. Thursday, February 6, 1992, 138 Cong Rec S 1224, Vol. 138 No. 14, NATIONAL ENERGY SECURITY ACT
102nd Cong. 2nd Sess.
Mr. ADAMS; **Mr.** D'AMATO; **Mr.** DASCHLE; **Mr.** DeCONCINI; **Mr.** EXON; **Mr.** HOLLINGS; **Mr.** JEFFORDS; **Mr.** JOHNSTON; **Mr.** MITCHELL; **Mr.** NUNN; **Mr.** SEYMOUR; **Mr.** SIMPSON; **Mr.** WALLOP; **Mr.** WARNER; **Mr.** WELLSTONE; **Mr.** WIRTH
... dioxide, a key "**greenhouse" gas.** (b) Sense of the Senate. -- It is the ...
... issue is much different from the **global warming** issue in that regard. ...
... scientific fact while **global warming** caused by manmade ...
... attention. In contrast **global warming** is an issue in dispute. ...
... cause large scale **climate change.** Politicians and environmental groups who ...
... caution when contemplating action on **global warming.** I would say that I am ...

158. Wednesday, February 5, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 944, Vol. 138 No. 13, FOUR CHEERS FOR ENVIRONMENTALISTS
102nd Cong. 2nd Sess.
Mr. CHAFEE
... applied to the threat of global **climate change.** All of the arguments we heard against ...

159. Wednesday, February 5, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 949, Vol. 138 No. 13, NATIONAL ENERGY SECURITY ACT
102nd Cong. 2nd Sess.
Mr. DeCONCINI; **Mr.** GRAHAM; **Mr.** MURKOWSKI
... Refuge (ANWR), global **climate change,** alternative fuels (the Jeffords ...
... S. 1220. GLOBAL **CLIMATE CHANGE** S. 2166 addresses ...
... related to possible global **climate change** in a manner ...

... reduced. I understand that **climate change** language from a House ...
... registry scheme for **greenhouse gas** reductions may be offered as an ...
... effective approach to reducing **greenhouse gas** emissions in the energy ...

160. Wednesday, February 5, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 953, Vol. 138 No. 13, NATIONAL ENERGY SECURITY ACT
102nd Cong. 2nd Sess.
Mr. JEFFORDS; **Mr.** JOHNSTON
... water quality (including **climate change**); (ii) ramifications for ...

161. Wednesday, February 5, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 960, Vol. 138 No. 13, NATIONAL ENERGY SECURITY ACT
102nd Cong. 2nd Sess.
Mr. BIDEN; **Mr.** BURNS; **Mr.** DASCHLE; **Mr.** DeCONCINI; **Mr.** DIXON; **Mr.** DOLE; **Mr.** FORD; **Mr.** GLENN; **Mr.** GRASSLEY; **Mr.** JEFFORDS; **Mr.** JOHNSTON; **Mr.** MITCHELL; **Mr.** NICKLES; **Mr.** SIMON; **Mr.** SIMPSON; **Mr.** WALLOP
... worried about the problems of **global warming.** The problems of **global warming** are because we are bringing carbon from under the ...
... way have an impact upon **global warming** with additional carbon above the ...
... clean air and to fight **global warming** all for 1 or 2 ...

162. Tuesday, February 4, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 901, Vol. 138 No. 12, NATIONAL ENERGY SECURITY ACT
102nd Cong. 2nd Sess.
Mr. BAUCUS; **Mr.** DOLE; **Mr.** FORD; **Mr.** JEFFORDS; **Mr.** JOHNSTON; **Mr.** MITCHELL; **Mr.** STEVENS
... concerned and to do something about **global warming?** Only with my amendment ...

163. Monday, February 3, 1992; (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 830, Vol. 138 No. 11, NATIONAL ENERGY SECURITY ACT
102nd Cong. 2nd Sess.
Mr. SPECTER; **Mr.** WIRTH
... reducing our contribution to global **climate change.** Obviously, natural gas is ...
... address the issues of global **climate change** that we are going to have to face, as uncomfortable as that is for some. The reality of global **climate change** is no longer if we are going to have **global warming** but when, where, and how fast. Those are the ...

164. Friday, January 31, 1992 (Legislative day of Thursday, January 30, 1992), 138 Cong Rec S 806, Vol. 138 No. 10, SENATE CONCURRENT RESOLUTION 89 -- RELATIVE TO THE U.N. CONFERENCE ON ENVIRONMENT AND DEVELOPMENT
102nd Cong. 2nd Sess.
MR. KERRY
... reduce the threat of global **climate change;** (4) support the development of ...
... DEVELOPING WORLD. WHETHER THE PROBLEM IS **CLIMATE CHANGE,** DEFORESTATION, BIOLOGICAL DIVERSITY ...
... DEVELOPING COUNTRY EMISSIONS OF **GREENHOUSE GAS** EMISSIONS AND CFC USE ...

... CANNOT SOLVE THE PROBLEMS OF **CLIMATE CHANGE** AND OZONE DEPLETION WITHOUT THE ...
... TWO-THIRDS OF THE TOTAL **GREENHOUSE GAS** EMISSIONS WORLDWIDE; AS WELL AS ...
... AIMED AT REDUCING THE THREAT OF **CLIMATE CHANGE** AND BIOLOGICAL DIVERSITY, EACH OF WHICH IS ...
... ISOLATED U.S. POSITION ON **CLIMATE CHANGE.** THOSE WHO PARTICIPATED IN AND OBSERVED THE ...
... POPULATION GROWTH, GLOBAL **CLIMATE CHANGE,** OZONE DEPLETION, THE LOSS OF ...
... CENTURY. WITH REGARD TO THE GLOBAL **CLIMATE CHANGE** CONVENTION, ALTHOUGH IT IS BEING ...
... ACTION TO REDUCE THE THREAT OF **CLIMATE CHANGE.** MR. PRESIDENT, LAST ...
... ABOUT THE INCREASED RISK OF **CLIMATE CHANGE** WHICH COULD CAUSE OUR FORESTS TO WITHER, OUR ...
... TIMETABLES FOR REDUCING **GREENHOUSE GAS** EMISSIONS. THAT POSTURE NOT ...
... PART OF THE UNITED STATES ON **CLIMATE CHANGE.** IT DOES HOWEVER, CALL ON THE ADMINISTRATION TO NEGOTIATE AN ...
... ACTUALLY REDUCE THE RISK OF **CLIMATE CHANGE** RATHER THAN ONE THAT PUTS ...
... MORE RESEARCH OR MONITORING ON **CLIMATE CHANGE.** FURTHERMORE, IF THE UNITED STATES ...
... NATIONS. OUR POSITION ON THE GLOBAL **CLIMATE CHANGE** CONVENTION HAS ALSO UNDERMINED OUR POSITIONS ON ...
... UP THIS WALL ON THE ISSUE OF **CLIMATE CHANGE,** IT APPEARS AS IF DEVELOPING COUNTRIES ARE ...
... HELPING TO REDUCE THE THREAT OF **CLIMATE CHANGE** WHILE SAVING BILLIONS OF ...
... OZONE DEPLETION CONTRIBUTES TO THE **GREENHOUSE EFFECT.** WHAT WE WERE NOT AWARE OF IS HOW ...
... FORESTS & WOODLANDS (79%); **CLIMATE CHANGE** (79%); TREATIES & AGREEMENTS (...

165. Tuesday, January 28, 1992; (Legislative day of Friday, January 3, 1992), 138 Cong Rec S 535, Vol. 138 No. 7, SENATE CONCURRENT RESOLUTION 87 -- RELATIVE TO THE PRESIDENT'S ATTENDANCE AT THE EARTH CONFERENCE
102nd Cong. 2nd Sess.
Mr. GORE
... right now, one on **climate change,** and the other on biodiversity, aimed at ...
... in the negotiations for the **climate change** treaty and the biodiversity treaty. ...

166. Wednesday, January 22, 1992; (Legislative day of Friday, January 3, 1992), 138 Cong Rec S 106, Vol. 138 No. 3, INTERNATIONAL ORGANIZATION FOR MIGRATION
102nd Cong. 2nd Sess.
Mr. KENNEDY
... sea levels due to "**global warming**" will be the eventual submersion of ...

167. Tuesday, January 21, 1992; Legislative day of Friday, January 3, 1992, 138 Cong Rec S 4, Vol. 138 No. 2, THE AGENDA OF THE 102D CONGRESS IN 1992
102nd Cong. 2nd Sess.
Mr. MITCHELL
... Brazil to deal with the issue of **climate change.** The goal is international agreement to ...
... carbon dioxide. The threat of **climate change** is as serious for us as for any ...

... shortsighted policy. The threat of **climate change,** no less than the changes ...

168. Tuesday, November 26, 1991; (Legislative day of Saturday, November 23, 1991), 137 Cong Rec S 18226, Vol. 137 No. 177 , EXECUTIVE SESSION; UNANIMOUS CONSENT ON TREATIES
102nd Cong. 1st Sess.
Mr. ADAMS; **Mr.** AKAKA; **Mr.** BAUCUS; **Mr.** BURDICK; **Mr.** CHAFEE; **Mr.** LIEBERMAN; **Mr.** MITCHELL; **Mr.** PELL; **Mr.** REID
... potential to contribute to global **climate change.** The venting or releasing of any chemicals from ...
... depletion potentials, or high **global warming** potentials. Finally, the Parties to the ...

169. Tuesday, November 26, 1991; (Legislative day of Saturday, November 23, 1991), 137 Cong Rec S 18321, Vol. 137 No. 177 -- Part 2 , THE NEED FOR A NATIONAL PROGRAM TO PREVENT BALLAST INTRODUCTIONS OF EXOTIC SPECIES
102nd Cong. 1st Sess.
Mr. GLENN
... coastal pollution and possibly **global warming** -- he adds. The latest U.S. ...

170. Monday, November 25, 1991; (Legislative day of Saturday, November 23, 1991), 137 Cong Rec S 18118, Vol. 137 No. 176 , S. 1220, THE NATIONAL ENERGY SECURITY ACT
102nd Cong. 1st Sess.
MR. LAUTENBERG
... CARBON DIOXIDE WHICH CONTRIBUTES TO **GLOBAL WARMING.** I'LL HAVE MORE TO SAY ...
... BETWEEN ENERGY USE AND **GLOBAL WARMING.** SO, IN ESTABLISHING ENERGY ...
... HALF OF THE GASES THAT CONTRIBUTE TO THE **GREENHOUSE EFFECT.** SCIENTISTS BELIEVE THAT AS GREENHOUSE ...
... GASES, THERE WILL BE AN INCREASE OF **GREENHOUSE GAS** CONCENTRATIONS EQUIVALENT TO A ...
... SCIENTIFIC CONSENSUS THAT GLOBAL **CLIMATE CHANGE** IS UPON US; 1990 WAS THE HOTTEST ...
... MAY BE THE FIRST EVIDENCE OF **GLOBAL WARMING.** AND IF WE WAIT FOR CERTAINTY ABOUT THE MAGNITUDE OF **GLOBAL WARMING,** IT MAY BE TOO LATE TO TAKE ANY ...
... UNCERTAINTIES REGARDING POTENTIAL **CLIMATE CHANGE,** THERE IS SUFFICENT CREDIBLE SCIENTIFIC ...
... SCIENTIFIC UNCERTAINTIES REGARDING **GLOBAL WARMING,** " *** GREENHOUSE WARMING POSES ...
... NOT A MAJOR **GREENHOUSE GAS.** THIS UNDERCUTS THE ADMINISTRATION'S POLICY OF ...
... CFC REDUCTIONS TO ADDRESS **GLOBAL WARMING.** THE REPORT ALSO SHOWED THAT CFC'S HAVE ...
... UNITED STATES POSITION ON **GLOBAL WARMING** AND URGING THE UNITED STATES TO ...
... AGENCIES TO ADDRESS RELEVANT **GLOBAL WARMING** CONCERNS IN THEIR ENVIRONMENTAL ...
... UNITED STATES COULD REDUCE ITS **GREENHOUSE GAS** EMISSIONS BY BETWEEN ...
... POLICY OF STABILIZING AND REDUCING **GREENHOUSE GAS** EMISSIONS AND IDENTIFY THE PROGRAMS WE ...
... LEADERSHIP IN ADDRESSING THE **GLOBAL WARMING** PROBLEM AS WAS CALLED FOR ...
... ENERGY SOURCE WITH THE GREATEST **GLOBAL WARMING** IMPACT. AND WE NEED TO REQUIRE FEDERAL AGENCIES TO ADDRESS **GLOBAL WARMING** ISSUES IN THEIR ENVIRONMENTAL ...
... EVIDENCE REGARDING THE ACCURACY OF **GLOBAL WARMING** PREDICTIONS; THAT 84 PERCENT ...

... 79%); LEGISLATION (79%); **GLOBAL WARMING** (79%); US ENVIRONMENTAL LAW (...

171. Saturday, November 23, 1991; (Legislative day of Wednesday, November 20, 1991), 137 Cong Rec S 17783, Vol. 137 No. 175, DEPARTMENT OF DEFENSE APPROPRIATIONS ACT, FISCAL YEAR 1992 -- CONFERENCE REPORT
102nd Cong. 1st Sess.
Mr. BINGAMAN; **Mr.** BYRD; **Mr.** DIXON; **Mr.** DOLE; **Mr.** DOMENICI; **Mr.** DURENBERGER; **Mr.** EXON; **Mr.** GLENN; **Mr.** GORE; **Mr.** Harold Palmer Smith; **Mr.** INOUYE; **Mr.** LEVIN; **Mr.** McCAIN; **Mr.** NUNN; **Mr.** PRYOR; **Mr.** SASSER; **Mr.** SIMON; **Mr.** STEVENS; **Mr.** WALLOP; **Mr.** WARNER; **Mr.** WIRTH; **Mr.** BENTSEN; **Mr.** COATS; **Mr.** GRAMM; **Mr.** HEFLIN; **Mr.** SHELBY
... major environmental threats, such as **global warming** and hazardous waste cleanup, ...
... related to the environment -- global **climate change,** the destruction of the ocean, the hole ...

172. Friday, November 22, 1991; (Legislative day of Wednesday, November 20, 1991), 137 Cong Rec S 17540, Vol. 137 No. 174, The TEXT of this document exceeds 5,000 lines., TECHNICAL CORRECTIONS AND CORRECTIONS TO ENROLLMENT OF CERTAIN APPROPRIATIONS ACTS
102nd Cong. 1st Sess.
Mr. BAUCUS; **Mr.** BENTSEN; **Mr.** BIDEN; **Mr.** BREAUX; **Mr.** BUMPERS; **Mr.** BURNS; **Mr.** BYRD; **Mr.** CHAFEE; **Mr.** COATS; **Mr.** Coats has an amendment; **Mr.** COCHRAN; **Mr.** CONRAD; **Mr.** CRAIG; **Mr.** D'AMATO; **Mr.** DASCHLE; **Mr.** DIXON; **Mr.** DODD; **Mr.** DOLE; **Mr.** DOMENICI; **Mr.** DURENBERGER; **Mr.** FORD; **Mr.** GLENN; **Mr.** GORE; **Mr.** GORTON; **MR.** HARKIN; **Mr.** HATFIELD; **Mr.** HEFLIN; **Mr.** HOLLINGS; **Mr.** JEFFORDS; **Mr.** JOHNSTON; **Mr.** KASTEN; **Mr.** KENNEDY; **Mr.** KERRY; **Mr.** KOHL; **Mr.** LAUTENBERG; **Mr.** LEAHY; **Mr.** LUGAR; **Mr.** METZENBAUM; **Mr.** MITCHELL; **Mr.** MITHCELL; **Mr.** NICKLES; **Mr.** NUNN; **Mr.** PELL; **Mr.** PRYOR; **Mr.** REID; (**Mr.** ROBB assumed the chair; **Mr.** ROTH; **Mr.** SANFORD; **Mr.** SHELBY; **Mr.** SIMON; **Mr.** SIMPSON; **Mr.** SPECTER; **Mr.** STEVENS; **Mr.** THURMOND; **Mr.** WALLOP; **Mr.** WELLSTONE; **Mr.** WIRTH; **Mr.** WOFFORD
... serving with the Intergovernmental Panel on **Climate Change,** except such waiver may ...
... Secretary of the Intergovernmental Panel on **Climate Change** [IPCC], an organization chartered ...
... in advancing the science of **climate change** and ozone depletion and in ...

173. Friday, November 22, 1991 (Legislative Day of Wednesday, November 20, 1991), 137 Cong Rec S 17680, Vol 137 No. 174 -- Part II, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. WELLSTONE
... threats to the environment resulting from **climate change,** national security vulnerabilities ...
... fee on the major cause of **climate change.** First, it closes two ...
... mitigate carbon-induced **climate change,** and that eliminating subsidies of non- ...
... 3) to reduce US contribution to **climate change** by reducing fossil ...

174. Wednesday, November 20, 1991, 137 Cong Rec S 17242, Vol. 137 No. 172 , EXECUTIVE SESSION; EXECUTIVE CALENDAR
102nd Cong. 1st Sess.
Mr. DODD; **Mr.** WALLOP
... international concerns about **global warming,** they are independently important to our Nation's ...

175. Friday, November 15, 1991; (Legislative day of Wednesday, November 13, 1991), 137 Cong Rec S 16848, Vol. 137 No. 169 , STATEMENTS OF INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
MR. BINGAMAN
... CONSEQUENCES OF ACID RAIN AND **GLOBAL WARMING.** THESE ARE NOT ISOLATED NATIONAL ...
... BASIN AND ITS CONTRIBUTION TO GLOBAL **CLIMATE CHANGE** AND SPECIES DIVERSITY, U.S. ...

176. Thursday, November 14, 1991; (Legislative day of Wednesday, November 13, 1991), 137 Cong Rec S 16666, Vol. 137 No. 168 , CLEAN AIR ACT ANNIVERSARY
102nd Cong. 1st Sess.
Mr. BAUCUS; **Mr.** MITCHELL
... isolated on ozone depletion as it is on **global warming** by failing to phase ...

177. Thursday, November 14, 1991; (Legislative day of Wednesday, November 13, 1991), 137 Cong Rec S 16666, Vol. 137 No. 168 , ONE-YEAR ANNIVERSARY OF CLEAN AIR ACT AMENDMENTS OF 1990
102nd Cong. 1st Sess.
Mr. ADAMS; **Mr.** BAUCUS; **Mr.** BURDICK; **Mr.** GORE; **Mr.** LIEBERMAN; **Mr.** WIRTH
... more serious problem of **global warming,** and there the United States is, of course, the ...
... carbon dioxide, the principal **greenhouse gas.** The air in this Chamber, ...
... schedule, will reduce the **global warming** problem. New scientific ...
... right. That does not reduce the **greenhouse effect."** So, the President is doing nothing. When is he ...
... campaign pledge to confront the **greenhouse effect** with the White House effect? What ...
... even consider the issue. And on the **greenhouse effect,** he has done nothing, absolutely ...
... people were talking about **global warming,** saying the best approach is to ...
... existence is jeopardized by **global warming** have urged the President of the United ...

178. Thursday, November 7, 1991; (Legislative day of Tuesday, October 29, 1991), 137 Cong Rec S 16284, Vol. 137 No. 164 , SENATE RESOLUTION 217 -- RELATIVE TO THE OZONE
102nd Cong. 1st Sess.
Mr. GORE
... depletion potentials, or high **global warming** potentials; (3) the Administrator of the ...
... depletion potentials, or high **global warming** potentials; (6) the President should ...
... threat that we face, the intensified **greenhouse effect** that our pollution of the atmosphere is causing. And, ...
... CO[2] in **global warming** is even more pronounced than was ...
... specifically called for it because the **global warming** impact of CFC's is at least ...
... significant implications for **global warming.** First, the scientists determined that the contribution of chlorofluorocarbons to the enhanced **greenhouse effect** is, at least in part, ...
... depletion of ozone, which is also a **greenhouse gas.** The implication here is that, in our effort to counter the effects of **global warming,** we cannot rely on the steps we are ...

179. Tuesday, November 5, 1991; (Legislative day of Tuesday, October 29, 1991), 137 Cong Rec S 15901, Vol. 137 No. 162 , RECESS UNTIL 2:15 P.M.
102nd Cong. 1st Sess.
Mr. ADAMS; **Mr.** BAUCUS; **MR.** BIDEN; **Mr.** BINGAMAN; **Mr.** BOREN; **Mr.** BRADLEY; **Mr.** BUMPERS; **Mr.** CHAFEE; **Mr.** COCHRAN; **Mr.** COHEN; **MR.** CONRAD; **Mr.** CRAIG; **MR.** D'AMATO; **Mr.** DASCHLE; **Mr.**

DODD; **Mr.** DOLE; **MR.** FORD; **Mr.** FOWLER; **MR.** GORE; **Mr.** JEFFORDS; **MRS.** KASSEBAUM; **Mr.** KASTEN; **MR.** KOHL; **Mr.** LAUTENBERG; **Mr.** LEVIN; **Mr.** McCAIN; **Mr.** McFarlane; **Mr.** METZENBAUM; **Mr.** MITCHELL; **Mr.** MOYNIHAN; **Mr.** MURKOWSKI; **Mr.** NUNN; **MR.** RIEGLE; **MR.** ROBB; **Mr.** ROCKEFELLER; **Mr.** RUDMAN; **Mr.** Sarbanes; **Mr.** SHELBY; **Mr.** SIMPSON; **Mr.** SPECTER; **MR.** SYMMS; **Mr.** THURMOND; **Mr.** WARNER; **Mr.** WELLSTONE; **MR.** WIRTH
... SCARCITY, OVERPOPULATION, GLOBAL **CLIMATE CHANGE.** THESE NONMILITARY PHENOMENA WILL ...

180. Tuesday, November 5, 1991; (Legislative day of Tuesday, October 29, 1991), 137 Cong Rec S 15978, Vol. 137 No. 162 , ENERGY POLICY
102nd Cong. 1st Sess.
MR. HARKIN
... ONLY EXACERBATES EMISSIONS OF **GLOBAL WARMING** GREENHOUSE GASES, SMOG, ...
... ACID RAIN, NO **GLOBAL WARMING** GREENHOUSE GASES, NO ...

181. Friday, November 1, 1991; (Legislative day of Tuesday, October 29, 1991), 137 Cong Rec S 15733, Vol. 137 No. 160 , NATIONAL ENERGY SECURITY ACT
102nd Cong. 1st Sess.
Mr. BAUCUS; **Mr.** BREAUX; **Mr.** BRYAN; **Mr.** CONRAD; **Mr.** DODD; **Mr.** GLENN; **Mr.** GORE; **Mr.** JOHNSTON; **MR.** KERREY; **Mr.** KOHL; **Mr.** LAUTENBERG; **Mr.** LIEBERMAN; **Mr.** METZENBAUM; **Mr.** MURKOWSKI; **Mr.** REID; **Mr.** RIEGLE; **Mr.** ROBB; **Mr.** RUDMAN; **Mr.** SANFORD; **Mr.** SPECTER; **Mr.** WALLOP; **Mr.** WELLSTONE; **Mr.** WIRTH
... carbon dioxide which contributes to **global warming.** In 1988, then candidate ...
... United States position on **global warming** and urging the United States to ...
... greatest threat to the environment, **global warming.** If we are concerned about energy ...

182. Friday, November 1, 1991; (Legislative day of Tuesday, October 29, 1991), 137 Cong Rec S 15768, Vol. 137 No. 160 , GLOBAL CLIMATE SYSTEM
102nd Cong. 1st Sess.
Mr. GORE; **Mr.** SASSER
... course, as the computer models of **global warming** have long told us, warming is ...
... brought to bear on the issue of **climate change** in addition to the problem of ...

183. Thursday, October 31, 1991; (Legislative day of Tuesday, October 29, 1991), 137 Cong Rec S 15600, Vol. 137 No. 159 , THE NATIONAL ENERGY SECURITY ACT
102nd Cong. 1st Sess.
(**Mr.** REID assumed the chair; **Mr.** WELLSTONE
... environment; namely, the problem of **global warming** and related **climate change** that could have devastating impacts on the world. ...
... carbon dioxide, which is the principal **greenhouse gas** generated by human ...
... most important cause of **global warming.** (Mr. REID assumed the ...
... about 57 percent of the **global warming** problem. Yet the bill ...
... even have a finding on **global warming,** and it does not ask us to do anything ...
... wastes, and possible global **climate change** resulting from the use of fossil ...
... REGULATORY AGENCIES (59%); **GLOBAL WARMING** (59%); NUCLEAR ENERGY (...

184. Thursday, October 31, 1991; (Legislative day of Tuesday, October 29, 1991), 137 Cong Rec S 15605, Vol. 137 No. 159 , NATIONAL ENERGY POLICY ACT
102nd Cong. 1st Sess.
Mr. BAUCUS; **Mr.** BRYAN; **Mr.** BURNS; **Mr.** CHAFEE; **Mr.** CONRAD; **Mr.** GARN; **Mr.** JEFFORDS; **Mr.** JOHNSTON; **Mr.** KENNEDY; **Mr.** LIEBERMAN; **Mr.** MITCHELL; **Mr.** MURKOWSKI; **Mr.** RIEGLE; **Mr.** ROTH; **Mr.** STEVENS; **Mr.** WALLOP; **Mr.** WELLSTONE; **Mr.** WIRTH
... in the gases that contribute to **global warming.** Mr. President, we can do ...
... world marketplace. And it has contributed to **global warming,** air pollution, and other ...
... single largest contributor to **global warming.** The United States is the leading ...
... 20 percent of the world's **global warming** emissions. United States ...
... seeking to stabilize or reduce **greenhouse gas** emissions, particularly carbon ...
... significant reductions in **greenhouse gas** emissions, would increase our already ...
... can feasibly reduce our **greenhouse gas** emissions, and how we can ...
... fuel era -- and its attendant **global warming,** pollution, and dependence on foreign ...
... place. Nuclear waste, **global warming,** coastal destruction, acid ...
... pollution, acid deposition, and **global warming** bring this issue to the forefront. We ...

185. Thursday, October 31, 1991; (Legislative day of Tuesday, October 29, 1991), 137 Cong Rec S 15681, Vol. 137 No. 159 , ORDERS FOR TOMORROW
102nd Cong. 1st Sess.
Mr. BAUCUS; **Mr.** CONRAD; **Mr.** DOMENICI; **Mr.** DURENBERGER; **Mr.** GRAHAM; **Mr.** JOHNSTON; **Mr.** KERRY; **Mr.** METZENBAUM; **Mr.** MITCHELL; **Mr.** MURKOWSKI; **Mr.** WALLOP; **Mr.** WIRTH
... health-related hazards, **global warming,** and so forth. I view this ...
... in our efforts to respond to the **global warming** problem. And when we can make the ...

186. Thursday, October 31, 1991; (Legislative day of Tuesday, October 29, 1991), 137 Cong Rec S 15725, Vol. 137 No. 159 , NATIONAL ENERGY POLICY ACT
102nd Cong. 1st Sess.
Mr. JEFFORDS; **Mr.** WELLSTONE
... motor fuels from ethanol which would be **global warming** neutral because we would not be pulling any ...
... perilous situation respecting **global warming.** Do we want to continue to go ...
... air and creates a **global warming** climate? If you believe that is bad, what are the ...
... future at times when the problems with **global warming** will be more pronounced. ...
... available to take care of **global warming,** which we do not have now. We will have ...
... problems. We will reduce the **greenhouse gas** emissions, as I said, in ...
... deficit, end the problems of **global warming** and without raising significantly the ...
... world environment, namely, **global warming** and delayed **climate change.** S. 1220 does not do ...
... carbon dioxide which is the principal **greenhouse gas** generated by human ...
... important single cause of **global warming.** The estimates by independent ...
... even have a finding on **global warming.** It is as if we should make decisions about ...
... 79%); ALCOHOLS (79%); **GLOBAL WARMING** (59%);

187. Tuesday, October 29, 1991, 137 Cong Rec S 15395, Vol. 137 No. 157 , IN SEARCH OF AN ENERGY POLICY
102nd Cong. 1st Sess.
Mr. WALLOP
... alleged "green-house **global warming**" from the carbon dioxide emissions ...

... CAFE proponents use, **global warming.** Any number of analyses have demonstrated that ...

188. Friday, October 25, 1991, 137 Cong Rec S 15230, Vol. 137 No. 155 , CASTING A NEW LIGHT ON OLD ENVIRONMENTAL PROBLEMS
102nd Cong. 1st Sess.
Mr. WIRTH
... more challenging issue of **global warming.** In light of these new ...
... a warmer world and **climate change.** We are entering a new ...

189. Friday, October 25, 1991, 137 Cong Rec S 15257, Vol. 137 No. 155 , STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. COHEN; **Mr.** MITCHELL
... ocean and thereby influence global **climate change.** Despite the importance of these organisms, there is ...
... influence climate and the rate of **global warming;** Whereas there is limited knowledge of the ...
... planet's climate and the rate of **global warming** by controlling the transfer of ...

190. Thursday, October 24, 1991; (Legislative day of Thursday, September 19, 1991), 137 Cong Rec S 15097, Vol. 137 No. 154, STRATOSPHERIC OZONE DEPLETION
102nd Cong. 1st Sess.
Mr. BAUCUS; **Mr.** REID
... effect, offsetting part of the **global warming** trend that some scientists fear ...
... ozone levels could increase **global warming.** The finding could undercut the Bush Administration's position on **global warming.** The Administration has sought to avoid ...
... rather than immediate action on **global warming.** "What had been thought was a major **greenhouse gas** turns out in ...
... by the Intergovernmental Panel on **Climate Change** (IPCC) are likely to be incorrect. ...
... upper troposphere, where it is an effective **greenhouse gas,** are sparse and inadequate for ...
... tropospheric ozone, which is a **greenhouse gas,** and in the lifetimes of a ...
... radical. Ozone depletion and **global warming** potentials (ODPs and GWPs) ...

191. Tuesday, October 22, 1991; (Legislative day of Thursday, September 19, 1991), 137 Cong Rec S 14939, Vol. 137 No. 152 , NEW OZONE DATA
102nd Cong. 1st Sess.
Mr. GORE
... regard to the administration's policies on **global warming.** Their data indicates that CFC's -- ...
... hiding the true magnitude of the **greenhouse effect,** and the bottom line is that, contrary to the ...
... massage of this news for **global warming** policy is that nature will ...

192. Monday, October 7, 1991; (Legislative day of Thursday, September 19, 1991), 137 Cong Rec S 14468, Vol. 137 No. 142 , GLOBAL WARNING
102nd Cong. 1st Sess.
Mr. GORE
... known skeptic on the subject of **global warming,** Prof. Richard Lindzen of ...
... retracted or withdrew his hypothesis as to why **global warming** might not be occurring. It is ...

... believed the mechanism upon which **global warming** relies for most of its ...
GLOBAL WARMING (90%);

193. Thursday, October 3, 1991; (Legislative day of Thursday, September 19, 1991), 137 Cong Rec S 14259, Vol. 137 No. 140 , NATIONAL ENERGY POLICY
102nd Cong. 1st Sess.
Mr. DOLE; **Mr.** WELLSTONE
... facing this Earth by **global warming,** warming which is caused primarily ...

194. Wednesday, October 2, 1991; (Legislative day of Thursday, September 19, 1991), 137 Cong Rec S 14203, Vol. 137 No. 139 , DEPARTMENTS OF VETERANS AFFAIRS, HOUSING AND URBAN DEVELOPMENT AND SUNDRY INDEPENDENT AGENCIES, COMMISSIONS, CORPORATIONS, AND OFFICES APPROPRIATIONS ACT, FISCAL YEAR 1992 -- CONFERENCE REPORT
102nd Cong. 1st Sess.
Mr. GARN; **Mr.** LAUTENBERG; **Ms.** MIKULSKI; **Mr.** MITCHELL
... causes and effects of global **climate change,** including such effects as climate ...
... essential for global **climate change** research and also has national security ...

195. Tuesday, October 1, 1991; (Legislative day of Thursday, September 19, 1991), 137 Cong Rec S 14012, Vol. 137 No. 138 , MODIFIED UNANIMOUS-CONSENT AGREEMENT
102nd Cong. 1st Sess.
Mr. ADAMS; **Mr.** BAUCUS; **Mr.** Brooks; **Mr.** GLENN; **Mr.** Hawkins; **Mr.** HELMS; **Mr.** KERRY; **Mr.** KOHL; **Mr.** Kroft; **Mr.** Krug; **Mr.** LAUTENBERG; **Mr.** Mahoney; **Mr.** McCONNELL; **Mr.** MITCHELL; **Mr.** MOYNIHAN; **Mr.** Murray; **Mr.** PELL; **Mr.** ROTH; **Mr.** SANFORD
... miners out of their jobs, **global-warming** activists want to keep the ...
... level representatives. As pollution, **global warming,** ozone depletion and global ...
... a new office on **greenhouse gas** emissions under the United ...
... address the growing evidence of **global warming.** We have seen cuts in ...
... many issues including **global warming,** stratospheric ozone depletion, and ...
... deal with difficult issues of **global warming,** ozone depletion in our ...
... Sec.202.International **greenhouse gas** monitoring program. TITLE ...
... SEC. 202. INTERNATIONAL **GREENHOUSE GAS** MONITORING PROGRAM. The President, with the ...

196. Monday, September 30, 1991; (Legislative day of Thursday, September 19, 1991), 137 Cong Rec S 13959, Vol. 137 No. 137 , DEPARTMENT OF THE ENVIRONMENT ACT OF 1991
102nd Cong. 1st Sess.
Mr. BAUCUS; **Mr.** CHAFEE; **Mr.** COATS; **Mr.** DURENBERGER; (**Mr.** FORD assumed the chair; **Mr.** GLENN; **Mr.** LIEBERMAN; **Mr.** REID; **Mr.** ROTH; **Mr.** SYMMS
... Stratospheric ozone depletion, **global warming,** acid rain, and a ...
... establishment of the Intergovernmental Panel on **Climate Change** (IPCC) to serve as the primary ...
... confront global problems such as the **greenhouse effect,** ozone depletion, degradation of our ...
... problems -- air pollution, **global warming,** and marine protection -- can ...
... nations on the larger question of **global warming,** Cabinet rank for ...
... across the globe. Whether the issue is **global warming,** stratospheric ozone depletion, ...

197. Friday, September 27, 1991; (Legislative day of Thursday, September 19, 1991), 137 Cong Rec S 13915, Vol. 137 No. 136 , NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AUTHORIZATION ACT
102nd Cong. 1st Sess.
Mr. BUMPBERS; **Mr.** BUMPERS; **Mr.** DANFORTH; **Mr.** DOLE; **Mr.** GORE; **Mr.** HOLLINGS; **Mr.** PRESSLER
... both as early indicators of **climate change** and of changes in the chemical ...

198. Thursday, September 26, 1991; (Legislative day of Thursday, September 19, 1991), 137 Cong Rec S 13751, Vol. 137 No. 135 , DEPARTMENT OF DEFENSE APPROPRIATIONS ACT, FISCAL YEAR 1992
102nd Cong. 1st Sess.
Mr. CHAFEE; **Mr.** DIXON; **Mr.** DODD; **Mr.** INOUYE; **Mr.** KENNEDY; **Mr.** LIEBERMAN; **Mr.** LOTT; **Mr.** McCAIN; **Mr.** MITCHELL; **Mr.** MURKOWSKI; **Mr.** NUNN; **Mr.** PELL; **Mr.** STEVENS; **Mr.** WARNER; **Mr.** WOFFORD
... international environmental problems as **climate change** and ozone depletion. ENVIRONMENTAL ...

199. Friday, September 20, 1991, 137 Cong Rec S 13388, Vol. 137 No. 131 , ARCTIC NATIONAL WILDLIFE REFUGE
102nd Cong. 1st Sess.
Mr. BAUCUS
... threat of oil spills, **global warming** and a range of other ...

200. Wednesday, September 18, 1991, 137 Cong Rec S 13202, Vol. 137 No. 129, GORE CALLS BUSH GRAND CANYON VISIT ENVIRONMENTAL HOGWASH
102nd Cong. 1st Sess.
Mr. DOLE; **Mr.** GORE
... limit the pollution that is causing **global warming;** to limit the threat to the rain ...

201. Wednesday, September 11, 1991; (Legislative day of Tuesday, September 10, 1991), 137 Cong Rec S 12704, Vol. 137 No. 124, ENDING U.S. ENERGY VULNERABILITY
102nd Cong. 1st Sess.
Mr. ROCKEFELLER; **Mr.** SIMON
... air quality, address **global warming** concerns, and -- because electricity can be ...

202. Wednesday, September 11, 1991; (Legislative day of Tuesday, September 10, 1991), 137 Cong Rec S 12734, Vol. 137 No. 124, HIGH-PERFORMANCE COMPUTING ACT OF 1991
102nd Cong. 1st Sess.
Mr. BURNS; **Mr.** GORE; **Mr.** HOLLINGS; **Mr.** WALLOP
... will help us address **global warming,** clean up the environment, ...
... needed to understand and monitor **global warming,** ozone depletion, and other ...

203. Friday, August 2, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 12002, Vol. 137 No. 121, NATIONAL ENERGY POLICY
102nd Cong. 1st Sess.
Mr. WELLSTONE
... vulnerability and dangerous global **climate change.** A serious national ...

... hangs on these transitions, and the possibility of **global warming** could greatly foreshorten the time we ...
... unremitting problems as global **climate change** and the balance-of-payments deficit ...
... problems and exacerbate global **climate change.** Still, some energy options, ...
... about the specter of global **climate change,** which hovers over virtually ...
... specter of air pollution and **climate change** casts an ominous shadow ...
... unless we ignore global **climate change,** which we would do at our peril, solar and nuclear ...
... production and use and to the reduction of **greenhouse gas** emissions. SUSTAINED ENERGY ...
... problems of air pollution and **climate change.** Such strategies should be seriously considered ...
... Degrees: Steps to Reduce **Greenhouse Gas** Emissions" outlines the technical ...
... hangs on these transitions, and the possibility of **global warming** could greatly foreshorten the time we ...
... including the risks associated with **global warming).** In choosing policies to ...
... SCIENCE & TECHNOLOGY (59%); **CLIMATE CHANGE** (59%); SCIENCE NEWS (...

204. Thursday, August 1, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 11923, Vol. 137 No. 120 -- Part 2, NATIONAL ENERGY POLICY
102nd Cong. 1st Sess.
Mr. WELLSTONE
... public. ASSAULTS ON THE ENVIRONMENT **Global Warming** While the National Academy of ...
... buy insurance against **global warming,** the Energy Committee is busy ...
... carbon dioxide, the principal **greenhouse gas.** Hydropower The bill proposes the ...
... carbon dioxide (the principal **greenhouse gas)** by the nation's light ...

205. Wednesday, July 31, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 11556, Vol. 137 No. 119 -- Part 2, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
MR. SASSER
... ECOLOGICAL RESEARCH INTO THE IMPACT OF **CLIMATE CHANGE** ON THE CHESAPEAKE BAY. THIS LEGISLATION ...

206. Tuesday, July 30, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 11273, Vol. 137 No. 118, PIRCON-PECK PROCESS
102nd Cong. 1st Sess.
Mr. BUMPERS; **Mr.** BURDICK; **Mr.** COCHRAN; **Mr.** CONRAD; **Mr.** DIXON; **Mr.** HARKIN; **Mr.** HATCH; **Mr.** SASSER; **Mr.** SEYMOUR; **Mr.** WIRTH
... day and age of global **climate change** and the change in the ozone ...

207. Tuesday, July 30, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 11320, Vol. 137 No. 118, COMMERCE, JUSTICE AND STATE, THE JUDICIARY, AND RELATED AGENCIES APPROPRIATIONS ACT, FISCAL YEAR 1992
102nd Cong. 1st Sess.
Mr. ADAMS; **Mr.** AKAKA; **Mr.** BIDEN; **Mr.** BUMPERS; **Mr.** CHAFEE; **Mr.** D'AMATO; **Mr.** DeCONCINI; **Mr.** DOLE; **Mr.** FORD; **Mr.** GLENN; **Mr.** GORE; **Mr.** GRAHAM; **Mr.** GRAMM; **Mr.** HATCH; **Mr.** HATFIELD; **Mr.** HELMS; **Mr.** HOLLINGS; **Mr.** INOUYE; **Mr.** JOHNSTON; **Mr.** KASTEN; **Mr.** KENNEDY; **Mr.** KOHL; **Mr.** LAUTENBERG; **Mr.** LEVIN; **Mr.** MACK; **Mr.** McCAIN; **Mr.** METZENBAUM; **Ms.** MIKULSKI; **Mr.** MITCHELL; **Mr.** MOYNIHAN; **Mr.** PELL; **Mr.** PRESSLER; **Mr.** ROCKEFELLER; **Mr.** RUDMAN; **Mr.** SARBANES; **Mr.** SASSER; **Mr.** SEYMOUR; **Mr.** SIMPSON; **Mr.** SPECTER; **Mr.** STEVENS

... request of $13,700,000 to fund **global warming** and other environmental research and ...
... one of the world's premier **global warming** research and modeling centers. ...

208. Tuesday, July 30, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 11385, Vol. 137 No. 118,
AUTHORITY FOR COMMITTEES TO MEET
102nd Cong. 1st Sess.
Mr. HOLLINGS
... international negotiations on global **climate change** and stratospheric ozone depletion. The ...

209. Monday, July 29, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 11149, Vol. 137 No. 117,
FOREIGN RELATIONS AUTHORIZATION ACT, FISCAL YEARS 1992 AND 1993
102nd Cong. 1st Sess.
Mr. AKAKA; **Mr.** BAUCUS; **Mr.** BIDEN; **Mr.** BOREN; **Mr.** BRADLEY; **Mr.** BROWN; **Mr.** COCHRAN; **Mr.** D'AMATO; **Mr.** GLENN; **Mr.** GRASSLEY; **Mr.** HELMS; **Mr.** KASTEN; **Mr.** KERRY; **Mr.** McCAIN; **Mr.** MOYNIHAN; **Mr.** MURKOWSKI; **Mr.** PELL; **Mr.** PRESSLER; **Mr.** WALLOP
... Congress finds that -- "(1) **climate change** is a common concern of the ...
... importance of addressing global **climate change** have been adopted with United States ...
... in international responses to **climate change;** "(4) extensive scientific ...
... taken place on global **climate change,** but further study is ...
... a Framework Convention on **Climate Change** are underway; and "(8) strong ...
... a framework global **climate change** convention in time ...
... activities and monitoring of global **climate change;** "(2) adoption of measures that are ...
... adapting to any adverse effects of **climate change;** "(3) establishment of national strategies to address **climate change** and to make public accounting of the ...
... effecting international global **climate change** discussions: First, the July ...
... a Framework Convention on **Climate Change.** In the international deliberations concerning global **climate change,** the United States properly and ...
... for reasons other than **climate change,** such as energy efficiency. Examples ...
... more trees, the net **greenhouse gas** emissions of the United States ...
... Mr. President, global **climate change** is a very complex concept. ...
... schedules for reduction of **greenhouse gas** emissions in an equitable ...
... international convention on global **climate change** should seek to provide for a "net stabilization of **greenhouse gas** emissions by the year ...
... international convention on global **climate change** should seek to provide for " ...
... understanding of the causes of global **climate change** and the social, economic, energy, ...
... actions to stabilize or reduce **greenhouse gas.** Second, a commitment to ...
... scientific research on global **climate change** to remove the scientific uncertainties that ...
... causes and consequences of global **climate change** and on the consequences of any proposed courses of ...
... strategies to address the causes of **climate change** as well as courses of action to ...
... formulate a global **climate change** convention that contains goals. However, any ...
... in the implementation of any global **climate change** agreement. The goals and schedules for limitations on **greenhouse gas** emissions that are currently being ...
... commits itself to global **climate change** goals that go beyond ...
... investigate the feasibility of any such global **climate change** goals is consistent with considered ...
... intended to address global **climate change** other than a no- ...
... a framework global **climate change** convention in time ...
... scientific knowledge of global **climate change** and to the formulation of multinational strategies ...
... adoption. FRAMEWORK GLOBAL **CLIMATE CHANGE** NEGOTIATIONS Mr. BIDEN. ...

... framework convention on global **climate change** issues are underway. The negotiations are ...
... up short. The global **climate change** convention talks are an opportunity that ...
... framework convention on global **climate change.** It also makes clear that the Senate ...
... research is needed into global **climate change,** but to await all the answers is to ...
... strategies to address global **climate change** and to make public an accounting of the ...
... Strategies adopted to address **climate change** must be able to withstand the ...
... will actually increase **greenhouse gas** emissions. The Senate is calling ...
... targets and timetables for **greenhouse gas** reductions or our planet's future ...
... impatient to begin controlling **greenhouse gas** emissions. There are still many ...
... uncertainties, but the science of **global warming** is far more robust than ...
... scientists first suggested that **global warming** warranted international action. ...
... BRITAIN CENSURES U.S. **GLOBAL WARMING** VIEW (By Glenn ...
... criticizing the American position on **global warming** and signaling that Britain will ...
... support to the United States when **global warming** and other environmental issues ...
... administration to reconsider its stand on **global warming.** Heseltine, who became environmental ...
... in documenting the so-called "**greenhouse effect**" and who has taken the lead in ...
... serious political problem on the **global warming** issue. His disappointment was compounded ...
... Daniel Becker, director of the **global warming** and energy program for the ...
... decisive action" to curb **global warming.** Major, who is hosting this year's ...
... relating to international global **climate change.** It is acceptable to this side and I ...

210. Monday, July 29, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 11235, Vol. 137 No. 117, FOREIGN RELATIONS AUTHORIZATION ACT, FISCAL YEARS 1992 and 1993; WALLOP (AND BIDEN) AMENDMENT NO. 894
102nd Cong. 1st Sess.
Mr. HELMS
... Congress finds that -- "(1) **climate change** is a common concern of the ...
... importance of addressing global **climate change** have been adopted with United States ...
... in international responses to **climate change;** "(4) extensive scientific ...
... taken place on global **climate change,** but further study is ...
... a Framework Convention on **Climate Change** are underway; and "(8) strong ...
... agreement on framework global **climate change** convention in time ...
... activities and monitoring of global **climate change;** "(2) adoption of measures that are ...
... adapting to any adverse effects of **climate change;** "(3) establishment of national strategies to address **climate change** and to make public accounting of the ...
CLIMATE CHANGE (95%); INTERNATIONAL RELATIONS (...

211. Friday, July 26, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 10992, Vol. 137 No. 116, NATIONAL ENERGY SECURITY ACT
102nd Cong. 1st Sess.
Mr. JOHNSTON
... almost 30 percent of all **greenhouse gas** emissions. Making efforts at ...
... crucial to stabilizing global **climate change.** S. 1220 directs ...

212. Friday, July 26, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 11042, Vol. 137 No. 116, UNANIMOUS-CONSENT AGREEMENT S. 1433
102nd Cong. 1st Sess.

Mr. BROWN; **Mr.** KERRY
... Embassy; Senator Wallop, **global warming;** Senator Wallop, a ...
... reimbursement/embassy. Wallop -- **Global warming.** Wallop -- **Global warming.** Kerry -- Moscow embassy ...

213. Thursday, July 25, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 10840, Vol. 137 No. 115, INTERNATIONAL SECURITY AND ECONOMIC COOPERATION ACT OF 1991
102nd Cong. 1st Sess.
Mr. ADAMS; **Mr.** BAUCUS; **Mr.** BENTSEN; **Mr.** BINGAMAN; **Mr.** BOREN; **Mr.** BROWN; **Mr.** BYRD; **Mr.** CHAFEE; **Mr.** COCHRAN; **Mr.** CRAIG; **Mr.** CRANSTON; **Mr.** DeCONCINI; **Mr.** DIXON; **Mr.** DODD; **Mr.** DOLE; **Mr.** DOMENICI; **Mr.** DURENBERGER; **Mr.** FORD; **Mr.** GORE; **Mr.** GRAHAM; **Mr.** GRAMM; **Mr.** HATCH; **Mr.** HATFIELD; **Mr.** HELMS; **Mrs.** KASSEBAUM; **Mr.** KENNEDY; **Mr.** KERRY; **Mr.** KOHL; **Mr.** LEAHY; **Mr.** LIEBERMAN; **Mr.** LUGAR; **Mr.** MACK; **Mr.** McCAIN; **Mr.** McCONNELL; **Mr.** METZENBAUM; **Ms.** MIKULSKI; **Mr.** MITCHELL; **Mr.** PACKWOOD; **Mr.** PELL; **Mr.** SARBANES; **Mr.** SEYMOUR; **Mr.** SIMON; **Mr.** SIMPSON; **Mr.** SPECTER; **Mr.** WALLOP; **Mr.** WELLSTONE; **Mr.** WIRTH
... problem today -- deforestation, **global warming,** ozone depletion, water ...

214. Thursday, July 25, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 10961, Vol. 137 No. 115 -- Part 2, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. HOLLINGS; **Mr.** KERRY; **Mr.** PELL
... marine pollution, global **climate change,** fisheries development, red ...

215. Tuesday, July 23, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 10616, Vol. 137 No. 113, UNITED STATES-CHINA ACT
102nd Cong. 1st Sess.
Mr. & Mrs. K.T; **Mr.** ADAMS; **Mr.** BAUCUS; **Mr.** BENTSEN; **Mr.** BIDEN; **Mr.** BUMPERS; **Mr.** CHAFEE; **Mr.** COATS; **Mr.** COCHRAN; **Mr.** CONRAD; **Mr.** CRAIG; **Mr.** DASCHLE; **Mr.** DeCONCINI; **Mr.** DODD; **Mr.** DOLE; **Mr.** DURENBERGER; **Mr.** EXON; **Mr.** FORD; **Mr.** GORE; **Mr.** GRAMM; **Mr.** GRASSLEY; **Mr.** HARKIN; **Mr.** HELMS; **Mr.** HOLLINGS; **Mr.** JEFFORDS; **Mr.** JOHNSTON; **Mrs.** KASSEBAUM; **Mr.** KASTEN; **Mr.** KERREY; **Mr.** KERRY; **Mr.** KOHL; **Mr.** MACK; **Mr.** McCONNELL; **Mr.** METZENBAUM; **Ms.** MIKULSKI; **Mr.** MITCHELL; **Mr.** MURKOWSKI; **Mr.** PACKWOOD; **Mr.** PRESIDING OFFICER; **Mr.** RIEGLE; **Mr.** ROCKEFELLER; **Mr.** SANFORD; **Mr.** SARBANES; **Mr.** SIMPSON; **Mr.** SPECTER; **Mr.** SYMMS; **Mr.** WALLOP; **Mr.** WOFFORD
... deal with issues like **global warming;** really going to deal with the real ...
... issue that confronts the world? **Global warming?** Why would they want to talk about ...

216. Thursday, July 18, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 10404, Vol. 137 No. 110, CLOTURE MOTION
102nd Cong. 1st Sess.
Mr. ADAMS; **Mr.** BAUCUS; **Mr.** BENTSEN; **Mr.** BOND; **Mr.** BURDICK; **Mr.** CHAFEE; **Mr.** CRANSTON; **Mr.** D'AMATO; **Mr.** DeConcini; **Mr.** FORD; **Mr.** FOWLER; **Mr.** GARN; **Mr.** GRAHAM; **Mr.** HEFLIN; **Mr.** JEFFORDS; **Mr.** KASTEN; **Mr.** KOHL; **Mr.** LAUTENBERG; **Mr.** LIEBERMAN; **Mr.** MACK; **Ms.** MIKULSKI; **Mr.** SASSER; **Mr.** SEYMOUR; **Mr.** SIMPSON; **Mr.** SPECTER; **Mr.** WIRTH; **Mr.** WOFFORD
... causes, and effects of global **climate change,** including such effects as climate ...
... essential for global **climate change,** deforestation, and acid rain. This ...
... essential for global **climate change** research and also has national security ...

217. Wednesday, July 17, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 10219, Vol. 137 No. 109,
DEPARTMENTS OF VETERANS AFFAIRS AND HOUSING AND URBAN DEVELOPMENT, SUNDRY INDEPENDENT AGENCIES, COMMISSIONS, CORPORATIONS, AND OFFICES APPROPRIATION ACT, FISCAL YEAR 1992
102nd Cong. 1st Sess.
Mr. BENTSEN; **Mr.** BOND; **Mr.** BUMPERS; **Mr.** CRANSTON; **Mr.** DANFORTH; **Mr.** DODD; **Mr.** FORD; **Mr.** GARN; **Mr.** GLENN; **Mr.** GORE; **Mr.** GRAHAM; **Mr.** GRAMM; **Mr.** HEFLIN; **Mr.** HOLLINGS; **Mr.** KERRY; **Mr.** LEVIN; **Mr.** MACK; **Mr.** McCONNELL; **Ms.** MIKULSKI; **Mr.** PRESSLER; **Mr.** ROBB; **Mr.** SASSER; **Mr.** SEYMOUR; **Mr.** SHELBY; **Mr.** SIMON; **Mr.** SPECTER
... both as an early indicator of **climate change** and of changes in the chemical ...

218. Wednesday, July 17, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 10297, Vol. 137 No. 109,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
MR. GORE
... a Framework Convention on **Climate Change,** and for other purposes; to the ...
... Foreign Relations. FOREST AND **CLIMATE CHANGE** LEGISLATION MR. GORE. ...
... ATTENTION. TWO ISSUES, HOWEVER, **CLIMATE CHANGE** AND PRESERVATION AND PROTECTION OF THE WORLD'S ...
... DECISIVE ACTION TO CURB **GLOBAL WARMING.** NOW, AS THE MEMBERS OF THE G7 ...
... INTERGOVERNMENTAL NEGOTIATING COMMITTEE ON **CLIMATE CHANGE** THAT THE UNITED STATES HOSTED ...
... FOR OUR OVERWHELMING CONTRIBUTION TO THE **GLOBAL WARMING** PROBLEM, WE ARE JEOPARDIZING NOT ...
... COMPLETION OF THE FRAMEWORK CONVENTION ON **CLIMATE CHANGE,** BUT WE ARE ALSO STANDING IN THE ...
... COUNTRIES COMMIT, IN THE **CLIMATE CHANGE** NEGOTIATIONS, TO STABILIZATION AND TO MEANINGFUL REDUCTIONS IN **GREENHOUSE GAS** EMISSIONS. THEIR LOGIC IS AS FOLLOWS: ...
... SIGN AN EQUALLY STRONG **CLIMATE CHANGE** CONVENTION. SO, MR. PRESIDENT, IT IS ...
... FORESTS & WOODLANDS (90%); **CLIMATE CHANGE** (90%); TALKS & MEETINGS (...

219. Wednesday, July 10, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 9409, Vol. 137 No. 105,
CHINA
102nd Cong. 1st Sess.
Mr. LIEBERMAN
... a major contributor to **global warming** and ozone depletion. China's ...

220. Tuesday, July 9, 1991; (Legislative day of Monday, July 8, 1991), 137 Cong Rec S 9312, Vol. 137 No. 104,
REMOVAL OF INJUNCTION OF SECRECY -- THE TREATY ON CONVENTIONAL ARMED FORCES IN EUROPE AND THE CONVENTION FOR A NORTH PACIFIC MARINE SCIENCE ORGANIZATION
102nd Cong. 1st Sess.
Mr. MITCHELL
... response to global weather and **climate change,** impacts on flora, fauna, ...

221. Thursday, June 27, 1991; (Legislative day of Tuesday, June 11, 1991), 137 Cong Rec S 8827, Vol. 137 No. 101 ; Continuation of Senate Proceedings of June 26, 1991, Issue No. 100; and Proceedings of June 27, 1991, Issue No. 101.,

NATIONAL ENERGY SECURITY ACT
102nd Cong. 1st Sess.
Mr. BRYAN; **Mr.** JOHNSTON; **Mr.** LIEBERMAN; **Mr.** MURKOWSKI; **Mr.** NICKLES; **Mr.** WALLOP; **Mr.** WELLSTONE
... efforts to slow the threat of **global warming.** The very last thing we need ...
... agrees, a dangerous **greenhouse gas.** It accounts for 55 percent of the gases that contribute to **global warming.** The United States, with about ...
... report, "Policy Implications of **Global Warming,**" notes that the atmospheric concentration of ...
... dramatically. The International Panel on **Climate Change,** comprised of scientists from countries ...
... magnitude of climatic effects from **greenhouse gas** emissions with accuracy. But it is ...
... in order to slow **global warming.** And yet S. 1220 does ...
... threats to our environment, including **global warming** caused by our addiction to ...
... on global **climate**
change ...
... global **climate change** ...
... on global **climate**
change ...
... global **climate change** ...

222. Thursday, June 27, 1991; (Legislative day of Tuesday, June 11, 1991), 137 Cong Rec S 8841, Vol. 137 No. 101 ; Continuation of Senate Proceedings of June 26, 1991, Issue No. 100; and Proceedings of June 27, 1991, Issue No. 101., EXTENSION OF TIME FOR MORNING BUSINESS
102nd Cong. 1st Sess.
Mr. DOMENICI; **Mr.** KERRY; **Mr.** MITCHELL
... contributes to the growing threat of **global warming** by trapping heat ...
... threat to increase pollution and **global warming.** Finally, EPA recently ...

223. Thursday, June 27, 1991; (Legislative day of Tuesday, June 11, 1991), 137 Cong Rec S 8843, Vol. 137 No. 101 ; Continuation of Senate Proceedings of June 26, 1991, Issue No. 100; and Proceedings of June 27, 1991, Issue No. 101., NATIONAL ENERGY SECURITY ACT OF 1991
102nd Cong. 1st Sess.
Mr. BAUCUS
... world marketplace. And it has contributed to **global warming,** air pollution and other ...

224. Monday, June 24, 1991; (Legislative day of Tuesday, June 11, 1991), 137 Cong Rec S 8480, Vol. 137 No. 98, ANTARCTICA
102nd Cong. 1st Sess.
Mr. GORE
... discovered in Antarctica, or that the **global warming** is expected to do its first damage ...

225. Monday, June 24, 1991; (Legislative day of Tuesday, June 11, 1991), 137 Cong Rec S 8487, Vol. 137 No. 98, ANTARCTIC ENVIRONMENTAL PROTECTION PROTOCOL
102nd Cong. 1st Sess.
Mr. BIDEN; **Mr.** DURENBERGER
... increasing the likelihood of further **global warming.** Mr. President, we do not ...

226. Monday, June 24, 1991; (Legislative day of Tuesday, June 11, 1991), 137 Cong Rec S 8505, Vol. 137 No. 98, SENATE RESOLUTION 141 -- RELATIVE TO THE REPORT OF THE NATIONAL ACADEMY OF SCIENCES ON GREENHOUSE WARMING
102nd Cong. 1st Sess.
Mr. WIRTH
... increases in atmospheric **greenhouse gas** concentrations will be followed ...
... United States could reduce its **greenhouse gas** emissions by 10 to ...
... substitutes that minimize or eliminate **greenhouse gas** emissions; (2) study ...
... farmers and commerce adapt to **climate change** and thus ensure ample food; (...
... take into consideration possible **climate change;** (10) move to slow ...
... seasons to ease adaptation to **climate change;** (13) continue to identify those ...
... complex threat of global **climate change.** Today, I introduce the **global warming** response resolution which calls on the ...
... Increases in atmospheric **greenhouse gas** concentrations now occurring ...
... United States could reduce its **greenhouse gas** emissions by 10 to ...
... percent reduction in **greenhouse gas** emissions at a net ...
... effort to reduce international **greenhouse gas** emissions. This feeling is echoed ...
... effective responses to the danger of **global warming** are necessary at this time. In the ...
... farmers and commerce adapt to **climate change** thus ensuring ample food ...
... social and economic aspects of **climate change;** and Most importantly, the United ...
... control methods such as global **climate change.** Project 88 -- Round ...
... designed to reduce the impact of **climate change** by enlisting the power of ...
... available to reduce the threat of **global warming.** Mr. President, this administration has ...
... environmental challenges we face -- **global warming.** While members of the "Carbon ...
... SCIENCE & TECHNOLOGY (90%); **CLIMATE CHANGE** (90%); SCIENCE NEWS (90%); **GLOBAL WARMING** (90%); FARMERS & RANCHERS (...

227. Friday, June 21, 1991; (Legislative day Tuesday, June 21, 1991) [sie], 137 Cong Rec S 8460, Vol. 137 No. 97, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. BINGAMAN; **Mr.** DOMENICI; **Mr.** JOHNSTON
... various things such as global **climate change.** We also believe the time has come to ...

228. Tuesday, June 18, 1991; (Legislative day of Tuesday, June 11, 1991), 137 Cong Rec S 7961, Vol. 137 No. 94, EXPORTING IDEAS TO CHINA
102nd Cong. 1st Sess.
Mr. BAUCUS; **Mr.** MOYNIHAN
... Even if China's political **climate changes** in the future, it is quite ...

229. Tuesday, June 18, 1991; (Legislative day of Tuesday, June 11, 1991), 137 Cong Rec S 8041, Vol. 137 No. 94, A NEW WORLD ORDER?
102nd Cong. 1st Sess.
MR. SIMON
... INTERNATIONAL LEVELS. ISSUES OF **GLOBAL WARMING** AND OZONE DEPLETION, ALREADY ...

230. Monday, June 17, 1991; (Legislative day of Tuesday, June 11, 1991), 137 Cong Rec S 7878, Vol. 137 No. 93,

STRATOSPHERIC OZONE DEPLETION AND GLOBAL CLIMATE CHANGE
102nd Cong. 1st Sess.
Mr. BAUCUS; **Mr.** BUMPERS
... a Framework Convention on **Climate Change** of the U.N. General Assembly ...
... nations is to complete a **climate change** convention in time ...
... methane, and nitrous oxides, these **greenhouse gas** emissions are warming out ...
... economic, and health consequences of the **greenhouse effect** are even more severe and ...
... fact, emissions of the principal **greenhouse gas,** carbon dioxide, remain ...
... protocol to stabilize or reduce **greenhouse gas** emissions, particularly carbon ...
... CONFERENCES & CONVENTIONS (90%); **CLIMATE CHANGE** (90%); AIR POLLUTION (...

231. Thursday, June 13, 1991; (Legislative day of Tuesday, June 11, 1991), 137 Cong Rec S 7710, Vol. 137 No. 91; Continuation of Senate Proceedings of June 12, 1991, Issue No. 90; and Proceedings of June 13, 1991, Issue No. 91., THE DOMESTIC STRUGGLE
102nd Cong. 1st Sess.
Mr. COCHRAN; **Mr.** DASCHLE; **Mr.** DIXON; **Mr.** METZENBAUM
... nature and threat of global **climate changes,** Congress is already moving to ...

232. Thursday, June 13, 1991; (Legislative day of Tuesday, June 11, 1991), 137 Cong Rec S 7848, Vol. 137 No. 91; Continuation of Senate Proceedings of June 12, 1991, Issue No. 90; and Proceedings of June 13, 1991, Issue No. 91., BALANCING ENERGY AND ENVIRONMENTAL CONCERNS ARCTIC NATIONAL WILDLIFE REFUGE
102nd Cong. 1st Sess.
MR. JOHNSTON
... STOPPING OZONE DEPLETION AND THE **GREENHOUSE EFFECT** -- IS AN ENVIRONMENTAL NECESSITY. IN ...
... HUMANS SIT. THE REALITY OF THE **GREENHOUSE EFFECT** IS MORE SPECULATIVE, THOUGH ITS ...
... IOWA'S? OZONE DEPLETION AND THE **GREENHOUSE EFFECT** ARE HUMAN DISASTERS. THEY HAPPEN TO ...
... 89%); WILDLIFE (89%); **CLIMATE CHANGE** (89%); AIR POLLUTION (...

233. Wednesday, June 12, 1991; (Legislative day of Tuesday, June 11, 1991), 137 Cong Rec S 7603, Vol. 137 No. 90; Continuation of Senate Proceedings of June 12, 1991, Issue No. 90; and Proceedings of June 13, 1991, Issue No. 91., AMBASSADOR JOSEPH VERNER REED'S COMMENCEMENT ADDRESS TO THE GRADUATING CLASS OF THE COLLEGE OF NATURAL RESOURCES AT UTAH STATE UNIVERSITY
102nd Cong. 1st Sess.
Mr. HATCH
... Nation -- indeed, our world -- from **global warming** and acid rain to water ...

234. Wednesday, June 12, 1991; (Legislative day of Tuesday, June 11, 1991), 137 Cong Rec S 7631, Vol. 137 No. 90; Continuation of Senate Proceedings of June 12, 1991, Issue No. 90; and Proceedings of June 13, 1991, Issue No. 91., STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. BURDICK; **Mr.** LAUTENBERG
... Federal actions on global **climate change,** depletion of the ozone layer and ...
... respect to ozone depletion and **global warming.** In 1988, CEQ ...

... impact of their actions on global **climate change.** Unfortunately, the Reagan administration, ...
... claim to be moving to address **global warming** and other global environmental ...
... Federal actions on global **climate change,** depletion of the ozone layer, ...

235. Tuesday, June 11, 1991, 137 Cong Rec S 7488, Vol. 137 No. 89, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
MR. HARKIN
... ACID RAIN, NO **GLOBAL WARMING** GREENHOUSE GASES, NO ...
... CARBON DIOXIDE, THE PRIMARY **GLOBAL WARMING** GAS IS GENERATED IN THIS ...
... VIRTUALLY ALL AIR POLLUTION AND **GLOBAL WARMING** GREENHOUSE GASES, WE SHOULD BE DEVELOPING ...
... PRODUCES -- (A) NO **GLOBAL WARMING** GREENHOUSE GASES; (B) ...
... NO ENVIRONMENTALLY SIGNIFICANT **GREENHOUSE GAS** OR AIR POLLUTION EMISSIONS OF ANY ...
... IN THIS ACT: (1) **GREENHOUSE GAS.** -- THE TERM "**GREENHOUSE GAS**" MEANS A GAS THAT, WHEN RELEASED INTO THE ATMOSPHERE, CONTRIBUTES TO **GLOBAL WARMING** BY TRAPPING INFRARED ...
... PARAGRAPH: "(I) THE TERM '**GREENHOUSE GAS**' MEANS A GAS THAT, WHEN RELEASED INTO THE ATMOSPHERE, CONTRIBUTES TO **GLOBAL WARMING** BY TRAPPING INFRARED ...

236. Thursday, June 6, 1991; (Legislative day of Monday, June 3, 1991), 137 Cong Rec S 7291, Vol. 137 No. 86, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. BRADLEY; **Mr.** HATFIELD
... again? Then there is the problematical impact of the **greenhouse effect,** an ecological wild card that could ...
... 2000 does not include **greenhouse-effect** predictions. By expanding ...
... inch per year. The **greenhouse-effect** study assumes an annual ...
... commission has so far cranked the **greenhouse effect** into its planning, although Sommer said the ...

237. Thursday, June 6, 1991; (Legislative day of Monday, June 3, 1991), 137 Cong Rec S 7397, Vol. 137 No. 86, SUMMARY OF NATIONAL ENERGY SECURITY ACT -- S.1220
102nd Cong. 1st Sess.
MR. JOHNSTON
... FRAMEWORK CONVENTION ON GLOBAL **CLIMATE CHANGE.** LEAST-COST NATIONAL ...
... ENERGY RESOURCES ON GLOBAL **CLIMATE CHANGE,** AND THE ECONOMIC, ENERGY, SOCIAL, AND ...
... DISCUSSIONS REGARDING GLOBAL **CLIMATE CHANGE.** REPEAL. -- REPEALS TITLE ...
... NATIONAL SECURITY (79%); **CLIMATE CHANGE** (59%); LEGISLATION (59%); ...

238. Wednesday, June 5, 1991; (Legislative day of Monday, June 3, 1991), 137 Cong Rec S 7111, Vol. 137 No. 85, The TEXT of this document exceeds 5,000 lines., REPORTS OF COMMITTEES
102nd Cong. 1st Sess.
MR. JOHNSTON
... REDUCE THE POSSIBILITY OF GLOBAL **CLIMATE CHANGE.** SEC. 1102. PURPOSES -- THE ...
... UNDER AN INTERNATIONAL GLOBAL **CLIMATE CHANGE** FRAMEWORK CONVENTION OR

AGREEMENT. (...
... ADDRESSING POTENTIAL GLOBAL **CLIMATE CHANGE,** IT IS THE GOAL OF THE UNITED STATES TO ...
... FRAMEWORK CONVENTION ON GLOBAL **CLIMATE CHANGE** THROUGH THE ACTIVITIES OF THE NEGOTIATING ...
... POLICY DISCUSSIONS OF GLOBAL **CLIMATE CHANGE;** (2) MONITOR DOMESTIC AND ...
... SEA RANCHING AND GLOBAL **CLIMATE CHANGE;** AND (5) SUCH OTHER MATTERS AS THE ...
... RATE AND SCOPE OF GLOBAL **CLIMATE CHANGE;** (2) UTILIZE MODULAR ...

239. Wednesday, June 5, 1991; (Legislative day of Monday, June 3, 1991), 137 Cong Rec S 7230, Vol. 137 No. 85, OUR OWN NATURAL RESOURCES
102nd Cong. 1st Sess.
MR. SYMMS
... BY THOSE WHO SAY THEY ARE CONCERNED WITH **GLOBAL WARMING?** THEY SHOULD KNOW WHAT EVERY SCIENTIST ...
... FINDING THE FACTS REGARDING **GLOBAL WARMING.** HAT DOES IT MEAN LET ME ...

240. Friday, May 24, 1991; (Legislative day of Thursday, April 25, 1991), 137 Cong Rec S 6777, Vol. 137 No. 80 -- Part 2, EXTENSION OF FAST-TRACK PROCEDURES
102nd Cong. 1st Sess.
Mr. BAUCUS; **Mr.** BENTSEN; **Mr.** BIDEN; **Mr.** BINGAMAN; **Mr.** BREAUX; **Mr.** BURNS; **Mr.** COATS; **Mr.** COCHRAN; **Mr.** COHEN; **Mr.** CRAIG; **Mr.** CRANSTON; **Mr.** DOLE; **Mr.** FORD; **Mr.** GLENN; **Mr.** GORE; **Mr.** GRASSLEY; **Mr.** HATCH; **Mr.** Heinz; **Mr.** HOLLINGS; **Mrs.** KASSEBAUM; **Mr.** KASTEN; **Mr.** KENNEDY; **Mr.** KERREY; **Mr.** KERRY; **Mr.** LUGAR; **Mr.** MACK; **Mr.** MITCHELL; **Mr.** NUNN; **Mr.** PACKWOOD; **Mr.** PELL; **Mr.** PRESSLER; **Mr.** ROBB; **Mr.** SIMPSON; **Mr.** WOFFORD
... issues such as atmospheric warming and the **greenhouse effect,** the Reagan administration was simply ...

241. Friday, May 24, 1991; (Legislative day of Thursday, April 25, 1991), 137 Cong Rec S 6868, Vol. 137 No. 80 -- Part 2, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. WIRTH
... species, in global **climate change** and in growing problems of ...
... use, and local and global **climate change;** (4) support for ...
... deforestation, species loss, and **global warming.** For example, the clearing of ...
... both linked to overpopulation), and **global warming.** Wood burning for ...

242. Thursday, May 23, 1991; (Legislative day of Thursday, April 25, 1991), 137 Cong Rec S 6550, Vol. 137 No. 79; Continuation of Senate Proceedings of May 23, 1991, Issue No. 79; and Proceedings of May 24, 1991, Issue No. 80., The TEXT of this document exceeds 5,000 lines., EXTENSION OF FAST-TRACK PROCEDURES
102nd Cong. 1st Sess.
Mr. ADAMS; **Mr.** AKAKA; **Mr.** BAUCUS; **Mr.** BENTSEN; **Mr.** BOND; **Mr.** BRADLEY; **Mr.** CHAFEE; **Mr.** COATS; **Mr.** COCHRAN; **Mr.** CONRAD; **Mr.** DANFORTH; **Mr.** DASCHLE; **Mr.** DeCONCINI; **Mr.** DOLE; **Mr.** DOMENICI; **Mr.** DURENBERGER; **Mr.** EXON; **Mr.** GORTON; **Mr.** GRAHAM; **Mr.** GRAMM; **Mr.** HARKIN; **Mr.** HATCH; **MR.** HELMS; **Mr.** HOLLINGS; **Mr.** LEAHY; **Mr.** LIEBERMAN; **Mr.** McCAIN; **Mr.** McCONNELL; **Mr.** METZENBAUM; **Ms.** MIKULSKI; **Mr.** MITCHELL; **Mr.** MOYNIHAN; **Mr.** MURKOWSKI; **Mr.** PACKWOOD; **Mr.** RIEGLE; **Mr.** ROCKEFELLER; **Mr.** ROTH; **Mr.** SANFORD; **Mr.** SARBANES; **Mr.** SIMON; **Mr.**

THURMOND; **Mr.** WALLOP; **Mr.** WELLSTONE; **Mr.** WOFFORD
... countries. Anybody who has studied **global warming,** chlorofluorocarbons, consumption of energy ...

243. Thursday, May 23, 1991; (Legislative day of Thursday, April 25, 1991), 137 Cong Rec S 6756, Vol. 137 No. 79; Continuation of Senate Proceedings of May 23, 1991, Issue No. 79; and Proceedings of May 24, 1991, Issue No. 80., TREES AND SOIL CONSERVATION
102nd Cong. 1st Sess.
MR. DASCHLE
... MOST RESPONSIBLE FOR **GLOBAL WARMING AND THE GREENHOUSE EFFECT.** EVERY LIVING TREE, THEREFORE, ...
... IN LESSENING THE IMPACT OF **GLOBAL WARMING.** TREES ARE ALSO BEING RECOGNIZED AS ...
... ENDANGERED SPECIES (90%); **GLOBAL WARMING** (89%);

244. Thursday, May 23, 1991; (Legislative day of Thursday, April 25, 1991), 137 Cong Rec S 6759, Vol. 137 No. 79; Continuation of Senate Proceedings of May 23, 1991, Issue No. 79; and Proceedings of May 24, 1991, Issue No. 80., ENVIRONMENTAL PROTECTIONS IN ANTARCTICA
102nd Cong. 1st Sess.
Mr. BAUCUS; **Mr.** KERRY
... laboratory for studying **global warming** trends. Many scientists ...
... National Academy of Science on **global warming** trends. If the Antarctic environment ...

245. Wednesday, May 22, 1991; (Legislative day of Thursday, April 25, 1991), 137 Cong Rec S 6287, Vol. 137 No. 78, NEW ENVIRONMENTAL COMMITMENTS BY THE ADMINISTRATION
102nd Cong. 1st Sess.
Mr. FORD; **Mr.** WIRTH
... depletion, acid rain, **global warming,** and the related issue of population ...
... rain falls on Poland and **global warming** affects us all. These are new realities that ...
... pledges too many times -- on **global warming,** on wetlands, on population, and on a ...

246. Wednesday, May 22, 1991; (Legislative day of Thursday, April 25, 1991), 137 Cong Rec S 6359, Vol. 137 No. 78; Continuation of Senate Proceedings of May 22, 1991, Issue No. 78; and Proceedings of May 23, 1991, Issue No. 79., STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
MR. LIEBERMAN
... UNDERSTAND, PARTICULARLY THROUGH **GLOBAL WARMING,** THAT ENVIRONMENTAL PROBLEMS ARE WORLDWIDE, WITH ...

247. Tuesday, May 21, 1991; (Legislative day of Thursday, April 25, 1991), 137 Cong Rec S 6206, Vol. 137 No. 77, FORMER SECRETARY OF STATE CYRUS VANCE ANALYZES "NEW WORLD ORDER" IN FLETCHER SCHOOL ADDRESS
102nd Cong. 1st Sess.
Mr. PELL
... international levels. Issues of **global warming** and ozone depletion, already ...

248. Thursday, May 9, 1991; (Legislative day of Thursday, April 25, 1991), 137 Cong Rec S 5615, Vol. 137 No. 70,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. BINGAMAN
... possibility of human-induced **climate change.** Contributions to carbon reduction ...

249. Thursday, May 9, 1991; (Legislative day of Thursday, April 25, 1991), 137 Cong Rec S 5633, Vol. 137 No. 70,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. ADAMS; **Ms.** MIKULSKI
... a key cause of **global warming,** deforestation, hunger, poverty and ...
... already pressing problems such as **global warming,** human hunger, deforestation, ...

250. Tuesday, May 7, 1991; (Legislative day of Thursday, April 25, 1991), 137 Cong Rec S 5362, Vol. 137 No. 68,
PROJECT 88/ROUND II
102nd Cong. 1st Sess.
Mr. WIRTH
... recycling, public lands, and **global warming.** We have focused in some detail on ...
... lands area, and in **global warming.** Let me give a ...
... focus on, Mr. President, is **global warming,** an issue that is coming out very ...
... country looking at the issue of **global warming.** In June 1992, there is ...
... will be focused on is the question of **greenhouse gas** emissions. The chances are, coming ...
... pressure to develop an agreement on **greenhouse gas** emissions overall, not ...
... protection strategies to prevent **global warming,** address solid and hazardous ...
... based strategies to fight **global warming,** improve solid and hazardous ...
... Senators Wirth and Heinz. **GLOBAL WARMING** INTERNATIONAL TRADING PROGRAM. -- The ...
... way of allocating the costs of **global warming** prevention among nations. ...
... effectiveness of efforts to reduce **greenhouse gas** emissions. SOLID AND HAZARDOUS ...
... Administration, which has largely ducked the **global warming** issue, is looking at an international trading program to reduce **greenhouse gas** emissions. Finally, the ideas ...
... market-based solutions: **global warming,** waste management and the public ...
... not try to determine if **global warming** should be addressed and if so at what level. Rather, the ...
... national and subnational government. **GLOBAL WARMING** First the report recommends the ...
... global efforts to reduce **greenhouse gas** emissions are cost-effective and ...
... environmental challenges -- global **climate change,** solid and hazardous waste ...
... largely to his dedication and wisdom. **Global warming,** waste management, and public ...
... including the threat of global **climate change.** At the same time, the costs of ...
... particular importance: global **climate change** due to the **greenhouse effect;** generation and disposal of solid and ...
... address the threat of global **climate change.** n13 In Canada, ...
... help combat global **climate change;** "environmental costing" at electrical ...
... control; control of global **climate change** through international trading in **greenhouse gas** permits, n30 and recycling ...
... policies to combat global **climate change.** Eliminating Government Subsidies ...
... n33 The thirteen areas were: the **greenhouse effect and climate change;** stratospheric ozone depletion; ...
... problem areas -- global **climate change** due to the **greenhouse effect;** the generation, storage, and disposal of ...
... mechanisms we investigate. Global **Climate Change** The possibility of global **climate change** due to the **greenhouse effect** is potentially one of the most ...
... damages induced by **global warming** or the level of appropriate controls (if any). ...

... among nations in **greenhouse gas** source/sink permits should be ...

251. Tuesday, May 7, 1991; (Legislative day of Thursday, April 25, 1991), 137 Cong Rec S 5369, Vol. 137 No. 68, UNITED STATES-MEXICO FREE-TRADE AGREEMENT
102nd Cong. 1st Sess.
Mr. BAUCUS; **Mr.** WIRTH
... science," sound science on **global warming?** He is way out of the mainstream on that ...

252. Thursday, April 25, 1991; (Legislative day of Tuesday, April 9, 1991), 137 Cong Rec S 5298, Vol. 137 No. 62 -- Part 2, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
MR. BOREN
... RAIN AND THE POTENTIAL PROBLEMS OF **GLOBAL WARMING** KNOW NO NATIONAL ...

253. Thursday, April 25, 1991; (Legislative day of Tuesday, April 9, 1991), 137 Cong Rec S 5329, Vol. 137 No. 62 -- Part 2, REVIVING U.S. MANUFACTURING
102nd Cong. 1st Sess.
MR. ROCKEFELLER
... APPROACH TO ADDRESSING GLOBAL **CLIMATE CHANGE** CONCERNS. IMPROVED EFFICIENCY ...

254. Wednesday, April 17, 1991; (Legislative day of Tuesday, April 9, 1991), 137 Cong Rec S 4645, Vol. 137 No. 56, TRIBUTE TO AL GORE OF TENNESSEE FOR HIS LEADERSHIP OF THE ENVIRONMENTAL AND ENERGY STUDY CONFERENCE
102nd Cong. 1st Sess.
MR. MCCAIN
... ESPECIALLY TRUE ON ISSUES SUCH AS **CLIMATE CHANGE** AND THE INTERNATIONAL ENVIRONMENT. AL HAS BEEN ...

255. Tuesday, April 16, 1991; (Legislative day of Tuesday, April 9, 1991), 137 Cong Rec S 4418, Vol. 137 No. 55, CONSERVATION -- THEN AND NOW
102nd Cong. 1st Sess.
Mr. PELL
... current negotiations to curb **global warming.** In these endeavors, social and ...
... ozone depletion 4. **climate change** The growth within the United ...
... planet is experiencing a **greenhouse effect** that may have catastrophic impact. ...

256. Thursday, April 11, 1991; (Legislative day of Friday, March 22, 1991), 137 Cong Rec S 4281, Vol. 137 No. 53, OZONE HOLE DEPLETION
102nd Cong. 1st Sess.
Mr. MITCHELL
... released a report on **global warming** policy options. The report ...
... will both reduce **greenhouse gas** emissions and U.S. dependence on ...
... place international limits on **greenhouse gas** emissions. In fact, the ...
... 20 percent of the world's **greenhouse gas** emissions. Much of that is the result of ...

... save money, reduce **greenhouse gas** emissions, and reduce our dependence on ...

257. Thursday, April 11, 1991; (Legislative day of Friday, March 22, 1991), 137 Cong Rec S 4287, Vol. 137 No. 53,
GLOBAL WARMING
102nd Cong. 1st Sess.
Mr. GORE; **Mr.** GORTON
... National Academy of Sciences on **global warming.** Later today I ...
... action now to combat **global warming.** The academy's report, the product of an ...
... begin countering the threat of **global warming.** Spokesmen for the administration ...
... SAVING URGED TO COMBAT **GLOBAL WARMING** (By Michael Weisskopf) The ...
... policy options to combat the "**greenhouse effect,**" the academy said that by more ...
... setting specific limits on **greenhouse gas** emissions, as most European ...
... administration's cautious approach to **global warming.** "Despite the great uncertainties, ...
... campaign promises to combat the **greenhouse effect** with the "White House effect," ...
... many of its members viewing **global warming** as the greatest environmental threat and ...
... a "reliable forecast" of **global warming.** But the panel pointed to ...
... warranting policies to cut **global warming** gases as "insurance protection ...
... needed to significantly cut **global warming** gases when it unveiled an "action ...
... CFCs also are a powerful **global-warming** gas. Apparently referring to the " ...
... steps necessary to address **global warming** have been a matter of fierce ...
... quicker action against **global warming,** which the President's chief of staff, ...
... cautious stand on the uncertainties of **global warming,** its cost-benefit anaylsis, its ...
... pays to act to slow **global warming,**" said Dr. Michael Oppenheimer, an ...
... Institute. The panel said the prospect of **global warming** "poses a potential ...
... will allow overall **greenhouse-gas** emissions in the U.S. to ...
GLOBAL WARMING (92%); SCIENCE & TECHNOLOGY (...

258. Thursday, April 11, 1991; (Legislative day of Friday, March 22, 1991), 137 Cong Rec S 4334, Vol. 137 No. 53,
GLOBAL WARMING AND OZONE DEPLETION
102nd Cong. 1st Sess.
Mr. BAUCUS
... scientific reports on the seriousness of the **global warming** and ozone depletion threats. ...
... threat posed by **global warming** is sufficient to justify action ...
... greenhouse gasses and the resulting **global warming.** This is the kind of planetary insurance ...
SKIN CANCER (92%); **GLOBAL WARMING** (92%); CANCER (90%); ...

259. Thursday, April 11, 1991; (Legislative day of Friday, March 22, 1991), 137 Cong Rec S 4348, Vol. 137 No. 53,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
MR. AKAKA
... AQUACULTURE, AND OCEAN AND GLOBAL **CLIMATE CHANGE.** I ENVISION THE MATSUNAGA ...

260. Thursday, April 11, 1991; (Legislative day of Friday, March 22, 1991), 137 Cong Rec S 4369, Vol. 137 No. 53,
STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. COHEN; **Mr.** DOMENICI; **Mr.** ROTH

... increasing severity, including **climate change,** depletion of the stratospheric ozone ...
... National Energy Policy, **global warming,** clean water, Resource ...

261. Thursday, April 11, 1991; (Legislative day of Friday, March 22, 1991), 137 Cong Rec S 4374, Vol. 137 No. 53, SENATE CONCURRENT RESOLUTION 26 -- RELATIVE TO ENVIRONMENTAL PROTECTION OF ANTARCTICA
102nd Cong. 1st Sess.
MR. KERRY
... LABORATORY FOR STUDYING **GLOBAL WARMING** TRENDS. MANY SCIENTISTS ...
... NATIONAL ACADEMY OF SCIENCE ON **GLOBAL WARMING** TRENDS. IF THE ANTARCTIC ENVIRONMENT ...

262. Thursday, April 11, 1991; (Legislative day of Friday, March 22, 1991), 137 Cong Rec S 4387, Vol. 137 No. 53, SENATE JOINT RESOLUTION 119 -- DESIGNATING APRIL 22, 1991, AS "EARTH DAY"
102nd Cong. 1st Sess.
Mr. MITCHELL; **Mr.** SPECTER
... increasing severity, including **climate change,** depletion of the stratospheric ozone ...
ACID RAIN (90%); **CLIMATE CHANGE** (90%); FRESHWATER ECOSYSTEMS (...

263. Tuesday, April 9, 1991, 137 Cong Rec S 4253, Vol. 137 No. 51, SENATE RESOLUTION 95 -- RELATING TO THE PHASEOUT OF PRODUCTION OF OZONE-DESTROYING SUBSTANCES
102nd Cong. 1st Sess.
Mr. GORE; **Mr.** MOYNIHAN
... gases and contribute to global **climate change,** and the recent scientific data ...

264. Thursday, March 21, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 3958, Vol. 137 No. 49, STATEMENT OF INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
MR. BIDEN; **MR.** KERRY; **MR.** LUGAR
... IMPLICATIONS OF THESE EVENTS. THE THREAT OF **GLOBAL WARMING** HAS REMINDED US ONCE AGAIN OF THE ...

265. Thursday, March 21, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 3965, Vol. 137 No. 49, STATEMENT OF INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. ADAMS; **Mr.** HATFIELD; **Mr.** LIEBERMAN; **Mr.** WIRTH
... energy resources on global **climate change** and other environmental problems, as ...
... policy discussions on global **climate change.** TITLE II -- MEASURES TO ...
... human-induced global **climate change;** (5) significant cost- ...
... under an international global **climate change** framework convention or agreement. (...
... addressing potential global **climate change,** it is the goal of the United States to ...
... framework convention on global **climate change** through the activities of the Intergovernmental Panel on **Climate Change** of the United Nations International ...
... used: (7) "global **climate change**" means changes in the ...
... oxides that contribute to global **climate change;** (9) "United States" ...

... policy discussions of global **climate change;** (2) monitor domestic and ...
... prime agent of global **climate change.** SEC. 7002. PURPOSE. The ...
... energy resources on global **climate change** and other environmental problems, as ...
... policy discussions on global **climate change.** Title II -- Measures to ...
... dioxide emissions to fight **global warming.** HOW DOES THIS COMPARE WITH THE N.E.S.? ...
... world, it is time to take **greenhouse gas** generation into account in our ...

266. Wednesday, March 20, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 3690, Vol. 137 No. 48; Continuation of Senate Proceedings of March 20, 1991, Issue No. 48; and Proceedings of March 21, 1991, Issue No. 49., CHALLENGER CENTER FOR SPACE SCIENCE EDUCATION
102nd Cong. 1st Sess.
Mr. ADAMS; **Mr.** BENTSEN; **Mr.** BOND; **Mr.** BURDICK; **Mr.** BYRD; **Mr.** D'AMATO; **Mr.** GARN; **Mr.** GORTON; **Mr.** GRASSLEY; **Mr.** HATFIELD; **Mr.** HEINZ; **Mr.** INOUYE; **Mr.** JOHNSTON; **Mr.** LAUTENBERG; **Ms.** MIKULSKI; **Mr.** NUNN; **Mr.** SEYMOUR; **Mr.** SIMPSON; **Mr.** WARNER; **Mr.** WIRTH
... sciences, particularly as it relates to **global warming,** has reached unprecedented levels. We ...
... community. Advanced global **climate change** modeling is impossible without the ...
... predictions of global and regional **climate changes** in the decedes ahead. This ...
... facilities will be dedicated to **climate change** modeling research, with particular ...
... particularly those at the regional scale where **climate changes** are likely to be the largest and have the greatest ...
... processes and ice in **climate change** would be possible. More extensive ...
... quantify the accuracy of current **climate change** predictions. Under this proposal, ...

267. Wednesday, March 20, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 3719, Vol. 137 No. 48; Continuation of Senate Proceedings of March 20, 1991, Issue No. 48; and Proceedings of March 21, 1991, Issue No. 49., STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. BRYAN
... nuclear power option. With **global warming** and acid rain we cannot ...

268. Wednesday, March 20, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 3813, Vol. 137 No. 48; Continuation of Senate Proceedings of March 20, 1991, Issue No. 48; and Proceedings of March 21, 1991, Issue No. 49., AUTHORITY FOR COMMITTEES TO MEET
102nd Cong. 1st Sess.
Mr. FORD
... hearing to examine and evaluate **global warming** and other environmental consequences of ...

269. Wednesday, March 13, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 3297, Vol. 137 No. 43, AUTHORITY FOR COMMITTEES TO MEET
102nd Cong. 1st Sess.
Mr. NUNN
... hearing to examine and evaluate **global warming** and other environmental consequences of ...

270. Tuesday, March 12, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 3004, Vol. 137 No. 42, THE ADMINISTRATION'S NATIONAL ENERGY STRATEGY
102nd Cong. 1st Sess.

Mr. BAUCUS ; **Mr.** GRAHAM
... world marketplace. And it has contributed to **global warming,** air pollution, and other ...
... single largest contributor to **global warming.** The United States is the leading ...
... seeking to stabilize or reduce **greenhouse gas** emissions, particularly carbon ...

271. Tuesday, March 12, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 3034, Vol. 137 No. 42, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
MR. LAUTENBERG
... ENVIRONMENTAL PROBLEMS LIKE **GLOBAL WARMING,** LACK OF LANDFILL SPACE, AND ...
... ENVIRONMENTAL PROBLEMS SUCH AS GLOBAL **CLIMATE CHANGE,** WASTE DISPOSAL, AND AIR AND ...

272. Thursday, March 7, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 2882, Vol. 137 No. 39, STRENGTHENING AMERICA: THE DEMOCRATIC AGENDA
102nd Cong. 1st Sess.
Mr. DASCHLE
... international community to combat **global warming** and ozone depletion, to protect the ...

273. Wednesday, March 6, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 2851, Vol. 137 No. 38, AMENDMENTS TO S. 341, THE NATIONAL ENERGY SECURITY ACT OF 1991
102nd Cong. 1st Sess.
MR. BINGAMAN
... LAKES AND FORESTS AND POSSIBLY **GLOBAL WARMING.** IN ADDITION TO THE THREE ...

274. Tuesday, March 5, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 2693, Vol. 137 No. 37, THE DEPARTMENT OF ENERGY'S NATIONAL LABORATORIES
102nd Cong. 1st Sess.
MR. BINGAMAN
... LARGER. RIGHT NOW **GLOBAL WARMING** AND OZONE LAYER DEPLETION ARE THE ...
... CHANGE ISSUES, INCLUDING **GLOBAL WARMING.** ONE OF THE GOALS OF THESE STUDIES IS TO ...
... TOPICS INCLUDED GLOBAL **CLIMATE CHANGE,** RADON, AND HAZARDOUS AND RADIOACTIVE ...

275. Thursday, February 28, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 2523, Vol. 137 No. 34, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTION
102nd Cong. 1st Sess.
MR. COHEN; **MR.** GLENN; **MR.** LAUTENBERG
... METEOROLOGICAL ORGANIZATION TO MONITOR **GREENHOUSE GAS** EMISSIONS ON A COUNTRY-...
... OZONE LEVEL OF THE ATMOSPHERE, **GLOBAL WARMING** IMPACTS, THE CLEANUP OF HAZARDOUS ...
... DEPLETION OF THE OZONE LAYER, AND THE **GREENHOUSE EFFECT.** THE MANY CHALLENGES ARE COMPLEX AND ...

276. Thursday, February 28, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 2570, Vol. 137 No. 34, SUPPORT OF DEPARTMENT OF ENVIRONMENT ACT
102nd Cong. 1st Sess.
MR. LIEBERMAN
... STRATOSPHERIC OZONE DEPLETION, **GLOBAL WARMING,** ACID RAIN OR THE PROLIFERATION OF ...

277. Thursday, February 21, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 2242, Vol. 137 No. 29, NATIONAL ENERGY STRATEGY
102nd Cong. 1st Sess.
MR. BINGAMAN
... POTENTIAL FOR GLOBAL **CLIMATE CHANGE,** REQUIRE A REALISTIC ...

278. Wednesday, February 20, 1991; (Legislative day of Wednesday, February 6, 1991), 137 Cong Rec S 2051, Vol. 137 No. 28, NATIONAL ENERGY STRATEGY
102nd Cong. 1st Sess.
Mr. DOLE
... President, we have all heard the dangers of **global warming.** Those in the forefront in ...
... credible in the debate on **global warming** while refusing to allow ...

279. Tuesday, February 19, 1991; (Legislative day of Thursday, February 7, 1991), 137 Cong Rec S 1873, Vol. 137 No. 27, SENATE JOINT RESOLUTION 53 -- GREENHOUSE GASES
102nd Cong. 1st Sess.
Mr. BURDICK
... current United Nations **climate change** negotiations in Chantilly, ...
... development is necessary to address **climate change** and other global problems. This ...
... led out of the jaws of **global warming** apocalypse through the "transitional ...
... ability to deal with global **climate change** and other environmental issues ...
... POWER PLANTS (90%); **CLIMATE CHANGE** (90%); POLITICAL PARTIES (...

280. Thursday, February 7, 1991, 137 Cong Rec S 1756, Vol. 137 No. 26, GLOBAL WARMING -- SENATE RESOLUTION 53
102nd Cong. 1st Sess.
Mr. BAUCUS; **Mr.** CHAFEE; **Mr.** GORE; **Mr.** KERRY; **Mr.** MITCHELL; **Mr.** PRYOR; **Mr.** SANFORD
... submitting a resolution on **global warming.** The resolution expresses the sense of the ...
... States to adopt specific **greenhouse gas** reductions by a ...
... dioxide, the most potent **greenhouse gas.** The United States is currently ...
... a framework convention on **global warming.** The President announced an action ...
... just stay the course on **greenhouse gas** emissions. The congressional Office of ...
... releasing a report on **global warming** entitled "Changing by ...
... new legislation. Recognizing that **global warming** is an international problem, we must ...
... 20 percent of the world's **greenhouse gas** emissions. Actions taken here ...
... World Meteorological Organization has said: The **global warming** to which we are already committed is irreversible. *** ...
... States is a follower on **global warming** controls at a time when ...
... urge the administration to see the **global warming** problem as an opportunity to improve the ...

... reduce the threat of global **climate change.** I hope that this year the ...
... steps toward reducing our **greenhouse gas** emissions and will finally ...
... conservation measures to combat **global warming.** Our opposition argued vigorously that the ...
... take the threat of global **climate change** seriously and begin to take ...
... first time, that global **climate change** is a potentially devastating ...
... believe that the U.S. policy on **climate change** must include specified ...
... people knew about the **greenhouse effect** and the threat of global **climate change.** Today, it is front page ...
... about the threat of an intensified **greenhouse effect** caused by the pollution that ...
... atmosphere and cause unprecedented **climate changes.** The predicted environmental impacts of an intensified **greenhouse effect** include: A significant ...
... about matters such as whether an intensified **greenhouse effect** has already begun. Similarly, there is ...
... massive, uncontrolled global **climate change.** Specifically, most experts ...
... will experience devastating **climate changes** of a magnitude and at a ...
... devastating impacts of an intensified **greenhouse effect** and global **climate change.** Those of us in Government must ...
... reduce the threat of global **climate change.** We can ill afford to ...
... rate and extent of future **climate change** by reducing atmospheric ...
... share about an intensified **greenhouse effect.** It is designed to reduce U.S. ...
... carbon dioxide, the primary **greenhouse gas** that is a byproduct of fossil ...
... Senate resolution on global **climate change.** The resolution states our support ...
... report on the effects of an intensified **greenhouse effect;** and In August 1990, the International Panel on **Climate Change** [IPCC], an international group of ...
... series of reports on the science of the **greenhouse effect,** likely impacts, and policy ...
... about the threat of an intensified **greenhouse effect** and global **climate change.** Simply put, the report ...
... see the threat of global **climate change** receiving the attention it deserves. Is it too ...
... administration. I believe that **global warming** is the single-most serious ...
... in pretense. The stabilization of **greenhouse gas** emissions in the year ...
... claiming that they will stabilize **greenhouse gas** emissions in the year ...
... solving the problem. The impact of **global warming** is not just a ...
... make the best use of the **climate change** negotiations that are now underway. ...
... submitting a resolution on **global warming.** The resolution calls upon the ...
... a Framework Convention on **Climate Change** of the U.N. General Assembly. That is ...
... nations is to complete a **climate change** convention in time ...
... carbon dioxide, the major **greenhouse gas.** The United States, with about ...
... House effect" to deal with **global warming.** On Monday, President Bush announced his policy on **climate change** in a document entitled, "America's **Climate Change** Strategy: An Action Agenda." Those were the ...
... result in U.S. **greenhouse gas** emissions in the year ...
... objective to limit global **climate change.** Instead it largely repeats on ...
... specific reductions in **greenhouse gas** emissions, particularly carbon ...
... Academy of Sciences called **global warming** "the most serious environmental ...
... U.N. Intergovernmental Panel on **Climate Change** issued a report, ...
... greenhouse gases, a **global warming** of 5 to 10 degrees ...
... Protection Agency ranked **global warming** as a top priority. ...
... 31 environmental risks. **Global warming** ranked as one of the four ...
... determine the extent and severity of **climate change** in the next century. The ...
... expanses. If we wait to reduce **greenhouse gas** emissions, until we see the ...
... talk about the weather. **Global warming** is a global problem and the ...
... advancing an international policy on **climate change** which calls for specified ...
... a Framework Convention on **Climate Change** currently being held ...
... controlling the worldwide scourge of **global warming.** It is fitting that we become the role ...

... for other countries on **global warming,** as we are the No. 1 emitter of ...
... culprit in causing the **greenhouse effect.** We are presently countering a ...
... steps are taken to counter **global warming,** an environmental calamity of immense ...
... in support of the resolution on **global warming** introduced by the distinguished ...
... sidelines of the world debate on **global warming.** Instead, the resolution rightly ...
... a Framework Convention on **Climate Change** is meeting this week and next ...
... establishment of the Intergovernmental Panel on **Climate Change** [IPCC] by the United ...
... tarheels to solve the problem of **global warming,** I would like to mention an ...
... address the key problems of **climate change** and its causes, such as deforestation and emissions of ...
... through the Intergovernmental Panel on **Climate Change** and get serious about this ...
EMISSIONS (91%); **CLIMATE CHANGE** (90%); **GLOBAL WARMING** (90%); SCIENCE & TECHNOLOGY (...

281. Thursday, February 7, 1991, 137 Cong Rec S 1772, Vol. 137 No. 26, THE FUTURE OF ROCKY FLATS
102nd Cong. 1st Sess.
Mr. MITCHELL; **Mr.** WIRTH
... broader statement on the issue of **global warming,** the resolution introduced by the ...

282. Thursday, February 7, 1991, 137 Cong Rec S 1779, Vol. 137 No. 26, GLOBAL WARMING
102nd Cong. 1st Sess.
Mr. DOMENICI; **Mr.** MURKOWSKI; **Mr.** WIRTH
... might, the issues related to **global warming** that have been so well illustrated by the ...
... over again, the issue of **global warming,** in these first days of the ...
... in 1988 the issue of **global warming** entered the mainstream. Recenty it was ...
... get serious about **global warming.** Indeed, in his first ...
... attempt to begin addressing the **global warming** issue. Most of us are also familiar with the ...
... action plan that said there will be **greenhouse gas** reductions associated with phasing ...
... President, of the gases that force **climate change.** In addition, we are on course to ...
... Finally, the Intergovernmental Panel on **Climate Change** a very prestigious international ...
... alarmingly, the idea of reducing **greenhouse gas** emissions will not be ...
... enormous threat of global **climate change.** Therefore, Mr. President, I ...
... reduction in U.S. **greenhouse gas** emissions could be achieved in the ...
... atmosphere, the Intergovernmental Panel on **Climate Change** (24) and the Environmental Protection ...
... D activities -- the use of **greenhouse gas** reducing technologies is unlikely to ...
GLOBAL WARMING (90%); EMISSIONS (90%); **CLIMATE CHANGE** (79%); WEATHER (59%);

283. Thursday, February 7, 1991, 137 Cong Rec S 1814, Vol. 137 No. 26, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. HEINZ; **Mr.** WIRTH
... broadly recycling; second, **global warming;** and third, the administration of the public ...

284. Thursday, February 7, 1991, 137 Cong Rec S 1832, Vol. 137 No. 26, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
MR. LIEBERMAN
... RAIN PROBLEM, BUT ALSO **GLOBAL WARMING.** AS THE LARGEST SINGLE CONSUMER OF ...

... PROBLEM OF ACID RAIN AND **GLOBAL WARMING.** THIS LEGISLATION DIRECTS THE GOVERNMENT TO DO ITS ...
... AIR, REDUCE THE THREAT OF **GLOBAL WARMING,** AND IMPROVE THE VERSATILITY OF OUR ENERGY ...
... UNITED STATES CONTRIBUTE TO **GLOBAL WARMING,** URBAN SMOG, ACID ...

285. Wednesday, February 6, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 1683, Vol. 137 No. 25, THE BIG GREEN TEST
102nd Cong. 1st Sess.
Mr. MITCHELL; **Mr.** WALLOP
... White House proposals on **global warming** to the U.N. Intergovernmental Negotiating ...
... a framework convention on **climate change.** This rather formidable sounding ...
... scientists decided we were really experiencing **global warming.** Several years ago, the ...
... question the argument about **global warming.** The advocates of **global warming** have ignored these recent twists ...
... Yet that is the decade in which **global warming** was first identified as a ...
... decade of the 1980s proves that the **greenhouse effect** has arrived and that we should take policy ...
... same thing could be happening on **global warming."** Indeed, this week the Intergovernmental Panel on **Climate Change** (IPCC) is urging President ...
... dioxide emissions, the principal **greenhouse gas.** Last Friday, two ...
... in their forecasts for the **greenhouse effect** in the coming century, ...
... records between the promoters of **global warming** and the satellite data: "The satellite ...
... global temperature record. As the "**global warming**" candidate, Mr. Gore is ...
... big beneficiary is global **climate change** guru (and Mr. Gore's ...
... year after year. **Global warming** is more or less on the track our ...
... not this reflects a **greenhouse effect** is still debatable. "As somewhat of ...
... scholarly papers the benefits of the **greenhouse effect** are so great nothing should be done to ...
... per decade at current **greenhouse gas** growth rates, or about ...
... like a little **greenhouse effect.** Mr. WALLOP. Yesterday, ...
... like acid rain or **global warming,** but with national land ...
CLIMATE CHANGE (89%); EARTH & ATMOSPHERIC ...
... SCIENCE NEWS (79%); **GLOBAL WARMING** (79%); EMISSIONS (79%);

286. Tuesday, February 5, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 1469, Vol. 137 No. 24, U.N. MEETING ON CLIMATE CHANGE
102nd Cong. 1st Sess.
Mr. MITCHELL
... a framework convention on **climate change** of the U.N. General Assembly. The hope is that agreement on a **global warming** convention can be reached ...
... environmental protection. In **global warming,** we stand out in ...
... 20 percent of the world's **global warming** commitment. We use 15 ...
... proposed reductions in **greenhouse gas** emissions. Ignoring this problem ...
... adequately address this problem? **Global warming** is an immediate threat. The decade of the ...
... include some margin of error. **Climate change** will affect the life of ...
... atmosphere. The Intergovernmental Panel on **Climate Change** [IPCC] -- an intergovernmental group of ...
... greenhouse gases, a **global warming** of 5 to 10 degrees ...
... next century. This is more **climate change** in a shorter ...
... World Meteorological Organization has said: The **global warming** to which we are already committed is irreversible *** ...

... over one-half of the **global warming** effect, has an atmospheric lifetime of ...
... year. If we postpone action on **global warming,** we may find we eliminated the ...
... nation is exempted. The threat of **global warming** thus confronts the entire world with an ...
... will be untouched by **climate change.** But change presents ...
... a Framework Convention on **Climate Change** beginning this week, the United ...
... positive in that it recognizes **global warming** demands a solution. However, the ...
EMISSIONS (91%); **CLIMATE CHANGE** (90%); **GLOBAL WARMING** (89%); AIR QUALITY ...

287. Tuesday, February 5, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 1473, Vol. 137 No. 24, SUSPENSION OF CERTAIN PROVISIONS OF THE BALANCED BUDGET AND EMERGENCY DEFICIT CONTROL ACT
102nd Cong. 1st Sess.
Mr. COHEN; **Mr.** GORE; **Mr.** HEINZ; **Mr.** JOHNSTON; **Mr.** LIEBERMAN; **Mr.** SIMPSON; **Mr.** WIRTH
... environmental challenge we face -- **global warming.** It is to that that S. 324 and the attention of so ...
... international agreement to address the **global warming** threat. These negotiations build on the work of the Intergovernmental Panel on **Climate Change,** which worked for 18 ...
... policy options associated with **global warming.** In response to the IPCC ...
... understand and predict the so-called **greenhouse effect** has improved. The most recent report from the Intergovernmental Panel on **Climate Change** [IPCC] -- the internationally recognized ...
... unambiguously that: There is a natural **greenhouse effect** *** (and that) emissions resulting from human ...
... gases will enhance the **greenhouse effect,** resulting in an additional ...
... House effect" to combat the **greenhouse effect.** And the initial rhetoric was promising. ...
... might be taken to fight **global warming.** In May 1989, however, the ...
... give his honest assessment that **global warming** is a serious threat to the ...
... addressed the Intergovernmental Panel on **Climate Change** -- whose work the administration has repeatedly ...
... international effort to develop **global warming** prevention strategies. The IPCC, which the ...
... certainty" that there is a natural **greenhouse effect and that greenhouse gas** emissions are increasing and that therefore the Earth ...
... achieved in reducing **greenhouse gas** emissions and that there are huge markets ...
... legislation, is virtually identical to the **global warming** bill passed by the ...
... carbon dioxide, the primary **greenhouse gas. It** is increasingly clear that our greatest ...
... economic effects of global **climate change** is necessary to formulate effective ...
... human-induced global **climate change;** (5) the formulation of such policies ...
... framework convention on global **climate change** by the year 1992 through the Intergovernmental Panel on **Climate Change** (IPCC) of the United Nations ...
... relative contributions to global **climate change;** (2) evaluate the environmental, ...
... economic consequences of global **climate change;** (3) evaluate the environmental, ...
... mitigating or adapting to global **climate change;** (4) identify the actions ...
... adverse consequences of global **climate change;** (6) identify and evaluate the ...
... consequences of humaninduced global **climate change;** (8) foster the development of ...
... under an international global **climate change** framework convention or agreement. (...
... addressing potential global **climate change,** it is the goal of the United States to ...
... framework convention on global **climate change** through the activities of the Intergovernmental Panel on **Climate Change** of the United Nations International ...
... energy; (4) "global **climate change**" means changes in the ...
... oxides that contribute to global **climate change;** (6) "lesser-developed ...
... policy discussions of global **climate change;** (2) monitor domestic and ...
... 2) the causes of global **climate change** and the relative contribution of various ...
... environmental consequences of global **climate change** and the relative cost-effectiveness of these ...

... mitigate or abate global **climate change.** (b) In conducting such ...
... reduce the risks of global **climate change** by -- (1) reducing ...
... may contribute to global **climate change;** (3) promoting additional ...
... by a global **climate change.** The study should include implications ...
... mitigate the effects of global **climate change;** and (3) evaluate the cost- ...
... initiative for mitigating **climate change,** and the measures needed to achieve that ...
... against potential global **climate change.** Least-Cost National ...
... energy resources on global **climate change,** and the economic, energy, social, and ...
... discussions regarding global **climate change.** Review by National ...
... knowledge regarding global **climate change.** Upon completion, the report ...
... for dealing with global **climate change.** Energy Efficiency Initiatives -- ...
... affected by global **climate change.** Secretariat -- Authorizes $350,000 to the ...
... GETS MIXED REVIEWS ON **GLOBAL WARMING** PLAN -- "ACTION AGENDA" ...
... action agenda" to combat **global warming,** predicting that it will cut ...
... U.N.-sponsored conference on **global warming** remedies, is essentially a ...
... uncertainties, the potential threat of **climate change** justifies taking action ...
... a strategy to fight **global warming.** Tolba convened the nations ...
... result in the emissions of **global warming** gases in 2000 " ...
... for 85 percent of the **global warming** gases to be reduced by the ...
... opened an international conference on **global warming** with the declaration that the United States ...
... international setting that it believed **global warming** was a problem. The White ...
... potential threat for **climate change** justifies taking action ...
... strategies to reduce the threat of **global warming.** Other Administration officials, ...
... alarm over threatened **global warming,** but until now the ...
... gases involved in **global warming. In** fact, under the ...
... for reducing the threat of **global warming.** The committees are expected to consider ...
... latest research data on **global warming.** Officials of other nations, ...
... data is the Intergovernmental Panel on **Climate Change,** 300 of the world's leading ...
... production of the gases linked to the **greenhouse effect** by an amount equivalent to ...
... atmosphere's heat-trapping "**greenhouse effect**" may not be related to the ...
... no conclusions about **global warming or the greenhouse effect** can be drawn on the basis of ...
... strengthen the possibility that the feared **greenhouse effect,** a **global warming** caused by an increase of ...
... a human-induced **greenhouse effect** "is becoming harder to deny," said ...
... statement in 1988 that the **greenhouse effect** was probably the cause of the observed ...
... exceptional warmth is related to the **greenhouse effect,**" the British scientists said in ...
... supports the reality of this enhanced **greenhouse effect,** and it is likely that it has played some role ...
... analysis also found that the rate of **global warming** for the past quarter- ...
... a crapshoot," he said, "but **the global warming** is loading the dice." He calculates that with the ...
... illustrates clearly that global **climate changes** is real, that **global warming** is not a problem that ...
... Jan. 10, 1991] **GLOBAL WARMING** CONTINUES, BUT CAUSE IS ...
... definitive evidence that the observed **global warming** is caused by pollutants such as ...
... about saying it's an enhanced **greenhouse effect,**" said Jim Angell, a ...
... discuss possible responses to **global warming.** In past discussions, the ...
... potential for catastrophic **global warming** rates, but signals ...
... reason to believe that global **climate changes** will be negligible if CO[...
... only suggestive with regards to **global warming.** But the consequences of guessing ...
... critical issue of global **climate change** and energy use. Mr. ...
... a key component of the **global warming** phenomenon. By conducting ...
... changes brought on by **global warming.** In addition, this bill is ...
... administration's disgraceful handling of the **climate change** negotiations. Today's headlines ...

... administration was committing to stabilize our **greenhouse gas** emissions by the year ...
... drop in the overall **greenhouse gas** emissions right at the turn of the ...
... solutions. But the threat of **global warming** and the severe economic and environmental ...
... other alternatives and to reduce **greenhouse gas** emissions. Although great ...
... 1989 and continue to increase. **Greenhouse gas** emission rates are accelerating, ...
... rain problem, but also **global warming.** As the largest single consumer of ...
... problem of acid rain and **global warming.** This legislation directs the Government to do its ...
... air, reduce the threat of **global warming,** and improve the versatility of our energy ...

288. Tuesday, February 5, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 1493, Vol. 137 No. 24, GLOBAL WARMING
102nd Cong. 1st Sess.
Mr. SIMPSON
... listening to some of the debate with regard to **global warming.** I am very concerned about the ...
... work. As we address the issue of **global warming,** I think it is very important that we ...
... in this body. The reason the **global warming** issue does not get the ...
... see the same frustration with **global warming.** You just cannot continue to do ...
... discussion recently that a **global warming** resolution might be introduced. ...
... side of the aisle on the issue of **global warming.** So that is not yet before us ...
... scientific findings about **global warming.** We are also ignoring some very positive steps -- ...
... will help to address the **global warming** issue. One of the most ...
... carbon dioxide emissions and **global warming.** There are a number of interest ...
... public about global **climate change.** I would also add that the media has been ...
... in black -- about **climate change.** They make good copy, ...
... about the possibility of global **climate change.** It was the President of the United States that ...
... 2} is causing dramatic **global warming,** we will have a chance to ...
... much too soon to conclude that **global warming** is here. The temperature increase seen so ...
... decade temperature variability. **Global warming** is already here, because the Earth has been warming ...
... critically important to do that. Anthropogenic **climate change** on a global scale has ...
... determine which responses to potential **climate change** make sense. Yet ...
... significant in terms of **global warming** than all the industrial activity in the ...
GLOBAL WARMING (90%); EMISSIONS (89%); ...

289. Tuesday, February 5, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 1497, Vol. 137 No. 24, CONSERVATION: INTO THE SECOND CENTURY
102nd Cong. 1st Sess.
Mr. COCHRAN
... problem in connection with the **greenhouse effect and global warming,** then the use of fossil fuels ...

290. Tuesday, February 5, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 1509, Vol. 137 No. 24, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. JOHNSTON; **Mr.** WALLOP
... reduce the possibility of global **climate change.** Sec. 1002. Purposes. -- The ...
... rate and scope of global **climate change;** (2) utilize modular ...
... excuse for the so-called **greenhouse effect.** They are irritated that people actually ...

291. Tuesday, February 5, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 1559, Vol. 137 No. 24, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. JOHNSTON; **MR.** WALLOP
... Better models of global **climate change** would lead to better policies to address **global warming.** In fact, today's ...
... EARTH, CREATING GLOBAL **CLIMATE CHANGES** AND HARMING AGRICULTURE. OTHER ...
... RESEARCH CENTER. STUDYING **CLIMATE CHANGES** COMPUTER SCIENTISTS AT THE LABORATORY SAID THE ...

292. Thursday, January 31, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 1410, Vol. 137 No. 21, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. SPECTER
... comes from Senator Wirth's **global warming** bill. I have discussed the ...
... upon Senator Wirth's **Global Warming** Bill introduced July ...

293. Tuesday, January 29, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 1228, Vol. 137 No. 19, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
MR. BRYAN; **MR.** CHAFEE; **MR.** D'AMATO; **Mr.** DOLE; **MR.** GORTON; **MR.** HOLLINGS; **MR.** KERRY; **MR.** LAUTENBERG; **MR.** LIEBERMAN; **MR.** MCCAIN; **MR.** SASSER
... SERIOUS ENVIRONMENTAL THREAT OF **GLOBAL WARMING.** SINCE EACH GALLON OF ...
... DRAMATICALLY REDUCE EMISSIONS OF THIS **GREENHOUSE GAS** BY 500 MILLION ...
... FUEL EFFICIENCY -- THE THREAT OF **GLOBAL WARMING.** EVERY GALLON OF GASOLINE THAT IS ...
... A PRIMARY CONTRIBUTOR TO **GLOBAL WARMING.** WHILE WE MAY NOT BE ...
... EMISSIONS FROM VEHICLES WHICH CONTRIBUTE TO **GLOBAL WARMING.** THIS LEGISLATION PROPOSES TO INCREASE THE ...
... VEHICULAR EMISSIONS CONTRIBUTE TO OUR **GLOBAL WARMING** PROBLEM. A TANK OF ...
... DIOXIDE, A MAJOR **GREENHOUSE GAS.** ALTHOUGH THE WORLD'S MOTOR ...
... LARGEST STEP TO CURBING **GLOBAL WARMING** BY REDUCING CO[...
... TIME ADDRESSING THE PROBLEM OF **GLOBAL WARMING.** I URGE MY ...
... CAN TAKE TO REDUCE **GLOBAL WARMING,** THIS BILL IS THOUGHT TO BE THE MOST ...
... CARBON DIOXIDE IS THE PRIMARY **GREENHOUSE GAS** WHICH CONTRIBUTES TO **GLOBAL WARMING.** OVER ITS LIFETIME, AN 18 ...
... SIGNIFICANT CONTRIBUTOR TO THE THREAT OF **GLOBAL WARMING OR "THE GREENHOUSE EFFECT."** THE COMBUSTION OF A SINGLE ...
... HALF OF THE GASES THAT CONTRIBUTE TO THE **GREENHOUSE EFFECT.** AS GREENHOUSE GASES BECOME ...
... SCIENTIFIC CONSENSUS THAT GLOBAL **CLIMATE CHANGE** IS UPON US. THIS CHANGE PRESENTS ...
... CAN HELP US TO REDUCE **GREENHOUSE GAS** EMISSIONS AND ADDRESS THE PROBLEM OF GLOBAL **CLIMATE CHANGE.** MR. PRESIDENT, THE MOTOR ...
... TRADE IMBALANCE AND CURB **GLOBAL WARMING.** THE DECLINE IN AUTO ...
... CAN TAKE TO REDUCE **GLOBAL WARMING.** THERE IS NO ONE PANACEA FOR ADDRESSING **GLOBAL WARMING.** ALTHOUGH EXPERTS MAY DISAGREE ON THE EXTENT OF **GLOBAL WARMING** NO ONE WILL ...
... TRUCKS ARE THE MAJOR CONTRIBUTORS TO **GLOBAL WARMING** AND WE MUST MOVE

IMMEDIATELY TO ...
... CARBON DIOXIDE, THE PRIMARY **GLOBAL WARMING** GAS. ACCORDING TO CALCULATIONS ...
... LAST YEAR CALLED **GLOBAL WARMING** "THE MOST SERIOUS ENVIRONMENTAL ...
... UN'S INTERGOVERNMENTAL PANEL ON **CLIMATE CHANGE** CONFIRMED THE GENERAL CONSENSUS OF THE ...
... STANDARDS WOULD HELP CURB **GLOBAL WARMING** BY REDUCING U.S. ...
... CARBON DIOXIDE, A **GREENHOUSE GAS** THAT MANY SCIENTISTS HAVE FOUND CONTRIBUTES TO **GLOBAL WARMING.** I HAD HOPED THAT THE 101ST ...
... STANDARD, BECAUSE IT WOULD HAVE BEGUN TO ADDRESS THE **GLOBAL WARMING** PROBLEM, WHILE BRINGING ...
... POTENTIALLY CATASTROPHIC CONSEQUENCES OF **GLOBAL WARMING.** BY MAKING MILLIONS OF ...
... EFFECT ON OUR EFFORTS TO REDUCE **GLOBAL WARMING.** THIS BILL ALSO MEANS ECONOMIC ...
... A FRAMEWORK CONVENTION ON **CLIMATE CHANGE** WHICH WILL BE HELD IN ...
... WELL WHEN HE STATED: THE IMPORTANCE OF **CLIMATE CHANGE** MAY BE GREATER AND MORE ...
... RESPONSIBLY TO ADDRESS GLOBAL **CLIMATE CHANGE** BY SIGNIFICANTLY REDUCING ...
... AGREES, A DANGEROUS **GREENHOUSE GAS.** IT ACCOUNTS FOR ALMOST ...
... PERCENT OF THE GASES THAT CONTRIBUTE TO **GLOBAL WARMING.** THE UNITED STATES, WITH ABOUT ...
... DIOXIDE EMISSIONS THAT CONTRIBUTE TO **GLOBAL WARMING.** THE TESTIMONY OF SCIENTIFIC EXPERTS ...
... U.N. INTERGOVERNMENTAL PANEL ON **CLIMATE CHANGE** ISSUED A REPORT, ...
... ACTIVITIES ARE SUBSTANTIALLY INCREASING THE **GREENHOUSE EFFECT,** AND THAT IF NOTHING WERE DONE, THE GLOBAL ...
... TAKE ANY LEADERSHIP ROLE ON **GLOBAL WARMING** STANDS IN SHARP ...
... 31 ENVIRONMENTAL RISKS. **GLOBAL WARMING** RANKED AS ONE OF THE FOUR ...

294. Thursday, January 24, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 1198, Vol. 137 No. 16, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
MR. BINGAMAN; **MR.** GORE; **MR.** JEFFORDS
... BETTER AIRPLANES, UNDERSTAND **GLOBAL WARMING,** FIND OILFIELDS, AND DISCOVER ...

295. Thursday, January 17, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 982, Vol. 137 No. 12, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. PRESSLER
... continued study of global **climate change,** as well as long-term ...

296. Monday, January 14, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 431, Vol. 137 No. 9, ENVIRONMENTAL RISKS OF WAR IN GULF
102nd Cong. 1st Sess.
Mr. KERRY
... by choosing to highlight **Global Warming** as a major consequence, he ...
... ACCIDENTS & DISASTERS (89%); **CLIMATE CHANGE** (89%); EMISSIONS (89%); ...

297. Monday, January 14, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 707, Vol. 137 No. 9 -- Part 2, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. MOYNIHAN
... gases that may cause **global warming,** depeletion of stratospheric ozone, ...

298. Monday, January 14, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 814, Vol. 137 No. 9 -- Part 2, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
MR. CRANSTON
... POLLUTION, TRAFFIC CONGESTION, **GLOBAL WARMING,** AND OIL DEPENDENCY DIRECTLY ...

299. Monday, January 14, 1991; (Legislative day of Thursday, January 3, 1991), 137 Cong Rec S 903, Vol. 137 No. 9 -- Part 2, STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS
102nd Cong. 1st Sess.
Mr. GORE ; **Mr.** MITCHELL
... not only the problem of **global warming** but the deeper, underlying ...
... 4, historic negotiations on **climate change** will begin here in the ...
... direction of confronting the issue of **global warming.** With regard to that issue, which I ...
... concerned about the consequences of **global warming.** I have heard that, at many of those ...
... administration for their inaction on **global warming** were really empty and hollow. Just ...
... Report of the Intergovernmental Panel on **Climate Change,** and the early stages of the International ...
... unanimous warning. They said, "If the increase of **greenhouse gas** concentrations is not limited, the predicted **climate change** would place stresses on natural and ...
... fact, is acting to counter **global warming.** But, let us read the ...
... ensure that the worst consequences of **global warming** -- drought, massive crop ...
... realized. While the intensified **greenhouse effect** is a global problem that ...
... contribute to our efforts to combat **global warming.** Among the policies described ...
... Air Act. The sources of **greenhouse gas** emissions are many -- utilities, ...
... methane is even greater than its **global warming** potential suggests. In ...
... problems -- is also a powerful **greenhouse gas;** and finally, methane enhances the ...
... destruction, ozone depletion, and **global warming** is accessible and engaging. I ...
CLIMATE CHANGE (79%); **GLOBAL WARMING** (79%); EMISSIONS (79%); ...

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The Science of Climate Change Senate Floor Statement

July 28, 2003

U S. Sen James M. Inhofe(R-Okla) Chairman, Committee on Environment and Public Works

To view in PDF with charts click here

http://www.epw.senate gov/repwhitepapers/ClimateChangeWebuse.pdf

July 28, 2003

As chairman of the Committee on Environment and Public Works, I have a profound responsibility, because the decisions of the committee have wide-reaching impacts, influencing the health and security of every American

That's why I established three guiding principles for all committee work it should rely on the most objective science; it should consider costs on businesses and consumers; and the bureaucracy should serve, not rule, the people.

Without these principles, we cannot make effective public policy decisions They are necessary to both improve the environment and encourage economic growth and prosperity.

One very critical element to our success as policymakers is how we use science That is especially true for environmental policy, which relies very heavily on science. I have insisted that federal agencies use the best, non-political science to drive decision-making Strangely, I have been harshly criticized for taking this stance. To the environmental extremists, my insistence on sound science is outrageous

For them, a "pro-environment" philosophy can only mean top-down, command-and-control rules dictated by bureaucrats Science is irrelevant-instead, for extremists, politics and power are the motivating forces for making public policy.

But if the relationship between public policy and science is distorted for political ends, the result is flawed policy that hurts the environment, the economy, and the people we serve

Sadly that's true of the current debate over many environmental issues. Too often emotion, stoked by irresponsible rhetoric, rather than facts based on objective science, shapes the contours of environmental policy

A rather telling example of this arose during President Bush's first days in office, when emotionalism overwhelmed science in the debate over arsenic standards in drinking water. Environmental groups, including the Sierra Club and the Natural Resources Defense Council, vilified President Bush for "poisoning" children because he questioned the scientific basis of a regulation implemented in the final days of the Clinton Administration

The debate featured television ads, financed by environmental groups, of children asking for another glass of arsenic-laden water. The science underlying the standard, which was flimsy at best, was hardly mentioned or held up to any scrutiny.

The Senate went through a similar scare back in 1992. That year some members seized on data from NASA suggesting that an ozone hole was developing in the Northern Hemisphere The Senate then rushed into panic, ramming through, by a 96 to 0 vote, an accelerated ban on certain chlorofluorocarbon refrigerants. Only two weeks later NASA produced new data showing that their initial finding was a gross exaggeration, and the ozone hole never appeared.

The issue of catastrophic global warming, which I would like to speak about today, fits perfectly into this mold Much of the debate over global warming is predicated on fear, rather than science. Global warming alarmists see a future plagued by catastrophic flooding, war, terrorism, economic dislocations, droughts, crop failures, mosquito-borne diseases, and harsh weather-all caused by man-made greenhouse gas emissions

Hans Blix, chief U N weapons inspector, sounded both ridiculous and alarmist when he said in March, "I'm more worried about global warming than I am of any major military conflict."

Science writer David Appell, who has written for such publications as the New Scientist and Scientific American, parroted Blix when he said global warming would "threaten fundamental food and water sources. It would lead to displacement of billions of people and huge waves of refugees, spawn terrorism and topple governments, spread disease across the globe "

Appell's next point deserves special emphasis, because it demonstrates the sheer lunacy of environmental extremists. "[Global warming] would be chaos by any measure, far greater even than the sum total of chaos of the global wars of the 20th century, and so in this sense Blix is right to be concerned Sounds like a weapon of mass destruction to me "

No wonder the late political scientist Aaron Wildavsky called global warming alarmism the "mother of all environmental scares."

Appell and Blix sound very much like those who warned us in the 1970s that the planet was headed for a catastrophic global cooling. On April 28, 1975, Newsweek printed an article titled, "The Cooling World," in which the magazine warned: "There are ominous signs that the earth's weather patterns have begun to change dramatically and that these changes may portend a drastic decline in food production- with serious political implications for just about every nation on earth."

In a similar refrain, Time magazine for June 24, 1974 declared "However widely the weather varies from place to place and time to time, when meteorologists take an average of temperatures around the globe they find that the atmosphere has been growing gradually cooler for the past three decades "

In 1974 the National Science Board, the governing body of the National Science Foundation, stated. "During the last 20 to 30 years, world temperature has fallen, irregularly at first but more sharply over the last decade." Two years earlier, the board had observed: "Judging from the record of the past interglacial ages, the present time of high temperatures should be drawing to an end.. leading into the next glacial age "

How quickly things change Fear of the coming ice age is old hat, but fear that man-made greenhouse gases are causing temperatures to rise to harmful levels is in vogue. Alarmists brazenly assert that this phenomenon is fact, and that the science of climate change is "settled "

To cite just one example, Ian Bowles, former senior science director on environmental issues for the Clinton National Security Council, said in the April 22, 2001 edition of the Boston Globe: "the basic link between carbon emissions, accumulation of greenhouse gases in the atmosphere, and the phenomenon of climate change is not seriously disputed in the scientific community "

But in fact the issue is far from settled, and indeed is seriously disputed. I would like to submit at the end of my remarks a July 8 editorial by former Carter Administration Energy Secretary James Schlesinger on the science of climate change In that editorial, Dr Schlesinger takes issue with alarmists who assert there is a scientific consensus supporting their views

[Refer to Chart 5] "There is an idea among the public that the science is settled," Dr Schlesinger wrote. " ..[T]hat remains far from the truth "

Today, even saying there is scientific disagreement over global warming is itself controversial But anyone who pays even cursory attention to the issue understands that scientists vigorously disagree over whether human activities are responsible for global warming, or whether those activities will precipitate natural disasters.

I would submit, furthermore, that not only is there a debate, but the debate is shifting away from those who subscribe to global warming alarmism After studying the issue over the last several years, I believe that the balance of the evidence offers strong proof that natural variability is the overwhelming factor influencing climate.

It's also important to question whether global warming is even a problem for human existence Thus far no one has seriously demonstrated any scientific proof that increased global temperatures would lead to the catastrophes predicted by alarmists In fact, it appears that just the opposite is true: that increases in global temperatures may have a beneficial effect on how we live our lives.

For these reasons I would like to discuss an important body of scientific research that refutes the anthropogenic theory of catastrophic global warming I believe this research offers compelling proof that human activities have little impact on climate.

This research, well documented in the scientific literature, directly challenges the environmental worldview of the media, so they typically don't receive proper attention and discussion Certain members of the media would rather level personal attacks on scientists who question "accepted" global warming theories than engage on the science.

This is an unfortunate artifact of the debate-the relentless increase in personal attacks on certain members of the scientific community who question so-called conventional wisdom.

I believe it is extremely important for the future of this country that the facts and the science get a fair hearing Without proper knowledge and understanding, alarmists will scare the country into enacting its ultimate goal making energy suppression, in the form of harmful mandatory restrictions on carbon dioxide and other greenhouse emissions, the official policy of the United States.

Such a policy would induce serious economic harm, especially for low-income and minority populations Energy suppression, as official government and non-partisan private analyses have amply confirmed, means higher prices for food, medical care, and electricity, as well as massive job losses and drastic reductions in gross domestic product, all the while providing virtually no environmental benefit In other words: a raw deal for the American people and a crisis for the poor.

THE KYOTO TREATY

The issue of global warming has garnered significant international attention through the Kyoto Treaty, which requires signatories to reduce their greenhouse gas emissions by considerable amounts below 1990 levels.

The Clinton Administration, led by former Vice President Al Gore, signed Kyoto on November 12, 1998, but never submitted it to the Senate for ratification.

The treaty explicitly acknowledges as true that man-made emissions, principally from the use of fossil fuels, are causing global temperatures to rise, eventually to catastrophic levels Kyoto enthusiasts believe that if we dramatically cut back, or even eliminate, fossil fuels, the climate system will respond by sending global temperatures back to "normal" levels.

In 1997, the Senate sent a powerful signal that Kyoto was unacceptable By a vote of 95 to 0, the Senate passed the Byrd-Hagel resolution, which stated that the Senate would not ratify Kyoto if it caused substantial economic harm and if developing countries were not required to participate on the same timetable

The treaty would have required the U.S to reduce its emissions 31% below the level otherwise predicted for 2010 Put another way, the U S. would have had to cut 552 million metric tons of CO2 per year by 2008-2012. As the Business Roundtable pointed out, that target is "the equivalent of having to eliminate all current emissions from either the U.S. transportation sector, or the utilities sector (residential and commercial sources), or industry "

The most widely cited and most definitive economic analysis of Kyoto came from Wharton Econometric Forecasting Associates, or WEFA. According to WEFA economists, Kyoto would cost 2.4 million US jobs and reduce GDP by 3.2%, or about $300 billion annually, an amount greater than the total expenditure on primary and secondary education.

Because of Kyoto, American consumers would face higher food, medical, and housing costs-for food, an increase of 11%, medicine, an increase of 14%, and housing, an increase of 7%. At the same time an average household of four would see its real income drop by $2,700 in 2010, and each year thereafter.

Under Kyoto, energy and electricity prices would nearly double, and gasoline prices would go up an additional 65 cents per gallon

Some in the environmental community have dismissed the WEFA report as a tainted product of "industry." I would point them to the 1998 analysis by the Clinton Energy Information Administration, the statistical arm of the Department of Energy, which largely confirmed WEFA's analysis

Keep in mind, all of these disastrous results of Kyoto are predicted by Wharton Econometric Forecasting Associates, a private consulting company founded by professors from the University of Pennsylvania's Wharton Business School.

In July, the Congressional Budget Office provided further proof that Kyoto-like carbon regulatory schemes are regressive and harmful to economic growth and prosperity

As the CBO found, "The price increases resulting from a carbon cap would be regressive--that is, they would place a relatively greater burden on lower-income households than on higher-income ones "

As to the broader, macroeconomic effects of carbon cap and trade schemes, CBO said, "A cap-and-trade program for carbon emissions could impose significant costs on the economy in the form of welfare losses. Welfare losses are real costs to the economy in that they would not be recovered elsewhere in the form of higher income. Those losses would be borne by people in their roles as shareholders, consumers, and workers."

Now some might respond that government can simply redistribute income in the form of welfare programs to mitigate the impacts on the poor But the CBO found otherwise. "The government could use the allowance value to partly redistribute the costs of a carbon cap-and-trade program, but it could not cover those costs entirely " And further: "Available research indicates that providing compensation could actually raise the cost to the economy of a carbon cap."

Despite these facts, groups such as Greenpeace blindly assert that Kyoto "will not impose significant costs" and "will not be an economic burden."

Among the many questions this provokes, one might ask. Won't be a burden on whom, exactly? Greenpeace doesn't elaborate, but according to a recent study by the Center for Energy and Economic Development, sponsored by the National Black Chamber of Commerce and the United States Hispanic Chamber of Commerce, if the U.S ratifies Kyoto, or passes domestic climate policies effectively implementing the treaty, the result would "disproportionately harm America's minority communities, and place the economic advancement of millions of U S. Blacks and Hispanics at risk "

Among the study's key findings: Kyoto will cost 511,000 jobs held by Hispanic workers and 864,000 jobs held by Black workers, poverty rates for minority families will increase dramatically, and, because Kyoto will bring about higher energy prices, many minority businesses will be lost.

It is interesting to note that the environmental left purports to advocate policies based on their alleged good for humanity, especially for the most vulnerable Kyoto is no exception Yet Kyoto, and Kyoto-like policies developed here in this body, would cause the greatest harm to the poorest among us.

Environmental alarmists, as an article of faith, peddle the notion that climate change is, as Greenpeace put it, "the biggest environmental threat facing...developing countries." For one, such thinking runs contrary to the public declaration of the 2002 World Summit on Sustainable Development-a program sponsored by the United Nations-which found that poverty is the number one threat facing developing countries.

Dr. John Christy, director of the Earth System Science Center at the University of Alabama, Huntsville, passionately reiterated that point in a May 22 letter to House Resources Committee Chairman Richard Pombo (R-Calif.). As an addendum to his testimony during the committee's hearing on the Kyoto Protocol, Christy, an Alabama State climatologist, wrote eloquently about his service as a missionary in Africa.

For Christy, "poverty is the worst polluter," and as he noted, bringing modern, inexpensive electricity to developing countries would raise living standards and lead to a cleaner environment Kyoto, he said, would be counterproductive, and as I interpret him immoral, for Kyoto would divert precious resources away from helping those truly in need to a problem that doesn't exist, and a solution that would have no environmental benefit. The following is an excerpt from the letter, and worth quoting at length

"The typical home was a mud-walled, thatched-roof structure Smoke from the cooking fire fueled by undried wood was especially irritating to breathe as one entered the home. The fine particles and toxic emissions from these in-house, open fires assured serious lung and eye diseases for a lifetime. And, keeping such fires fueled and burning required a major amount of time, preventing the people from engaging in other less environmentally damaging pursuits.

"I've always believed that establishing a series of coal-fired power plants in countries such as Kenya (with simple electrification to the villages) would be the best advancement for the African people and the African environment An electric light bulb, a microwave oven and a small heater in each home would make a dramatic difference in the overall standard of living No longer would a major portion of time be spent on gathering inefficient and toxic fuel The serious health problems of hauling heavy loads and lung poisoning would be much reduced Women would be freed to engage in activities of greater productivity and advancement. Light on demand would allow for more learning to take place and other activities to be completed Electricity would also foster a more efficient transfer of important information from radio or television And finally, the preservation of some of the most beautiful and diverse habitats on the planet would be possible if wood were eliminated as a source of energy

"Providing energy from sources other than biomass (wood and dung), such as coal-produced electricity, would bring longer and better lives to the people of the developing world and greater opportunity for the preservation of their natural ecosystems Let me assure you, notwithstanding the views of extreme environmentalists, that Africans do indeed want a higher standard of living. They want to live longer and healthier with less burden bearing and with more opportunities to advance New sources of affordable, accessible energy would set them down the road of achieving such aspirations

"These experiences made it clear to me that affordable, accessible energy was desperately needed in African countries. [INSERT AKPALI EXPERIENCE]

"As in Africa, ideas for limiting energy use, as embodied in the Kyoto protocol, create the greatest hardships for the poorest among us As I mentioned in the Hearing, enacting any of these noble-sounding initiatives to deal with climate change through increased energy costs, might make a wealthy urbanite or politician feel good about themselves, but they would not improve the environment and would most certainly degrade the lives of those who need help now "

Some in this body have introduced Kyoto-like legislation that would hurt low-income and minority populations. Last year, Tom Mullen, president of Cleveland Catholic Charities, testified against S. 556, the Clean Power Act, which would impose onerous, unrealistic restrictions, including a Kyoto-like cap on carbon dioxide emissions, on electric utilities. He noted that this regime would mean higher electricity prices for the poorest citizens of Cleveland

For those on fixed incomes, as Mr Mullen pointed out, higher electricity prices present a choice between eating and staying warm in winter or cool in summer. As Mr Mullen said, "The overall impact on the economy in Northeast Ohio would be overwhelming, and the needs that we address at Catholic Charities in Ohio with the elderly and poor would be well beyond our capacity and that of our current partners in government and the private sector."

In addition to its negative economic impacts, Kyoto still does not satisfy Byrd-Hagel's concerns about developing countries. Though such countries as China, India, Brazil, South Korea, and Mexico are signatories to Kyoto, they are not required to reduce their emissions, even though they emit nearly 30 percent of the world's greenhouse gases. And within a generation they will be the world's largest emitters of carbon, methane and other such greenhouse gases.

Despite the fact that neither of Byrd-Hagel's conditions has been met, environmentalists have bitterly criticized President Bush for abandoning Kyoto. But one wonders: why don't they assail the 95 senators,

both Democrats and Republicans, who, according to Byrd-Hagel, oppose Kyoto as it stands today, and who would, presumably, oppose ratification if the treaty came up on the Senate floor?

And why don't they assail former President Clinton, or former Vice President Gore, who signed the treaty but never submitted it to the Senate for ratification?

To repeat, it was the unanimous vote of this body that Kyoto was and still is unacceptable Several of my colleagues who believe that humans are responsible for global warming, including Sen. Jeffords, Sen Kennedy, Sen. Boxer, Sen. Moseley-Braun, Sen Lieberman, and Sen. Kerry, all voted for Byrd-Hagel.

Again, all of these senators, the most outspoken proponents of Kyoto, voted in favor of Byrd-Hagel.

Remember, Byrd-Hagel said the Senate would not ratify Kyoto if it caused substantial economic harm and if developing countries were not required to participate on the same timetable So, if the Byrd-Hagel conditions are ever satisfied, should the United States ratify Kyoto?

Answering that question depends on several factors, including whether Kyoto would provide significant, needed environmental benefits

First, we should ask what Kyoto is designed to accomplish According to the U N.'s Intergovernmental Panel on Climate Change, Kyoto will achieve "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."

What does this statement mean? The IPCC offers no elaboration and doesn't provide any scientific explanation about what that level would be. Why? The answer is simple: thus far no one has found a definitive scientific answer.

Dr S Fred Singer, an atmospheric scientist at the University of Virginia, who served as the first Director of the US Weather Satellite Service (which is now in the Department of Commerce) and more recently as a member and vice chairman of the National Advisory Committee on Oceans and Atmosphere (NACOA), said that "No one knows what constitutes a 'dangerous' concentration. There exists, as yet, no scientific basis for defining such a concentration, or even of knowing whether it is more or less than current levels of carbon dioxide."

One might pose the question: if we had the ability to set the global thermostat, what temperature would we pick? Would we set it colder or warmer than it is today? What would the optimal temperature be? The actual dawn of civilization occurred in a period climatologists call the "climatic optimum" when the mean surface temperature was 1-2º Celsius warmer than today. Why not go 1 to 2 degrees Celsius higher? Or 1 to 2 degrees lower for that matter?

The Kyoto emissions reduction targets are arbitrary, lacking in any real scientific basis. Kyoto therefore will have virtually no impact on global temperatures This is not just my opinion, but the conclusion reached by the country's top climate scientists

Dr Tom Wigley, a senior scientist at the National Center for Atmospheric Research, found that if the Kyoto Protocol were fully implemented by all signatories-now I will note here that this next point assumes that the alarmists' science is correct, which of course it is not-if Kyoto were fully implemented it would reduce temperatures by a mere 0.07 degrees Celsius by 2050, and 0.13 degrees Celsius by 2100 What does this mean? Such an amount is so small that ground-based thermometers cannot reliably measure it.

Dr. Richard Lindzen, an MIT scientist and member of the National Academy of Sciences, who has specialized in climate issues for over 30 years, told the Committee on Environment and Public Works on May 2, 2001 that there is a "definitive disconnect between Kyoto and science Should a catastrophic scenario prove correct, Kyoto would not prevent it."

Similarly, Dr James Hansen of NASA, considered the father of global warming theory, said that Kyoto Protocol "will have little effect" on global temperature in the 21st century. In a rather stunning follow-up, Hansen said it would take 30 Kyotos-let me repeat that-30 Kyotos to reduce warming to an acceptable level If one Kyoto devastates the American economy, what would 30 do?

So this leads to another question: if the provisions in the Protocol do little or nothing measurable to influence global temperatures, what does this tell us about the scientific basis of Kyoto?

Answering that question requires a thorough examination of the scientific work conducted by the U.N 's Intergovernmental Panel on Climate Change, which provides the scientific basis for Kyoto, international climate negotiations, and the substance of claims made by alarmists

IPCC Assessment Reports

In 1992, several nations from around the globe gathered in Rio de Janiero for the United Nations Framework Convention on Climate Change. The meeting was premised on the concern that global warming was becoming a problem. The U.S., along with many others, signed the Framework Convention, committing them to making voluntary reductions in greenhouse gases

Over time, it became clear that signatories were not achieving their reduction targets as stipulated under Rio. This realization led to the Kyoto Protocol in 1997, which was an amendment to the Framework Convention, and which prescribed mandatory reductions only for developed nations. [By the way, leaving out developing nations was an explicit violation of Byrd-Hagel]

The science of Kyoto is based on the "Assessment Reports" conducted by the Intergovernmental Panel on Climate Change, or IPCC Over the last 13 years, the IPCC has published 3 assessments, with each one over time growing more and more alarmist

The first IPCC Assessment Report in 1990 found that the climate record of the past century was "broadly consistent" with the changes in Earth's surface temperature, as calculated by climate models that incorporated the observed increase in greenhouse gases

This conclusion, however, appears suspect considering the climate cooled between 1940 and 1975, just as industrial activity grew rapidly after World War II It has been difficult to reconcile this cooling with the observed increase in greenhouse gases

After its initial publication, the IPCC's Second Assessment report in 1995 attracted widespread international attention, particularly among scientists who believed that human activities were causing global warming In their view, the report provided the proverbial smoking gun

The most widely cited phrase from the report-actually, it came from the report summary, as few in the media actually read the entire report-was that "the balance of the evidence suggests a discernible human influence on global climate " This of course is so vague that it's essentially meaningless.

What do they mean by "suggests?" And, for that matter, what, in this particular context, does "discernible" mean? How much human influence is discernible? Is it a positive or negative influence? Where is the precise scientific quantification?

Unfortunately the media created the impression that man-induced global warming was fact On August 10, 1995, the New York Times published an article titled "Experts Confirm Human Role in Global Warming " According to the Times account, the IPCC showed that global warming "is unlikely to be entirely due to natural causes "

Of course, when parsed, this account means fairly little. Not entirely due to natural causes? Well, how much, then? 1 percent? 20 percent? 85 percent?

The IPCC report was replete with caveats and qualifications, providing little evidence to support anthropogenic theories of global warming The preceding paragraph in which the "balance of evidence" quote appears makes exactly that point.

It reads: "Our ability to quantify the human influence on global climate is currently limited because the expected signal is still emerging from the noise of natural variability, and because there are uncertainties in key factors These include the magnitude and patterns of long-term variability and the time evolving pattern of forcing by, and response to, changes in concentrations of greenhouse gases and aerosols, and land surface changes "

Moreover, the IPCC report was quite explicit about the uncertainties surrounding a link between human actions and global warming. "Although these global mean results suggest that there is some anthropogenic component in the observed temperature record, they cannot be considered compelling evidence of a clear cause-and-effect link between anthropogenic forcing and changes in the Earth's surface temperature "

Remember, the IPCC provides the scientific basis for the alarmists' conclusions about global warming. But even the IPCC is saying that their own science cannot be considered compelling evidence.

Dr John Christy, professor of Atmospheric Science and Director of the Earth System Science Center at the University of Alabama in Huntsville, and a key contributor to the 1995 IPCC report, participated with the lead authors in the drafting sessions, and in the detailed review of the scientific text. He wrote in the Montgomery Advertiser on February 22, 1998 that much of what passes for common knowledge in the press regarding climate change is "inaccurate, incomplete or viewed out of context."

Many of the misconceptions about climate change, Christy contends, originated from the IPCC's six-page executive summary It was the most widely read and quoted of the three documents published by the IPCC's Working Group, but, Christy said-and this point is crucial-it had the "least input from scientists and the greatest input from non-scientists."

IPCC Releases Third Assessment on Climate Change

Five years later, the IPCC was back again, this time with the Third Assessment Report on Climate Change. In October of 2000, the IPCC "Summary for Policymakers" was leaked to the media, which once again accepted the IPCC's conclusions as fact.

Based on the summary, the Washington Post wrote on October 30, "The consensus on global warming keeps strengthening " In a similar vein, the New York Times confidently declared on October 28, "The international panel of climate scientists considered the most authoritative voice on global warming has

now concluded that mankind's contribution to the problem is greater than originally believed "

Note again, look at how these accounts are couched they are worded to maximize the fear factor. But upon closer inspection, it's clear that such statements have no compelling intellectual content. "Greater than originally believed"? What is the baseline from which the Times makes such a judgment? Is it .01 percent, or 25 percent? And how much is greater? Double? Triple? An order of magnitude greater?

Such reporting prompted testimony by Dr. Richard Lindzen before the Committee on Environment and Public Works, the committee I now chair, in May of 2001. Lindzen said, "Nearly all reading and coverage of the IPCC is restricted to the highly publicized Summaries for Policymakers, which are written by representatives from governments, NGO's and business, the full reports, written by participating scientists, are largely ignored "

As it turned out, the Policymaker's Summary was politicized and radically differed from an earlier draft For example the draft concluded the following concerning the driving causes of climate change:

"From the body of evidence since IPCC (1996), we conclude that there has been a discernible human influence on global climate. Studies are beginning to separate the contributions to observed climate change attributable to individual external influences, both anthropogenic and natural. This work suggests that anthropogenic greenhouse gases are a substantial contributor to the observed warming, especially over the past 30 years. However, the accuracy of these estimates continues to be limited by uncertainties in estimates of internal variability, natural and anthropogenic forcing, and the climate response to external forcing "

The final version looks quite different, and concluded instead: "In the light of new evidence and taking into account the remaining uncertainties, most of the observed warming over the last 50 years is likely to have been due to the increase in greenhouse gas concentrations "

This kind of distortion was not unintentional, as Dr Lindzen explained before the EPW Committee. He said, "I personally witnessed coauthors forced to assert their 'green' credentials in defense of their statements."

In short, some parts of the IPCC process resembled a Soviet-style trial, in which the facts are predetermined, and ideological purity trumps technical and scientific rigor

The predictions in the summary went far beyond those in the IPCC's 1995 report. In the Second Assessment, the IPCC predicted that the earth could warm by 1 to 3.5 degrees Celsius by the year 2100 The "best estimate" was a 2-degree-Celsius warming by 2100. Both are highly questionable at best

In the Third Assessment, the IPCC dramatically increased that estimate to a range of 1 4 to 5 8 degrees Celsius, even though no new evidence had come to light to justify such a dramatic change.

In fact, the IPCC's median projected warming actually declined from 1990 to 1995 The IPCC 1990 initial estimate was 3 2°C, then the IPCC revised 1992 estimate was 2.6°C, followed by the IPCC revised 1995 estimate of 2 0°C.

What changed? As it turned out, the new prediction was based on faulty, politically charged assumptions about trends in population growth, economic growth, and fossil fuel use

The extreme-case scenario of a 5.8-degree warming, for instance, rests on an assumption that the whole world will raise its level of economic activity and per capita energy use to that of the United States, and that energy use will be carbon intensive This scenario is simply ludicrous This essentially contradicts the experience of the industrialized world over the last 30 years Yet the 5.8 degree figure featured prominently in news stories because it produced the biggest fear effect.

Moreover, when regional climate models, of the kind relied upon by the IPCC, attempt to incorporate such factors as population growth "the details of future climate recede toward unintelligibility," according to Jerry Mahlman, Director of NOAA's Geophysical Fluid Dynamics Laboratory

Even Dr. Stephen Schneider, an outspoken believer in catastrophic global warming, criticized the IPCC's assumptions in the journal Nature on May 3, 2001. In his article, Schneider asks, "How likely is it that the world will get 6 degrees C hotter by 2100?" That, he said, "depends on the likelihood of the assumptions underlying the projections."

The assumptions, he wrote, are "'storylines' about future worlds from which population, affluence and technology drivers could be inferred " These storylines, he wrote, "gave rise to radically different families of emission profiles up to 2100 - from below current CO2 emissions to five times current emissions "

Schneider says that he "strongly argued at the time that policy analysts needed probability estimates to assess the seriousness of the implied impacts " In other words, how likely is it that temperatures would go up by 5 8 degrees Celsius, or 1 4 degrees Celsius, which represent the IPCC's respective upper and lower bounds?

But as Schneider wrote, the group drafting the IPCC report decided to express "no preference" for each temperature scenario.

In effect, this created the assumption that the higher bound of 5.8 degrees Celsius appeared to be just as likely as the lower of 1 4 degrees Celsius. "But this inference would be incorrect," said Schneider, "because uncertainties compound through a series of modeling steps "

Keep in mind here that Schneider is on the side of the alarmists

Schneider's own calculations, which cast serious doubt on the IPCC's extreme prediction, broadly agree with an MIT study published in April of 2001. It found that there is a "far less" than one percent chance that temperatures would rise to 5.8 degrees C or higher, while there is a 17 percent chance the temperature rise would be lower than 1.4 degrees.

That point bears repeating. even true believers think the lower number is 17 times more likely to be right than the higher number Moreover, even if the earth's temperature increases by 1 4 degrees Celsius, does it really matter? The IPCC doesn't offer any credible science to explain what would happen.

Gerald North of Texas A&M University in College Station, agrees that the IPCC's predictions are baseless, in part because climate models are highly imperfect instruments As he said after the IPCC report came out "It's extremely hard to tell whether the models have improved" since the last IPCC report. "The uncertainties are large." Similarly, Peter Stone, an MIT climate modeler, said in reference to the IPCC, "The major [climate prediction] uncertainties have not been reduced at all "

Dr David Wojick, an expert in climate science, recently wrote in Canada's National Post, "The computer models cannot . decide among the variable drivers, like solar versus lunar change. or chaos versus ocean circulation versus greenhouse gas increases Unless and until they can explain these things, the models cannot be taken seriously as a basis for public policy "

In short, these general circulation models, or GCMs as they're known, create simulations that must track over 5 million parameters. These simulations require accurate information on two natural greenhouse gas factors-water vapor and clouds-whose effects scientists still do not understand.

Even the IPCC conceded as much. "The single largest uncertainty in determining the climate sensitivity to either natural or anthropogenic changes are clouds and their effects on radiation and their role in the hydrological cycle . at the present time, weaknesses in the parameterization of cloud formation and dissipation are probably the main impediment to improvements in the simulation of cloud effects on climate."

Because of these and other uncertainties, climate modelers from four separate climate modeling centers wrote in the October 2000 edition of Nature that, "Forecasts of climate change are inevitably uncertain " They go on to explain that, "A basic problem with all such predictions to date has been the difficulty of providing any systematic estimate of uncertainty," a problem that stems from the fact that "these [climate] models do not necessarily span the full range of known climate system behavior."

Again, to reiterate in plain English, this means the models do not account for key variables that influence the climate system.

Despite this, the alarmists continue to use these models and all the other flimsy evidence I've cited to support their theories of man-made global warming.

The 20th Century Satellite data, Weather balloons, CO2, and Glaciers

Now I want to turn to temperature trends in the 20th Century. GCMs predict that rising atmospheric CO2 concentrations will cause temperatures in the troposphere, the layer from 5,000 to 30,000 feet, to rise faster than surface temperatures-a critical fact supporting the alarmist hypothesis.

But in fact, there is no meaningful warming trend in the troposphere, and weather satellites, widely considered the most accurate measure of global temperatures, have confirmed this

To illustrate this point, just think about a greenhouse The glass panes let sunlight in but prevent it from escaping. The greenhouse then warms from the top down. As is clear from the science, this simply is not happening in the atmosphere

Satellite measurements are validated independently by measurements from NOAA balloon radiosonde instruments, whose records extend back over 40 years.

If you look at this chart of balloon data extremists will tell you that warming is occurring, but if you look more closely you see that temperature in 1955 was higher than temperature in 2000.

A recent detailed comparison of atmospheric temperature data gathered by satellites with widely-used data gathered by weather balloons corroborates both the accuracy of the satellite data and the rate of global warming seen in that data

Using NOAA satellite readings of temperatures in the lower atmosphere, scientists at The University of Alabama in Huntsville (UAH) produced a dataset that shows global atmospheric warming at the rate of about 0.07 degrees C (about 0 13 degrees Fahrenheit) per decade since November 1978

"That works out to a global warming trend of about one and a quarter degrees Fahrenheit over 100

years," said Dr John Christy, who compiled the comparison data Christy concedes that such a trend "is probably due in part to human influences," but adds that "it's substantially less than the warming forecast by most climate models, and"-here is the key point-"it isn't entirely out of the range of climate change we might expect from natural causes "

To reiterate the best data collected from satellites validated by balloons to test the hypothesis of a human-induced global warming from the release of C02 into the atmosphere shows no meaningful trend of increasing temperatures, even as the climate models exaggerated the warmth that ought to have occurred from a build-up in C02.

Some critics of satellite measurements contend that they don't square with the ground-based temperature record But some of this difference is due to the so-called "urban heat island effect " This occurs when concrete and asphalt in cities absorb-rather than reflect-the sun's heat, causing surface temperatures and overall ambient temperatures to rise. Scientists have shown that this strongly influences the surface-based temperature record.

In a paper published in the Bulletin of the American Meteorological Society in 1989, Dr Thomas R Karl, senior scientist at the National Climate Data Center, corrected the U.S surface temperatures for the urban heat-island effect and found that there has been a downward temperature trend since 1940 This suggests a strong warming bias in the surface-based temperature record

Even the IPCC finds that the urban heat island effect is significant According to the IPCC's calculations, the effect could account for up to 0.12 degrees Celsius of the 20th century temperature rise, one-fifth of the total observed.

When we look at the 20th century as a whole, we see some distinct phases that question anthropogenic theories of global warming. First, a strong warming trend of about 0 5 C began in the late 19th century and peaked around 1940. Next, the temperature decreased from 1940 until the late 1970s

Why is that decrease significant? Because about 80% of the carbon dioxide from human activities was added to the air after 1940, meaning the early 20th Century warming trend had to be largely natural

Scientists from the Scripps Institution for Oceanography confirmed this phenomenon in the March 12, 1999 issue of the journal Science They addressed the proverbial "chicken-and-egg" question of climate science, namely: when the Earth shifts from glacial to warm periods, which comes first: an increase in atmospheric carbon dioxide levels, or an increase in global temperature?

The team concluded that the temperature rise comes first, followed by a carbon dioxide boost 400 to 1,000 years later. This contradicts everything alarmists have been saying about man-made global warming in the 20th century

Now we can even go back 400,000 years and see this phenomenon occurring, as this chart clearly shows.

Yet the doomsayers, undeterred by these facts, just won't quit. In February and March of 2002, the New York Times and the Washington Post, among others, reported on the collapse of the Larsen B ice shelf in the Antarctic Peninsula, causing quite a stir in the media, and providing alarmists with more propaganda to scare the public.

Although there was no link to global warming, the Times couldn't help but make that suggestion in its March 20 edition. "While it is too soon to say whether the changes there are related to a buildup of the 'greenhouse' gas emissions that scientists believe are warming the planet, many experts said it was getting harder to find any other explanation."

The Times, however, simply ignored a recent study in the journal Nature, which found the Antarctic has been cooling since 1966 And another study in Science recently found the West Antarctic Ice Sheet has been thickening rather than thinning

University of Illinois researchers also reported "a net cooling on the Antarctic continent between 1966 and 2000." In some regions, like the McMurdo Dry Valleys, temperatures cooled between 1986 and 1999 by as much as two degrees centigrade per decade.

In perhaps the most devastating critique of glacier alarmism, the American Geophysical Union found that the Arctic was warmer in 1935 than it is now. "Two distinct warming periods from 1920 to 1945, and from 1975 to the present, are clearly evident compared with the global and hemispheric temperature rise, the high-latitude temperature increase was stronger in the late 1930s to early 1940's than in recent decades "

Again, that bears repeating: 80% of the carbon dioxide from human activities was added to the air after 1940-yet the Arctic was warmer in 1935 than it is today.

So, not only is glacier alarmism flawed, but there is no evidence, as shown by measurements from satellites and weather balloons, of any meaningful warming trends in the 20th Century.

Now Global Warming Health Risks/Benefits

Even as we discuss whether temperatures will go up or down, we should ask whether global warming

would actually produce the catastrophic effects its adherents so confidently predict.

What gets obscured in the global warming debate is the fact that carbon dioxide is not a pollutant. It is necessary for life. Numerous studies have shown that global warming can actually be beneficial to mankind

Most plants, especially wheat and rice, grow considerably better when there is more CO2 in the atmosphere CO2 works like a fertilizer and higher temperatures usually further enhance the CO2 fertilizer effect

In fact the average crop, according to Dr. John Reilly, of the MIT Joint Program on the Science and Policy of Global Change, is 30 percent higher in a CO2 enhanced world. I want to repeat that: PRODUCTIVITY IS 30 PERCENT HIGHER IN A CO2-ENHANCED WORLD. This is not just a matter of opinion, but a well-established phenomenon

With regard to the impact of global warming on human health, it is assumed that higher temperatures will induce more deaths and massive outbreaks of deadly diseases In particular, a frequent scare tactic by alarmists is that warmer temperatures will spark malaria outbreaks Dr Paul Reiter convincingly debunks this claim in a 2000 study for the Center for Disease Control. As Reiter found, "Until the second half of the 20th century, malaria was endemic and widespread in many temperate regions,"-this next point is critical- with major epidemics as far north as the Arctic Circle."

Reiter also published a second study in the March 2001 issue of Environmental Health Perspectives showing that "despite spectacular cooling [of the Little Ice Age], malaria persisted throughout Europe."

Another myth is that warming increases morbidity rates This isn't the case, according to Dr. Robert Mendelsohn, an environmental economist from Yale University Mendelsohn argues that heat-stress deaths are caused by temperature variability and not warming. Those deaths grow in number not as climates warm but as the variability in climate increases

The IPCC Plays Hockey

I would now like to go back to the IPCC's Third Assessment. In addition to trying to predict the future, the Third Assessment report looked back into the past. The IPCC released a graph depicting global temperatures trending slightly downward over the last ten centuries, and then rather dramatically increasing beginning around 1900 The cause for such a shift, of course, is attributed to industrialization and man-made greenhouse gas emissions

The now-infamous "hockey stick" graph was enthusiastically embraced by the IPCC, which used it as a basis of the Third Assessment Dr. Michael Mann of the University of Virginia was its principal author. The study, which Mann and others conducted, examines climate trends over the past 1,000 years As many scientists have pointed out since its publication, it contains many flaws.

First, Mann's study focuses on temperature trends only in the Northern Hemisphere. Mann extrapolated that data to reach the conclusion that global temperatures remained relatively stable and then dramatically increased at the beginning of the 20th century That leads to Mann's conclusion that the 20th century has been the warmest in the last 1000 years. As is obvious, however, such an extrapolation cannot provide a reliable global perspective of long-term climate trends.

Moreover, Mann's conclusions were drawn mainly from 12 sets of climate proxy data, of which nine were tree rings, while the remaining three came from ice cores. Notably, some of the ice core data was drawn from the Southern Hemisphere-one from Greenland and two from Peru What's left is a picture of the Northern Hemisphere based on 8 sets of tree ring data-again, hardly a convincing global picture of the last 1,000 years

Mann's hockey stick dismisses both the Medieval Warm Period (800 to 1300) and the Little Ice Age (1300 to 1900), two climate events that are fairly widely recognized in the scientific literature Mann believes that "the 20th Century is "nominally the warmest" of the past millennium and that the decade of the 1990s was the warmest decade on record

The Medieval Warm Period and Little Ice Age are replaced by a largely benign and slightly cooling linear trend in climate until 1900. But as is clear from a close analysis of Mann's methods, the hockey stick is formed by crudely grafting the surface temperature record of the 20th century onto a pre-1900 tree ring record

This is a highly controversial and scientifically flawed approach. As is widely recognized in the scientific community, two data series representing radically different variables (temperature and tree rings) cannot be grafted together credibly to create a single series. In simple terms, as Dr Patrick Michaels of the University of Virginia explained, this is like comparing apples to oranges

Even Mann and his coauthors admit that if the tree ring data set were removed from their climate reconstruction, the calibration and verification procedures they used would undermine their conclusions.

A new study from the Harvard-Smithsonian Center for Astrophysics, which I will comment on shortly, strongly disputes Mann's methods and hypotheses. As coauthor Dr David Legates wrote, "Although [Mann's work] is now widely used as proof of anthropogenic global warming, we've become concerned

that such an analysis is in direct contradiction to most of the research and written histories available," Legates said. "Our paper shows this contradiction and argues that the results of Mann are out of step with the preponderance of the evidence."

That's worth repeating. Mann's theory of global warming is out of step with most scientific thinking on the subject.

More Scientists Reject Kyoto

Based in part on the data supporting the IPCC's key reports, thousands of scientists have rejected the scientific basis of Kyoto. Recently, 46 leading climate experts wrote an open letter to Canada's National Post on June 3 claiming that the Kyoto Protocol "lacks credible science." I would ask that the entire text of the letter be reprinted in the record at the end of my remarks.

The scientists wrote that the Canadian Prime Minister essentially ignored an earlier letter they drafted in 2001. In it, they wrote: "Many climate science experts from Canada and around the world, while still strongly supporting environmental protection, equally strongly disagree with the scientific rationale for the Kyoto Accord."

In their June 3 letter, the group wrote to Paul Martin, a Canadian Member of Parliament, urging him to consider the consequences of Kyoto ratification:

"Although ratification has already taken place, we believe that the government of Canada needs a far more comprehensive understanding of what climate science really says if environmental policy is to be developed that will truly benefit the environment while maintaining the economic prosperity so essential to social progress."

Many other scientists share the same view. I mentioned several of the country's leading climate scientists earlier in this speech. In addition, over 4,000 scientists, 70 of whom are Nobel Prize winners, signed the so-called Heidelberg Appeal, which says that no compelling evidence exists to justify controls of anthropogenic greenhouse gas emissions.

I want to repeat that: over 4,000 scientists, 70 of whom are Nobel Prize winners, signed the so-called Heidelberg Appeal, which says that no compelling evidence exists to justify controls of anthropogenic greenhouse gas emissions.

I also point to a 1998 recent survey of state climatologists, which reveals that a majority of respondents have serious doubts about whether anthropogenic emissions of greenhouse gases present a serious threat to climate stability.

Then there is Dr. Frederick Seitz, a past president of the National Academy of Sciences, and a professor emeritus at Rockefeller University, who compiled the Oregon Petition, which reads as follows:

"We urge the United States government to reject the global warming agreement that was written in Kyoto, Japan in December, 1997, and any other similar proposals. The proposed limits on greenhouse gases would harm the environment, hinder the advance of science and technology, and damage the health and welfare of mankind.

"There is no convincing scientific evidence that human release of carbon dioxide, methane, or other greenhouse gasses is causing or will, in the foreseeable future, cause catastrophic heating of the Earth's atmosphere and disruption of the Earth's climate. Moreover, there is substantial scientific evidence that increases in atmospheric carbon dioxide produce many beneficial effects upon the natural plant and animal environments of the Earth."

Again, that was Dr. Frederick Seitz, a former past president of the National Academy of Sciences.

The petition has 17,800 independently verified signatures, and, for those signers holding the degree of PhD, 95% have now been independently verified. Environmental groups have attacked the credibility of this petition based on one false name sent in by green pranksters. Several names are still on the list even though biased press reports have ridiculed their identity with the names of famous personalities. They are actual signers. Perry Mason, for example, is a PhD Chemist.

Harvard-Smithsonian 1,000-Year Climate Study

The IPCC's hockey stick represents a radical departure from the well-established scientific literature. I urge this body to reject the IPCC and instead rationally examine the best available science on climate change before pursuing drastic measures that address climate change.

Let me turn to an important new study by researchers from the Harvard-Smithsonian Center for Astrophysics.

The study, titled "Proxy Climatic and Environmental Changes of the Past 1,000 Years," offers a devastating critique of Mann's hypothesis, calling into question the IPCC's Third Assessment, and indeed the entire intellectual foundation of the alarmists' views. It draws on extensive evidence showing that major changes in global temperatures largely result not from man-made emissions but from natural causes.

Smithsonian scientists Willie Soon and Sallie Baliunas, with co-authors Craig Idso, Sherwood Idso and David Legates, compiled and examined results from more than 240 peer-reviewed papers published by thousands of researchers over the past four decades In contrast to Mann's flawed, limited research, the Harvard-Smithsonian study covers a multitude of geophysical and biological climate indicators.

While Mann's analysis relied mostly on tree-ring data from the Northern Hemisphere, the researchers offer a detailed look at climate changes that occurred in different regions around the world over the last 1000 years

The range of climate proxies is impressive and worth recounting here. The authors examined borehole data, cultural data, glacier advances or retreats; geomorphology, isotopic analysis from lake sediments or ice cores, tree or peat celluloses (carbohydrates), corals, stalagmite or biological fossils, net ice accumulation rate, including dust or chemical counts; lake fossils and sediments; river sediments, melt layers in ice cores; phenological (recurring natural phenomena in relation to climate) and paleontological fossils; pollen, seafloor sediments, luminescent analysis; tree ring growth, including either ring width or maximum late-wood density, and shifting tree line positions plus tree stumps in lakes, marshes and streams.

Based on this proxy data drawn from 240 peer-reviewed studies, the authors offer highly convincing evidence to support the Little Ice Age and the Medieval Warm Period As co-author Dr Sallie Baliunas explained, "For a long time, researchers have possessed anecdotal evidence supporting the existence of these climate extremes "

Baliunas notes that, during the Medieval Warm Period, "the Vikings established colonies in Greenland at the beginning of the second millennium that died out several hundred years later when the climate turned colder." And in England, she found that, "vineyards had flourished during the medieval warmth." In their study, the authors accumulated reams of objective data to back up these cultural indicators.

The Medieval Warm Period, or Medieval Optimum, occurred between 800 to 1300. Among the studies surveyed by the authors, 112 contain information about the warm period. Of these 103 showed evidence for the MWP, 2 did not, and 7 had equivocal answers Looking just at the Southern Hemisphere, the authors found 22 studies, 21 of which confirmed the warm period and only one that did not

The authors also looked at the 20th century, and examined 102 studies to determine whether it was the warmest on record Three studies answered yes, 16 had equivocal answers, and of the remaining 83, 79 show periods of at least 50 years that were warmer than any 50-year period in the 20th century.

I must say, to any reasonable person, these ratios appear very convincing, and undoubtedly rest on a solid scientific foundation Again, remember, the conclusions of this study are based on 240 peer-reviewed studies, and this chart here shows what the Harvard-Smithsonian researchers concluded.

Peer review means they were rigorously reviewed and critiqued by other scientists before they were published. This climate study, published in March of 2003, is the most comprehensive of its kind in history.

According to the authors, some of the warming during the 20th century is attributable to the climate system recovering from the Little Ice Age Global warming alarmists, however, vehemently disagree, and pull a scientific sleight-of-hand by pointing to the 140-year direct temperature record as evidence of warming caused by humans But as the authors note, "The direct temperature measurement record is too short...to provide good measures of natural variability in its full dynamic range "

This research begs an obvious question if the earth was warmer during the Middle Ages than the age of coal-fired power plants and SUVs, what role do man-made emissions play in influencing climate? I think any person with a modicum of common sense would say, "Not much "

How did the media report on the Harvard-Smithsonian study? The big dailies, such as the New York Times and the Washington Post, basically ignored it I was impressed by a fair and balanced piece in the Boston Globe Unfortunately, some in the media couldn't resist playing the politics of personal destruction

I would refer my colleagues to a May 29 story by Jeff Nesmith of Cox News Service, which was marred by errors and an alarmist bias Rather than focusing on the scientific merits of the study, Nesmith reported that petroleum companies were behind it, thereby corrupting its conclusions.

Nesmith writes that the "research was underwritten by the American Petroleum Institute, the trade association of the world's largest oil companies." This is simply false. API funded less than 10 percent of the research. Had Nesmith read the Harvard-Smithsonian press release an

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An Update on the Science of Climate Change

January 4, 2005

Statement by U.S. Sen. James M Inhofe(R-Okla)

As I said on the Senate floor on July 28, 2003, "much of the debate over global warming is predicated on fear, rather than science " I called the threat of catastrophic global warming the "greatest hoax ever perpetrated on the American people," a statement that, to put it mildly, was not viewed kindly by environmental extremists and their elitist organizations. I also pointed out, in a lengthy committee report, that those same environmental extremists exploit the issue for fundraising purposes, raking in millions of dollars, even using federal taxpayer dollars to finance their campaigns.

For these groups, the issue of catastrophic global warming is not just a favored fundraising tool. In truth, it's more fundamental than that. Put simply, man-induced global warming is an article of religious faith. Therefore contending that its central tenets are flawed is, to them, heresy of the most despicable kind Furthermore, scientists who challenge its tenets are attacked, sometimes personally, for blindly ignoring the so-called "scientific consensus." But that's not all, because of their skeptical views, they are contemptuously dismissed for being "out of the mainstream " This is, it seems to me, highly ironic: aren't scientists supposed to be non-conforming and question consensus? Nevertheless, it's not hard to read between the lines: "skeptic" and "out of the mainstream" are thinly veiled code phrases, meaning anyone who doubts alarmist orthodoxy is, in short, a quack

I have insisted all along that the climate change debate should be based on fundamental principles of science, not religion. Ultimately, I hope, it will be decided by hard facts and data-and by serious scientists committed to the principles of sound science Instead of censoring skeptical viewpoints, as my alarmist friends favor, these scientists must be heard, and I will do my part to make sure that they are heard.

Since my detailed climate change speech in 2003, the so-called "skeptics" continue to speak out What they are saying, and what they are showing, is devastating to the alarmists They have amassed additional scientific evidence convincingly refuting the alarmists' most cherished assumptions and beliefs. New evidence has emerged that further undermines their conclusions, most notably those of the UN's Intergovernmental Panel on Climate Change-one of the major pillars of authority cited by extremists and climate alarmists

This evidence has come to light in very interesting times. Just last month, the 10th Conference of the Parties (COP-10) to the Framework Convention on Climate Change convened in Buenos Aires to discuss Kyoto's implementation and measures to pursue beyond Kyoto As some of my colleagues know, Kyoto goes into effect on February 16th. I think, with the exception of Russia, an exception that I will explain later, the nations that ratified Kyoto and agreed to submit to its mandates are making a very serious mistake.

In addition, last month, popular author Dr Michael Crichton, who has questioned the wisdom of those who trumpet a "scientific consensus," released a new book called "State of Fear," which is premised on the global warming debate I'm happy to report that Dr. Crichton's new book reached #3 on the New York Times bestseller list.

I highly recommend the book to all of my colleagues. Dr Crichton, a medical doctor and scientist, very cleverly weaves a compelling presentation of the scientific facts of climate change-with ample footnotes and documentation throughout-into a gripping plot From what I can gather, Dr. Crichton's book is designed to bring some sanity to the global warming debate. In the "Author's Message" at the end of the book, he refreshingly states what scientists have suspected for years: "We are also in the midst of a natural warming trend that began about 1850, as we emerged from a 400 year cold spell known as the Little Ice Age " Dr Crichton states that, "Nobody knows how much of the present warming trend might be a natural phenomenon," and, "Nobody knows how much of the present trend might be man-made " And for those who see impending disaster in the coming century, Dr Crichton urges calm: "I suspect that people of 2100 will be much richer than we are, consume more energy, have a smaller global population, and enjoy more wilderness than we have today. I don't think we have to worry about them "

For those who do worry, or induce such worry in others, "State of Fear" has a very simple message stop worrying and stop spreading fear Throughout the book, "fictional" environmental organizations are more focused on raising money, principally by scaring potential contributors with bogus scientific claims and predictions of a global apocalypse, than with "saving the environment " Here we have, as the saying goes, art imitating life

As my colleagues will remember from a floor speech I gave last year, this is part and parcel of what these organizations peddle to the general public. Their fear mongering knows no bounds Just consider the debate over mercury emissions. President Bush proposed the first-ever cap to reduce mercury emissions from power plants by 70 percent. True to form, these groups said he was allowing more

mercury into the air. Go figure

BUENOS AIRES

As I mentioned earlier, several nations, including the United States, met in Buenos Aires in December for the 10th round of international climate change negotiations. I'm happy to report that the U S delegation held firm both in its categorical rejection of Kyoto and the questionable science behind it Paula Dobriansky, under secretary of state for global affairs, and the leader of the U.S delegation, put it well when she told the conference, "Science tells us that we cannot say with any certainty what constitutes a dangerous level of warming, and therefore what level must be avoided "

Ms. Dobriansky and her team also rebuffed attempts by the European Union to drag the U S into discussions concerning post-Kyoto climate change commitments. With the ink barely dry on Kyoto ratification, not to mention what the science of climate change is telling us, Ms. Dobriansky was right in dubbing post-2012 talks "premature."

It was clear from discussions in Buenos Aires that Kyoto supporters desperately want the U.S to impose on itself mandatory greenhouse emission controls Moreover, there was considerable discussion, but no apparent resolution, over how to address emissions from developing countries, such as India and especially China, which over the coming decades will be the world's leading emitter of greenhouse gases. But developing nations, most notably China, remained adamant in Buenos Aires in opposing any mandatory greenhouse gas reductions, now or in the future. Securing this commitment, remember, was a necessary component for U.S. ratification of Kyoto, as reflected in the Byrd-Hagel resolution, which the Senate passed 95 to 0. Without that commitment, Kyoto, at least in the U S., is dead.

Kyoto goes into force on February 16th According to the EU Environment Ministry, most EU member states won't meet their Kyoto targets. They may do so only on paper due to Russia's ratification of the treaty Russia, of course, ratified Kyoto not because its government believes in catastrophic global warming-it doesn't-but because ratification was Russia's key to joining the World Trade Organization Also, under Kyoto, Russia can profit from selling emissions credits to the EU and continue business as usual, without undertaking economically harmful emissions reductions

As talks in Buenos Aires revealed, if alarmists can't get what they want at the negotiating table, they will try other means I was told by reliable sources that some delegation members of the European Union subtly hinted that America's rejection of Kyoto could be grounds for a challenge under the WTO I surely hope this was just a hypothetical suggestion and not something our European friends are actively and seriously considering. Such a move, I predict, would be devastating to US-EU relations, not to mention the WTO itself.

But I suspect it's not just hypothetical The lawsuit is the stock in trade of environmental activists, and we are witnessing a new crop of global warming lawsuits now being leveled at individual U S. companies and the U S itself

In Buenos Aires, Earth Justice, a San Francisco-based environmental group, and the Center for International Law, announced plans to seek a ruling from the Inter-American Commission on Human Rights that the U.S , because of its supposed contribution to global warming, is causing environmental degradation in the Arctic, and therefore violating the human rights of Alaska's Inuits, or Eskimos. As the New York Times wrote, "The commission, an investigative arm of the Organization of American States, has no enforcement powers. But a declaration that the United States has violated the Inuits' rights could create the foundation for an eventual lawsuit, either against the United States in an international court or against American companies in a U S. court, said a number of legal experts, including some aligned with industry."

The Times didn't mention that such lawsuits already have been filed in the U S. Eliot Spitzer, New York's state attorney general, along with 8 other state attorneys general, mainly from the Northeast, last year sued 5 coal-burning electric utilities in the Midwest The reason? "Given that these are among the largest carbon dioxide polluters in the world," Mr. Spitzer wrote, "it is essential that the court direct them to reduce their emissions."

To me, this is a clear-cut sign of desperation by the alarmists, but I'm not surprised President Bush has rejected Kyoto, the United States Senate rejected Kyoto 95 to 0, the United States Senate rejected the McCain-Lieberman bill 55 to 43, and there is little hope that Congress will pass mandatory greenhouse gas reductions, at least not in the near future. So resorting to the courts is their last, best hope

I hope the courts have enough sense and moderation to reject these lawsuits out of hand I am interested, for one, to see how Mr. Spitzer quantifies with scientific precision just how these particular companies have contributed to climate change. How is it, one might ask, that emissions, specifically from American Electric Power, are causing rising sea levels, droughts, and hurricanes?

NEW SCIENCE

Such efforts fly in the face of compelling new scientific evidence that makes a mockery of these lawsuits By now, most everyone familiar with the climate change debate knows about the hockey stick graph, constructed by Dr. Michael Mann and colleagues, which shows that temperature in the Northern Hemisphere remained relatively stable over 900 years, then spiked upward in the 20th Century The

hockey-stick graph was featured prominently in the IPCC's Third Assessment Report, published in 2001 The conclusion inferred from the hockey stick is that industrialization, which spawned widespread use of fossil fuels, is causing the planet to warm. I spent considerable time examining this work in my 2003 speech Because Mann effectively erased the well-known phenomena of the Medieval Warming Period-when, by the way, it was warmer than it is today-and the Little Ice Age, I didn't find it very credible. I find it even less credible now

But don't take my word for it. Just ask Dr. Hans von Storch, a noted German climate researcher, who, along with colleagues, published a devastating finding in the Sept 30, 2004 issue of the journal Science. As the authors wrote: "We were able to show in a publication in Science that this [hockey stick] graph contains assumptions that are not permissible. Methodologically it is wrong: Rubbish."

Dr. von Storch and colleagues discovered that the Mann hockey stick had severely underestimated past climate variability. In a commentary on Dr. von Storch's paper, T. J. Osborn and K. R. Briffa, prominent paleo-climatologists from the University of East Anglia, stressed the importance of the findings As they wrote, "The message of the study by von Storch et al is that existing reconstructions of the NH [northern hemisphere] temperature of recent centuries may systematically underestimate the true centennial variability of climate" and, "If the true natural variability of NH [northern hemisphere] temperature is indeed greater than is currently accepted, the extent to which recent warming can be viewed as 'unusual' would need to be reassessed." In other words, in obliterating the Medieval Warming Period and the Little Ice Age, Mann's hockey stick just doesn't pass muster

Dr. von Storch is one of many critics of Michael Mann's hockey stick. To recount just one example, three geophysicists from the University of Utah, in the April 7, 2004 edition of Geophysical Research Letters, concluded that Mann's methods used to create his temperature reconstruction were deeply flawed. In fact, their judgment is harsher than that. As they wrote, Mann's results are "based on using end points in computing changes in an oscillating series" and are " just bad science." I repeat: "just bad science "

ARCTIC CLIMATE ASSESSMENT

These findings come alongside a spate of new reports that, at least in the eyes of the media, supposedly confirm the "consensus" on global warming. "The Arctic Climate Impact Assessment," released last fall, perfectly fits that mold. "Arctic Perils Seen in Warming," blared a headline in the New York Times. As the Times wrote, "The findings support the broad but politically controversial scientific consensus that global warming is caused mainly by rising atmospheric concentrations of heat-trapping greenhouse gases, and that the Arctic is the first region to feel its effects "

What do we really know about temperatures in the Arctic? Let's take a closer look As Oregon State University climatologist George Taylor has shown, Arctic temperatures are actually slightly cooler today than they were in the 1930s. As Dr Taylor has explained, it's all relative-in other words, it depends on the specific time period chosen in making temperature comparisons. "The [Arctic Climate Impact Assessment]," Dr Taylor wrote, "appears to be guilty of selective use of data. Many of the trends described in the document begin in the 1960s or 1970s-cool decades in much of the world-and end in the warmer 1990s or early 2000s So, for example, temperatures have warmed in the last 40 years, and the implication, 'if present trends continue,' is that massive warming will occur in the next century."

Dr. Taylor concluded: "Yet data are readily available for the 1930s and early 1940s, when temperatures were comparable to (and probably higher than) those observed today. Why not start the trend there? Because there is no net warming over the last 65 years?"This is pretty convincing stuff But, one might say, this is only one scientist, while nearly 300 scientists from several countries, including the United States, signed onto the Arctic report Mr. President, I want to submit for the record a list of scientists, compiled by the Center for Science and Public Policy, from several countries, including the United States, whose published work shows current Arctic temperature is no higher than temperatures in the 1930s and 1940s For example, according to a group of 7 scientists in a 2003 issue of the Journal of Climate: "In contrast to the global and hemispheric temperature, the maritime Arctic temperature was higher in the late 1930s through the early 1940s than in the 1990s " Or how about this excerpt from the 2000 International Journal of Climatology, by Dr Rajmund Przybylak, of Nicholas Copernicus University, in Torun, Poland: "The highest temperatures since the beginning of instrumental observation occurred clearly in the 1930s and can be attributed to changes in atmospheric circulation "

THE TSUNAMI AND GLOBAL WARMING

Despite this evidence, alarmism is alive and well. [Chart #2] As you can see behind me, the Washington Post today ran an editorial cartoon that actually blames the Sumatra tsunami on global warming Are we to believe now that global warming is causing earthquakes? The tsunami, of course, was caused by an earthquake off Sumatra's coast, deep beneath the sea floor, completely disconnected from whatever the climate was doing at the surface. Regrettably, the tsunami-warming connection is yet another facet of the "State of Fear" alarmists have concocted As Terence Corcoran of Canada's Financial Post wrote, "The urge to capitalize on the horror in Asia is just too great for some to resist if it might help their cause.. Green Web sites are already filling up with references to tsunami risks associated with global warming."

To address this, let's ask some simple questions: Is global warming causing more extreme weather events of greater intensity, and is it causing sea levels to rise? The answer to both is an emphatic 'no' [Chart #3] Just look at this chart behind me. It's titled "Climate Related Disasters in Asia: 1900 to

1990s." What does it show? It shows the number of such disasters in Asia, and the deaths attributed to them, declining fairly sharply over the last 30 years

Or let's take hurricanes. Alarmists linked last year's hurricanes that devastated parts of Florida to global warming Nonsense. Credible meteorologists quickly dismissed such claims. Hugh Willoughby, senior scientist at the International Hurricane Research Center of Florida International University stated plainly: "This isn't a global-warming sort of thing.... It's a natural cycle." A team led by the National Oceanic and Atmospheric Administration's (NOAA) Dr Christopher Landsea concluded that the relationship of global temperatures to the number of intense land-falling hurricanes is either non-existent or very weak. In this chart [chart #4], you can see that the overall number of hurricanes and the number of the strongest hurricanes fluctuated greatly during the last century, with a great number in the 1940s In fact, through the last decade, the intensity of these storms has declined somewhat.

What about sea level rise? Alarmists have claimed for years that sea level, because of anthropogenic warming, is rising, with ominous consequences. Based on modeling, the IPCC estimates that sea level will rise 1.8 millimeters annually, or about one-fourteenth of an inch.

But in a study published this year in Global and Planetary Change, Dr Nils-Axel Morner of Sweden found that sea level rise hysteria is overblown. In his study, which relied not only on observational records, but also on satellites, he concluded: "There is a total absence of any recent 'acceleration in sea level rise' as often claimed by IPCC and related groups." Yet we still hear of a future world overwhelmed by floods due to global warming Such claims are completely out of touch with science As Sweden's Morner puts it, "there is no fear of massive future flooding as claimed in most global warming scenarios."

CONCLUSION

What I have outlined today won't appear in the New York Times Instead you'll read much about "consensus" and Kyoto and hand wringing by its editorial writers that unrestricted carbon dioxide emissions from the United States are harming the planet You'll read nothing, of course, about how Kyoto-like policies harm Americans, especially the poor and minorities, causing higher energy prices, reduced economic growth, and fewer jobs. After all, that is the real purpose behind Kyoto, as Margot Wallstrom, the EU's environment minister, said in a revealing moment of candor. To her, Kyoto is about "leveling the playing field" for businesses worldwide-in other words, we can't compete, so let's use a feel-good treaty, based on shoddy science, fear, and alarmism, and which will have no perceptible impact on the environment (Chart #6), to restrict America's economic growth and prosperity Unfortunately for Ms Wallstrom and Kyoto's staunchest advocates, America was wise to the scheme, and it has rejected Kyoto and similar policies convincingly Whatever Kyoto is about-to some, such as French President Jacques Chirac, it's about forming "an authentic global governance"-it's the wrong policy and it won't work, as many participants in Buenos Aires grudgingly conceded.

Despite the bias, omissions, and distortions by the media and extremist groups, the real story about global warming is being told, and, judging by the welcome success of Michael Crichton's "State of Fear," it's now being told to the American public

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Majority Office
410 Dirksen Senate Office Bldg Washington, DC 20510-6175
phone: 202-224-6176

Minority Office
456 Dirksen Senate Office Bldg Washington, D(
phone: 202-224-8832

First "Four Pillars" on Global Warming Speech

April 7 2005

As I noted in my last speech, there is a perception, especially among media and environmental elites, that the scientific community has reached a "consensus" on global warming. As Sir David King, the chief science adviser to the British government, recently said, "There is a very clear consensus from the scientific community on the problems of global warming and our use of fossil fuels."

Those "problems" amount to rising sea levels, floods, tsunamis, droughts, hurricanes, disease, and mass extinction of species, all caused by ever-increasing greenhouse gas emissions. The alarmists confidently assert that "most scientists" agree with this. And they vehemently dispute claims of uncertainty about whether these catastrophes will occur.

Therefore questioning the science of catastrophic global warming is considered illegitimate. Consider Dr. Naomi Oreskes, who wrote in the Washington Post last December: "We need to stop repeating nonsense about the uncertainty of global warming and start talking seriously about the right approach to address it." Global warming, then, is no longer an issue for scientific debate. It appears to have soared into the realm of metaphysics, reaching the status of revealed truth.

Although more than 17,000 scientists have signed the Oregon Petition, stating that fears of catastrophic global warming are groundless, these and other scientists who do not subscribe to the so-called consensus are condemned as "skeptics" and tools of industry. In order to avoid professional excommunication, one must subscribe to the four principal beliefs underlying the alarmist consensus. These are the Four Pillars of Climate Alarmism, all of which, it is said, provide unequivocal support for the consensus view.

The Four Pillars are as follows: 1) the 2001 National Academy of Sciences NAS report summarizing the latest science of climate change, requested by the Bush Administration, 2) the scientific work of the United Nations Intergovernmental Panel on Climate Change, most especially its Third Assessment Report, released in 2001; 3) the recent report of the international Arctic Climate Impact Assessment, and 4) the data produced by climate models.

I will show over the next several weeks that none of these pillars support the consensus view. Today I will begin my Four Pillars series with the NAS.

KYOTO

Before I delve into the NAS report, some historical context is in order. Back in early 2001, the Kyoto treaty was on the verge of collapse. President Bush announced his rejection of Kyoto, calling it "fatally flawed in fundamental ways." Our friends in Europe expressed outrage, even shock, though it was never in doubt where the U.S. stood.

In 1997, the U.S. Senate voted 95 to 0 in favor of the Byrd-Hagel resolution, which required that any international climate change treaty that excluded developing countries such as China, India, and Mexico from mandatory greenhouse gas commitments or that caused significant harm to the American economy was unacceptable. Kyoto easily failed on both counts. It still does today. On June 11, 2001, President Bush delivered a speech detailing Kyoto's flaws. He also provided an overview of the current state of climate science, as described in a report, which he requested, by the National Academy of Sciences. Though the report offered very modest conclusions about the state of climate science, alarmists repeatedly invoke it as ironclad proof of their consensus. So let's take a closer look at what the NAS had to say.

THE 2001 NAS REPORT

The NAS report was wide-ranging and generally informative about the state of climate science. It stated that, "Because there is considerable uncertainty in current understanding of how the climate system varies naturally and reacts to emissions of greenhouse gases and aerosols, current estimates of the magnitude of future warming should be regarded as tentative and subject to future adjustments (either upward or downward)."

Let me repeat that: "Considerable uncertainty in current understanding." "Estimates should be regarded as tentative and subject to future adjustments." Does this sound like solid support for the consensus view? Surely there must be more. Well, in fact there is.

Under the headline "The Effect of Human Activities," the NAS addressed the potential impact of anthropogenic emissions on the climate system. Here's what it said: "Because of the large and still uncertain level of natural variability inherent in the climate record and the uncertainties in the time histories of various forcing agents (and particularly aerosols), a causal linkage between the buildup of greenhouse gases in the atmosphere and the observed climate changes in the 20th century cannot be unequivocally established."

Again, that's worth repeating. "Because of the large and still uncertain level of natural variability." "Uncertainties in the time histories of various forcing agents " "Cannot be unequivocally established." I read numerous press accounts of the NAS report, yet I failed to come across reporting of this quote. Is this what the consensus peddlers have in mind when they assert that everything is "settled"?

The NAS also addressed the relationship between climate change and aerosols, which are particles from processes such as dust storms, forest fires, the use of fossil fuels, and volcanic eruptions To be sure, there is limited knowledge of how aerosols influence the climate system This, said the NAS, represents "a large source of uncertainty about future climate change "

By any conceivable standard, this and other statements made by NAS cannot possibly be considered unequivocal affirmations that man-made global warming is a threat, or that man-made emissions are the sole or most important factor driving climate change It certainly cannot provide the basis for the United States Congress to adopt economically harmful reductions of greenhouse gas emissions

CLIMATE MODELS

It would be a grand folly to do that, especially considering what the NAS had to say about global climate models. The NAS believes much of the uncertainty about climate change stems from those models, which researchers rely on to make projections about future climate changes These models, as the NAS wrote, contain serious technological limitations that cast doubt on their ability to simulate the climate system: "[the models] simulation skill is limited by uncertainties in their formulation, the limited size of their calculations, and the difficulty of interpreting their answers that exhibit as much complexity as in nature." Model projections, as the NAS pointed out, rest on a raft of uncertain assumptions "Projecting future climate change first requires projecting the fossil-fuel and land-use sources of CO2 and other gases and aerosols," the NAS found. "However, there are large uncertainties"—please note the phrasing again, "large uncertainties"—"in underlying assumption about population growth, economic development, life style choices, technological change and energy alternatives, so that it is useful to examine scenarios developed from multiple perspectives in considering strategies for dealing with climate change "

For this reason, simulations produced by climate models provide insufficient proof of an absolute link between anthropogenic emissions and global warming. "The fact that the magnitude of the observed warming is large in comparison to natural variability as simulated in climate models is suggestive of such a linkage," according to NAS, "but it does not constitute proof of one because the model simulations could be deficient in natural variability on the decadal to century time scale "

That last point demands further elaboration and emphasis The NAS thinks climate models could be off by as much as a decade, or perhaps 100 years Why is this important? Global climate models constitute one of the Four Pillars Alarmists frequently point to computer-generated simulations showing dramatic, even scary, pictures of what might happen decades from now more floods, more hurricanes, more droughts, the Gulf Stream shutting down In many cases, the media eagerly report what these models produce as pure fact, with little or no explanation of their considerable limitations

THE IPCC THIRD ASSESSMENT

The NAS also addressed the work of the UN's Intergovernmental Panel on Climate Change, another of the Four Pillars. The IPCC's 2001 Third Assessment Report, particularly its Summary for Policymakers, is frequently cited as proof of the consensus view But the NAS disagrees "The IPCC Summary for Policymakers," the NAS wrote, "could give an impression that the science of global warming is settled, even though many uncertainties still remain." Here again, the NAS is saying the science is not settled The NAS also addressed the IPCC's future climate scenarios These scenarios are the basis for the IPCC's projection that temperatures could increase to between 2.7 to 10 4 degrees Fahrenheit by 2100 The NAS said "The IPCC scenarios cover a broad range of assumptions about future economic and technological development, including some that allow greenhouse gas emission reductions However, there are large uncertainties in underlying assumptions about population growth, life style choices, technological change, and energy alternatives " Once again, the NAS says "there are large uncertainties in underlying assumptions."

The same is true, the NAS said, about future projections of CO2 emissions As the NAS stated, "Scenarios for future greenhouse gas amounts, especially for CO2 and CH4, are a major source of uncertainty for projections of future climate." To bolster the point, the NAS found that actual CO2 emissions contradicted the IPCC, stating that, "the increase of global fossil fuel CO2 emissions in the past decade, averaging 0 6% per year, has fallen below the IPCC scenarios "

There are those troublesome words again "Large uncertainties in underlying assumptions." "Major source of uncertainty." The NAS also expressed clear reservations about the relationship between carbon dioxide emissions and how they interact with land and the atmosphere "How much of the carbon from future use of fossil fuels will be seen as increases in carbon dioxide in the atmosphere will depend on what fractions are taken up by land and by the oceans," NAS wrote "The exchanges with land occur on various time scales, out to centuries for soil decomposition in high latitudes, and they are sensitive to climate change Their projection into the future is highly problematic."

Let me offer one final quote from the study before I turn to the media. Taking stock of the many scientific uncertainties highlighted in the report, the NAS issued explicit advice to guide climate research—advice,

by the way, that alarmists reject "The most valuable contribution U.S. scientists can make is to continually question basic assumptions and conclusions, promote clear and careful appraisal and presentation of the uncertainties about climate change as well as those areas in which science is leading to robust conclusions, and work toward a significant improvement in the ability to project the future."

THE MEDIA AND THE NAS REPORT

It's not surprising that the media distorted and exaggerated the NAS report The public was told that the NAS categorically accepted that carbon dioxide emissions were the overwhelming factor causing global warming, and that urgent action was needed One factually challenged CNN reporter said the NAS study represented "a unanimous decision that global warming is real, is getting worse, and is due to man There is no wiggle room." The New York Times opined that the report reaffirmed "the threat of global warming, declaring fearlessly that human activity is largely responsible for it." Of course, as the preceding quotes from the report show, this is not true

Unfortunately, the media wasn't burdened with any actual knowledge of the report. Rather, it seized on a sentence fragment from the report's summary, and then jumped to conclusions that, to be charitable, cannot be squared with the full report That fragment from the summary reads as follows. "Temperatures are, in fact, rising The changes observed over the last several decades are likely mostly due to human activities. " There's the smoking gun, we were told then and even now, proving a global warming consensus.

However, the second part of the sentence, along with much else in the report, was simply ignored: "we cannot rule out that some significant part of these changes is also a reflection of natural variability "

And as we have seen, it is amazing how one could conclude that the NAS "left no wiggle room" that "global warming is due to man " Dr Richard Lindzen, a professor of meteorology at MIT, and a member of the NAS panel that produced the report, expressed his astonishment in an editorial in the Wall Street Journal on June 11, 2001. Dr. Lindzen wrote that the NAS report showed "there is no consensus, unanimous or otherwise, about long-term climate trends and what causes them " Yet to this day, the media continues to report exactly the opposite

It is not surprising that alarmists want to fabricate the perception that there is consensus about climate change. We know the costs of this would be enormous. Wharton Econometrics Forecasting Associates estimates that the costs of implementing Kyoto would cost an American family of four $2,700 annually. Acknowledging a full-fledged debate over global warming would undermine their agenda And what is that agenda Two international leaders have said it best Margot Wallstrom, the EU's Environment Commissioner states that Kyoto is "about leveling the playing field for big businesses worldwide " French President Jacques Chirac said during a speech at the Hague in November 2000 that represents "the first component of authentic global governance "

CONCLUSION

As I noted earlier, raising uncertainties or questioning basic assertions about global warming is considered "nonsense " I wonder if the same applies to the NAS. For on just about every page of the 2001 report, the NAS did exactly that.

But for the alarmists, global warming has nothing to do with science or scientific inquiry Science is not about the inquiry to discover truth, but a mask to achieve an ideological agenda. For some, this issue has become a secular religion, pure and simple.

Dr Richard Lindzen has written eloquently and powerfully on this point, so I will end with his words "Science, in the public arena, is commonly used as a source of authority with which to bludgeon political opponents and propagandize uninformed citizens This is what has been done with both the reports of the IPCC and the NAS. It is a reprehensible practice that corrodes our ability to make rational decisions A fairer view of the science will show that there is still a vast amount of uncertainty—far more than advocates of Kyoto would like to acknowledge—and that the NAS report has hardly ended the debate. Nor was it meant to "

Majority Office
410 Dirksen Senate Office Bldg Washington, DC 20510-6175
phone: 202-224-6176

Minority Office
456 Dirksen Senate Office Bldg Washington, DC
phone: 202-224-8832

Second Pillar Speech

April 13, 2005

Today I would like to continue my series of speeches examining the Four Pillars of Climate Alarmism. Last week, I showed that the first pillar, the 2001 climate change report by the National Academy of Sciences, is nothing but hot air The same is true of the 2001 report by the Intergovernmental Panel on Climate Change. It supposedly provides irrefutable evidence of the global warming "consensus." Put simply, it does not, as my speech today will demonstrate.

The media greeted the release of the IPCC's Third Assessment Report with predictable hysteria "In a report published today by the United Nations Intergovernmental Panel on Climate Change (IPCC)," blared the Independent newspaper of London, "hundreds of the world's leading scientists give their unqualified support to the view that global warming is real and that the release of man-made greenhouse gases is largely responsible." Moreover, the Independent reported, "The latest three-volume report, amounting to 2,600 pages of detailed analysis, leaves the reader in little doubt that the scientific uncertainties of the previous decade are being resolved in favor of an emerging, and increasingly pessimistic consensus "

The preceding quotes, and many that followed in the Independent's report, came from the Third Assessment's "Summary for Policymakers." In fact, the media based much, if not all, of its reporting on the summary itself. It did this even though, in some respects, the Summary distorted the actual contents of the full report The National Academy of Sciences, in its 2001 report, criticized both how the Summary was written and how the media portrayed it."The IPCC Summary for Policymakers," the NAS wrote, "could give an impression that the science of global warming is settled, even though many uncertainties still remain " This clearly contradicts the claim that, in the Independent's words, there is "little doubt that the scientific uncertainties of the previous decade" are settled

Another claim the media featured prominently was that temperature increases over the last century are unprecedented, at least when considered on a time-scale of the last 1,000 years. According to the IPCC, the 1990s were the warmest decade on record, and 1998 was the warmest year since temperature records began in 1861. The basis for this claim is the so-called hockey stick graph, which has become the iconic symbol of global warming alarmism

The graph was constructed by Dr Michael Mann of the University of Virginia and his colleagues using a combination of proxy data and modern temperature records The hockey stick curve showed a gradual cooling beginning around 1400 AD (which is the hockey stick handle) then a sharp warming starting about 1900 (the hockey stick blade). Its release was revolutionary, overturning widespread evidence adduced over many years confirming significant natural variability long before the advent of SUVs. The IPCC was so impressed that the hockey stick was featured prominently in its Third Assessment Report in 2001

As Dr Roy Spencer, the principal research scientist at the University of Alabama, noted, "This was taken as proof that the major climatic event of the last 1,000 years was the influence of humans in the 20th century." One of its authors, Dr. Michael Mann, confidently declared in 2003 that the hockey stick "is the indisputable consensus of the community of scientists actively involved in the research of climate variability and its causes "

The hockey stick caused quite a stir, not just in the scientific community, but also in the world of politics It galvanized alarmists in their push for Kyoto It is supposedly ironclad proof that man-made greenhouse gas emissions are warming the planet to an unsustainable degree

But here again, one of the essential pillars of alarmism appears to be crumbling Two Canadian researchers have produced the most devastating evidence to date that the hockey stick is bad science. Before I describe their work, I want to make a prediction. the alarmists will cry foul, saying this critique is part of an industry-funded conspiracy And true to form, they will avoid discussion of substance and engage in personal attacks. That's because one of the researchers, Stephen McIntyre, is a mineral exploration consultant Dr. Mann already has accused them of having a conflict of interest. This is nonsense. First, Stephen McIntyre and his colleague Ross McKitrick, an economist with Canada's University of Guelph, received no outside funding for their work Second, they published their peer-reviewed critique in Geophysical Research Letters. This is no organ of Big Oil, but an eminent scientific journal, the same journal, in fact, which published the version of Dr Mann's hockey stick that appeared in the IPCC's Third Assessment Report Apparently the journal's editors didn't see much evidence of bias The remarks of one editor are worth quoting in full "S. McIntyre and R McKitrick have written a remarkable paper on a subject of great importance What makes the paper significant is that they show that one of the most widely known results of climate analysis, the 'hockey stick' diagram of Mann et. al., was based on a mistake in the application of a mathematical technique known as principal component analysis " Further, he said, "I have looked carefully at the McIntyre and McKitrick analysis, and I am convinced that their work is correct."

What did McKitrick and McIntyre find? In essence, they discovered that Dr Mann misused an

established statistical method called principal components analysis (PCA) As they explained, Mann created a program that "effectively mines a data set for hockey stick patterns " In other words, no matter what kind of data one uses, even if it is random and totally meaningless, the Mann method always produces a hockey stick. After conducting some 10,000 data simulations, the result was nearly always the same "In over 99 percent of cases," McIntyre and McKitrick wrote, "it produced a hockey stick shaped PCI series." Statistician Francis Zwiers of Environment Canada, a government agency, says he agrees that Dr Mann's statistical method "preferentially produces hockey sticks when there are none in the data " Even to a non-statistician, this looks extremely troubling. But that statistical error is just the beginning. On a public web site where Dr Mann filed data, McIntyre and McKitrick discovered an intriguing folder titled "BACKTO_1400-CENSORED." What McIntyre and McKitrick found in the folder was disturbing: Mann's hockey stick blade was based on a certain type of tree—a bristlecone pine—that, in effect, helped to manufacture the hockey stick

Remember, the hockey stick shows a relatively stable climate over 900 years, and then a dramatic spike in temperature about 1900, the inference being that man-made emissions are the cause of rising temperatures So why is the bristlecone pine important? That bristlecone experienced a growth pulse in the Western United States in the late 19th and early 20th centuries However, this growth pulse, as the specialist literature has confirmed, was not attributed to temperature So using those pines, and only those pines, as a proxy for temperature during this period is questionable at best Even Mann's co-author has stated that the bristlecone growth pulse is a "mystery " Because of these obvious problems, McIntyre and McKitrick appropriately excluded the bristlecone data from their calculations. What did they find? Not the Mann hockey stick, to be sure, but a confirmation of the Medieval Warm Period, which Mann's work had erased. As the CENSORED folder revealed, Mann and his colleagues never reported results obtained from calculations that excluded the bristlecone data This appears to be a case of selectively using data—that is, if you don't like the result, remove the offending data until you get the answer you want As McIntyre and McKitrick explained, "Imagine the irony of this discovery . Mann accused us of selectively deleting North American proxy series Now it appeared that he had results that were exactly the same as ours, stuffed away in a folder labeled CENSORED."

McIntyre and McKitrick believe there are additional errors in the Mann hockey stick To confirm their suspicion, they need additional data from Dr Mann, including the computer code he used to generate the graph But Dr. Mann refuses to supply it As he told the Wall Street Journal, "Giving them the algorithm would be giving in to the intimidation tactics that these people are engaged in "

Just a second: Who are "these people"? And what "intimidation tactics"? Mr McIntyre and Mr McKitrick are trying to find the truth What is Dr. Mann trying to hide? For many scientists, McIntyre and McKitrick's work is earth-shattering. For example, Professor Richard Muller of the University of California at Berkeley recently wrote in the MIT Technology Review that McIntyre and McKitrick's findings "hit me like a bombshell, and I suspect it is having the same effect on many others. Suddenly the hockey stick, the poster-child of the global warming community, turns out to be an artifact of poor mathematics." Dr. Rob van Dorland, of the Royal Netherlands Meteorological Institute, and an IPCC lead author, said, "The IPCC made a mistake by only including Mann's reconstruction and not those of other researchers." He concluded that unless the error is corrected. it will "seriously damage the work of the IPCC."

Or consider Dr Hans von Storch, an IPCC contributing author and internationally renowned expert in climate statistics at Germany's Center for Coastal Research, who said McIntyre and McKitrick's work is "entirely valid " In an interview last October with the German Newspaper Der Spiegel, Dr. von Storch said the Mann hockey stick "contains assumptions that are not permissible Methodologically it is wrong: rubbish " He stressed that, "it remains important for science to point out the erroneous nature of the Mann curve. In recent years it has been elevated to the status truth by the UN appointed science body, the Intergovernmental Panel on Climate Change (IPCC). This handicapped all that research which strives to make a realistic distinction between human influences and climate and natural variability."

If McIntyre and McKitrick's work isn't convincing enough, consider the recent paper published in the Feb 10 issue of Nature The paper, authored by a group of Swedish climate researchers, once again undercuts the scientific credibility of the Mann hockey stick The press release for the study by the Swedish Research Council says "A new study of climate in the Northern Hemisphere for the past 2000 years shows that natural climate change may be larger than generally thought "

According to the paper's authors, the Mann hockey stick does not provide an accurate picture of the last 1,000 years "The new results," they wrote, "show an appreciable temperature swing between the 12th and 20th centuries, with a notable cold period around AD 1600 A large part of the 20th century had approximately the same temperature as the 11th and 12th centuries "

In other words, here's evidence of the Medieval Warm Period and the Little Ice Age, demonstrating that climate, long before the burning of fossil fuels, varied considerably over the last 2,000 years The researchers note that changes in the sun's output and volcanic eruptions appear to have caused considerable natural variations in the climate system "The fact that these two climate evolutions," they contend, "which have been obtained completely independently of each other, are very similar supports the case that climate shows an appreciable natural variability—and that changes in the sun's output and volcanic eruptions on the earth may be the cause "

ECONOMICS AND THE IPCC

Another important development chipping away at the so-called scientific consensus has to do with economics and statistics, and how both are used by the IPCC

To determine how man-made greenhouse gases might affect the climate over the next century, the IPCC had to predict 100 years' worth of greenhouse gas emissions Predicting emissions rates depends on several factors, including population growth, technological advances, and future economic growth rates in developed and developing countries Based on these and other factors, the IPCC's Third Assessment Report projected an average global temperature increase by 2100 ranging between 1 4 to 5.8 degrees Celsius (that's about 2 7 to 10 4 degrees Fahrenheit)

This temperature range was determined from several different emissions scenarios. In each of those scenarios, the IPCC arbitrarily assumed that incomes in poor countries and rich countries would converge by 2100. According to Warren McKibbin of Australia National University's Center for Applied Macroeconomics and the Brookings Institution, this assumption is unwarranted Even if it were to happen, McKibbin and his colleagues write, "the empirical literature suggests that the rate of convergence in income per capita would be very slow " Even the IPCC agrees. "It may well take a century (given all other factors set favorably) for a poor country to catch up to [income] levels that prevail in the industrial countries today, never mind the levels that might prevail in affluent countries 100 years in the future "

Nevertheless, the IPCC assumed poor and rich countries would achieve parity by the end of the century To measure that growth over time, the IPCC had to compare what income levels look like today It did that by using market exchange rates. But this raises a major problem. Relying on exchange rates fails to account for price differences between countries This has the effect of vastly overstating differences in wealth "This comparison is invalid," said Ian Castles, formerly head of Australia's National Office of Statistics, now with the National Center for Development Studies at Australian National University

Castles, along with his colleague David Henderson, former chief economist with the Organisation for Economic Co-operation and Development, now of the Westminster Business School, discovered the IPCC's error last year, and have published their findings in the distinguished scientific journal Energy and Environment Castles and Henderson note that using exchange rates is invalid because it is based on the assumption that "[a] poor Bangladeshi family has converted the whole of its income into foreign currency, and spent it on goods and services at average world prices rather than [at much lower] Bangladeshi prices "

Through the use of exchange rates, the IPCC concluded that average income of rich countries right now is 40 times higher than the average income in developing countries in Asia, and 12 times higher than the average income in other non-Asian developing countries.

As you can see, there's a huge gap here, which raises a significant point: if the initial income gap is large, then poor countries will have to grow incredibly fast to catch up And according to the IPCC, the greater the economic growth, the greater the emissions released into the atmosphere, and hence higher temperatures But the IPCC, as the Economist magazine wrote, is simply wrong "The developing-country growth rates yielded by this method [market exchange rates] are historically implausible, to put it mildly The emissions forecasts based on those implausibly high growth rates are accordingly unsound."

Castles and Henderson have shown convincingly that the IPCC's temperature range rests on a major economic error, and therefore is wildly off the mark. Because of this error, even the IPCC's low-end emissions scenario is implausible. As the Economist wrote, "But, as we pointed out before, even the scenarios that give the lowest cumulative emissions assume that incomes in the developing countries will increase at a much faster rate over the course of the century than they have ever done before "

"Disaggregated projections," the Economist continued, "published by the IPCC say that—even in the lowest-emission scenarios—growth in poor countries will be so fast that by the end of the century Americans will be poorer on average than South Africans, Algerians, Argentines, Libyans, Turks and North Koreans. Mr Castles and Mr Henderson can hardly be alone in finding that odd."

Let's get a better sense of why that's odd Under the IPCC's low-end scenario, the amount of goods and services produced per person in developing countries in Asia would increase 70-fold by 2100, and increase nearly 30-fold for other developing countries To put that in perspective, the United States only achieved a five-fold increase in per-capita economic growth in the 19th century and Japan achieved a nearly 20-fold increase in the 20th century

The IPCC's mistakes are fatal. Jacob Ryten, a leading figure in the development, evaluation, and implementation of the U.N 's International Comparisons Programme, said the IPCC suffers from "manifest ignorance of the conceptual and practical issues involved in developing and using intercountry measures of economic product " The Economist said the IPCC's methods proved it was guilty of "dangerous economic incompetence."

THE IPCC AND POLITICS

Castles and Henderson, along with the Economist and other scientists, have pressed the IPCC to abandon its use of market exchange rates in its upcoming Fourth Assessment Report This is essential,

they say, to provide a more accurate projection of future emissions Thus far, the IPCC has ignored their request But this is no surprise. The IPCC has become politicized and appears more intent on pursuing propaganda over science.

Consider the case of Dr Christopher Landsea, the world's foremost expert on hurricanes. Dr. Landsea accepted an invitation to provide input on Atlantic hurricanes for the IPCC's Fourth Assessment Report, due out in 2007 But over time, Dr. Landsea realized that certain key members of the IPCC were bent on advancing a political agenda rather than providing an objective, fact-based understanding of climate change As a result, he resigned from the IPCC process

Dr Landsea was outraged that Dr. Kevin Trenberth, the lead author on Observations for the upcoming Fourth Assessment, and other scientists participated in a politically-charged press conference at Harvard University on the supposed causal link between global warming and extreme weather events The press conference was promoted this way "Experts to warn global warming likely to continue spurring more outbreaks of intense hurricane activity "

As Dr. Landsea explained, the topic was bogus It has no scientific basis and none of the scientists who participated had any expertise on the matter. In his resignation letter, Dr. Landsea wrote: "To my knowledge, none of the participants in that press conference had performed any research on hurricane variability, nor were they reporting on any new work in the field .It is beyond me why my colleagues would utilize the media to push an unsupported agenda that recent hurricane activity has been due to global warming "

What is the real state of the science on this topic? "All previous and current research in the area of hurricane variability has shown no reliable, long-term trend in the frequency or intensity of tropical cyclones, either in the Atlantic or any other basin," Dr Landsea wrote. "Moreover, the evidence is quite strong and supported by the most recent credible studies that any impact in the future from global warming upon hurricanes will likely be quite small." Dr Landsea noted that the most recent science shows that "by around 2080, hurricanes may have winds and rainfall about 5% more intense than today. It has been proposed that even this tiny change may be an exaggeration as to what may happen by the end of the 21st century."

Dr Landsea concluded that because the IPCC process has been compromised, resigning was the only option. "I personally cannot in good faith continue to contribute to a process that I view as both being motivated by pre-conceived agendas and being scientifically unsound."

As with Castles and Henderson, the IPCC leadership has brushed off Dr Landsea's concerns. This is outrageous. In doing so, the IPCC is seriously undermining its credibility. One can only hope that the IPCC will change its ways. Otherwise, we can expect yet another Assessment Report that is unsupported by facts and science.

CONCLUSION

It is not surprising that alarmists want to fabricate the perception that there is consensus about climate change We know the costs of this would be enormous. Wharton Econometrics Forecasting Associates estimates that implementing Kyoto would cost an American family of four $2,700 annually. Acknowledging a full-fledged debate over global warming would undermine their agenda And what is that agenda? Two international leaders have said it best. [chart 10] Margot Wallstrom, the EU's Environment Commissioner, states that Kyoto is "about leveling the playing field for big businesses worldwide." [chart 11] French President Jacques Chirac said during a speech at the Hague in November 2000 that Kyoto represents "the first component of an authentic global governance "

Facts and science are showing that the catastrophic global warming consensus doesn't exist The IPCC has been exposed as a political arm of UN's Kyoto Protocol, with a mission to prop up its flawed scientific conclusions

The Mann hockey stick, the flagship of the IPCC's claims that global warming is real, has now been thoroughly discredited in scientific circles. Projections of future carbon emissions – which drive temperature model conclusions – have been proven to be based on political decisions that, by the end of the century, countries like Bangladesh will be as wealthy, or wealthier, than the United States

A world renowned scientist has just resigned from the IPCC because it is too politicized, saying that the IPCC plans to make claims that contradict scientific understanding Increasingly, it appears that the scientific case for catastrophic global warming is a house of cards that will soon come tumbling down.

Despite this, there are still some who choose to ignore science. In a speech last week, Duke Energy CEO Paul Anderson advocated a tax on carbon dioxide and other greenhouse gases. In doing so, the company has seemingly bought into the spurious notion that the science is settled But perhaps not Unfortunately, to some global warming advocates, the science is irrelevant.

As Myron Ebell of the Competitive Enterprise Institute says "Duke Energy has now admitted that the costs will be significant But the fact is it will only be expensive for their competitors. Nuclear plants don't emit carbon dioxide and Duke is already one-third nuclear generation Moreover, the company has announced plans to build even more nuclear plants, giving it an even bigger competitive edge."

Majority Office
410 Dirksen Senate Office Bldg Washington, DC 20510-6175
phone: 202-224-6176

Minority Office
456 Dirksen Senate Office Bldg.Washington, DC
phone: 202-224-8832

Third Pillar Speech

April 25, 2005

Today I would like to continue my series on the Four Pillars of Climate Alarmism. In my first speech, I outlined how the media and environmental extremists distorted, exaggerated, and mischaracterized a major climate change report from the National Academy of Sciences. I showed how the Left and the media exaggerated a document that contained numerous caveats about the uncertainties of current knowledge and the caution that its conclusions were tentative, proclaiming the report showed conclusively that global warming due to man is occurring.

In my second speech, I described some of the more serious, and indeed fatal, flaws in the 2001 Third Assessment Report from the UN's Intergovernmental Panel on Climate Change, also known as the IPCC. In that speech, I exposed how Michael Mann's now infamous "hockey stick," the flagship of the IPCC's claims that global warming is real, has been thoroughly discredited in scientific circles. And that the IPCC's projections of future carbon emissions – which drive temperature model conclusions – have been proven to be based on political decisions that, by the end of the century, countries like Libya will be as wealthy or wealthier than the United States.

Now I would like to examine the Arctic Climate Impact Assessment report, which received considerable attention upon its release late last year. Last November, the Arctic Council, described as a "high-level international forum" that includes the United States, Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, and Sweden, released a 140-page Arctic synthesis report, titled "Impacts of a Warming Arctic." It details the major findings from the Arctic Council's 1200-page Scientific Report, which will be released in the coming weeks.

The essence of the synthesis report is this. The Arctic is experiencing unprecedented climate change, caused in large part, if not entirely, by man-made greenhouse gas emissions, while projections show dramatic Arctic warming accompanied by even more pronounced changes that will have serious repercussions for the entire planet.

At first blush, the report appears to be quite impressive. It contains glossy photos, charts, and graphs, and was produced by some 300 scientists from several nations. But it lacks virtually any scientific documentation, which casts doubt on the report's page after page of unqualified, matter-of-fact claims about Arctic warming. That documentation, we are told, is forthcoming in the more lengthy 'Scientific Report'. So it's unclear if the 140-page document accurately reflects the contents of the Scientific Report.

If it does, then the Scientific Report simply ignores or dismisses reams of peer-reviewed scientific work contradicting the Arctic Council's conclusions. If it does not, then the synthesis report would appear to be an exercise in global warming propaganda.

THE MEDIA

The release of the report created a media sensation, with nearly every major news outlet declaring, once again, that the scientific "consensus" on global warming had been reaffirmed. Here was the Chicago Tribune's report from November 24, 2004. "The council's 140-page report, four years in the making, warns of immense ice melts, a dramatic rise in ocean levels, the depletion of the Gulf Stream and other sea currents, wild fluctuations in weather patterns, increased ultraviolet radiation and wrenching dislocations in the food chain and habitat."

In equally dramatic fashion, the Associated Press described the report this way. "This most comprehensive study of Arctic warming to date adds yet more impetus to the projections by many of the world's climate scientists that there will be a steady rise in global temperature as the result of greenhouse gases released into the atmosphere from the burning of fossil fuels and other sources."

Such descriptions of the report are not far off the mark, and for good reason. In this case, the media and

extremist groups got exactly what they wished for – 140 pages detailing a daunting list of projected environmental catastrophes: permafrost melting; infrastructure collapsing, glaciers vanishing; sea levels rising, coastal communities flooding, polar bears facing extinction

Worse, the report's authors left the impression that these scenarios were all but assured, despite the fact that the assumptions on which they are based are highly uncertain, a point I will examine later in this speech Thus, no spin, distortion, or exaggeration on the media's part was necessary

ARCTIC TEMPERATURE

The synthesis report constructs a deceptive picture of climate changes that have occurred in the Arctic over the last 30 years, particularly with respect to temperature change A major piece of evidence supporting the Arctic Council's alarmist conclusions is the Arctic's "unprecedented" temperature increase over the last several decades The report's authors make the following statement on page 23 "Examining the record of past climatic conditions indicates that the amount, speed, and pattern of warming experienced in recent decades are indeed unusual and are characteristic of the human-caused increase in greenhouse gases "

Specifically, according to the Council, annual average temperature in the Arctic has increased at almost twice the rate of the rest of the world, while winter temperatures in Alaska and western Canada have increased about 3-4 degrees Celsius over the past half-century, with larger increases projected in the next 100 years.

Surely this is proof of unprecedented, human-induced warming, and of wornsome warming trends for the future? Not quite Let's take a closer look at the peer-reviewed literature on the temperature history of the Arctic, which the Arctic Council's synthesis report ignored

First, in the November 2002 issue of the journal Holocene, researchers examined proxy temperature data in Northern Russia spanning over 2,000 years. They found that "the warmest periods over the last two millennia in this region were clearly in the third, tenth to twelfth, and during the twentieth centuries " The earlier periods, they claim, were warmer than those of the 20th century, while 20th century temperatures appeared to peak around 1940

For a much broader perspective on Arctic temperatures, one can read the 2003 paper by researcher Igor Polyakov in the journal EOS, a publication of the American Geophysical Union In the paper, titled "Trends and Variations in Arctic Climate Systems," Polyakov studied land and ocean data from northward of latitude 62.5° N, dating back to 1870 As is obvious from this chart, one can see that current temperature over the entire region is similar to that measured seventy years ago According to Polyakov, "Two distinct warming periods from 1920 to 1945, and from 1975 to the present, are clearly evident " He goes on to note that "compared with the global and hemispheric temperature rise, the high-latitude temperature increase was stronger in the late 1930s to the early 1940s than in recent decades "

Strangely, there's no mention of this in the Arctic report But alarmists don't seem to care They would probably respond that "300 scientists from all over the world believe such warming is occurring You, sir, have merely identified two whose research presents a contrary view " To answer that charge, I will submit for the record an impressive list of scientists from several countries, including the United States, whose peer-reviewed work shows current Arctic temperatures are no higher than temperatures recorded in the 1930s and 1940s

Let me quote from a few salient examples In a 2003 issue of the Journal of Climate, 7 researchers concluded the following "In contrast to the global and hemispheric temperature, the maritime Arctic temperature was higher in the late 1930s through the early 1940s than in the 1990s." Here's another excerpt from the 2000 International Journal of Climatology, by Dr Rajmund Przybylak, of Nicholas Copernicus University, in Torun, Poland. It reads: "The highest temperatures since the beginning of instrumental observation occurred clearly in the 1930s and can be attributed to changes in atmospheric circulation." Finally, in 2001, researchers examined a 10,000-year span of sea core sediment in the Chukchi Sea, and concluded that "in the recent past, the western Arctic Ocean was much warmer than it is today." They also found that "during the middle Holocene [approximately 6,000 years ago] the August sea surface temperature fluctuated by 5 degrees Celsius and was 3-7 degrees Celsius warmer than it is today." Obviously, the middle Holocene period was not known for SUVs and coal-fired power plants

To get a fuller sense of the report's bias, consider the Arctic Council's geographical definition of "the Arctic." This is important because the temperature record differs depending on one's definition. The Arctic report's temperature record includes data from northward of latitude 60°N. Why the Arctic Council chose this point is not explained. In fact, the report's authors responsible for defining the Arctic admitted last November that their choice was arbitrary

The Arctic Council's starting point is problematic for two reasons. First, Dr. George Taylor, Oregon's state climatologist and a past president of the American Association of State Climatologists recently examined Arctic temperature trends using different starting points. As Dr. Taylor found, "[u]sing 60°N introduced a lot of...questionable Siberian stations." In other words, measurements at that point are based in part on bad data

Second, other researchers see the Arctic differently, and probably more accurately when describing long-term temperature trends. Polyakov, for example, defined Arctic as northward of 62.5°N. This 2.5-degree difference is not trivial. Temperatures can change significantly between 62.5° and 60°N. In fact pushing the geographical boundaries southward, as the Arctic Council did, contributes to a substantial upward bias in temperature measurements

Not only was the Arctic region arbitrarily defined, it appears that marine and coastal-based data were arbitrarily excluded from the report's temperature record. This is strange, considering two-thirds of the Arctic is covered by the Arctic Ocean. So it seems unreasonable to use only land-based stations, as the Arctic Council did, and not to include coastal stations, Russian drifting stations in the Arctic Ocean, and drifting buoys from the International Buoy Programme, as Polyakov and his colleagues did

Using such data reveals a less dramatic temperature picture than the Arctic Council's. In 1993, University of Wisconsin climatologist Jonathan Kahl examined declassified data collected over the Artic Ocean during the Cold War. In a paper in the journal Nature, Kahl found an "absence of evidence for greenhouse warming over the Arctic Ocean in the past 40 years" and a net decline in Arctic temperature. Admittedly, Kahl's temperature history stretches only from 1958 to 1986. But more importantly, it relies on marine and coastal-based data.

Dr. Taylor was among many mystified by these omissions. For him, there is only one possible explanation: "The [Arctic Climate Impact Assessment] appears to be guilty of selective use of data." He further explained, "Many of the trends described in the document begin in the 1960s or 1970s – cool decades in much of the world – and end in the warmer 1990s or early 2000s. So, for example, temperatures have warmed in the last 40 years, and the implication, 'if present trends continue,' is that massive warming will occur in the next century. Yet data are readily available for the 1930s and early 1940s, when temperatures were comparable to (and probably higher than) those observed today. Why not start the trend there? Because there is no net warming over the last 65 years?"

ARCTIC GLACIERS/SEA ICE

In the pop culture version of global warming, there is no greater attraction than melting glaciers and sea ice. Press accounts appear daily of new studies purporting to show widespread glacial retreat stemming from man-made greenhouse gas emissions. Warnings abound that this melting will cause a calamitous rise in sea levels

True to form, the Arctic Council follows the same story line, asserting that, "glaciers throughout the Arctic are melting." "This process is already under way," the report states, "with the widespread retreat of glaciers, snow cover, and sea ice. This is one reason why climate change is more rapid in the Arctic than elsewhere." But is this really the case?

Interestingly, the IPCC Third Assessment Report references peer-reviewed studies that contradict the Arctic Council's assessments. The IPCC, an organization convinced of the validity of the global warming consensus, noted that, "Glaciers and ice caps in the Arctic also have shown retreat in low-lying areas since about 1920," but also stated, "However, no increasing melting trend has been observed during the past 40 years."

Sonar data on sea ice collected in the 1990s also tell a different story. As the BBC wrote in 2001, "The latest and most comprehensive analysis yet of the sonar data collected in the 1990s shows little if any

thinning — at least towards the end of that decade. Indeed, at the North Pole, there are indications in the data that the ice even got a little thicker."

Among other omissions, the Arctic Council gave little weight to the observed variability of Arctic sea ice thickness. The term "observed variability" of sea ice thickness has specific meaning in the Arctic. Scientists estimate that sea ice mass there can vary by as much as 16 percent in a single year. As Dr. Seymour Laxon, a lecturer in the Department of Space and Climate Physics at the University College London, explained, "The observed variability of Arctic sea ice thickness contrasts with the concept of a slowly dwindling ice pack, produced by global warming."

So what causes these variations in sea ice mass? In 2002, Dr. Greg Holloway, of the Institute for Ocean Sciences in Sidney, Canada, and his colleague Dr. Tessa Sou, showed that decadal wind pattern changes caused a shifting of Artic sea ice, creating thinner ice in some regions and thicker ice in others. As Dr. Holloway explained, "It's a circumstance where the ice tends to leave the central Arctic and then mostly pile up against the Canadian side, before moving back into the central Arctic again." Based on this research, Dr. Holloway believes that "we have been a little bit overly stampeded into the idea that there is a terribly alarming melting taking place."

Holloway is not alone in his assessment. In 2003, German researchers Cornelia Koeberle and Ruediger Gerdes found evidence of natural "wind stress" strongly affecting variability in Arctic sea ice. "The results make connecting 'global warming' to Arctic ice thinning very difficult for two reasons," the researchers wrote. "First, the large decadal and longer-term variability masks any trend...Second, the wind stress strongly affects the long-term development of ice volume. A long-term change in wind stress over the Arctic, possibly by an increase in the number of atmospheric circulation states that favor ice export, would affect the ice volume in a similar manner as a temperature increase."

GREENLAND ICE SHEET

In addition to questionable claims about Arctic sea ice, the Arctic report includes dubious projections about the Greenland Ice Sheet. Climate models, the Arctic Council reports, "project that local warming in Greenland will exceed 3 degrees Celsius during this century." The result? "Ice sheet models project that a warming of that magnitude would initiate the long-term melting of the Greenland Ice Sheet." And furthermore, "Even if climatic conditions then stabilized, an increase of this magnitude is projected to lead eventually (over centuries) to a virtually complete melting of the Greenland Ice Sheet, resulting in a global sea level rise of about seven meters."

This sounds ominous, but again, peer-reviewed literature on the subject, excluded from the Arctic report, tells a countervailing story. For example, a team of experts at Los Alamos National Laboratory recently examined Greenland's instrumental surface temperatures. Here's what they found: "Since 1940, however, the Greenland coastal stations data have undergone predominantly a cooling trend. At the summit of the Greenland ice sheet, the summer average temperature has decreased at the rate of 2.2 [degrees Celsius] per decade since the beginning of the measurements in 1987."

Finally, the report's projections for the Greenland ice sheet, glaciers, and sea ice were based on data obtained from global climate models. Those projections assume anthropogenic warming, and proceed to show a gradual but persistent melting of glaciers and ice, leading to a dangerous rise in sea levels. However, as climate scientists have repeatedly pointed out, climate models are highly imperfect. In fact, they are notoriously inaccurate in how they simulate the complexities of the climate system.

This is especially true of Arctic climate. According to a letter signed by 11 climate scientists, sent to the Senate Commerce Committee last fall, "Arctic climate varies dramatically from one region to another, and over time in ways that cannot be accurately reproduced by climate models. The quantitative impacts of natural and anthropogenic factors remain highly uncertain, especially for a region as complex as the Arctic."

Researchers associated with the University of Alaska-Fairbanks wholeheartedly endorsed this view. They recently wrote, "Unfortunately, most global climate models are not capable of sufficiently reproducing the climatological state of the Arctic Ocean, sea ice and atmosphere...as [an] example, the simulated sea ice thickness is overestimated, and its overall pattern is in error, with the thickest ice located in the Siberian instead of the Canadian sector of the Arctic Ocean."

Based on these well-documented technological constraints, how can one take seriously the Artic Council's claim that "While the models differ in their projections of some of the features of climate change, they are all in agreement that the world will warm significantly as a result of human activities

and that the Arctic is likely to experience noticeable warming particularly early and intensely"?

CONCLUSION

The alarmist nature of the Arctic report is to be expected. How else can they justify its enormous costs of regulating carbon dioxide? And we know the costs of this would be enormous. Wharton Econometrics Forecasting Associates estimates that implementing Kyoto would cost an American family of four $2,700 annually. Acknowledging the holes in the science underlying claims of catastrophic global warming would undermine their agenda. And what is that agenda? Two international leaders have said it best. Margot Wallstrom, the EU's Environment Commissioner, states that Kyoto is "about leveling the playing field for big businesses worldwide." French President Jacques Chirac said during a speech at the Hague in November 2000 that Kyoto represents "the first component of an authentic global governance."

Based on these and other major deficiencies, the Arctic Climate Impact Assessment hardly serves as compelling proof that greenhouse gas emissions are causing unprecedented changes in Arctic climate, or that trends point to a future marred by widespread damage to Arctic ecosystems. And to be sure, the report fails to provide a thorough, balanced, comprehensive overview of the most compelling research on Arctic climate.

Instead, the so-called "synthesis report" is a biased, selective examination of climate trends in the Arctic. It completely ignores well-known, established facts. For instance, it is firmly established that Arctic temperatures in the late 1930s and early '40s were higher than in the '90s and that Greenland's temperatures in recent decades have undergone a cooling trend. It is also well known that sea ice mass can vary by as much as 16 percent in a single year. Moreover, this report fails the test of transparency and openness and lacks virtually any documentation. It reads more like an ideological tome. Extremist groups are even using it as a legal brief to sue energy producers on behalf of Arctic peoples. Hardly surprising.

Dr. George Taylor, Oregon's state climatologist, succinctly described the report when he said, "Nice graphics but bad science."

Majority Office
410 Dirksen Senate Office Bldg.Washington, DC 20510-6175
phone: 202-224-6176

Minority Office
456 Dirksen Senate Office Bldg Washington DC
phone: 202-224-8832

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Fourth Pillar Speech

May 24, 2005

Over the last few weeks, I have debunked the notion of a scientific "consensus" about global warming. The claim there is consensus rests on four fundamental pillars. My previous speeches made clear that the first three pillars are made of sand. It's not true, for example, that the National Academy of Sciences believes the science of climate change is settled. In fact, the report is replete with caveats warning the reader of the many uncertainties associated with claims of global warming. Yet advocates continue to recite small excerpts while ignoring the caution about uncertainties contained within the same paragraph or even the same sentence.

It is also not true that the second pillar – the UN science report known as the IPCC report – proves a consensus. The flagship study on which the IPCC report relies, known as the hockey stick and which shows an unprecedented rise in 20th century temperatures, has been thoroughly discredited by scientists on both sides of the debate. Moreover, the UN report relies on explosive increases in greenhouse emissions by poor countries over the next century based on the political decision by the report's authors that countries such as Algeria will be as wealthy, or wealthier, than the United States.

The third pillar supposedly proving that the science is settled -- that the Arctic is melting -- is not so much based on hard science as on political science. Arctic temperatures are no warmer than they were in the 1930s. Similarly, the thickness of Arctic glaciers and sea ice appears to vary naturally by as much as 16 percent annually. These and other facts which alarmists find inconvenient would seem to indicate that projections of an Arctic climate catastrophe are speculative at best.

Today I would like to conclude my series on the Four Pillars of Climate Alarmism by discussing the problems associated with global climate models. Let me begin by briefly explaining what climate models are and how they function. Climate models help scientists describe changes in the climate system. They are not models in the conventional sense, that is, they are not physical replicas. Rather, they are mathematical representations of the physical laws and processes that govern earth's climate. According to Dr. David Legates of the University of Delaware, climate models "are designed to be descriptions of the full three-dimensional structure of the earth's climate." Dr. Legates explained that models are used "in a variety of applications, including the investigation of the possible role of various climate forcing mechanisms and the simulation of past and future climates."

Thousands of climate change studies rely on computer models. The Arctic Council, whose work I addressed last week, stated that Arctic warming and the impacts stemming from that warming are firmly established by computer models. "While the models differ in their projections of some of the features of climate change," the Arctic Council wrote, "they are all in agreement that the world will warm significantly as a result of human activities and that the Arctic is likely to experience noticeable warming particularly early and intensely."

Similarly, the IPCC, which I also discussed in an earlier speech, relied on such models to project a long-term temperature increase ranging from 2.5 to 10.4 degrees Celsius and assorted and potentially dangerous climate changes over the next century. According to Dr. Kenneth Green, Dr. Tim Ball and Dr. Steven Schroeder, "politicians clearly do not realize that the major conclusions of the IPCC's reports are not based on hard evidence and observation but rather largely upon the output of assumption-driven climate models."

PUTTING MODELS IN CONTEXT

Alarmists cite the results of climate models as proof of the catastrophic warming hypothesis. Consider one alarmist scribe, who wrote recently, "Drawing on highly sophisticated computer models, climate scientists can project -- not predict -- how much temperatures may rise by, say, 2100 if we carry on with business as usual." He continued: "Although scenarios vary, some get pretty severe. So do the projected impacts of climate change: rising sea levels, species extinctions, glacial melting, and so forth."

Sounds pretty scary, but the statement is completely vacuous. It sheds no light on the likelihood or reliability of such projections. If, for example, a model shows a significant temperature increase over the next 50 years, how much confidence do we have in that projection?

Attaching probabilities to model results is extremely difficult and rife with uncertainties. In the 2000 edition of Nature, four climate modelers noted that, "A basic problem with all such predictions to date has been the difficulty of providing any systematic estimate of uncertainty." This problem stems from the fact that "these [climate] models do not necessarily span the full range of known climate system behavior." According to the National Academy of Sciences, "...without an understanding of the sources and degree of uncertainty, decision-makers could fail to define the best ways to deal with the serious issue of global warming." This fact should temper the enthusiasm of those who support Kyoto-style regulations that will harm the American economy.

Note too the distinction between "project" and "predict." The alarmist writer noted earlier creates the

misimpression that a projection is more solid than a prediction But a projection is the output of a model calculation. Put another way, it's only as good as the model's equations and inputs. As we will see later in this speech, such inputs, or assumptions about the future, can be extremely flawed, if not totally divorced from reality And this, to be sure, is only one of the many technical shortcomings that limit the scientific validity of climate modeling.

CLIMATE MODELING 'IN ITS INFANCY'

Unfortunately, rarely does any scrutiny accompany model simulations. But based on what we know about the physics of climate models, as well as the questionable assumptions built into the models themselves, we should be very skeptical of their results. This is exactly the view of the National Academy of Sciences. According to NAS, "Climate models are imperfect. Their simulation skill is limited by uncertainties in their formulation, the limited size of their calculations, and the difficulty of interpreting their answers that exhibit as much complexity as in nature "

At this point, climate modeling is still a very rudimentary science. As Richard Kerr wrote in Science magazine, "Climate forecasting, after all, is still in its infancy " Models, while helpful for scientists in understanding the climate system, are far from perfect According to climatologist Gerald North of Texas A&M University, "It's extremely hard to tell whether the models have improved; the uncertainties are large " Or as climate modeler Peter Stone of the Massachusetts Institute of Technology put it, "The major [climate prediction] uncertainties have not been reduced at all." Based on these uncertainties, cloud physicist Robert Charlson, professor emeritus at the University of Washington, Seattle, has concluded. "To make it sound like we understand climate is not right."

This is not to deny that climate modeling has improved over the last three decades Indeed, scientists have constructed models that more accurately reflect the real world. In the 1970s, models were capable only of describing the atmosphere, while over the last few years, models can describe – albeit inadequately – the atmosphere, land surface, oceans, sea ice, and other variables.

But greater complexity does not mean more accurate results In fact, the more variables scientists incorporate, the more uncertainties arise. Dr Syukuro Manabe, who helped create the first climate model that coupled the atmosphere and oceans, has observed, "Models that incorporate everything from dust to vegetation may look like the real world, but the error range associated with the addition of each new variable could result in near total uncertainty. This would represent a paradox The more complex the models, the less we know." We are often reminded that the IPCC used sophisticated modeling techniques in projecting temperature increases for the coming century But as William O'Keefe and Jeff Kueter of the George C Marshall Institute pointed out in a recent paper, "The complex models envisioned by the IPCC have many more than twenty inputs, and many of those inputs will be known with much less than 90 percent confidence "

Also, tinkering with climate variables is a delicate business – getting one variable wrong can greatly skew model results Dr David Legates has noted that "anything you do wrong in a climate model will adversely affect the simulation of every other variable." Take precipitation, for example. As Dr. Legates noted, "Precipitation requires moisture in the atmosphere and a mechanism to cause it to condense (causing the air to rise over mountains, by surface heating, as a result of weather fronts, or by cyclonic rotation) Any errors in representing the atmospheric moisture content or precipitation-causing mechanisms will result in errors in the simulation of precipitation " "Clearly," Dr. Legates concluded, "the interrelationships among the various components that comprise the climate system make climate modeling difficult."

The IPCC, in its Third Assessment Report, noted this problem, and many others, with climate modeling, including

• "Discrepancies between the vertical profile of temperature change in the troposphere seen in observations and models "

• "Large uncertainties in estimates of internal climate variability (also referred to as natural climate variability) from models and observations "

• "Considerable uncertainty in the reconstructions of solar and volcanic forcing which are based on limited observational data for all but the last two decades "

• 'Large uncertainties in anthropogenic forcings associated with the effects of aerosols "

• "Large differences in the response of different models to the same forcing."

THE SURFACE AND THE TROPOSPHERE

I want to delve a little deeper into the first point concerning discrepancies between temperature observations in the troposphere and the surface. This discrepancy is very important, because it tends to undermine a key assumption supporting the warming hypothesis – that more rapid warming should occur in the troposphere than at the surface, creating the so-called greenhouse "fingerprint " But the National Research Council (NRC) believes real-world temperature observations tell a different story

In January 2000, an NRC panel examined the output from several climate models to assess how well they mimicked the observed surface and lower atmospheric temperature trends They found that,

"Although climate models indicate that changes in greenhouse gases and aerosols play a significant role in defining the vertical structure of the observed atmosphere, model–observation discrepancies indicate that the definitive model experiments have not been done." John Wallace, the panel chairman and Professor of Atmospheric Sciences at the University of Washington, put it more bluntly: "There really is a difference between temperatures at the two levels that we don't fully understand."

More recently, researchers at the University of Colorado, Colorado State University, and the University of Arizona examined the differences between real-world temperature observations with the results of four widely used climate models. They probed the following question: Do the differences stem from uncertainties in how greenhouse gases and other variables affect the climate system, or by chance model fluctuations – that is, the variability caused by the model's flawed representation of the climate system?

As it turned out, neither of these factors was to blame. According to the researchers, "Significant errors in the simulation of globally averaged tropospheric temperature structure indicate likely errors in tropospheric water-vapor content and therefore total greenhouse-gas forcing, precipitable water, and convectively forced large-scale circulation." Moreover, based on the "significant errors of simulation," the researchers called for "extreme caution in applying simulation results to future climate-change assessment activities and to attributions studies." They also questioned "the predictive ability of recent generation model simulations, the most rigorous test of any hypothesis." There doesn't seem to be much wiggle room here. Climate models are useful tools, but unable in important respects to simulate the climate system, undermining their "predictive ability." Based on this hard fact, let me bring you back to the alarmist writer I referenced earlier. As he wrote recently, "Drawing on highly sophisticated computer models, climate scientists can project – not predict – how much temperatures may rise by, say, 2100 if we carry on with business as usual." Again, based on what I've just recounted, this is disingenuous at best. I think a fair-minded person would find it horribly misleading and inaccurate.

CLOUDS AND WATER VAPOR

Another serious model limitation concerns the interaction of clouds and water vapor with the climate system. Dr. Richard S. Lindzen, professor of meteorology at MIT, reports of "terrible errors about clouds in all the models." He noted that these errors "make it impossible to predict the climate sensitivity because the sensitivity of the models depends primarily on water vapor and clouds. Moreover, if clouds are wrong," Dr. Lindzen said, "there's no way you can get water vapor right. They're both intimately tied to each other."

In fact, water vapor and clouds are the main absorbers of infrared radiation in the atmosphere. Even if all other greenhouse gases, including carbon dioxide, were to disappear, we would still be left with over 98 percent of the current greenhouse effect. But according to Dr. Lindzen, "the way current models handle factors such as clouds and water vapor is disturbingly arbitrary. In many instances the underlying physics is simply not known."

Dr. Lindzen notes that this is a significant flaw, because "a small change in cloud cover can strongly affect the response to carbon dioxide." He further notes, "Current models all predict that warmer climates will be accompanied by increasing humidity at all levels." Such behavior "is an artifact of the models since they have neither the physics nor the numerical accuracy to deal with water vapor."

AEROSOLS

Along with water vapor and clouds, aerosols, or particles from processes such as dust storms, forest fires, the use of fossil fuels, and volcanic eruptions, represent another major uncertainty in climate modeling. To be sure, there is limited knowledge of how aerosols influence the climate system. This, said the National Academy of Sciences, represents "a large source of uncertainty about future climate change."

Further, the Strategic Plan of the U.S. Climate Change Science Program (CCSP), which was reviewed and endorsed by the National Research Council, concluded that the "poorly understood impact of aerosols on the formation of both water droplets and ice crystals in clouds also results in large uncertainties in the ability to project climate changes."

Climate researcher and IPCC reviewer Dr. Vincent Gray reached an even stronger conclusion, stating that "the effects of aerosols, and their uncertainties, are such as to nullify completely the reliability of any climate models."

DATA GAPS

Another issue affecting model reliability is the relative lack of available climate data, something the National Research Council addressed in 2001. According to the NRC, "[a] major limitation of these model forecasts for use around the world is the paucity of data available to evaluate the ability of coupled models to simulate important aspects of past climate."

There is plenty of evidence to support this conclusion. Consider, for example, that most of the surface temperature record covers less than 50 years and only a few stations are as much as 100 years old. The only reliable data come from earth-orbiting satellites that survey the entire atmosphere. Notably, while these temperature measurements agree with those taken by weather balloons, they disagree considerably with the surface record. There is also concern of an upward bias in the surface

temperature record, caused by the "urban heat island effect." Most meteorological stations in Western Europe and eastern North America are located at airports on the edge of cities, which have been enveloped by urban expansion In the May 30, 2003 issue of Remote Sensing of Environment, David Streutker, a Rice University researcher, found an increase in the Houston urban heat island effect of nearly a full degree Celsius between 1987 and 1999. This study confirmed research published in the March 2001 issue of Australian Meteorological Magazine, which documented a significant heat island effect even in small towns. Although climate modelers have made adjustments to compensate for the urban heat island effect, other researchers have shown such adjustments are inadequate University of Maryland researchers Eugenia Kalnay and Ming Cai, in Nature magazine, concluded that the effect of urbanization and land-use changes on U.S. average temperatures is at least twice as large as previously estimated.

MODEL SCENARIOS

Finally, to expand on a point I raised earlier, climate models are helpful in creating so-called "climate scenarios." These scenarios help scientists describe how the climate system might evolve To arrive at a particular scenario, scientists rely on model-driven assumptions about future levels of economic growth, population growth, greenhouse gas emissions, and other factors. However, as with the IPCC, these assumptions can create wildly exaggerated scenarios that, to put it mildly, have little scientific merit In 2003, scientists with the federal Climate Change Science Program agreed that potential environmental, economic, and technological developments "are unpredictable over the long time-scales relevant for climate research." William O'Keefe and Jeff Keuter of the George C Marshall Institute reiterated this point recently. As they wrote, "The inputs needed to project climate for the next 100 years, as is typically attempted, are unknowable Human emissions of greenhouse gases and aerosols will be determined by the rates of population and economic growth and technological change Neither of these is predictable for more than a short period into the future " Put simply, computer model simulations cannot prove that greenhouse gas emissions will cause catastrophic global warming. Again, here's the National Academy of Sciences "The fact that the magnitude of the observed warming is large in comparison to natural variability as simulated in climate models is suggestive of such a linkage, but it does not constitute proof of one because – [and this is a point I want to emphasize] – the model simulations could be deficient in natural variability on the decadal to century time scale "

CONCLUSION

It's clear that climate models, even with increasing levels of sophistication, still contain a number of critical shortcomings With that in mind, policymakers should reject ridiculous statements that essentially equate climate model runs with scientific truth

As I discussed today, climate modeling is in its infancy It cannot predict future temperatures with reasonable certainty that these predictions are accurate The physical world is exceedingly complex, and the more complex the models, the more potential errors are introduced into the models We understand little about how to accurately model the troposphere and about the role of aerosols, clouds and water vapor. Moreover, there are enormous data gaps in the very short temperature records that we have. And surface data often conflict with more accurate balloon and satellite data

Models can enhance scientists' understanding of the climate system, but, at least at this point, cannot possibly serve as a rational basis for policymaking. It seems foolish in the extreme to undermine America's economic competitiveness with policies based on computer projections about what the world will look like in 100 years In short, we have no idea what the world will look like in 20 years, or even 10 years

This concludes my series on the Four Pillars of Climate Alarmism. I hope these speeches will prod my colleagues to examine the science of climate change In my view, if they examine the facts and evidence closely and dispassionately, they will find no "consensus" that catastrophic global warming is occurring or will occur – and further, they will recognize that Kyoto-style polices are scientifically unjustified, environmentally useless, and economically harmful.

It is clear that the cost of ignoring the science is enormous Wharton Econometrics Forecasting Associates estimates that implementing Kyoto would cost an American family of four $2,700 annually Inducing the United States to adopt policies that erode its economic power in world markets appears to be the goal of some economic rivals, as evidenced by the words of two international leaders who said it best. [chart] Margot Wallstrom, the EU's Environment Commissioner, states that Kyoto is "about leveling the playing field for big businesses worldwide." [chart] French President Jacques Chirac said during a speech at the Hague in November 2000 that Kyoto represents "the first component of an authentic global governance "

Let us hope that America's leadership has the wisdom not to fall prey to their openly admitted agenda.

410 Dirksen Senate Office Bldg Washington, DC 20510-6175
phone: 202-224-6176

456 Dirksen Senate Office Bldg Washington, DC
phone: 202-224-8832

STATEMENT BY SENATOR JAMES M. INHOFE ON BRINGING INTEC BACK TO THE IPCC PROCESS

November 15, 2005

STATEMENT BY SENATOR JAMES M. INHOFE ON BRINGING INTEGRITY BACK TO THE IPCC PROCESS

U S. SENATE

NOVEMBER 15, 2005

I have addressed this chamber on the subject of global warming many times over the last few years. In those speeches, I presented well-documented facts regarding the science and economics of the global warming issue that, sadly, many of my colleagues and the public heard for the very first time

Today, I will discuss something else – scientific integrity and how to improve it Specifically, I will discuss the systematic and documented abuse of the scientific process by an international body that claims it provides the most complete and objective scientific assessment in the world on the subject of climate change – the United Nations-sponsored Intergovernmental Panel on Climate Change, or IPCC I will conclude with a series of recommendations as to the minimum changes the IPCC must make if it is to restore its credibility

When I became Chairman of the Senate Committee on Environment and Public Works, one of my top three priorities was to improve the quality of environmental science used in public policymaking by taking the politics out of science I have convened hearings on this subject and the specific issue of global warming science.

I am a U.S. Senator, and a former mayor and businessman I am not a scientist. But I do understand politics. And the more I have delved into the issue, the more convinced I have become that science is being co-opted by those who care more about peddling fear of gloom and doom to further their own, broader agendas than they do about scientific integrity

I am committed to shining a light on their activities Global warming alarmists will undoubtedly continue to accuse me of attacking the science of global warming – that is part of their game. But nothing could be further from the truth I support and defend credible, objective science by exposing the corrupting influences that would subvert it for political purposes Good policy must be based on good science, and that requires science be free of bias, whatever its conclusions

As nations meet again next month in Montreal to discuss global warming, the pronouncements of the IPCC leaders will gain renewed attention as they continue their efforts to craft a fourth assessment of the state of global warming science If the fourth assessment is to have any credibility, fundamental changes will need to be made

The flaws in the IPCC process began to manifest themselves in the first assessment, but did so in earnest when the IPCC issued its second assessment report in 1996 The most obvious was the altering of the document on the central question of whether man is causing global warming

Here is what Chapter 8 – the key chapter in the report – stated on this central question in the final version accepted by reviewing scientists:

"No study to date has positively attributed all or part [of the climate change observed to date] to anthropogenic causes."

But when the final version was published, this and similar phrases in 15 sections of the chapter were deleted or modified. Nearly all the changes removed hints of scientific doubts regarding the claim that human activities are having a major impact on global warming

In the Summary for Policy Makers – which is the only part of the report that reporters and policy makers read – a single phrase was inserted. It reads:

"The balance of evidence suggests that there is a discernible human influence on global climate."

The lead author for Chapter 8, Dr. Ben Santer, should not be held solely accountable. According to the journal Nature, the changes to the report were made in the midst of high-level pressure from the Clinton / Gore State Department to do so. I understand that after the State Department sent a letter to Sir John Houghton, co-Chairman of the IPCC, Houghton prevailed upon Santer to make the changes The impact was explosive, with media across the world, including heavyweights such as Peter Jennings, declaring this as proof that man is responsible for global warming

Notably, polls taken shortly afterwards showed scant support for the statement The word "discernible"

implies measurable or detectable, and depending on how the question was asked, only 3- 19 percent of American scientists concurred

In 2001, the third assessment report was published. Compared with the flaws in the third assessment, those in the second assessment appear modest. The most famous is the graph produced by Dr. Michael Mann and others. Their study concluded that the 20th century was the warmest on record in the last 1,000 years, showing flat temperatures until 1900 and then spiking upward – in short, it looked like a hockey stick. It achieved instant fame as proof of man's causation of global warming because it was featured prominently in the Summary Report read by the media.

Since then, the hockey stick has been shown to be a relic of bad math and impermissible practices. Dr Hans von Storch, a prominent German researcher with the GKSS Institute for Coastal Research -- who, I'm told, believes in global warming – put it this way:

"Methodologically it is wrong: rubbish."

In fact, a pair of Canadian researchers showed that when random data is fed into Michael Mann's mathematical construct, it produces a hockey stick more than 99 percent of the time. Yet the IPCC immortalized the hockey stick as the proof positive of catastrophic global warming.

How can such a thing occur? Sadly, it is due to the institutional structure of the IPCC itself – it breeds manipulation.

First, the IPCC is a political institution. Its charter is to support the efforts of the UN Framework Convention on Climate Change, which has the basic mission of eliminating the threat of global warming. This clearly creates a conflict of interest with the standard scientific goal of assessing scientific data in an objective manner.

The IPCC process itself illustrates the problem. The Summary Report for Policymakers is not approved by the scientists and economists who contribute to the report. It is approved by Intergovernmental delegates – in short, politicians. It doesn't take a leap of imagination to realize that politicians will insist the report support their political agenda.

A typical complaint of scientists and economists is that the Summary does not adequately reflect the uncertainties associated with tentative conclusions in the basic report. The uncertainties identified by contributing authors and reviewers seem to disappear or are downplayed in the Summary.

A corollary of this is that lead authors and the Chair of the IPCC control too much of the process. The old adage "power corrupts and absolute power corrupts absolutely" applies. Only a handful of individuals were involved in changing the entire tone of the second assessment. Likewise, Michael Mann was a Chapter lead author in the third assessment.

One stark example of how the process has been corrupted involves a U.S. Government scientist who is among the world's most respected experts on hurricanes – Dr. Christopher Landsea. Earlier this year, Dr. Landsea resigned as a contributing author in the upcoming fourth assessment. His reason was simple – the lead author for the Chapter on extreme weather, Dr. Kevin Trenberth, had demonstrated he would pursue a political agenda linking global warming to more severe hurricanes.

Trenberth had spoken at a forum where he was introduced as a lead author and proceeded to forcefully make the link. He has spoken here in the Senate as well, and it is clear that Trenberth's mind is completely closed on the issue. The only problem is that Trenberth's views are not widely accepted among the scientific community. As Landsea put it last winter:

'All previous and current research in the area of hurricane variability has shown no reliable, long-term trend up in the frequency or intensity of tropical cyclones, either in the Atlantic or any other basin."

When Landsea brought it to the attention of the IPCC, he was told that Trenberth -- who as lead author is supposed to bring a neutral, unbiased perspective to his position – would keep his position. Landsea concluded that:

"Because of Dr. Trenberth's pronouncements, the IPCC process on our assessment of these crucial extreme events in our climate system has been subverted and compromised, its neutrality lost."

Landsea's experience is not unique. Richard Lindzen, a prominent MIT researcher who was a contributing author to a Chapter in the third assessment, among others has said that the Summary did not reflect the Chapter he contributed to. But when you examine how the IPCC is structured, is it really so surprising?

Second, the IPCC has demonstrated an unreasoning resistance to accepting constructive critiques of its scientific and economic methods, even in the report itself. Of course, combined with my first point, this is a recipe for de-legitimizing the entire endeavor in terms of providing credible information that is useful to policy makers.

Let me offer a few examples of what I am talking about.

Malaria is considered one of the four greatest risks associated with global warming. But the relationship between climate and mosquito populations is highly complex. There are over 3,500 species of

mosquito, and all breed, feed, and behave differently. Yet the nine lead authors of the health section in the second assessment had published only six research papers on vector-borne diseases among them

Dr Paul Reiter of the Pasteur Institute, a respected entomologist who has spent decades studying mosquito-borne malaria, believes that global warming would have little impact on the spread of malaria But the IPCC refused to consider his views in its third assessment, and has completely excluded him from contributing to the fourth assessment.

Here's another example: To predict future global warming, the IPCC estimated how much world economies would grow over the next century. Future increases in carbon dioxide emission estimates are directly tied to growth rates, which in turn drive the global warming predictions.

Unfortunately, the method the IPCC uses to calculate growth rates is wrong It also contains assumptions that developing nations will experience explosive growth – in some cases, becoming wealthier than the United States. These combine to greatly inflate even its lower-end estimates of future global warming

The IPCC, however, has bowed to political pressure from the developing countries that refuse to acknowledge the likelihood they will not catch up to the developed world. The result Future global warming predictions by the IPCC are based on a political choice, not on credible economic methodologies.

Likewise, the IPCC ignored the advice of economists who conclude that, if global warming is real, future generations would have a higher quality of life if societies maximize economic growth and adapt to future warming rather than trying to drastically curb emissions. The IPCC turns a deaf ear

This problem with the economics led to a full-scale inquiry by the UK's House of Lords Select Committee on Economic Affairs The ensuing report should be required reading. The Committee identified numerous problems with the IPCC

In fact, the problems identified were so substantial, it led Lord Nigel Lawson, former Chancellor of the Exchequer and a Member of the Committee, to recently state:

"I believe the IPCC process is so flawed, and the institution, it has to be said, so closed to reason, that it would be far better to thank it for the work it has done, close it down, and transfer all future international collaboration on the issue of climate change .."

To regain its credibility, the IPCC must correct its deficiencies in all of the following areas before it releases its fourth assessment report

Structurally, the IPCC must

Adopt procedures by which scientific reviewers formally approve both the Chapters and the Summary Report for Policymakers Government delegates should not be part of the approval process. Limit the authority of lead authors and the Chair to introduce changes after approval by the reviewers. Create an ombudsman for each Chapter. These ombudsmen should consult with reviewers who believe valid issues are not being addressed, and disseminate a report for reviewers prior to final approval which is made part of the final document. Institute procedures to ensure that an adequate cross-section of qualified scientists wishing to participate in the process is selected based on unbiased criteria The ombudsmen should review complaints of bias in the selection process

There are many specific issues that the IPCC must address as well For instance, the IPCC must

Ensure that uncertainties in the state of knowledge are clearly expressed in the Summary for Policymakers. Provide highly defensible ranges of the costs of controlling greenhouse gas emissions. Defensibly assess the effects of land-use changes in causing observed temperature increases Provide highly defensible ranges of the benefits of global warming Examine the costs and benefits of an adaption strategy versus a mitigation strategy Adequately examine studies finding a cooling trend of the Continental Antarctic for the last 40 years, as well as increases in the Antarctic ice mass. Adequately explain why the models predict greater warming than has been observed, avoiding use of selective data sets Ensure an unbiased assessment of the literature on hurricanes. Ensure adequate review of malaria predictions by a range of specialists in the field, ensuring all views are expressed.

There are dozens more issues, most of which are as important as the ones I've just raised. Instead of listing them all here, I intend to post on my Committee's website this winter a more exhaustive and detailed list of issues that must be addressed in the fourth assessment

In concluding, I'd quote from an article in Der Speigel by Dr. von Storch and Dr Nico Stehr, who is with Zeppelin University They wrote

"Other scientists are succumbing to a form of fanaticism almost reminiscent of the McCarthy era . Silencing dissent and uncertainty for the benefit of a politically worthy cause reduces credibility, because the public is more well-informed than generally assumed In the long term, the supposedly useful dramatizations achieve exactly the opposite of what they are intended to achieve. If this happens, both science and society will have missed an opportunity "

It is my solemn hope that the IPCC will listen the words of Drs. von Storch and Stehr and not miss the

opportunity to re-establish its credibility. Only then will its work product be useful to policymakers. If the IPCC remains committed to its current path, however, then Lord Lawson's solution is the only viable one – the IPCC should be disbanded

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410 Dirksen Senate Office Bldg Washington, DC 20510-6175
phone: 202-224-6176

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"Hot & Cold Media Spin: A Challenge To Journalists Who Cover Global W

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SENATE FLOOR SPEECH DELIVERED MONDAY SEPTEMBER 25, 2006

I am going to speak today about the most media-hyped environmental issue of all time, global warming. I have spoken more about global warming than any other politician in Washington today. My speech will be a bit different from the previous seven floor speeches, as I focus not only on the science, but on the media's coverage of climate change.

View Television Clip in external window

Global Warming -- just that term evokes many members in this chamber, the media, Hollywood elites and our pop culture to nod their heads and fret about an impending climate disaster. As the senator who has spent more time speaking about the facts regarding global warming, I want to address some of the recent media coverage of global warming and Hollywood's involvement in the issue. And of course I will also discuss former Vice President Al Gore's movie "An Inconvenient Truth."

Since 1895, the media has alternated between global cooling and warming scares during four separate and sometimes overlapping time periods. From 1895 until the 1930's the media peddled a coming ice age.

From the late 1920's until the 1960's they warned of global warming. From the 1950's until the 1970's they warned us again of a coming ice age. This makes modern global warming the fourth estate's fourth attempt to promote opposing climate change fears during the last 100 years.

Recently, advocates of alarmism have grown increasingly desperate to try to convince the public that global warming is the greatest moral issue of our generation. Last year, the vice president of London's Royal Society sent a chilling letter to the media encouraging them to stifle the voices of scientists skeptical of climate alarmism.

During the past year, the American people have been served up an unprecedented parade of environmental alarmism by the media and entertainment industry, which link every possible weather event to global warming. The year 2006 saw many major organs of the media dismiss any pretense of balance and objectivity on climate change coverage and instead crossed squarely into global warming advocacy.

SUMMARY OF LATEST DEVELOPMENTS OF MANMADE GLOBAL WARMING HOCKEY STICK

First, I would like to summarize some of the recent developments in the controversy over whether or not humans have created a climate catastrophe. One of the key aspects that the United Nations, environmental groups and the media have promoted as the "smoking gun" of proof of catastrophic global warming is the so-called 'hockey stick' temperature graph by climate scientist Michael Mann and his colleagues.

This graph purported to show that temperatures in the Northern Hemisphere remained relatively stable over 900 years, then spiked upward in the 20th century presumably due to human activity. Mann, who also co-publishes a global warming propaganda blog reportedly set up with the help of an environmental group, had his "Hockey Stick" come under severe scrutiny.

The "hockey stick" was completely and thoroughly broken once and for all in 2006. Several years ago, two Canadian researchers tore apart the statistical foundation for the hockey stick. In 2006, both the National Academy of Sciences and an independent researcher further refuted the foundation of the "hockey stick." http://epw.senate.gov/pressitem.cfm?party=rep&id=257697

The National Academy of Sciences report reaffirmed the existence of the Medieval Warm Period from

about 900 AD to 1300 AD and the Little Ice Age from about 1500 to 1850. Both of these periods occurred long before the invention of the SUV or human industrial activity could have possibly impacted the Earth's climate. In fact, scientists believe the Earth was warmer than today during the Medieval Warm Period, when the Vikings grew crops in Greenland.

Climate alarmists have been attempting to erase the inconvenient Medieval Warm Period from the Earth's climate history for at least a decade. David Deming, an assistant professor at the University of Oklahoma's College of Geosciences, can testify first hand about this effort. Dr. Deming was welcomed into the close-knit group of global warming believers after he published a paper in 1995 that noted some warming in the 20th century. Deming says he was subsequently contacted by a prominent global warming alarmist and told point blank "We have to get rid of the Medieval Warm Period." When the "Hockey Stick" first appeared in 1998, it did just that.

END OF LITTLE ICE AGE MEANS WARMING

The media have missed the big pieces of the puzzle when it comes to the Earth's temperatures and mankind's carbon dioxide (C02) emissions. It is very simplistic to feign horror and say the one degree Fahrenheit temperature increase during the 20th century means we are all doomed. First of all, the one degree Fahrenheit rise coincided with the greatest advancement of living standards, life expectancy, food production and human health in the history of our planet. So it is hard to argue that the global warming we experienced in the 20th century was somehow negative or part of a catastrophic trend.

Second, what the climate alarmists and their advocates in the media have continued to ignore is the fact that the Little Ice Age, which resulted in harsh winters which froze New York Harbor and caused untold deaths, ended about 1850. So trying to prove man-made global warming by comparing the well-known fact that today's temperatures are warmer than during the Little Ice Age is akin to comparing summer to winter to show a catastrophic temperature trend.

In addition, something that the media almost never addresses are the holes in the theory that C02 has been the driving force in global warming. Alarmists fail to adequately explain why temperatures began warming at the end of the Little Ice Age in about 1850, long before man-made CO2 emissions could have impacted the climate. Then about 1940, just as man-made CO2 emissions rose sharply, the temperatures began a decline that lasted until the 1970's, prompting the media and many scientists to fear a coming ice age.

Let me repeat, temperatures got colder after C02 emissions exploded. If C02 is the driving force of global climate change, why do so many in the media ignore the many skeptical scientists who cite these rather obvious inconvenient truths?

SIXTY SCIENTISTS

My skeptical views on man-made catastrophic global warming have only strengthened as new science comes in. There have been recent findings in peer-reviewed literature over the last few years showing that the Antarctic is getting colder and the ice is growing and a new study in Geophysical Research Letters found that the sun was responsible for 50% of 20th century warming.

Recently, many scientists, including a leading member of the Russian Academy of Sciences, predicted long-term global cooling may be on the horizon due to a projected decrease in the sun's output.

A letter sent to the Canadian Prime Minister on April 6 of this year by 60 prominent scientists who question the basis for climate alarmism, clearly explains the current state of scientific knowledge on global warming.

The 60 scientists wrote:

http://www.canada.com/nationalpost/financialpost/story.html?id=3711460e-bd5a-475d-a6be-4db87559d605

"If, back in the mid-1990s, we knew what we know today about climate, Kyoto would almost certainly not exist, because we would have concluded it was not necessary."

The letter also noted:

"'Climate change is real' is a meaningless phrase used repeatedly by activists to convince the public that a climate catastrophe is looming and humanity is the cause. Neither of these fears is justified. Global climate changes occur all the time due to natural causes and the human impact still remains impossible to distinguish from this natural 'noise.'"

COMPUTER MODELS THREATEN EARTH

One of the ways alarmists have pounded this mantra of "consensus" on global warming into our pop culture is through the use of computer models which project future calamity. But the science is simply not there to place so much faith in scary computer model scenarios which extrapolate the current and projected buildup of greenhouse gases in the atmosphere and conclude that the planet faces certain doom.

Dr. Vincent Gray, a research scientist and a 2001 reviewer with the UN's Intergovernmental Panel on

Climate Change (IPCC) has noted, "The effects of aerosols, and their uncertainties, are such as to nullify completely the reliability of any of the climate models."

Earlier this year, the director of the International Arctic Research Center in Fairbanks Alaska, testified to Congress that highly publicized climate models showing a disappearing Arctic were nothing more than "science fiction."

In fact, after years of hearing about the computer generated scary scenarios about the future of our planet, I now believe that the greatest climate threat we face may be coming from alarmist computer models.

This threat is originating from the software installed on the hard drives of the publicity and grant seeking climate modelers.

It is long past the time for us to separate climate change fact from hysteria.

KYOTO: ECONOMIC PAIN FOR NO CLIMATE GAIN

One final point on the science of climate change: I am approached by many in the media and others who ask, "What if you are wrong to doubt the dire global warming predictions? Will you be able to live with yourself for opposing the Kyoto Protocol?"

My answer is blunt. The history of the modern environmental movement is chock full of predictions of doom that never came true. We have all heard the dire predictions about the threat of overpopulation, resource scarcity, mass starvation, and the projected death of our oceans. None of these predictions came true, yet it never stopped the doomsayers from continuing to predict a dire environmental future

The more the eco-doomsayers' predictions fail, the more the eco-doomsayers predict.

These failed predictions are just one reason I respect the serious scientists out there today debunking the latest scaremongering on climate change. Scientists like MIT's Richard Lindzen, former Colorado State climatologist Roger Pielke, Sr., the University of Alabama's Roy Spencer and John Christy, Virginia State Climatologist Patrick Michaels, Colorado State University's William Gray, atmospheric physicist S. Fred Singer, Willie Soon of the Harvard-Smithsonian Center for Astrophysics, Oregon State climatologist George Taylor and astrophysicist Sallie Baliunas, to name a few

But more importantly, it is the global warming alarmists who should be asked the question -- "What if they are correct about man-made catastrophic global warming?" -- because they have come up with no meaningful solution to their supposed climate crisis in the two decades that they have been hyping this issue.

If the alarmists truly believe that man-made greenhouse gas emissions are dooming the planet, then they must face up to the fact that symbolism does not solve a supposed climate crisis

The alarmists freely concede that the Kyoto Protocol, even if fully ratified and complied with, would not have any meaningful impact on global temperatures. And keep in mind that Kyoto is not even close to being complied with by many of the nations that ratified it, including 13 of the EU-15 nations that are not going to meet their emission reduction promises.

Many of the nations that ratified Kyoto are now realizing what I have been saying all along: The Kyoto Protocol is a lot of economic pain for no climate gain.

Legislation that has been proposed in this chamber would have even less of a temperature effect than Kyoto's undetectable impact. And more recently, global warming alarmists and the media have been praising California for taking action to limit C02. But here again: This costly feel-good California measure, which is actually far less severe than Kyoto, will have no impact on the climate -- only the economy.

Symbolism does not solve a climate crisis.

In addition, we now have many environmentalists and Hollywood celebrities, like Laurie David, who have been advocating measures like changing standard light bulbs in your home to fluorescents to help avert global warming. Changing to more energy-efficient light bulbs is a fine thing to do, but to somehow imply we can avert a climate disaster by these actions is absurd.

Once again, symbolism does not solve a climate crisis.

But this symbolism may be hiding a dark side While greenhouse gas limiting proposals may cost the industrialized West trillions of dollars, it is the effect on the developing world's poor that is being lost in this debate

The Kyoto Protocol's post 2012 agenda which mandates that the developing world be subjected to restrictions on greenhouse gases could have the potential to severely restrict development in regions of the world like Africa, Asia and South America -- where some of the Earth's most energy-deprived people currently reside.

Expanding basic necessities like running water and electricity in the developing world are seen by many

in the green movement as a threat to the planet's health that must be avoided.

Energy poverty equals a life of back-breaking poverty and premature death.

If we allow scientifically unfounded fears of global warming to influence policy makers to restrict future energy production and the creation of basic infrastructure in the developing world -- billions of people will continue to suffer.

Last week my committee heard testimony from Danish statistician Bjorn Lomborg, who was once a committed left-wing environmentalist until he realized that so much of what that movement preached was based on bad science. Lomborg wrote a book called "The Skeptical Environmentalist" and has organized some of the world's top Nobel Laureates to form the 2004 "Copenhagen Consensus" which ranked the world's most pressing problems. http://www.copenhagenconsensus.com/Default.aspx?ID=158 And guess what?

They placed global warming at the bottom of the list in terms of our planet's priorities. The "Copenhagen Consensus" found that the most important priorities of our planet included: combating disease, stopping malaria, securing clean water, and building infrastructure to help lift the developing nations out of poverty. I have made many trips to Africa, and once you see the devastating poverty that has a grip on that continent, you quickly realize that fears about global warming are severely misguided.

I firmly believe that when the history of our era is written, future generations will look back with puzzlement and wonder why we spent so much time and effort on global warming fears and pointless solutions like the Kyoto Protocol.

French President Jacques Chirac provided the key clue as to why so many in the international community still revere the Kyoto Protocol, who in 2000 said Kyoto represents "the first component of an authentic global governance."

Furthermore, if your goal is to limit C02 emissions, the only effective way to go about it is the use of cleaner, more efficient technologies that will meet the energy demands of this century and beyond.

The Bush administration and my Environment and Public Works Committee have been engaged in these efforts as we work to expand nuclear power and promote the Asia-Pacific Partnership. This partnership stresses the sharing of new technology among member nations including three of the world's top 10 emitters -- China, India and South Korea -- all of whom are exempt from Kyoto.

MEDIA COVERAGE OF CLIMATE CHANGE:

Many in the media, as I noted earlier, have taken it upon themselves to drop all pretense of balance on global warming and instead become committed advocates for the issue.

Here is a quote from Newsweek magazine:

"There are ominous signs that the Earth's weather patterns have begun to change dramatically and that these changes may portend a drastic decline in food production– with serious political implications for just about every nation on Earth."

A headline in the New York Times reads: "Climate Changes Endanger World's Food Output." Here is a quote from Time Magazine:

"As they review the bizarre and unpredictable weather pattern of the past several years, a growing number of scientists are beginning to suspect that many seemingly contradictory meteorological fluctuations are actually part of a global climatic upheaval."

All of this sounds very ominous. That is, until you realize that the three quotes I just read were from articles in 1975 editions of Newsweek Magazine and The New York Times, and Time Magazine in 1974 http://time-proxy.yaga.com/time/archive/printout/0,23657,944914,00.html

They weren't referring to global warming; they were warning of a coming ice age.

Let me repeat, all three of those quotes were published in the 1970's and warned of a coming ice age.

In addition to global cooling fears, Time Magazine has also reported on global warming. Here is an example:

"[Those] who claim that winters were harder when they were boys are quite right… weathermen have no doubt that the world at least for the time being is growing warmer."

Before you think that this is just another example of the media promoting Vice President Gore's movie, you need to know that the quote I just read you from Time Magazine was not a recent quote; it was from January 2, 1939.

Yes, in 1939. Nine years before Vice President Gore was born and over three decades before Time Magazine began hyping a coming ice age and almost five decades before they returned to hyping global warming

Time Magazine in 1951 pointed to receding permafrost in Russia as proof that the planet was warming.

In 1952, the New York Times noted that the "trump card" of global warming "has been the melting glaciers."

BUT MEDIA COULD NOT DECIDE BETWEEN WARMING OR COOLING SCARES

There are many more examples of the media and scientists flip-flopping between warming and cooling scares.

Here is a quote from the New York Times reporting on fears of an approaching ice age.

"Geologists Think the World May be Frozen Up Again."

That sentence appeared over 100 years ago in the February 24, 1895 edition of the New York Times

Let me repeat. 1895, not 1995.

A front page article in the October 7, 1912 New York Times, just a few months after the Titanic struck an iceberg and sank, declared that a prominent professor "Warns Us of an Encroaching Ice Age."

The very same day in 1912, the Los Angeles Times ran an article warning that the "Human race will have to fight for its existence against cold." An August 10, 1923 Washington Post article declared: "Ice Age Coming Here."

By the 1930's, the media took a break from reporting on the coming ice age and instead switched gears to promoting global warming

"America in Longest Warm Spell Since 1776; Temperature Line Records a 25-year Rise" stated an article in the New York Times on March 27, 1933 The media of yesteryear was also not above injecting large amounts of fear and alarmism into their climate articles

An August 9, 1923 front page article in the Chicago Tribune declared:

"Scientist Says Arctic Ice Will Wipe Out Canada." The article quoted a Yale University professor who predicted that large parts of Europe and Asia would be "wiped out" and Switzerland would be "entirely obliterated."

A December 29, 1974 New York Times article on global cooling reported that climatologists believed *"the facts of the present climate change are such that the most optimistic experts would assign near certainty to major crop failure in a decade."*

The article also warned that unless government officials reacted to the coming catastrophe, "mass deaths by starvation and probably in anarchy and violence" would result. In 1975, the New York Times reported that "A major cooling [was] widely considered to be inevitable." These past predictions of doom have a familiar ring, don't they? They sound strikingly similar to our modern media promotion of former Vice president's brand of climate alarmism.

After more than a century of alternating between global cooling and warming, one would think that this media history would serve a cautionary tale for today's voices in the media and scientific community who are promoting yet another round of eco-doom.

Much of the 100-year media history on climate change that I have documented here today can be found in a publication titled "Fire and Ice" from the Business and Media Institute.
http://www.businessandmedia.org/specialreports/2006/fireandice/fireandice_timeswarns.asp

MEDIA COVERAGE IN 2006

Which raises the question: Has this embarrassing 100-year documented legacy of coverage on what turned out to be trendy climate science theories made the media more skeptical of today's sensational promoters of global warming?

You be the judge.

On February 19th of this year, CBS News's "60 Minutes" produced a segment on the North Pole. The segment was a completely one-sided report, alleging rapid and unprecedented melting at the polar cap.
http://www.cbsnews.com/stories/2006/02/16/60minutes/main1323169.shtml

It even featured correspondent Scott Pelley claiming that the ice in Greenland was melting so fast, that he barely got off an ice-berg before it collapsed into the water.

"60 Minutes" failed to inform its viewers that a 2005 study by a scientist named Ola Johannessen and his colleagues showing that the interior of Greenland is gaining ice and mass and that according to scientists, the Arctic was warmer in the 1930's than today.

On March 19th of this year "60 Minutes" profiled NASA scientist and alarmist James Hansen, who was once again making allegations of being censored by the Bush administration.

http://www.cbsnews.com/stories/2006/03/17/60minutes/main1415985.shtml

In this segment, objectivity and balance were again tossed aside in favor of a one-sided glowing profile of Hansen.

The "60 Minutes" segment made no mention of Hansen's partisan ties to former Democrat Vice President Al Gore or Hansen's receiving of a grant of a quarter of a million dollars from the left-wing Heinz Foundation run by Teresa Heinz Kerry. There was also no mention of Hansen's subsequent endorsement of her husband John Kerry for President in 2004.
http://www.columbia.edu/~jeh1/dai_complete.pdf

Many in the media dwell on any industry support given to so-called climate skeptics, but the same media completely fail to note Hansen's huge grant from the left-wing Heinz Foundation.
http://www.heinzawards.net/speechDetail.asp?speechID=6

The foundation's money originated from the Heinz family ketchup fortune. So it appears that the media makes a distinction between oil money and ketchup money.

"60 Minutes" also did not inform viewers that Hansen appeared to concede in a 2003 issue of Natural Science that the use of "extreme scenarios" to dramatize climate change "may have been appropriate at one time" to drive the public's attention to the issue. http://naturalscience.com/ns/articles/01-16/ns_jeh6.html

Why would "60 Minutes" ignore the basic tenets of journalism, which call for objectivity and balance in sourcing, and do such one-sided segments? The answer was provided by correspondent Scott Pelley. Pelley told the CBS News website that he justified excluding scientists skeptical of global warming alarmism from his segments because he considers skeptics to be the equivalent of "Holocaust deniers." http://www.cbsnews.com/blogs/2006/03/22/publiceye/entry1431768.shtml

This year also saw a New York Times reporter write a children's book entitled" The North Pole Was Here." The author of the book, New York Times reporter Andrew Revkin, wrote that it may someday be "easier to sail to than stand on" the North Pole in summer. So here we have a very prominent environmental reporter for the New York Times who is promoting aspects of global warming alarmism in a book aimed at children.

TIME MAGAZINE HYPES ALARMISM

In April of this year, Time Magazine devoted an issue to global warming alarmism titled "Be Worried, Be Very Worried." http://www.time.com/time/covers/0,16641,20060403,00.html

This is the same Time Magazine which first warned of a coming ice age in 1920's before switching to warning about global warming in the 1930's before switching yet again to promoting the 1970's coming ice age scare.

The April 3, 2006 global warming special report of Time Magazine was a prime example of the media's shortcomings, as the magazine cited partisan left-wing environmental groups with a vested financial interest in hyping alarmism.

Headlines blared·

"More and More Land is Being Devastated by Drought"

"Earth at the Tipping Point"

"The Climate is Crashing,"

Time Magazine did not make the slightest attempt to balance its reporting with any views with scientists skeptical of this alleged climate apocalypse.

I don't have journalism training, but I dare say calling a bunch of environmental groups with an obvious fund-raising agenda and asking them to make wild speculations on how bad global warming might become, is nothing more than advocacy for their left-wing causes. It is a violation of basic journalistic standards.

To his credit, New York Times reporter Revkin saw fit to criticize Time Magazine for its embarrassing coverage of climate science. http://orient.bowdoin.edu/orient/article.php?date=2006-04-28§ion=1&id=7

So in the end, Time's cover story title of "Be Worried, Be Very Worried," appears to have been apt. The American people should be worried --- very worried -- of such shoddy journalism.

AL GORE INCONVIENIENT TRUTH

In May, our nation was exposed to perhaps one of the slickest science propaganda films of all time: former Vice President Gore's "An Inconvenient Truth." In addition to having the backing of Paramount Pictures to market this film, Gore had the full backing of the media, and leading the cheerleading charge was none other than the Associated Press.

On June 27, the Associated Press ran an article by Seth Borenstein that boldly declared "Scientists give two thumbs up to Gore's movie." The article quoted only five scientists praising Gore's science, despite AP's having contacted over 100 scientists. http://www.usatoday.com/weather/news/2006-06-27-inconvenient-truth-reviews_x.htm

The fact that over 80% of the scientists contacted by the AP had not even seen the movie or that many scientists have harshly criticized the science presented by Gore did not dissuade the news outlet one bit from its mission to promote Gore's brand of climate alarmism. http://epw.senate.gov/pressitem.cfm?party=rep&id=257909

I am almost at a loss as to how to begin to address the series of errors, misleading science and unfounded speculation that appear in the former Vice President's film Here is what Richard Lindzen, a meteorologist from MIT has written about "An Inconvenient Truth " "A general characteristic of Mr. Gore's approach is to assiduously ignore the fact that the earth and its climate are dynamic; they are always changing even without any external forcing To treat all change as something to fear is bad enough; to do so in order to exploit that fear is much worse " http://www.opinionjournal.com/extra/?id=110008597

What follows is a very brief summary of the science that the former Vice President promotes in either a wrong or misleading way:

• He promoted the now debunked "hockey stick" temperature chart in an attempt to prove man's overwhelming impact on the climate

•He attempted to minimize the significance of Medieval Warm period and the Little Ice Age

•He insisted on a link between increased hurricane activity and global warming that most sciences believe does not exist.

•He asserted that today's Arctic is experiencing unprecedented warmth while ignoring that temperatures in the 1930's were as warm or warmer

•He claimed the Antarctic was warming and losing ice but failed to note, that is only true of a small region and the vast bulk has been cooling and gaining ice

•He hyped unfounded fears that Greenland's ice is in danger of disappearing

•He erroneously claimed that ice cap on Mt Kilimanjaro is disappearing due to global warming, even while the region cools and researchers blame the ice loss on local land-use practices

•He made assertions of massive future sea level rise that is way out side of any supposed scientific "consensus" and is not supported in even the most alarmist literature

•He incorrectly implied that a Peruvian glacier's retreat is due to global warming, while ignoring the fact that the region has been cooling since the 1930s and other glaciers in South America are advancing

•He blamed global warming for water loss in Africa's Lake Chad, despite NASA scientists concluding that local population and grazing factors are the more likely culprits

•He inaccurately claimed polar bears are drowning in significant numbers due to melting ice when in fact they are thriving

•He completely failed to inform viewers that the 48 scientists who accused President Bush of distorting science were part of a political advocacy group set up to support Democrat Presidential candidate John Kerry in 2004

Now that was just a brief sampling of some of the errors presented in "An Inconvenient Truth." Imagine how long the list would have been if I had actually seen the movie -- there would not be enough time to deliver this speech today.

TOM BROKAW

Following the promotion of "An Inconvenient Truth," the press did not miss a beat in their role as advocates for global warming fears.

ABC News put forth its best effort to secure its standing as an advocate for climate alarmism when the network put out a call for people to submit their anecdotal global warming horror stories in June for use in a future news segment http://abcnews.go.com/International/story?id=2094224&CMP=OTC-RSSFeeds0312

In July, the Discovery Channel presented a documentary on global warming narrated by former NBC anchor Tom Brokaw. The program presented only those views of scientists promoting the idea that humans are destroying the Earth's climate. http://epw.senate.gov/fact.cfm?party=rep&id=258659

You don't have to take my word for the program's overwhelming bias, a Bloomberg News TV review noted "You'll find more dissent at a North Korean political rally than in this program" because of its lack of scientific objectivity.

Brokaw also presented climate alarmist James Hansen to viewers as unbiased, failing to note his quarter million dollar grant form the partisan Heinz Foundation or his endorsement of Democrat Presidential nominee John Kerry in 2004 and his role promoting former Vice President Gore's Hollywood movie.

Brokaw, however, did find time to impugn the motives of scientists skeptical of climate alarmism when he featured paid environmental partisan Michael Oppenhimer of the group Environmental Defense accusing skeptics of being bought out by the fossil fuel interests.

The fact remains that political campaign funding by environmental groups to promote climate and environmental alarmism dwarfs spending by the fossil fuel industry by a three-to-one ratio. Environmental special interests, through their 527s, spent over $19 million compared to the $7 million that Oil and Gas spent through PACs in the 2004 election cycle.

I am reminded of a question the media often asks me about how much I have received in campaign contributions from the fossil fuel industry. My unapologetic answer is 'Not Enough,' -- especially when you consider the millions partisan environmental groups pour into political campaigns.

ENGINEERED 'CONSENSUS"

Continuing with our media analysis: On July 24, 2006 The Los Angeles Times featured an op-ed by Naomi Oreskes, a social scientist at the University of California San Diego and the author of a 2004 Science Magazine study. Oreskes insisted that a review of 928 scientific papers showed there was 100% consensus that global warming was not caused by natural climate variations. This study was also featured in former Vice President Gore's "An Inconvenient Truth," http://epw.senate.gov/fact.cfm?party=rep&id=259323

However, the analysis in Science Magazine excluded nearly 11,000 studies or more than 90 percent of the papers dealing with global warming, according to a critique by British social scientist Benny Peiser.

Peiser also pointed out that less than two percent of the climate studies in the survey actually endorsed the so-called "consensus view" that human activity is driving global warming and some of the studies actually opposed that view.

But despite this manufactured "consensus," the media continued to ignore any attempt to question the orthodoxy of climate alarmism.

As the dog days of August rolled in, the American people were once again hit with more hot hype regarding global warming, this time from The New York Times op-ed pages. A columnist penned an August 3rd column filled with so many inaccuracies it is a wonder the editor of the Times saw fit to publish it.

For instance, Bob Herbert's column made dubious claims about polar bears, the snows of Kilimanjaro and he attempted to link this past summer's heat wave in the U.S. to global warming -- something even alarmist James Hansen does not support. http://epw.senate.gov/fact.cfm?party=rep&id=261382

POLAR BEARS LOOK TIRED?

Finally, a September 15, 2006 Reuters News article claimed that polar bears in the Arctic are threatened with extinction by global warming. The article by correspondent Alister Doyle, quoted a visitor to the Arctic who claims he saw two distressed polar bears. According to the Reuters article, the man noted that "one of [the polar bears] looked to be dead and the other one looked to be exhausted." The article did not state the bears were actually dead or exhausted, rather that they "looked" that way.

Have we really arrived at the point where major news outlets in the U.S. are reduced to analyzing whether or not polar bears in the Arctic appear restful? How does reporting like this get approved for publication by the editors at Reuters? What happened to covering the hard science of this issue?

What was missing from this Reuters news article was the fact that according to biologists who study the animals, polar bears are doing quite well. Biologist Dr. Mitchell Taylor from the Arctic government of Nunavut, a territory of Canada, refuted these claims in May when he noted that

"Of the 13 populations of polar bears in Canada, 11 are stable or increasing in number. They are not going extinct, or even appear to be affected at present."
http://www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article_Type1&c=Article&cid=1146433819696&call_pageid=970599119419

Sadly, it appears that reporting anecdotes and hearsay as fact, has now replaced the basic tenets of journalism for many media outlets.

ALARMISM HAS LED TO SKEPTICISM

It is an inconvenient truth that so far, 2006 has been a year in which major segments of the media have given up on any quest for journalistic balance, fairness and objectivity when it comes to climate change. The global warming alarmists and their friends in the media have attempted to smear scientists who dare question the premise of man-made catastrophic global warming, and as a result some scientists

have seen their reputations and research funding dry up.

The media has so relentlessly promoted global warming fears that a British group called the Institute for Public Policy Research -- and this from a left leaning group -- issued a report in 2006 accusing media outlets of engaging in what they termed "climate porn" in order to attract the public's attention.

Bob Carter, a Paleoclimate geologist from James Cook University in Australia has described how the media promotes climate fear:

"Each such alarmist article is larded with words such as 'if', 'might', 'could', 'probably', 'perhaps', 'expected', 'projected' or 'modeled' - and many involve such deep dreaming, or ignorance of scientific facts and principles, that they are akin to nonsense," professor Carter concluded in an op-ed in April of this year. http://www.telegraph.co.uk/opinion/main.jhtml?xml=/opinion/2006/04/09/do0907.xml&sSheet=/news/2006/04/09/ixworld.html

Another example of this relentless hype is the reporting on the seemingly endless number of global warming impact studies which do not even address whether global warming is going to happen. They merely project the impact of potential temperature increases.

The media endlessly hypes studies that purportedly show that global warming could increase mosquito populations, malaria, West Nile Virus, heat waves and hurricanes, threaten the oceans, damage coral reefs, boost poison ivy growth, damage vineyards, and global food crops, to name just a few of the global warming linked calamities. Oddly, according to the media reports, warmer temperatures almost never seem to have any positive effects on plant or animal life or food production.

Fortunately, the media's addiction to so-called 'climate porn' has failed to seduce many Americans.

According to a July Pew Research Center Poll, the American public is split about evenly between those who say global warming is due to human activity versus those who believe it's from natural factors or not happening at all.

In addition, an August Los Angeles Times/Bloomberg poll found that most Americans do not attribute the cause of recent severe weather events to global warming, and the portion of Americans who believe global warming is naturally occurring is on the rise.

Yes -- it appears that alarmism has led to skepticism.

The American people know when their intelligence is being insulted. They know when they are being used and when they are being duped by the hysterical left.

The American people deserve better -- much better -- from our fourth estate. We have a right to expect accuracy and objectivity on climate change coverage. We have a right to expect balance in sourcing and fair analysis from reporters who cover the issue.

Above all, the media must roll back this mantra that there is scientific "consensus" of impending climatic doom as an excuse to ignore recent science. After all, there was a so-called scientific "consensus" that there were nine planets in our solar system until Pluto was recently demoted.

Breaking the cycles of media hysteria will not be easy since hysteria sells -- it's very profitable. But I want to challenge the news media to reverse course and report on the objective science of climate change, to stop ignoring legitimate voices this scientific debate and to stop acting as a vehicle for unsubstantiated hype

A Skeptic's Guide to Debunking Global Warming Alarmism
Skeptics_Guide.pdf | 2.3 MBs

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AMERICA REACTS TO SPEECH DEBUNKING MEDIA GLOBAL WARI ALARMISM

September 28, 2006

September 28, 2006

Click Here To Watch or Read Full Speech from Monday Debunking Global Warming Hysteria (http://epw.senate.gov/speechitem.cfm?party=rep&id=263759)

This past Monday, I took to this floor for the eighth time to discuss global warming. My speech focused on the myths surrounding global warming and how our national news media has embarrassed itself with a 100-year documented legacy of coverage on what turned out to be trendy climate science theories.

Over the last century, the media has flip-flopped between global cooling and warming scares At the turn of the 20th century, the media peddled an upcoming ice age -- and they said the world was coming to an end. Then in the 1930s, the alarm was raised about disaster from global warming -- and they said the world was coming to an end. Then in the 70's, an alarm for another ice age was raised -- and they said the world was coming to an end. And now, today we are back to fears of catastrophic global warming -- and again they are saying the world is coming to an end.

Today I would like to share the fascinating events that have unfolded since my floor speech on Monday.

CNN CRITICIZES MY SPEECH

This morning, CNN ran a segment criticizing my speech on global warming and attempted to refute the scientific evidence I presented to counter climate fears.

First off, CNN reporter Miles O'Brien inaccurately claimed I was "too busy" to appear on his program this week to discuss my 50 minute floor speech on global warming. But they were told I simply was not available on Tuesday or Wednesday.

I did appear on another CNN program today -- Thursday -- which I hope everyone will watch. The segment airs tonight on CNN's Glenn Beck Show on Headline News at 7pm and repeats at 9pm and midnight Eastern.

Second, CNN's O'Brien falsely claimed that I was all "alone on Capitol Hill" when it comes to questioning global warming.

Mr. O'Brien is obviously not aware that the U.S. Senate has overwhelmingly rejected Kyoto style carbon caps when it voted down the McCain-Lieberman climate bill 60-38 last year – an even larger margin than its rejection in 2003.

Third, CNN's O'Brien, claimed that my speech earlier contained errors regarding climate science. O'Brien said my claim that the Antarctic was actually cooling and gaining ice was incorrect. But both the journals Science and Nature have published studies recently finding – on balance – Antarctica is both cooling and gaining ice.

CNN's O'Brien also criticized me for saying polar bears are doing well in the Arctic But he ignored that the person I was quoting is intimately familiar with the health of polar bear populations. Let me repeat what biologist Dr. Mitchell Taylor from the Arctic government of Nunavut, a territory of Canada, said recently:

"Of the 13 populations of polar bears in Canada, 11 are stable or increasing in number. They are not going extinct, or even appear to be affected at present."

CNN's O'Brien also ignores the fact that in the Arctic, temperatures were warmer in the 1930's than today.

O'Brien also claimed that the "Hockey Stick" temperature graph was supported by most climate scientists despite the fact that the National Academy of Sciences and many independent experts have made it clear that the Hockey Stick's claim that the 1990's was the hottest decade of the last 1000 years was unsupportable.

So it seems my speech struck a nerve with the mainstream media. Their only response was to cherry pick the science in a failed attempt to refute me.

It seems that it is business as usual for many of them. Sadly, it looks like my challenge to the media to be objective and balanced has fallen on deaf ears.

SPEECH BYPASSED THE MAINSTREAM MEDIA

Despite the traditional media's failed attempt to dismiss the science I presented to counter global warming alarmism, the American people bypassed the tired old traditional media by watching CSPAN or clicking on the Drudge Report and reading the speech online.

From the flood of overwhelming positive feedback I received, I can tell you the American people responded enthusiastically to my message.

The central theme was not only one of thanks, but expressing frustration with the major media outlets because they knew in their guts that what they have been hearing in the news was false and misleading.

Here is a brief sampling:

Janet of Saugus, Massachusetts: "Thank you Senator Inhofe. Finally someone with the guts to stand up and call it what it is -- a sham. I think you have taken over Toby Keith's place as my favorite Oklahoman!!"

Al of Clinton, Connecticut writes: "It's about time someone with a loud microphone spoke up on the global warming scam. You have courage - if only this message could get into the schools where kids are being brow-beaten with the fear message almost daily."

Kevin of Jacksonville, Florida writes: "I'm so glad that we have leaders like you who are willing to stand up against the onslaught of liberal media, Hollywood and the foolish elected officials on this topic. Please keep up the fight!"

Steven of Phoenix, Arizona writes: "As a scientist, I am extremely pleased to see that there is at least one member of congress who recognizes the global warming hysteria for what it is. I am extremely impressed by the Senator's summary and wish he was running for President."

Craig of Grand Rapids, Michigan writes: "As a meteorologist I strongly agree with everything you said."

Dan of Westwood, Massachusetts writes: "This is the most concise, well researched, eloquently presented argument against Global Warming I have ever seen. Somebody in Congress has finally gotten it right!"

Adam of Salmon, Idaho writes: "Thank you for the brave speech made about all of the hyping about alleged global warming and its causes. It took guts."

My speech ignited an internet firestorm. So much so, that my speech became the subject of a heated media controversy in New Zealand. Halfway across the globe, a top official from the New Zealand Climate Science Coalition challenged New Zealand's television station to balance what he termed "alarmist doom-casting" and criticized them for failing to report the views of scientists in their own country that I cited here in America.

(http://www.scoop.co.nz/stories/PO0609/S00306.htm)

As the controversy in New Zealand shows, global warming hysteria has captured more than just the American media.

The reaction to my speech keeps coming in: Just this morning, The Pittsburgh Tribune-Review newspaper wrote an editorial calling my speech "an unusual display of reason" on the Senate floor.

I do have to give credit to another publication, Congressional Quarterly, or CQ for short. On Tuesday, CQ's Toni Johnson took the issues I raised seriously and followed up with phone calls to scientist-turned global warming pop star James Hansen's office. CQ wanted to ask Hansen about his quarter of a million dollar grant from the left-wing Heinz Foundation, whose money originated from the Heinz family ketchup fortune.

As I have pointed out, many in the media dwell on any industry support given to so-called climate skeptics, but the same media completely fail to note Hansen's huge grant from the partisan Heinz Foundation. It seems the media makes a distinction between ketchup money and oil money.

But Hansen was unavailable to respond to CQ's questions about the 'Ketchup Money' grant, which is highly unusual for a man who finds his way into the media on an almost daily basis. Mr. Hansen is always available when he is peddling his increasingly dire predictions of climate doom.

ABC NEWS PROMOTES CLIMATE HYSTERIA

I have been engaged in this debate for several years and believe there is a growing backlash of Americans rejecting what they see as climate scare tactics. And as a result, global warming alarmists are becoming increasingly desperate.

Perhaps that explains why the very next day after I spoke on the floor, ABC News's Bill Blakemore on Good Morning America prominently featured James Hansen touting future scary climate scenarios that could / might / possibly happen. ABC's "modest" title for the segment was "Will the Earth Become Too Hot? Are Our Children in Danger?"

The segment used all the well worn tactics from the alarmist guidebook -- warning of heat waves, wildfires, droughts, melting glaciers, mass extinctions unless mankind put itself on a starvation energy diet and taxed emissions.

But that's no surprise -- Blakemore was already on the record declaring "After extensive searches, ABC News has found no such [scientific] debate" about manmade catastrophic global warming.

(http://abcnews.go.com/US/print?id=2374968)

You have to be a pretty poor investigator to believe that. Why would 60 prominent scientists this last spring have written Canadian Prime Minister Harper that "If, back in the mid-1990s, we knew what we know today about climate, Kyoto would almost certainly not exist, because we would have concluded it was not necessary." (http://www.canada.com/nationalpost/financialpost/story.html?id=3711460e-bd5a-475d-a6be-4db87559d605)

On Tuesday's program, the ABC News anchor referred to Blakemore as "passionate" about global warming. "Passionate" is one word to describe that kind of reporting, but words like objectivity or balance are not.

I believe it's these kinds of stories which explain why the American public is growing increasingly skeptical of the hype. Despite the enormous 2006 media campaign to instill fear into the public, the number of people who believe that weather naturally changes -- is increasing.

A Los Angeles Times/Bloomberg poll in August found that most Americans do not attribute the cause of recent severe weather events to global warming, and the portion of Americans who believe that climate change is due to natural variability has increased over 50% in the last five years.

Given the diminishing importance of the mainstream media, I expect that trend to continue.

I hope my other colleagues will join me on the floor and start speaking out to debunk hysteria surrounding global warming. This issue is too important to our generation and future generations to allow distortions and media propaganda to derail the economic health of our nation

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410 Dirksen Senate Office Bldg Washington, DC 20510-6175
phone: 202-224-6176

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CLIMATE CHANGE -- (Senate - December 08, 2006)

[Page: S11601]

Mr. INHOFE. Mr. President, the hearing we had 3 days ago in the Environment and Public Works Committee is one of the four hearings we have had on climate change. It is probably the most misunderstood of all issues out there today--and the most alarming to a lot of people. This hearing was totally different. This hearing was about how the media is skewing the results, how the media is hyping the anxiety of this thing and totally ignoring the science.

It is kind of interesting. A lot of people are not aware that when you have a hearing, you will have Republicans and Democrats each bringing in experts. We had five experts; two of them were brought in by the Democrats and three by the Republicans.

It was interesting because one of the Democrat witnesses, Dr. Daniel Schrag of Harvard, believes that manmade emissions are driving global warming. Let me clarify this because it is not understood by very many people.

The issue is not that the world is getting warmer. Yes. It is. It is always either getting warmer or cooling. There is never any time when it is static.

So we are going through a warming period. It increased to about 1998, and then it stopped pretty much at that time. But even their witness, who was a believer, said that the Kyoto Protocol is not the right approach to take and agreed it had almost no impact on the climate if all the nations complied.

Probably one of the most major breakthroughs that we have had is the recognition by virtually all scientists that the Kyoto Protocol, which would be devastating to the United States, or any country--ask Great Britain. They will tell you. They signed onto the Kyoto Accord. In fact, if you look at some of the countries, such as Canada, 60 scientists who were advisers to the Prime Minister of Canada are saying if we had known back in the late 1990s the science of today, we would never have done that. Now they are petitioning the Prime Minister to get out of the Kyoto Protocol.

It was kind of interesting. Al Gore, who really believed this was his ticket to the White House back when he was the Vice President of the United States, went to a guy named Tom Quigley, a scientist, and said we would like to know if all the countries--this is back when they were trying to get us in the United States to ratify the Kyoto Protocol--said if all the countries of the developed world were to do this, what effect would that have on the temperature over a 50-year period. He had a neat chart to hold up. He said if all the countries in the developed world, the United States of America and all the other developed nations did this, over 50 years it would reduce the temperature by 6/100ths of 1 degree centigrade, which isn't even measurable.

Now all these people agree with that--all of the scientists who used to be on the other side of the issue.

One of the witnesses there was a paleoclimate researcher, Bob Carter from Australia, the James Cook University. He has gone back to Australia. Everyone recognizes him as being one of the outstanding--in fact, he has been on quite a few TV shows. He says there is a huge uncertainty in every aspect of climate change.

David Deming, a geophysicist, said:

Every natural disaster that occurs is now linked [by the media] with global warming, no matter how tenuous or impossible the connection. As a result, the public has become vastly misinformed on this and other environmental issues.

That is a significant thing. While we recognize that we are going through a natural period where the climate is getting warmer, it was actually warmer in the 1930s than it is today. It was warmer in the fifteenth century than today.

But during this period of time, they are trying to say it is due to man-emitted gases. They are called antigeometric gases, methane, CO

2. Now they are all realizing that CO

2 has virtually nothing to do with it, and that is why you are seeing so much of the panic in the media.

Dan Gainor was one of the only nonscience witnesses. He approached it from an ethical perspective, talking about the one-sided climate coverage, saying it violates the ethical code of the Society of Professional Journalists which urges the media to ``support the open exchange of views. Even views they find repugnant.'' That code calls for reporters to distinguish between advocacy and news reporting which, he says, they have not been doing.

[Page: S11602]

One of those individuals who is a strong supporter of human gases causing climate change, Mike Hulme, the director of the UK-based Tyndall Centre for Climate Change Research, is on the other side of this thing and has now--talking about the media--chastised the media and environmentalists for choosing the ``language of fear and terror'' to scare the public. Hulme noted he has found himself ``increasingly chastised'' by global warming activists because his public statements ``have not satisfied the [activist] thirst for environmental drama and search for exaggerated rhetoric.''

A report in August of 2006 from the UK labor-leaning Institute for Public Policy talked about the way the media is handling it:

A quasireligious register of doom, death, heaven and hell using words such as ``catastrophe,'' ``chaos'' and ``havoc.''

The report also compared the media's coverage of global warming to ``the unreality of Hollywood films.''

Another individual who was a supporter at one time, David Bellamy from Britain, has come around talking about this. The one I am going to talk about in January at some length is a man named Claude Allegre, the French geophysicist and a former Socialist Party leader. He is the only one I know who is a member of both the French and the United States Academies of Science. Allegre now says the cause of warming remains unknown and the alarmism ``has become a very lucrative business for some people.'' In short, their motive is money. And he is right, it is about money.

One by one, the people, scientists are coming around. This hearing has had more response throughout the Nation. I have lists of newspapers that have editorialized as a result of this. That awakening is taking place, but that is not why I am here today.

END

THE POLARIZING POLITICS OF THE POLAR BEAR

January 4, 2007

Mr. President, I rise today to address the U.S. Fish & Wildlife Service's recent action to begin formal consideration of whether to list the polar bear as a threatened species under the Endangered Species Act (ESA). Over the next year, the Fish and Wildlife Service will examine scientific and commercial data regarding the health of the polar bear population and evaluate the presence of any threats to its existence.

The question that the Fish and Wildlife Service must answer is: Is there clear, scientific evidence that current worldwide polar bear populations are in trouble and facing possible extinction in the foreseeable future?

As the Fish and Wildlife Service reviews the issue over the next year, I feel confident they will conclude as I have, that listing the polar bear is unwarranted.

In the proposal, the Fish and Wildlife Service acknowledges that for seven of the 19 worldwide polar bear populations, the Service has no population trend data of any kind. Other data suggest that for an additional five polar bear populations, the number of bears is not declining and is stable. Two more of the bear populations showed reduced numbers in the past due to over hunting, but these two populations are now increasing because of hunting restrictions.

Other sources of data mentioned in a recent Wall Street Journal piece, suggest that "there are more polar bears in the world now than there were 40 years ago." The Fish and Wildlife Service estimates that the polar bear population is 20,000 to 25,000 bears, whereas in the 1950s and 1960s, estimates were as low as 5,000-10,000 bears due to sport hunting, which has since been restricted.

A 2002 U.S. Geological Survey of wildlife in the Arctic Refuge Coastal Plain noted that the polar bear populations "may now be near historic highs."

So if the number of polar bears does not appear to be in decline, why are we considering listing the species as threatened? Because the ESA is broken and this proposal is indicative of what is wrong with it.

The ESA allows the Service to list the entire range of polar bears as threatened and thereby extend a wide array of regulatory restrictions to them and their habitat, despite a dearth of data and the lack of scientific evidence that polar bears are indeed in trouble.

The law also allows for the Fish and Wildlife Service to justify its proposal on a sample from a single population in Western Hudson Bay in Canada, where bear populations have decreased by 259 polar bears in the last 17 years. Yet hunting was allowed during that entire period in the Western Hudson Bay population. In fact, according to the latest figures collected by the International Union for Conservation of Nature and Natural Resources, 234 bears have been killed in the last 5 years alone. How many more were killed in the previous 12 years and what overall affect did this have on population numbers?

Ironically, the Canadian government is right now considering a proposal to increase the quota on the harvesting of polar bears in the Western Hudson Bay population. This would allow more hunting of the population whose condition is so dire that the Service based its listing decision on it. While I support hunting as a general matter, we need to fully understand its impact on the polar bear populations before we blame global warming for changes in bear populations.

The Fish and Wildlife Service asserts that the reason for the decline in the Western Hudson Bay population is climate-change-induced ice melting. To make that assertion, they rely on hypothetical climate change computer models showing massive loss of ice that irreparably damages the polar bear's habitat. The Service then extrapolates that reasoning to the other 18 populations of polar bears, making the assumption that all bears in these populations will eventually decline and go extinct. Again, this conclusion is not based on field data but on hypothetical modeling and that is considered perfectly acceptable "scientific evidence" under the ESA.

I do not believe our federal conservation policy should be dictated by hypothetical computer projections because the stakes of a listing decision under ESA can be extremely high. The listing of the polar bear is no exception.

The ESA is the most effective federal tool to usurp local land use control and undermine private property rights. As landowners and businesses have known for decades, when you want to stop a development project or just about any activity, find a species on that land to protect and things slow down or many times stop altogether This is because Section 7 of the ESA requires that any project

that involves the federal government in any way must meet the approval of the Fish and Wildlife Service before the project can move forward. This federal government involvement in a project can take the form of a federal grant, an environmental permit, a grazing allotment, a pesticide registration or land development permit. The law requires that the Fish and Wildlife Service intervene and determine if the project may affect an endangered or threatened species.

So in the case of the polar bear listing, oil and gas exploration in Alaska, which accounts for 85% of the state's revenue and 25% of the nation's domestic oil production, is immediately called into question. Likewise, the state's shipping, highway construction, or fishing activities will be also be subject to federal scrutiny under Section 7.

Furthermore, because the Fish and Wildlife Service has linked the ice flow habitat concerns of polar bears to global climate change, all kinds of projects around the country could be challenged. Some will say that this is not possible or that I'm exaggerating. But if you take the ESA to its logical conclusion, which is certain to be done by environmental special interests, any activity that allegedly affects climate change or greenhouse gas emissions may have to be evaluated and approved by Fish and Wildlife Service for its effect on the ice flows on which polar bears depend. Thus, this proposal could be the ultimate assault on local land use decision-making and suppression of private property rights to date.

So it is important that we take the next year to gather and critically evaluate more science about these impressive creatures to determine whether or not they really are in trouble. We need to replace speculation and uncertainty with facts and figures. I look forward to working with the Fish and Wildlife Service on this important listing decision and I firmly believe that the science will show that the evidence pointing to a threat to polar bears is not sufficient to warrant federal ESA protection and all the regulatory land use control that comes with it.

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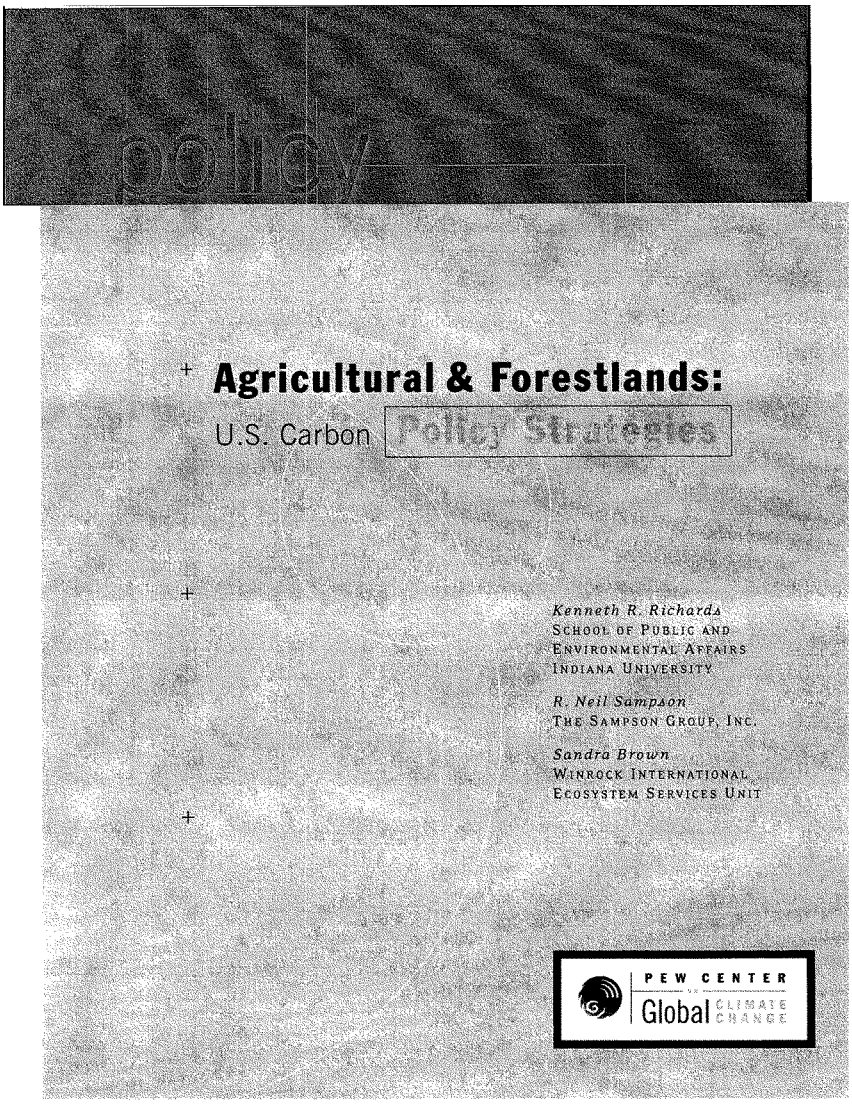
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Agricultural & Forestlands:
U.S. Carbon Policy Strategies
Kenneth R. Richards
School of Public and Environmental Affairs
Indiana University
R. Neil Sampson
The Sampson Group, Inc.
Sandra Brown
Winrock International
Ecosystem Services Unit
PEW CENTER
Global CLIMATE CHANGE

Agricultural & Forestlands: U.S. Carbon Policy Strategies

Prepared for the Pew Center on Global Climate Change

by

Kenneth R. Richards
School of Public and Environmental Affairs
Indiana University

R. Neil Sampson
The Sampson Group, Inc.

Sandra Brown
Winrock International
Ecosystem Services Unit

September 2006

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Foreword *Eileen Claussen, President, Pew Center on Global Climate Change*

The vast lands of the United States offer significant opportunities to contribute to solving the problem of climate change. At costs well under $100 per ton of carbon, it may be possible to offset nearly 20 percent of current U.S. carbon dioxide emissions through reforesting marginal agricultural lands and restoring carbon to agricultural soils through practices such as no-till and improved crop rotations. Emissions can also be reduced by substituting biomass energy for fossil fuels and by reducing the intensity of wildfires through thinning and removing excess debris. However, for U.S. forest and agricultural lands to play a significant role in curbing climate change, a substantial national policy commitment will be necessary.

This report reviews the available resources and considers the range of policy approaches that would include U.S. forest and agricultural lands in a domestic policy. Kenneth Richards, Neil Sampson, and Sandra Brown identify four basic policy approaches and find that different approaches are suited to different lands. The approaches also vary with regard to who bears the implementation costs—the public at large or specific groups within it—and in expected magnitude of results. For these reasons, a successful forest and agricultural lands program will require some mix of the four approaches:

- Changing practices on public lands,
- Land use regulations on privately owned forestlands,
- Practice-based incentives for forest and agricultural lands, and
- Results-based incentives for forest and agricultural lands.

They find that:

- U.S. Department of Agriculture programs that encourage best practices are familiar to and popular with farmers and forestland owners. As a result, we should evaluate those programs and expand the most effective ones.
- We need to do a better job of having landowners, rather than the government, be the ones to determine what information they need.
- Regulation of private land is primarily an opportunity for state and local government rather than the federal government.
- Results-based incentives, i.e., offering payments per ton of sequestered carbon, can encourage more cost-effective and innovative approaches, but will require development and agreement on consistent and reliable accounting methods.

So how should this inform policy-making? First, we should include land-based sequestration in federal legislation, including the Farm Bill and proposals that address climate change. Second, we should promote opportunities for farmers to move from traditional crop support to environmental and energy-security goals. Third, we should be managing large tracts of forestland sustainably, thus providing both for sequestration and habitat.

This report is being released with a companion report, *The Role of Agriculture in Greenhouse Gas Mitigation*. While this paper focuses on policy options, the companion report reviews the economic and technological opportunities available to farmers—including using cropland to produce biofuels—and estimates the greenhouse gas reductions that could be achieved. Taken together, these reports provide a comprehensive review of the role of U.S. forest and agricultural lands in a domestic climate change program. The Pew Center and the authors would like to express appreciation to Craig Cox, Debbie Reed and Brent Sohngen for reviewing and providing suggestions on an early draft of this report.

Executive Summary

Agricultural and forestlands can play a key role as part of a comprehensive strategy to slow the accumulation of greenhouse gas emissions in the atmosphere. Much of the public discussion about using these lands as part of an overall strategy to address climate change results from the beliefs that forest and agriculture land-use and management options will be relatively low cost, and that biomass can play an important role in reducing the use of fossil fuels. In the near term, these lands can be managed to increase the quantity of carbon stored in soils and plant matter, thereby reducing net emissions of the primary greenhouse gas, carbon dioxide. In many cases the changes in land-use management that increase carbon storage provide multiple benefits—such as erosion control, water quality protection, and improved wildlife habitat—that by themselves justify the new practices. Over longer time horizons, agricultural and forestlands can produce biomass-based substitutes for fossil fuels, thereby further reducing emissions.

This report examines the wide array of ways in which forest and agricultural lands can be managed to store or "sequester" carbon and reduce net emissions (hereafter we use the term "sequestration" for the process by which carbon is removed from the atmosphere by plants and stored in soils and trees). It discusses a range of policies and programs that would promote this objective and evaluates them in terms of their cost, environmental effectiveness, and other considerations. The results of this analysis suggest that, by carefully designing and implementing a large-scale forest and agricultural carbon sequestration strategy, the United States could substantially reduce its net carbon dioxide emissions. A successful strategy is likely to encompass a variety of initiatives at the national, state, and local levels, and to involve both government and private parties. No single approach will suffice.

Much of the infrastructure needed to increase carbon sequestration on agricultural and forestlands is already in place. To capitalize on sequestration opportunities, the federal government will need to address the full range of practices available for conserving existing carbon stocks and for promoting additional carbon uptake and storage on forest, crop, and grazing lands. A successful national strategy will also need to be responsive to the different types of land and landowners involved, to draw on the existing network of organizations, and include a variety of policy tools. On public lands, for example, government

agencies, personnel, and resources can be directly deployed to pursue sequestration goals. On private land, the federal government has typically had to rely on incentives to influence land management and use. Regulatory approaches have been used on private forestlands, but have been carried out by states because of historically stiff political resistance to federal intervention in state powers to regulate land use.

There are three basic ways in which forest and agricultural lands can contribute to greenhouse gas reduction efforts: conversion of non-forestlands to forests, preserving and increasing carbon in existing forests and agricultural soils, and growing biomass to be used for energy. The costs and potential contributions associated with these three strategies vary widely. Conversion of an estimated 115 million acres of marginal agricultural lands in the United States to forests could sequester an additional 270 million metric tons (MMT) of carbon per year over a period of 100 years, at marginal costs in the range of $50 per metric ton of carbon ($45 per short ton). 270 MMT of carbon stored in forests would offset nearly 20 percent of current emissions of carbon dioxide from U.S. combustion of fossil fuels. However, 115 million acres equals nearly 1/3 of currently cultivated cropland and, even though some of this conversion might be economic, conversion on this scale would require a significant federal effort and likely meet with resistance from agricultural business and rural communities. Initial national studies also suggest that up to 70 MMT could be sequestered annually on agricultural lands through modification of agricultural practices if moderate incentives were available (up to $50 per metric ton of carbon; $12.50 per metric ton CO_2). In addition, with yield improvements and cost reductions in the technologies, it may be possible to offset as much as 9 to 24 percent of current emissions through use of biofuels produced at costs competitive with fossil fuels.

In a perfect world the most cost-effective practices—both source control and carbon sequestration—would be adopted first, with more costly approaches implemented successively as net emission reduction goals require. In practice, many approaches may be used simultaneously for a combination of practical, programmatic, and political reasons.

Carbon sequestration programs will not be implemented in a policy vacuum. New program design will need to take existing programs, regulations, and resources into consideration, including the large and sophisticated infrastructure that supplies the nation's many forest and agriculture landowners with educational, technical, and financial support. A key asset that the government has at its disposal is the resourcefulness of many of these landowners. Given practical and political considerations, incentive-based

approaches combined with technical assistance are the most effective and feasible policy tools the federal government will have to begin implementing a domestic carbon sequestration strategy. Moreover, the structure needed to deliver incentives for sequestration is already in place in the form of numerous programs contained in the 2002 Farm Bill, including the Conservation Security Program, the Conservation Reserve Program, the Environmental Quality Incentives Program, and the Wildlife Habitat Incentives Program. The government has a great deal of experience with these programs, and, although each was designed to promote specific activities or land management practices, many of the targeted practices also sequester carbon. The practice-based approaches incorporated in these programs have received broad political support. Indeed, it may well be possible to achieve substantial gains in carbon conservation and sequestration simply by relying on existing institutions and programs. In many cases, greater gains could be achieved by increasing budgets and expanding programs. Thus, the federal government should provide substantial and sustained funding for Farm Bill programs that have been successful in promoting carbon sequestration.

An alternative to providing incentives for specific activities or management practices is to employ results-based approaches that provide rewards to landowners in proportion to the actual amount of additional carbon sequestration they achieve. This approach is foreshadowed in the domestic 1605(b) voluntary reporting program. It is also reflected in the Clean Development Mechanism of the Kyoto Protocol at the international level. The advantage of a results-based approach is that it encourages private landowners and project developers to develop innovative land-management practices that are adapted to local conditions. Rather than prescribing the sequestration practices for which the government will pay, the results-based approach frees the landowner to take whatever steps are appropriate to increase carbon stocks, and the reward is directly proportional to the accomplishment.

Incentives or rewards in a results-based program could take several forms. Two leading candidates are subsidy payments and carbon credits. A subsidy payment would take the form of an announced price—in dollars per ton—that the government would pay for carbon sequestration. This approach could be implemented by modifying existing government incentive-based programs. Alternatively, carbon credits could be established in conjunction with a "cap-and-trade" program. Large point sources such as power plants could be allowed to meet their caps, at least partially, by purchasing emission credits awarded for increasing sequestration on forest and agricultural lands. This approach

would allow private landowners to receive income for sequestering carbon and would assist entities subject to emission caps to meet their targets at lower costs.

However, results-based approaches are less familiar to the agricultural and forest communities than existing programs that provide incentives for specific practices. Moreover, if credits are allocated to individual landowners under a results-based approach, the government will have to insure that there are adequate methods to provide consistent, reliable, quantified estimates of the greenhouse gas impacts of changes in land management and use. If the government can gain broad acceptance for a results-based approach, and develop the estimation protocols needed to gauge the appropriate rewards, it may be possible to unleash substantial creativity among the broad range of landowners in the United States in achieving increased carbon sequestration.

The government can employ all of the approaches described in this report—providing educational programs through its extension services, enhancing sequestration on government land, urging states to adopt regulations that encourage carbon sequestration, providing incentives for sequestration-promoting practices, and developing results-based programs—to achieve the greatest effect.

I. Introduction

Agricultural and forestlands play a role in climate change mitigation efforts because carbon accumulated in soils and trees represents carbon dioxide that has been removed from the atmosphere. The purpose of this report is to examine what programs and policies the United States can use to address these terrestrial carbon stocks—including sequestering new carbon and conserving existing carbon stocks—and how credible claims can be made regarding changes in carbon stocks. To examine these two issues it is necessary to explore the types of agricultural and forestry activities that will increase carbon storage or conserve existing carbon stocks, the tools available to motivate landowners to change their management practices, and how carbon sequestration accomplishments might be measured.

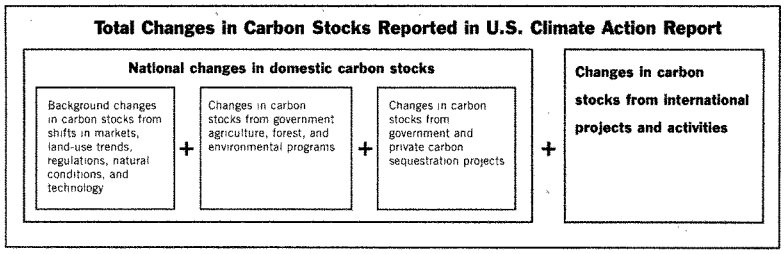
The physical resources available for carbon sequestration in the United States are significant. A large forest and farmland base provides tremendous opportunities to increase and conserve terrestrial carbon stocks. Perhaps most significantly, the amount of land in crops and grass is declining, and much of this acreage is being allowed to undergo a natural process of regeneration to forests. Active management of this transition could sequester additional carbon.

One of the challenges the United States will face, however, is that there are millions of farm and forestland owners. A sequestration program open to all of these landowners may present significant administrative hurdles. As policy-makers consider alternative approaches for implementing a sequestration program, they will have to accommodate a large variety of practices on several different land types, as well as potentially large numbers of participants.

The net change in national terrestrial carbon stocks will be the result of several factors (Figure 1). First, there are background changes that affect patterns of land use and carbon stocks on agriculture, forest, and other lands. Background changes include market-related shifts, technology changes, natural changes, and ongoing general land-use regulations. These background effects can lead to significant changes in carbon stocks over time. Second, there are many governmental programs in the agricultural and forestry sectors under which carbon sequestration is one among many goals. Third, there are projects,

Figure 1

Components of **Reported National Carbon Sequestration Gains**



sponsored by both government and private organizations, whose primary purpose is to increase carbon stocks. These three forces combine to determine domestic gains or losses in carbon sequestration at the national level. In addition, the United States may choose to encourage or sponsor international projects and activities, the effects of which the U.S. government can also include in its periodic updates to the U.S. Climate Action Report (U.S. Department of State, May 2002).

This report is structured as follows: Chapter II reviews the context within which any carbon sequestration program would be implemented. It considers the physical, organizational, and cultural resources that can be brought to bear on the effort to enhance carbon stocks. Chapter III provides an overview of the types of activities that could potentially increase carbon sequestration on agricultural and forestlands. It also considers costs and magnitudes of the changes in carbon stocks that could be achieved in the United States and other countries if certain sequestration practices were adopted. Chapter IV examines and evaluates the cost and environmental effectiveness of the policy tools that could be used to influence landowners' management practices, including direct government action, regulations, education programs, and practice- and results-based incentives. Chapter IV focuses on how the government and private landowners might share decision-making and financial obligations under different implementation approaches. The chapter also considers how various policy tools have evolved, in both federal legislation and state forestry programs, and the challenges associated with offering results-based incentives for carbon sequestration to private projects. Chapter V provides a synthesis and offers a coherent approach to carbon sequestration that would promote multiple goals within the context of current political constraints.

2

Agricultural & Forestlands: U.S. Carbon **Policy Strategies**

II. The Context for a National Carbon Sequestration Strategy

As the United States develops a strategy to encourage landowners to adopt practices that increase carbon stocks on the land, it is useful to understand the context within which key parties are acting. The United States is fortunate to have a well-developed support system for agriculture and forestry that includes federal and state agencies, state research universities, an extensive system of data collection, a large land base, and a resourceful community of agriculture and forestry landowners. While not all landowners are innovators, the recent and rapid adoption of new agricultural practices such as conservation tillage, and of new forestry initiatives such as forest certification,[2] is indicative of a capacity for change that carbon sequestration policies should seek to harness. This section of the report reviews the institutional, physical, and cultural contexts in which a U.S. carbon sequestration strategy would be developed and implemented.

A. Land-Management Resources

Land management policies in the United States are implemented through a highly developed and complex array of public agencies and institutions at the federal, state, and local levels. In addition to federal institutions and 50 state agencies, there are some 3,000 counties as well as several thousand special-purpose local institutions involved with land-use regulation or management programs. Each of these governmental institutions and organizations is potentially relevant to a national strategy to use the U.S. land base to reduce net greenhouse gas (GHG) emissions. One particularly relevant aspect of this multi-level arrangement is that federal agencies tend to use rewards and inducements to encourage private landowners to adopt desirable land-use and management practices, while state agencies rely somewhat more heavily on mandatory or imposed requirements. Where federal regulations are involved (e.g., water quality standards, pesticide regulation), these are often implemented by state agencies and are, in some cases, supplemented by state laws.

The U.S. Department of Agriculture (USDA) oversees most of the federal programs available to assist private landowners in improving land management and conservation. The USDA's programs are

administered through a complex institutional framework that includes cooperating federal, state, and local government agencies; non-governmental organizations; and private providers. This institutional network reaches into every corner of the nation and is available (usually free of charge) to every rural landowner or land manager. The USDA's influence throughout this network creates the potential for new federal programs to be incorporated and implemented effectively. That "potential" is not necessarily easy to achieve, since most of the relevant institutions and agencies have faced serious budget and personnel shortfalls in recent years. The USDA's potential could, however, be more fully realized if the national commitment to achieving program goals is adequate.

The USDA programs use incentives to help landowners apply and maintain improved conservation and forestry practices on their land. Historically, the basic mechanisms have been education, technical assistance, and economic incentives. In each program, landowners have been free to participate, or not, as they choose. In 1985, landowners wishing to receive farm income support, price support, and conservation payments from USDA programs were required to plan and install conservation systems on their land. This "conservation compliance" approach was the first time any "stick" had been added to the "carrot" approach.

In this system, it has been common for much of the impetus behind new environmental and economic policies to originate with the federal government. Policies are translated into federal programs, some are assigned to federal agencies for federal implementation, but many others are either handed off to state and local authorities, or assigned to a federal agency that relies on state and local partners for much of the actual implementation. This system allows for relatively quick nationwide action on new initiatives, but it can also lead to significant confusion and frustration as the details get translated differently by different players or encounter local situations where they do not always fit (Healy, 1976).

Traditionally most programs involving land-use regulation have been developed and implemented at the state and local levels. Historically, political opposition has prevented all efforts at comprehensive land-use legislation at the federal level, although some specific policies—such as providing federal support for state-level planning in coastal zones—have been successful. Moreover, the Fifth Amendment of the U.S. Constitution, which bars the federal government from taking private property for public use without just compensation, and the Fourteenth Amendment, which applies the same restriction to state government,

limit the degree to which government at any level can regulate land use without actually condemning and paying for the land. State government is also the ultimate source of the "police power" which is the constitutional basis for land-use regulation (Healy, 1976). While there have been numerous legal arguments and rulings over the extent of states' ability to use this power, the general political effect has been to generate significant controversy over land-use regulations virtually everywhere in the United States.

B. Physical Resources

The United States has substantial physical resources for increasing carbon sequestration levels. The country occupies a huge and complex land base of about .26 billion acres (Table 1), with about 1.9 billion acres in the contiguous 48 states and the remainder in Alaska, Hawaii, and the Caribbean.

While the proportion and amount of land within each major land-use category has remained fairly stable over time, non-federal lands have undergone considerable land-use changes in recent decades. Since 1982, data produced by the National Resources Inventory (NRI) have provided some insight into the amount of land being converted between major uses (Table 2). Table 2 indicates that the total amount of non-federal forestland increased only about 1 percent (four million acres) between 1982 and 1997. The four million acre net change tends to mask the fact that land-use changes affecting forests totaled almost 50 million acres during this 15-year period. Some 20 million acres of cropland

Table 1

Ownership and Land Use in the United States, by Major Categories, 1997

	Million Acres					
Ownership	**Cropland**	**Pasture/Range**	**Forest**	**Other**	**Total**	**Percent**
Federal	—	152	247	248	647	29
Other public	3	40	70	83	195	9
Indian	2	36	11	6	55	2
Private	450	352	420	145	1,366	60
Total	**455**	**580**	**747**	**481**	**2,263**	**100**
Percent	20	26	33	21	100	—

Note: The estimates in this table were developed by the USDA Economic Research Service from a variety of sources. These data are collected and published on a 5-year inventory cycle. They form the basis for national estimates of land-use and cover change that can be used to calculate terrestrial carbon stocks at national, regional, or state levels. As these inventories gain both in the time periods they cover and in their statistical rigor, they become more and more valuable for understanding the dynamics of the American land resource.

Source: Vesterby and Krupa, 2001

and 7 million acres of other uses were converted into forest, while around 22 million acres of forest were converted into non-forest uses. (Note that the five million acre change obtained by summing individual changes does not match the four million acre total change due to rounding differences.) The largest conversion of forest into non-forest uses involved 12 million acres that moved into the miscellaneous category, representing primarily urban development and associated uses such as roads. These land-use changes affect carbon stocks, so having statistically valid periodic surveys from the NRI is an essential base for reporting carbon-stock changes at the national level.

As Table 1 illustrates, 60 percent of the land in the United States is held in private ownership. When Alaska (which is mainly in public or Indian ownership) is removed, the fraction of privately owned land jumps to over 70 percent. As a result, achieving public conservation goals in the United States depends on obtaining the cooperation of private landowners. Many private land holdings are small. For example, in the case of forests, owners of less than 50 acres make up 86.5 percent of all owners while representing around 19.6 percent of the forestland base (Table 3). Similarly, for farm land, 50 percent of all U.S. farms sell less than $10,000 worth of agricultural produce a year, and those farms represent only about 10.7 percent of the land area in farms (Table 4).

Table 2

Land Use **Transition Matrix** 1982-1997 (in millions of acres)

Land Use	Cropland	Grass	Forest	Misc.	Other	1982 levels
Cropland	**509**	6	20	16	1	552
Grass	11	**396**	3	5	3	416
Forest	6	2	**380**	12	2	403
Miscellaneous	3	1	3	**116**		123
Other	1	2	1	—	**396**	399
1997 levels	529	406	407	149	402	**1,893**

Note. Numbers in bold indicate acres that did not change use between 1982 and 1997. Non-bold numbers represent land that changed use between 1982 and 1997. A non-bold number indicates the acreage that moved out of the land use category shown on the left and into the land use shown at the top of the column. For example, the non-bold "6" in the top row, second column, indicates that between 1982 and 1997, six million acres were moved out of cropland and converted to grassland. The "11" in the second row, first column indicates that 11 million acres moved out of grassland and converted to cropland. These data reflect changes on non-federal land outside of Alaska, which is not included in the NRI. The "Other" category in this table includes primarily federal lands that are not inventoried as part of the NRI.

Source: Vesterby and Krupa, 2001

At the other end of the scale, Tables 3 and 4 illustrate another basic fact: much of America's private land is held by a relatively few large landowners, often corporations or organizations. Approximately 75 percent of all farmland is concentrated in 30 percent of the farms. Even more striking, 45 percent of all forestland is held by less than one percent of the forestland owners.

Table 3

Private forestland Owners

by Size of Forest Holdings, 1994

Acreage Category	1994 Owners	Percent of Total	1994 Acres	Percent of Total
1-9	5,795,000	58.53	16,600,000	4.22
10-49	2,762,000	27.90	60,400,000	15.36
50-99	717,000	7.24	47,200,000	12.00
100-499	559,000	5.65	91,600,000	23.29
500-999	41,000	0.41	24,500,000	6.23
1,000+	27,000	0 27	153,000,000	38.90
Total	**9,901,000**	**100.00**	**393,300,000**	**100.00**

Source Sampson and DeCoster, 1997, using data from Birch 1996.

The Natural Resources Conservation Service (NRCS) has estimated that ownership of farm and ranch land in the United States involves around 4.7 million people (USDA-NRCS, 1996). Adding farm owners to the almost ten million forest owners, even with some overlap in the estimates, it is safe to assume that rural landowners number in the range of 14-15 million.[3]

Two points emerge from this examination of ownership patterns. First, ownership of agricultural and forestlands ranges from very small to very large landholders. Programs that may be appropriate for large landholders, who are likely to be highly-capitalized, sophisticated, full-time managers of their land, may not be appropriate for small landholders for whom farming and forestry is a secondary activity or even a hobby. Second, programs designed to promote carbon sequestration on both farm and forestlands may have to deal with very large numbers of participants. As a practical matter it will be important to keep these programs simple to administer.

Table 4

Percent of **U.S. Farms & Land in Farms**

by Economic Sales Class, 1997

Economic sales class	Percent of total Farms	Land	Average size farm (acres)
$1,000-$2,499	23 6	3 2	64
$2,500-$4,999	14.2	3.2	106
$5,000-$9,999	12 3	4.3	164
$10,000-$19,999	11 0	6.2	265
$20,000-$39,999	9.9	9.6	456
$40,000-$99,999	12 1	19 0	739
$100,000-$249,999	10 0	24 0	1,129
$250,000-$499,999	4.1	14.0	1,607
Over $500,000	2.8	16.5	2,773
Total	**100.0**	**100.0**	**471**

Source. USDA-NASS, 1998

C. Human Resources

One of the greatest challenges facing the institutions that work with landowners in the United States is the significant cultural, educational, and technological change that has marked the 20th Century. From the time that Abraham Lincoln signed the 1862 law creating the Land Grant University System through the growth of the national forestry, research, extension, and soil conservation programs in the period 1880–1940, landowners were seen to be largely rural, less educated, and less connected to information sources (Sampson and DeCoster, 1997). Thus, public programs were designed to develop new and more effective means of land-use and resource management (i.e., research), to educate new generations of farmers and foresters in their use (teaching), and to employ a variety of communications and outreach strategies (extension services) to help existing landowners learn new methods.

The success of that approach—combined research, teaching, and extension services—is well documented, and it has been copied to some extent in many other countries. But major changes marked the second half of the 20th Century, beginning at the end of World War II. Expanded educational opportunities and the explosive growth of communications affected rural residents and landowners at the same pace as the society as a whole. Instead of relying almost solely on their local extension agent for new ideas about farming, forestry, or soil conservation, landowners could increasingly turn directly to a wide variety of information sources such as commercial vendors and university or agency specialists. Today, access to the Internet and its enormous array of information is as common in rural areas as elsewhere, and the percentage of farms that use computers as management tools is rising rapidly. For example, the percent of U.S. farms with internet access more than doubled between 1997 and 1999, to a total of 29 percent (USDA-NASS, 1999). The transition from serving an audience of under-educated and isolated people to effectively reaching an audience that is both educated and sophisticated in the use of modern communications technologies is still underway in many federal and state agencies. Sampson and DeCoster (1997) argue that major program revamping or, in many cases, development of totally different types of marketing and communications strategies will be required. The key change they suggest would be to replace the "outreach" model (which is based on the idea of informed suppliers "reaching out" to an uninformed audience) with an "inreach" model—where information consumers decide what information and type of assistance they need and are encouraged to request it from the suppliers.

A major question facing policy-makers considering a coherent climate change strategy is how to make carbon sequestration programs relevant in light of the capabilities and limitations of today's landowners. Carbon sequestration, as a new environmental service being promoted by government, is not as yet a familiar subject. How will the basic concepts be communicated, and how will new policies be designed so that landowners can readily find out whether or not the practices being proposed are well suited to their resource situation? This is a significant communications challenge that will need to be addressed in light of today's communications technologies. In addition to an effective communications strategy, new policies will also need to provide economic incentives sufficient to encourage landowner entry into activities that may require new investment or create different risks than they have previously experienced. Further discussion of economic incentives and risks are available in the companion Pew Center report, *Agriculture's Role in Greenhouse Gas Mitigation*, Paustian et al., 2006.

One proposed strategy to increase awareness of carbon sequestration opportunities would be to synchronize public efforts with private, market-driven efforts, thus achieving complementarity rather than competition (Sampson and DeCoster, 1997). If landowners are being informed about carbon sequestration by both public agencies and private market forces (such as buyers, advertisers, etc.), they will have increased opportunities to become comfortable with the new concepts. If market incentives become available, for example, through a credit provision under an emissions cap-and-trade program, the amount of public funding needed to produce a targeted level of activity should diminish, improving the political climate for such funding. However, if only market incentives are available, the opportunity to harness the extensive resources of agricultural and forestry outreach institutions and programs is diminished. These observations suggest that U.S. climate policy, rather than relying exclusively on either a market-based approach or on a public program approach, should seek ways to encourage both. Sections D and E of Chapter IV further explore cap-and-trade programs and use of sequestration credits in conjunction with such programs.

D. Significance of Resource Availability

As the United States develops a carbon sequestration strategy, it will be operating in a context that presents both constraints and opportunities. The nation has many assets that can contribute to a successful carbon strategy. The administrative infrastructure is broad and sophisticated, combining federal, state, and local agencies in a network that

supplies financial, technical, and political support to landowners. The USDA's capacity to gather and process agricultural and forestry data is unsurpassed. Equally important, agriculture and forestland owners are educated and innovative. They have shown a tremendous capacity to adapt to new needs, programs, and technologies. At the same time they are independent, suggesting that the government will need to approach carbon sequestration as a cooperative venture with landowners, rather than as a mandate imposed on landowners.

The United States is also blessed with large quantities of forest and agricultural lands that are continuously undergoing management changes and transitions among land-use categories. This presents the nation with an opportunity to encourage adoption of practices that provide greater carbon sequestration benefits. The next chapter provides an overview of the many beneficial carbon sequestration activities that could be promoted by a national program.

III. Carbon Sequestration Practices

To develop an effective carbon-sequestration strategy it is important to first understand the natural processes, land uses, and land management practices that tend to increase terrestrial carbon stocks. A national program designed to use forest and agricultural lands to address climate change should have three goals: (1) to increase the uptake or capture and storage of carbon (sequestration), (2) to maintain carbon stocks that already exist (conservation), and (3) to use biomass to substitute for fossil-fuel based products. It should be remembered, however, that all of these positive steps may involve secondary increases in other GHG emissions. For example, trees can be planted on presently non-forested land and nitrogen fertilizer applied to enhance their establishment and growth. Application of the fertilizer can increase emissions of nitrous oxide, a potent greenhouse gas.

The total amount or "stock" of carbon in a pool can be increased if carbon flows *into* the pool are increased and/or if carbon flows *out* of the pool are decreased (see Box 1). For example, conservation tillage increases inputs of plant-based carbon compounds into soils by leaving crop residues on the land, and decreases releases of organic carbon compounds from soils by reducing plowing. Land management can also reduce overall net emissions without increasing terrestrial carbon stocks. For example, using land to grow wood or grasses that can substitute for fossil fuels may require significant changes in land management, but does not necessarily increase the amount of terrestrial carbon stored.

Generally, land-management activities are categorized according to whether they take place on forestland, cropland, or grazing land. Table 5 summarizes key practices for promoting carbon sequestration, conservation of existing carbon stocks, and fossil fuel displacement in each of the major land-use categories. Note that the term *practice*, is being used here for any action taken to change land management, land use, or land cover as a means of increasing carbon sequestration and/or reducing carbon emissions. Practices can be the result of program incentives or unassisted private actions.

Box 1

Measuring Changes in Carbon

To measure organic carbon *flows* within terrestrial ecosystems, it is helpful to separate the ecosystem into different "pools" through which carbon flows and in which it is held for some amount of time. A carbon pool is any system that has the capacity to accumulate or release carbon, such as forest biomass (often subdivided into above-ground and below-ground live biomass, dead wood and litter, and understory vegetation), wood products, soils, oceans, or the atmosphere. For purposes of climate change policy, the goal of a terrestrial sequestration program is to move carbon dioxide out of the atmospheric pool, transform it to carbon, and store it in terrestrial pools. Sequestration is defined as a net increase in the carbon contained in one of these stable terrestrial pools (Watson et al , 2000)

Carbon dioxide moves from the atmosphere into terrestrial ecosystems through photosynthesis by plants. The most obvious increase in terrestrial carbon is in the above-ground growth of plants, where a large fraction can be stored for many decades. particularly in the woody material of trees. In addition, a fraction of the assimilated carbon is eventually transported to the soil. Within the soil, organic compounds provide food and energy for soil organisms. Much of the carbon in these compounds is returned quickly to the atmosphere through decomposition and respiration Some is transformed into more stable organic forms that may remain in the soil for decades. A small fraction goes into stable organic compounds that may persist in the soil for thousands of years (Schlesinger, 1995; Paul et al., 1997). See Paustian et. al, 2006 for further discussion of these processes

As carbon flows in and out of any particular pool, the total amount or *stock* of carbon in that pool will change. Thus, one method of estimating the effectiveness of an ecosystem in sequestering carbon is to measure the carbon in each pool at one point in time (typically done on a per unit area basis; e.g., tons per acre), and then re-measure it again at some later date. In an ecosystem, carbon stocks in some pools can increase while stocks decrease in other pools. For the ecosystem as a whole to be secuestering carbon, the sum of all increases must be greater than the sum of the decreases. Where decreases are greater than increases, the ecosystem is a source of emissions. Dividing the net change by the number of years between the two measurements provides an average annual rate of change.

Several of the practices listed in Table 5, including some that produce the highest carbon benefits, involve a land-use change such as the conversion of cropland to trees or grasses. Note that many of the listed activities can be conducted simultaneously on a particular land parcel. For example, fire suppression, modified harvesting practices, and sustainable forestry practices such as thinning, removing deadwood, or planting trees to fill in an under-stocked stand, may all occur on the same parcel of forestland. Consideration of the many practices available and the three land types suggests that there is no "typical" land management practice to promote carbon sequestration, but rather a plethora of approaches.

A. Land-Use Change

While there are opportunities to decrease emissions and/or increase carbon sequestration through management changes on producing farm, ranch, and forestlands (as outlined in subsequent sections), the most significant opportunities are associated with land-use change. These opportunities mainly involve

Table 5

Land Management Practices to Increase Carbon Stocks or Reduce Greenhouse Gas Emissions

	Activity or Objective		
Land type	**Expansion of stocks**	**Conservation of stocks**	**Offsite sequestration or emissions reduction**
Forest	• Reforestation • Modified management e g , fertilization, improved stocking, species mix, extended rotations	• Modified harvesting practices • Preventing deforestation • Change to sustainable forest management • Fire suppression and management	• Wood fuel substitution • Expanded wood products • Extended wood product life • Substitute wood products for concrete/steel • Recycling wood and paper products
Crop	• Afforestation • Agroforestry • Improved cropping systems • Improved nutrient and water management • Conservation tillage • Crop residue management • Restoration of eroded soils • Conversion to grass or other permanent vegetation	• Soil erosion and fertility management • Water management • Maintenance of perennial crops • Residue management	• Substitute biofuels for fossil fuels • Fertilizer substitution or reduction • Other bioproducts substitution
Grazing	• Afforestation • Change in species mix, including woody species • Restoration • Fertilization • Irrigation	• Improved grazing systems	• Livestock dietary changes • Herd management

cropland, and apply particularly to land that is marginal for crop production due to high rates of soil erosion, low fertility, or other limitations. Planting such lands with trees or grass may be both economically and ecologically sound. Federal policies have encouraged these types of land-use changes for decades through programs such as the Conservation Reserve Program (CRP) (see discussion in IV.D).

Converting cultivated cropland to grassland typically increases soil carbon at rates of 0.3 to 1.0 metric tons of carbon per hectare per year for a period of several decades (Lal et al., 1998; Paustian et al., 2006). Conversion of cropland to forest can result in much higher rates of sequestration due to increases in tree carbon in addition to soil carbon increases (Adams et al., 1993; Alig et al., 1997; Stavins, 1999). Sequestration rates for afforestation are generally in the range of two to ten metric tons of carbon per hectare per year (Richards and Stokes, 2004).

Studies in the early 1990s indicated that about 116 million acres of privately owned cropland and pastureland were biologically suited to growing trees and rated as marginal for crop or pasture use under USDA criteria (Parks et al., 1992). At that time, about half of this marginal acreage was cropland and half was pasture, even though it was estimated that over 20 percent would be more profitable in trees as timberland (Parks et al., 1992). In spite of those findings, experience in the Conservation Reserve Program (CRP) demonstrated that farmers are often reluctant to plant trees for a variety of reasons, including the fact that trees limit their flexibility in using the land for other purposes in future years (Esseks et al., 1992). Thus, while it may be technically possible, and even economic, to convert marginal crop- and pastureland to other uses, such changes will not come easily, nor cheaply, and will require significant program efforts on the part of the federal government.

There are afforestation opportunities on other lands as well. Reconstructed surface-mined lands often have degraded soils, and planting adapted vegetation on these lands can begin the process of restoring more normal soil conditions and can sequester significant amounts of carbon (Lal et al., 1998). If nutrient or water deficiencies are not overly limiting, increases in carbon can continue in the vegetation and soil for many decades.

One concern for those who have been analyzing carbon sequestration opportunities is that if cropland is converted to grassland or forestland, the demand for farm products will lead to a conversion of existing pasture or forestland back to cropland. This would diminish the carbon sequestration benefits achieved by the original land-use change. In the United States this "leakage" effect may not present as serious a concern as some have suggested. To regulate crop surpluses, the U.S. government has paid farmers to hold cropland out of production during most of the past 50 years. At present, the amount of cropland set aside in the CRP program (32.7 million acres in 1997) is about 10 percent as large as cultivated cropland (USDA-NRCS, 2000). The 2002 Farm Bill reflects a political decision that this set-aside remains necessary to protect the farm sector economy, and Congress extended the CRP program through 2007 and expanded it to 39 million acres. The implication is that removal of some marginal cropland from cultivation is unlikely to result in conversion of forest or grassland to cropland elsewhere.

Many of today's rangelands and pastures were originally forested and would be suitable for afforestation. Recent analyses in California, for example, show that about 42 percent of today's

rangelands are capable of supporting forest vegetation and that this rangeland originally resulted from clear-cutting of forests for timber products. The clear-cutting was followed by the introduction of grazing animals during the 1800 to 1900s (Fry and White, 1946; Brown et al., 2004). Brown et al. find that, if afforested with native tree species, about 2.7 million acres of California's rangelands could sequester a total of over 94 million metric tons (MMT) of carbon by the end of a 20-year period at an average cost of less than $20 per metric ton of carbon. Assuming a higher carbon price and/or extending the time period considerably increases the carbon sequestration potential of California's rangelands (e.g., after 20 years, 242 MMT of carbon could be sequestered at costs of less than $50 per metric ton and after 80 years, 1,500 million tons of carbon could be sequestered at a cost of less than $20 per metric ton of carbon).

B. Forestland Practices

Forest management provides significant opportunities to increase carbon stocks or reduce emissions of greenhouse gases. Although afforestation or reforestation[4] of presently non-forested lands may be the most obvious option for expanding carbon stocks, there are also many management practices that could increase carbon stocks in existing forests, often at costs per unit of carbon that are even lower than establishing new forests (Moulton and Richards, 1990). In 1997 there were approximately 747 million acres of forest in the United States (Table 1), a total that has been slowly increasing since the late 1980s (Smith et al., 2004). About 504 million acres are classified as timberland—that is, forestland capable of producing more than 20 cubic feet of wood per acre per year and not legally withdrawn from timber production. It is on this timberland that most forest management is practiced. Seventy-one percent of timberland is privately owned (Table 1), but these private lands accounted for 92 percent of the timber harvested in 2001 (Smith et al., 2004). Forest management techniques that increase carbon sequestration are commonly used in the United States, but their use is not as extensive as might occur if there were policy incentives to encourage them.

Globally, the most visible source of loss of forest carbon stocks is deforestation. Consequently, much of the international focus on preserving carbon stocks has been on preventing practices that result in deforestation. While there is some loss of forestland to urbanization and suburbanization in the United States (see Table 2 and accompanying text on page 6), the relatively low rate of deforestation in the United States suggests other practices may be more important for reducing forest losses. Thinning and removing excess debris can reduce the "fuel ladders" that provide pathways for small, non-lethal ground

fires to burn into the forest canopy where they can become intense, stand-destroying crown fires. Thinning and removal of debris are particularly important in the lower-elevation pine forests of the Intermountain West, where a century of fire suppression has created fuel conditions that lead to very large, intense, and destructive wildfires (Sampson and DeCoster, 1998; Covington et al., 2000) (See Box 2). In one study of the Boise National Forest, where these conditions are widespread, it was estimated that an aggressive treatment program featuring the physical removal of excess fuels and the widespread use of prescribed fire would result in a 30 to 50 percent reduction in the average annual wildfire area; a 14 to 35 percent reduction in average annual fire-related carbon emissions; and a 10 to 31 percent reduction in particulate emissions (Neuenschwander and Sampson, 2000). Another study on fire frequency and carbon emissions found that carbon benefits alone may justify the cost of substantial additional fire-management activities (Sohngen and Haynes, 1997).

A major challenge in implementing fuel-reduction treatments is the combination of the cost of collecting and the non-marketability of a great deal of small, low-quality biomass. In areas where there is a market for both sawlogs and pulp chips, the larger, low-quality stems can be chipped and sold. That still leaves many tons of material that has little or no commercial value in the traditional wood products industry.[5] One possibility is to utilize this debris as fuel in energy production facilities. This is technically feasible, and new research continues to improve the economic feasibility (Sampson et al., 2001). If excess fuel, including small, low-quality debris, were used as a fuel in energy production, not only would carbon be conserved by preventing devastating fires, but the use of the biomass for energy production would also reduce fossil fuel emissions (Brown et al., 2004). Obstacles to the use of excess fuel wood however, are significant. Because the material is bulky, heavy, and low in value, it is usually not economic to transport it more than 25 to 50 miles. In most areas, there are no local electricity generating stations or biogas facilities that can use the material. In addition, producing electricity from biomass is currently two to four times more costly than producing it from coal (Paustian et al., 2006).

These challenges are being aggressively addressed by federal agencies, particularly as they relate to federal lands. Based on the National Fire Plan, developed in 2000, the Bush Administration developed the Healthy Forests Initiative in 2002 (USDA, 2005). It is estimated that the threat of catastrophic wildland fire has been reduced on over 15 million acres of federal land since 2000 (USDA, 2005). The challenge of utilizing excess biomass for energy and other products instead of burning it in

prescribed fires or wildland fires has been the focus of major interagency policy and program development efforts involving the U.S. Departments of Energy and Interior, as well as the U.S. Forest Service (USDA-FS, 2005).

Other management practices can also have significant effects on increasing carbon stocks in existing forests. Such practices include extending the harvest cycle length and modifying harvest and regeneration practices. Within forests managed for commercial timber production, extending the rotation length from 30 years to 45 or 50 years will add significantly to the standing carbon in the forest and will result in larger logs that can be used for longer-lived wood products such as structural timbers (Row, 1996; Brown et al., 2004). If these longer rotations were encouraged by carbon sequestration policies—including policies that discouraged compensating harvesting elsewhere—market demand could be met by alternative products, increased imports, or harvests from new forest plantations. The net result

Box 2

Carbon Sequestration in the Face of Multiple Objectives: Wildfire and Carbon

As the nation considers the potential role of forests in an overall GHG strategy, one important consideration is the virtual inevitability of large, high-intensity wildfires given the current condition of many forests in the West (Prestemon et al., 2002; Sampson et al., 2000). The GHG emissions from these wildfires (CO_2, methane [CH_4], and nitrous oxide [N_2O]) are a function of the amount of biomass consumed (Leenhouts, 1998). One study in the ponderosa pine forests of Idaho estimated that a high-intensity wildfire consumed an average of 79.5 metric tons of fuel, and emitted approximately 132 metric tons of CO_2 per acre (Neuenschwander and Sampson, 2000). While historical data on wildfires are lacking, evidence suggests that they were much more frequent, less intense, and less destructive, burning over as much as half of the landscape every six to seven years (Everett et al., 2000). These frequent, low-intensity fires were not lethal to the dominant vegetation, consuming something in the range of five to seven tons of fuel per acre (Leenhouts, 1998).

One U.S. Forest Service study estimates that some 18 percent (around 76.5 million acres) of the ecosystems that historically experienced frequent, non-lethal fires have been seriously altered and are now at high risk of losing important ecosystem components or structures in the event of a wildfire (Hardy et al., 2001). This situation is largely the result of settlement, grazing, logging, and fire suppression throughout the 20th Century that affected low-elevation forests most severely (Sampson et al., 2000). In addition to the risks these forests currently face, they may face greater stress in the future due to climate change impacts. Much of that stress will come from insects and disease organisms that may adapt to new conditions more rapidly than trees, opening the way to larger epidemics and increased amounts of dead fuels that are ripe for catastrophic fire (USDA-FS, 2001).

The current situation calls for large-scale fuel treatments to reduce the amount of flammable fuels on the land and restore these forest ecosystems to a more fire-tolerant condition. This work is underway, but will take many years to complete given present rates of progress (USDA-FS, 2005). In the meantime, exceptional wildfire years such as 2002, in which the fire area reached nearly seven million acres, are associated with massive GHG emissions that complicate efforts to achieve emission reductions.

(in terms of carbon) would depend on how market demand was met. In the best case, the result would be larger areas of older forests plus an increase in total forestland due to land conversion of marginal agricultural land to forestland.

How forests are harvested and regenerated also has a significant impact on carbon stocks. Removing all above-ground biomass and subjecting the soil to heavy mechanical disturbance to prepare for tree planting may, in some cases, encourage faster growth of the new crop, but is likely to result in relatively higher soil carbon emissions than other harvesting and regeneration methods. Maintaining woody debris and standing trees for partial shade while minimizing soil disturbance may reduce early tree-growth rates, but can have the benefits of lower carbon emissions and retaining larger carbon stocks on site (Row, 1996). These are trade-offs that forest managers must consider. If carbon sequestration gains are recognized as a public or economic asset, decisions on these practices may be made differently in the future.

Other practices such as thinning, fertilizing, or supplemental planting can also improve forest health or growth rates and result in carbon sequestration. Periodically thinning forests by removing small trees at various stages will allow remaining trees to grow larger, which may in turn store more carbon. On nutrient-poor soils, such as are often associated with coniferous forests, it has been estimated that fertilization could increase forest growth and carbon storage by as much as 0.45 metric tons of carbon per hectare (0.20 short tons per acre) per year, a substantial increase (Tuskan and Walsh, 2001). Where nutrients are applied in proper amounts on soils that are not saturated with water, there should be little or no associated increase in emissions of nitrous oxide (N_2O), another potent greenhouse gas (Mosier et al., 2003).[6]

C. Cropland Practices

Although the potential for agricultural carbon sequestration is difficult to predict, current estimates suggest that some 70 to 220 million metric tons of carbon per year could be sequestered in soils on current U.S. croplands (Paustian et al., 2006). In addition, using grasses or woody crops as substitutes for fossil fuels, substituting natural fertilizers for energy-intensive fertilizers, and optimizing fertilizer use can decrease emissions (see Paustian et al., 2006 for further discussion of these opportunities).

Increasing and Conserving Soil Carbon on Cultivated Croplands

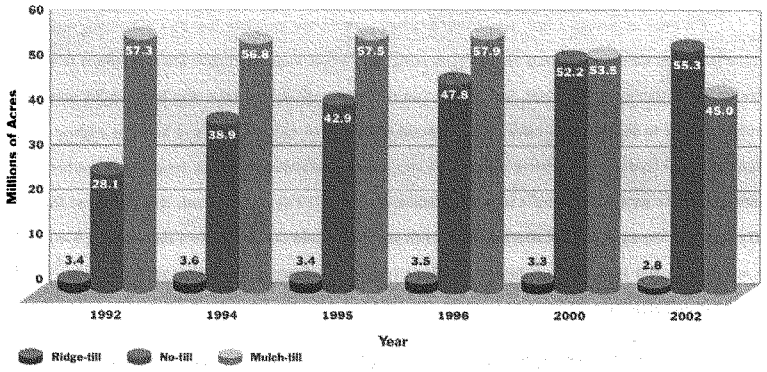
Of the many opportunities to increase and conserve carbon on croplands listed in Table 5, this section focuses on conservation tillage. The companion report Paustian et al., 2006 includes discussions of the full range of practices to increase and conserve cropland soil carbon. Approximately 90 percent of U.S. cropland is cultivated—that is, subject to plowing, weeding, or other practices that disturb the soil (USDA-NRCS, 2000). Cultivation is a major contributor to the loss of soil carbon through increased decomposition and erosion that lead to emissions of CO_2. It is estimated that by 1960 soil organic carbon levels in Corn Belt farm soils were about half of 1907 levels due to the effects of cultivation (Lal et al., 1998). However, cultivated soils do not continue to lose carbon forever. After decades to centuries of constant cultivation, the soil carbon content reaches a new equilibrium, where carbon inputs are balanced by outputs. However, this new equilibrium is at a considerably lower level than that of the original land. Changing cultivation practices has the potential to restore some of the "lost" soil carbon.

Increasing carbon stocks on cultivated cropland is primarily a matter of increasing the organic carbon content of the soil (often abbreviated SOC, for soil organic carbon).[7] As noted previously, carbon flows in and out of the soil, and sequestration results if carbon inputs are increased and/or carbon outflows are reduced. The amount of sequestration likely to result from improved practices on agricultural soils is directly related to the degree to which the soil carbon has been depleted by past practices. A depleted agricultural soil can have its carbon stock restored through improved management, although a soil that already contains its optimum carbon stock may have little or no capacity for additional sequestration. In short, the potential for additional carbon sequestration on agricultural soils is related to how depleted the carbon stocks in the soil are at the start of a new carbon sequestering practice (Sampson et al., 2000).

The introduction of conservation tillage methods that significantly reduce soil disturbance has had a major impact on soil carbon in cultivated cropland since the 1970s, when these methods began to be widely used. A recent study of soil carbon in Nebraska concludes that agricultural soils in the state are sequestering around 1.3 million metric tons of carbon (MMTC) per year due to the increased adoption of conservation tillage and other soil conservation practices in the last 10 to 20 years (Brenner et al., 2002). That study also estimated that the current sequestration rate could be maintained and increased to around 2.3 MMTC per year if all cropland in Nebraska were converted to a no-tillage management system.

Figure 2

Trends in Conservation Tillage in the United States, 1992-2002



Note Three primary types of practices are recognized as conservation tillage No-till systems leave the soil virtually undisturbed; mulch-till involves tillage, but leaves 30 percent of the crop residue on the soil surface, and ridge-till involves row cultivation that leaves four- to six-inch ridges where the plants are grown.

Source Conservation Technology Information Center, 2002

On the national level, the past two decades have seen a significant growth in the adoption of no-till systems. The Conservation Technology Information Center (CTIC) estimates that no-till planting systems were used on more than 55 million acres in the United States during the 2002 crop season, a 97 percent increase over the level ten years earlier (Figure 2). However, to retain the carbon sequestered in the soil, lower-impact tillage practices must be maintained. Although millions of acres of farm land are under conservation tillage practices in any given year, the millions of acres are not the same ones from year to year. The gains in soil carbon from previous conservation tillage practices can be largely lost if the areas are later converted back to conventional tillage.

Conservation tillage systems differ significantly from crop to crop and place to place, and must be carefully adapted to local situations. A switch to conservation tillage may be followed by a transition period during which yields and profits drop while the soil system is re-adjusting to the new management regime. After that transition, however, most farmers find that the cost reductions—due to decreased machinery use and time spent plowing—coupled with the more stable yields of conservation tillage systems result in improved profits (CTIC, 2002). This suggests that the government may have a role

in helping farmers make the transition to conservation tillage practices. Further discussion of hurdles associated with practice changes may be found in the Pew Center companion report, Paustian et al., 2006.

For most cultivated crops, conservation tillage systems are available that also effectively reduce soil erosion and water runoff, thus further conserving soil carbon. Cultivated soils are susceptible to soil erosion, both from wind and water. Soil erosion can be a major cause of carbon loss because the erosion processes tend to separate and carry off the lightest and smallest soil particles that have the highest organic carbon content. While some soil erosion and resulting sedimentation may simply move carbon from one site to another, or carry it into deep sediments where it may be protected, it is estimated that 20 percent of the carbon dislocated by erosion will be emitted into the atmosphere (Lal et al., 1998). In addition, eroded sites have a reduced capacity to support plant growth, thus reducing future sequestration potential.

In addition to protecting the soil and promoting the buildup of soil carbon, conservation tillage systems involve less fuel consumption, thereby reducing GHG emissions associated with farming (West and Marland, 2002), providing a good example of how multiple environmental and economic benefits can emerge from practices that promote agricultural carbon sequestration. Some practices serve more to reduce GHG emissions than to conserve or increase carbon stocks on cropland. For example, systems that provide adequate water and fertilizer for optimal crop growth, while avoiding saturated soils or untimely nutrient applications, can reduce emissions of CH_4 and N_2O, two potent greenhouse gases. Such "optimized" systems are economically beneficial, and provide additional environmental services. See Paustian et al., 2006 for further discussion of management practices that can be used to reduce various agricultural GHG emissions and also provide other environmental benefits.

Options on Non-cultivated Croplands

Non-cultivated cropland is a broad category that includes land uses ranging from perennial forage crops where soils may be cultivated and replanted every few years, to vineyards and orchards that may be uncultivated for decades, to cranberry bogs that are never cultivated. Converting from cultivated to non-cultivated crops may result in significantly increased carbon stocks in the plants (e.g., woody tree crops) and in the soil where previously lost organic carbon may be regained. To promote such gains however, it will be necessary for the government to provide incentives for landowners to switch from cultivated to non-cultivated agricultural practices.

There is increasing interest in the production of crops for energy that could have the dual effect of increasing carbon stocks while producing biomass feedstocks to replace fossil fuels. Energy crops include perennial grasses and fast-growing trees. The biomass from these crops can be used to produce heat, electricity, or transportation fuels. The companion report, *Agriculture's Role in Greenhouse Gas Mitigation* (Paustian et al., 2006) provides an in-depth discussion of the use of biomass for energy.

Switchgrass, a native grass that grows well on marginal croplands in the Midwest, is one crop being tested for use in energy production. In a project in Iowa, switchgrass is being grown and tested as a co-fired fuel in a 700 megawatt (MW) coal-burning power plant operated by Alliant Energy and MidAmerican Energy Corporation. It is estimated that 50,000 acres could produce 200,000 tons of switchgrass annually that could be co-fired with coal, generating a sustained output of 35 MW of biomass-derived electric power and displacing 5 percent of the coal used in the plant each year (www.cvrcd.org/biomass.htm).

In another test of biomass energy, the Salix Consortium of New York is growing hybrid willow in plantations for eventual co-firing in power plants operated by Niagara Mohawk Power Corporation (www.cce.cornell.edu/clinton/forestry/willow.html). The willow crops are harvested every three years, producing an average yield of 7.5 dry tons per acre per year. These plantations will result in increases in soil organic carbon, as well as increased carbon stocks in large roots and stumps, in addition to the atmospheric benefits from substituting biomass for fossil fuel.

Overall, biomass energy appears to be a promising element of a GHG mitigation strategy (Paustian et. al., 2006). Currently costs for ethanol and other biomass-based fuels limit their ability to compete with conventional fuels. However, moderately optimistic scenarios suggest that it may be possible for biomass to offset as much as 9 to 20 percent of current (year 2004) total U.S. GHG emissions annually. Such scenarios assume that R & D succeeds in enhancing crop yields and reducing conversion costs, or that policies place a sufficiently high value on the GHG and other environmental benefits of carbon-neutral fuels. The higher offset value results if biomass replaces coal; the lower number results if natural gas is replaced. Further discussion of the potential of biomass to reduce GHG emissions—including a range of biomass production and use scenarios—is provided in Chapter IV of the companion report, *Agriculture's Role in Greenhouse Gas Mitigation* (Paustian et al., 2006).

D. Grazing-Land Practices

According to one analysis, as much as 70 million metric tons of carbon per year could be sequestered on the nation's grazing lands (Follett et al., 2001), although, for a variety of reasons, it may be difficult to achieve this potential. Many of the grazing lands that could be managed to increase soil carbon are located in areas with harsh climates that limit plant growth, or where historical grazing practices are very difficult to alter. Neither of these conditions is easily overcome by policy changes.

Grazing lands make up about one-quarter of the total land area of the United States (see Table 1, page 5, Pasture/Range category). They are highly complex and encompass very different ecosystems, ranging from tundra—where the main grazers may be reindeer—to highly-managed dairy pastures in the southern United States, to near-desert rangelands in the Southwest and alpine meadows in the Rockies (Follett et al., 2001). In general, rangelands occupy the more arid and semi-arid regions, while pastures are more prevalent in more humid regions (Follett et al., 2001).[8]

The major stable carbon pool on grazing land is the soil, although in many cases, the existence of perennial shrubs or scattered trees can add a woody carbon pool to the total ecosystem carbon stock. The potential for significantly increasing these carbon stocks is limited without major changes in land use and management (Follett et al., 2001). Nevertheless, even small changes in the amount of carbon stored per acre in grazing-land soils can be important because of the large land areas involved.

Overgrazing is the cause of the largest carbon losses in grazing-land systems, as well as the most significant factor in their ecological deterioration (Ojima et al., 1993). Grazing influences the growth and partitioning of above- and below-ground plant matter, changes the temperature and moisture regimes in the soil, and alters the soil's susceptibility to erosion (Follett et al., 2001). Reversing the effects of overgrazing is a complex task in the United States, involving the economic dynamics of livestock-based agriculture and its relationships to both public and private land resources.

Achieving carbon sequestration in grazing-land soils involves increasing plant productivity, which can be achieved through improved water and nutrient management, as well as through grazing practices such as management-intensive grazing. On rangelands, management involves the regulation of herbivore grazing since grazing affects vegetative species distribution, structure, and total productivity and, as a

consequence, the susceptibility of soil to erosion (Sampson et al., 2001). Improved management practices that protect rangeland soils from erosion and improve plant productivity can restore lost soil carbon over vast areas.

Management-intensive grazing can make a portion of existing grazing lands available for afforestation activities. This practice increases the density of vegetation, thus providing more forage within the same area and decreasing the amount of land required for a given herd. For example, if a farm has 1,000 acres of grazing land, but adoption of management-intensive grazing reduces the acreage necessary to meet herd needs to 500 acres, the remaining 500 acres could become available for afforestation projects.

Significant management changes on grazing lands will neither be easy to implement, nor do they promise rapid results. In the West, ranchers who have had access to public rangelands for more than a century, and who rely on that access to support their ranching operations, have little incentive to reduce grazing impact. Despite heavy political pressure to increase grazing fees, for example, the political strength of ranching interests has maintained the status quo for many years. On many western lands, moreover, a change in grazing practices today would produce little or no impact on soil carbon levels for years due to the limited moisture and slow plant growth associated with these lands.

E. Sequestration Costs and Potential Quantities

Available studies suggest that there are opportunities to significantly increase carbon sequestration levels both in the United States and abroad, in many cases at modest costs. According to a recent analysis of forest carbon cost studies, in the United States it may be possible to sequester an additional 270 MMT (approximately 300 million short tons) of carbon per year over a period of 100 years at a marginal cost in the range of $50 per metric ton of carbon ($12.50 per metric ton of CO_2) by converting marginal agricultural land to forests (Stavins and Richards, 2005).[8] Conversion of marginal agricultural bottomlands to forests is already occurring on many thousands of acres, especially in the Mississippi Valley region. Typically, cost analyses of converting marginal agricultural lands to forests have assumed that the carbon capture rates will average between 1.8 and 7.2 metric tons per of carbon hectare (0.8 and 3.2 short tons per acre) per year (Moulton and Richards, 1990; Adams et al., 1993; Tasman Institute, 1994; Parks and Hardie, 1995; Slangen and van Kooten, 1996). While it may be possible for a national program to sequester more carbon than

300 million short tons per year through the conversion of additional agricultural lands to forests, the costs rise rather rapidly because it would require using prime agricultural land and the opportunity costs of that land are high.[10]

While many opportunities for carbon sequestration exist within the United States, both government and private parties have also demonstrated interest in looking beyond the United States. Developing countries, for example, may offer larger, more cost-effective sequestration opportunities than are available in the United States (Brown et al., 1996; Brown et al., 2000; Kauppi and Sedjo, 2001; Richards and Stokes, 2003; Sohngen and Mendelsohn, 2003; Sedjo et al., 2001). These cost-effective opportunities result from generally higher rates of carbon sequestration per unit area and lower labor and land costs. In addition there is a large opportunity for reducing emissions from forests in many tropical developing countries by slowing deforestation. For such an activity, up to 80 tons of carbon or more can be prevented from entering the atmosphere for every acre protected from deforestation. These low-cost opportunities are reflected in reporting under the U.S. Department of Energy's voluntary reporting program—known as 1605(b)—where the largest quantities of carbon sequestration are for several private projects located in tropical developing countries (see Section IV.E for further discussion of this program).

In addition to land conversion and the prevention of land conversion, there are many practices son both forestland and agricultural land that may result in substantial amounts of carbon sequestration at relatively low costs. While these practices have low carbon sequestration yields per acre relative to the land conversion options, they also present lower capital costs and entail fewer political obstacles and institutional barriers. For example, Moulton and Richards (1990) found that in standing forests, a combination of tree planting and more intensive management for carbon could achieve substantial sequestration at costs of less than $20 per ton of carbon. There have been fewer estimates of the costs of carbon sequestration in agricultural soils. One study, however, indicates that in the United States, economics would limit soil sequestration to approximately 70 MMTC per year, at costs of less than $50 per ton of carbon, although this study did not provide details on the specific practices used to increase soil carbon (McCarl et al., 2001). Lewandrowski et al. (2004) find that soil carbon sequestration can be induced for carbon prices as low as $10 per ton, but also find that very limited quantities of carbon would be sequestered at that price (see Paustian et al., 2006 for further discussion of the

economics of soil carbon sequestration). Finally, with energy crop yield improvements and reductions in conversion costs, it may be possible to offset 9 to 24 percent of current emissions levels through use of biofuels produced cost-competitively with fossil-fuels.

F. Many Practices, Multiple Objectives

Many different land-use-related activities can contribute to the reduction of net GHG emissions (as summarized in Table 5, page 13), suggesting that if the government is going to promote the use of forest and agricultural lands as part of a larger strategy to address climate change, it may need to employ a variety of approaches. Many of the practices listed in Table 5 achieve objectives in addition to carbon sequestration, such as increasing soil fertility, protecting watersheds from soil erosion, providing wildlife habitat, and increasing timber yields. Similarly, a strategy to increase carbon sequestration is unlikely to consist of a stand-alone program; more likely it will develop as a complement to an array of land-use-related environmental and economic objectives. (See, for example, Box 2 for a discussion of potential synergies with fire management objectives.)

Differences in ownership present additional challenges to design and implementation of a land-use management program. In each of the three land-type categories shown in Table 1, the United States may want to encourage activities on privately owned lands, on government holdings, and even in foreign lands. Each combination of activity, land type, and land ownership can present a unique challenge to the design of a government program intended to encourage reductions in net emissions. The policy challenges stem largely from the fact that public policy and programs for different land holdings (private, government, and foreign) and for different land uses (particularly forest versus croplands) are developed through completely different political processes involving different public agencies, different Congressional committees, multiple levels of government, and a wide array of interest groups, constituencies, and stakeholders. The next chapter of this report explores the policy tools that the government might use to encourage a wide range of carbon sequestration practices in a variety of contexts.

IV. Selecting Carbon Sequestration Policies

Whether the goal is to promote research and education or to induce changes in land-use practices directly, the government must choose among available policy tools. What policies and programs should federal and state governments use to incorporate U.S. forest and agricultural lands into a broader strategy for addressing climate change? Should they use taxes or subsidies? Regulations or cost sharing? Should they emphasize public ownership or private development? This section begins by describing the basic types of policy approaches. It then discusses each type of approach, starting with reviews of the history of U.S. programs in the agriculture and forestry sectors. This long history provides a base of experience from which lessons can be drawn to inform future programs and policies.

Two of the prime considerations in selecting policies and programs are cost and environmental effectiveness. The studies discussed earlier in this report provide estimates of per ton costs of carbon sequestration. There will also be many less obvious costs associated with implementing a sequestration program. The government must set up the infrastructure (or reinforce the existing infrastructure) to support the program. This may require: personnel for paperwork, budgeting, and related activities; field agents to assure that private parties comply with program requirements; scientists and analysts to carry out research; and extension agents to conduct public education. Sequestration programs may also have monitoring and evaluation costs.

Less obvious still are the public finance costs associated with a carbon sequestration program. Market prices are a valuable tool for conveying information about the costs and benefits of producing various goods and services. In a perfect system—what economists call a "first-best" system, with no price distortions—prices facilitate the market operations that lead to efficient production and consumption levels. When the government raises revenue through taxing goods, labor, capital, property, or other elements of commerce, it distorts the prices and reduces the efficiency of the market system. This leads to inefficient levels of production and consumption and a decrease in the social benefits of the market.

Thus, if the government uses taxes to fund a sequestration program, there will be additional costs associated with the revenue raising activity. The economists' term for these additional costs is "excess burden" or "deadweight loss."

As policy-makers endeavor to minimize the cost of a carbon sequestration program, they must be mindful of several constraints. First and foremost, the design of a sequestration program must assure that the climate change policy goals will be achieved, and that the program is environmentally sound and effective. For example, if the federal government sets a goal to sequester an additional 200 million tons of carbon per year, a program lacking mandates or subsidies—as cost-effective as that might be—is unlikely to achieve the goal. Such a program, coupled with technical assistance or even the threat of eventual mandatory controls, will only encourage landowners to identify actions they can take at little or no cost. While the threshold for voluntary actions depends upon the context, including the extent and form of encouragement brought to bear on private parties, eventually there will come a point where low-cost opportunities are exhausted and financial incentives or sanctions (carrots and sticks) will be needed to induce further action.

Policy tools must also comply with legal restrictions and operate within political constraints. For example, the Fifth Amendment takings clause of the U.S. Constitution restricts the federal government's ability to impose regulations that diminish the value of private property. Some approaches may be theoretically attractive from the standpoint of cost and effectiveness, but may not be viable due to political constraints. For example, although they may be theoretically attractive, it is unlikely that emission limitations will be placed on the agricultural or forestry sectors. This constraint has major implications for the participation of these sectors in a cap-and-trade program. (See discussion under Measurement Issues, Section IV.E). It will also be necessary to carefully build coalitions to support whatever approaches are adopted to promote carbon sequestration. As politicians, the electorate, and interest groups gain experience with innovative approaches, it may become politically feasible to expand both the type and extent of approaches used. This suggests that even limited applications of new approaches have value insofar as they contribute to a societal learning curve.

As each approach is reviewed in the sections that follow, cost and environmental effectiveness considerations are discussed. One of the conclusions of this review is that no single approach is appropriate for every situation.

A. The Range of Policy Tools

Policy-makers should employ policy tools that will achieve the environmental goals of sequestration programs at the least overall cost to society, while being mindful of institutional, legal, and political realities.

Some policy options will allow the government to retain more control over the sequestration process while others will grant more control to private parties (Richards, 2000). Some options will place the cost of sequestration on the government and taxpayers while others will place the economic burden on private interests. Figure 3 illustrates the range of policy tools that has been used recently to protect the environment and to influence the management decisions of farm and forestland owners. Options are arranged in order of increasing involvement of, and relinquishment of control to, private landowners. In general, policy tools that provide greater flexibility to landowners allow them to find the lowest cost methods to sequester carbon.

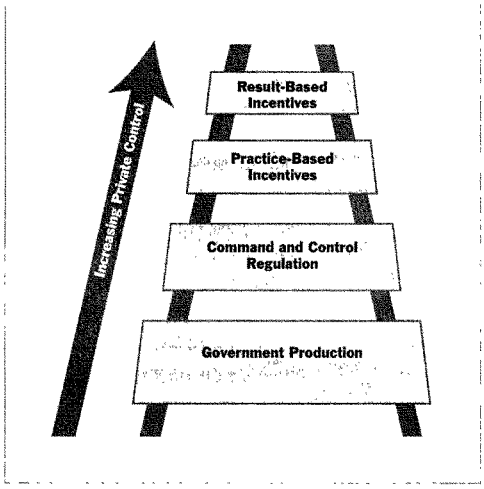
Government production (the lowest rung on the ladder in Figure 3) means that the government uses its own agencies (e.g., U.S. Department of Agriculture and U.S. Department of Energy), resources (e.g., National Forest System or Bureau of Land Management lands), and employees to provide a public good or service, in this case sequestering carbon and providing information for that purpose. For example, the U.S. Forest Service could modify its current land-management practices in National Forests, or the U.S. National Park Service could acquire and preserve new lands, instituting reforestation practices where appropriate. In either case, any additional financial burden for the program would fall directly on the government and taxpayers.

In a command-and-control approach (the second rung on the ladder) the government mandates that private landowners adopt certain practices, and places the financial burden upon them. For example, the government could require that trees be replanted following harvest or, under certain circumstances, even require planting of trees on non-forested land. The costs of such regulations would largely fall on the private sector, minimizing the need for additional tax revenues. In addition, the costs of administration would be low, and monitoring for compliance could be relatively simple. Past experience, however, suggests that this approach may not be an option for federal programs.

Efforts to impose federal regulations on private forest practices ran almost continuously from the 1920s to the 1950s, and although they never succeeded, they were the source of much political debate

Figure 3

The Policy Tool Ladder



and acrimony (Cubbage, 1995; Ellefson, 2000). One outcome of this failure, however, was that states responded by adopting their own regulations of forestlands.

A second outcome was that Congress has moved away from command-and-control approaches to land-use management.

A review of bills introduced in the 106th and 107th U.S. Congresses (four years, from 2000 to 2004) revealed that during that time more than 50 uniquely numbered pieces of legislation directly or indirectly addressed carbon sequestration (Richards, 2004). A representative selection of recent bills (Table 6) suggests that Congress has turned to government provision of information and incentives and voluntary initiatives for action in the private sector. With political constraints on the use of regulations and with government lands representing less than half of the U.S. land base, and far less of the nation's terrestrial sequestration potential (see discussion in following section), programs of the type represented by the two top rungs of the ladder in Figure 3 are likely to play a large role in federal efforts to promote carbon sequestration.

The top two rungs include several types of programs that provide landowners with financial incentives to undertake carbon sequestration; but under all of these programs participation is voluntary. Incentives can be used to encourage participation in both information-based and action-oriented programs. For action-oriented programs, incentives can be designed to be either practice-based or results-based. Incentives such as per-acre or per-ton subsidies, cost-sharing, land rental payments, or tax advantages can be utilized. The financial burden of these incentives falls upon the federal treasury and taxpayers.

Practice-based incentives have been an important part of the USDA's program mix since the 1930s. The oldest USDA cost-sharing program, the Agricultural Conservation Program (ACP) provided cost sharing for such practices as grass and tree planting, timber stand improvement, and wildlife habitat improvements; practices which, among other benefits, sequester carbon. Under practice-based approaches, the government controls which practices are rewarded while private parties control whether and where to participate in the program. To increase carbon sequestration the government could, for example, increase availability of per-acre subsidies for planting trees on old fields or marginal agricultural lands. One drawback of practice-based approaches is that they limit the range of sequestration options that landowners can adopt, and hence may foreclose cost-effective sequestration opportunities.

To provide landowners with additional flexibility and incentives to search for low-cost sequestration practices, the government might shift up to the top rung of the ladder (Figure 3) where it rewards actual sequestration accomplishments. This would likely lower the per-ton cost of sequestration as landowners adapted practices to their local conditions. In general, landowners who are familiar with local conditions and particularly with the idiosyncrasies of their own land will be in a better position to innovate and to spot the best and most cost-effective sequestration opportunities than a centralized government agency employing uniform standards across diverse landowners and land types. However, rewards for reductions on a per-ton basis may increase administrative oversight requirements and increase monitoring and verification costs. Interest in finding cost-effective means to achieve environmental goals

Table 6

Examples of Bills Related to Carbon Sequestration

from the 106th and 107th Congresses

Title	Citation	First Sponsor	Type of Programs Established
The Energy and Climate Policy Act	106 S. 882	Murkowski	Government produces and disseminates information (**GPI**) Encouragement offered for Voluntary private Actions
Carbon Cycle and Agricultural Best Practices Act	106 S 1066	Roberts	GPI, Practice-Based Incentives (i.e., based on adoption of practices) are offered for private party actions (**PBI**)
Climate Change Tax Amendments of 1999	106 S. 1777	Craig	PBI
Credit for Voluntary Actions Act	106 H.R. 2520	Lazio	Results-Based Incentives (i.e., based on tons of carbon sequestered or emissions reduced) are offered for private party actions (RBI)
Carbon Sequestration Tax Credit Act	107 S. 765	Brownback	RBI
Carbon Sequestration and Reporting Act	107 S 1255	Wyden	PBI
National Greenhouse Gas Emissions Inventory Act	107 H.R. 4611	Oliver	Regulatory, Private parties supply information
Climate Stewardship Act of 2003	108 S. 139	Lieberman	RBI
Healthy Forest Restoration Act	108 H.R. 1904	McInnis	Government undertakes carbon sequestration activities directly

has spurred increasing exploration of results-based approaches. By providing rewards in proportion to the actual sequestration achieved—that is, in dollars per ton of carbon sequestered rather than dollars per acre for the adoption of certain practices—the government vests in the private sector almost complete control over what practices are employed and what lands are enrolled.

No policy tool is perfect. As the government works its way up the policy ladder, providing more discretion to private landowners to search for and adopt low-cost sequestration alternatives, it increases its monitoring costs. When the government bows to political pressure from landowners and adopts policy tools that provide incentives (practice-based or dollars per ton) rather than controls (regulations) or penalties (taxes), it increases the social costs due to the requirements for additional government revenue-raising. In the following sections, each of the four basic types of policy tools shown in Figure 4 is discussed and evaluated in further detail.

B. The First Rung on the Policy Ladder: Government Ownership and Production

The federal government is a significant landowner, but unfortunately its capacity to increase carbon stocks on current holdings is limited, and there is significant political resistance to the federal government acquiring large new holdings of land. In contrast to the limited opportunities for direct production of carbon stocks on government land, there are significant opportunities for the government to provide information-related services. Opportunities also exist for preserving existing carbon stocks on government lands, particularly through efforts to decrease highly destructive forest wildfires.

The federal government owns approximately 29 percent of all land in the United States; another nine percent is owned by other government entities. However, the federal government's capacity to store carbon on current holdings is limited due to several factors. First, much federal land is very low in production capacity, so changes in management result in small, slow-responding changes in soil and stable biomass. Second, much of the land base is restricted by a variety of federal laws and priorities, so changing use or management is a formidable task with legal and organizational barriers. And finally, public opposition to altering federal land management in major ways will create significant political obstacles.

A government production approach, the first level in the policy ladder of Figure 4, is reflected in many legislative proposals and current programs. For example, the Forest Resources for the Environment and Economy Act (107 S. 820) would have required the USDA to quantify the amount of carbon stored

in the National Forest System and to assess the potential for increasing that amount while providing "positive impacts on watersheds and fish and wildlife habitats through forest management actions."

It is difficult to fully evaluate the opportunities for increasing carbon sequestration on federal lands because the data available for federal land resources are significantly less robust than the data available for non-federal lands. The two main periodic surveys most relevant to evaluating carbon sequestration potential are conducted by the USDA: the Forest Information and Analysis (FIA) conducted by the Forest Service, and the National Resources Inventory (NRI) conducted by the Natural Resources Conservation Service. Neither survey covers federal lands effectively.[11] Forestland data extracted from the tables generated for the 1997 Resources Planning Act (RPA) study (www.fs.fed.us) provides estimates of federal timberlands and other federal forest areas (Table 7).

The government owns almost no agricultural land, so sequestration efforts on public lands are likely to focus on forests. Because so much of the forestland in the federal system is reserved for uses other than timber, the potential for changing management practices on federal forestland is limited to about 100 million acres, largely in the National Forest System (Table 7). In timberlands, several possibilities for increasing carbon sequestration exist, although there is little if any data to quantify their potential.

Table 7

U.S. Federal Forestland Area in 1997 (in thousands of acres)

Agency	Total Forest[1]	Timberland[2]	Other Forest[3]
National Forests (Forest Service)	146,777	96,435	50,342
Bureau of Land Management	33,986	6,143	27,843
Other Federal[4]	65,958	6,590	59,368
Total	**246,722**	**109,168**	**137,553**

Source Tables 2 and 10, 1997 RPA, USDA Forest Service

Notes.

[1] Forest is defined as an area larger than one acre in size, with more than 10 percent tree cover

[2] Timberland is defined as forestland that is biologically capable of producing more than 20 cubic feet of merchantable wood per acre per year, and is not restricted from timber production.

[3] Other forest is either productive forest reserved for other uses (i.e , national parks, designated wilderness, etc) or is land that is too unproductive to meet the timberland definition.

[4] Other federal landowners span a variety of agencies, including but not limited to the National Park Service, U S. Fish and Wildlife Service, Department of Defense, Department of Energy, etc. The ecological character and management limitations of these lands are contained in agency or location plans, but are not readily available in summary form. To get some idea of the potential for increased carbon sequestration on these lands through management, however, it is instructive to note that half of the "other forest" lands in federal ownership (over 62 million acres) is in Alaska and most of the rest (over 51 6 million acres) is in the arid or high-elevation regions of the Intermountain West

One possibility rests with the remaining old-growth forests, which occur largely on the western side of the Cascade and Coast mountain ranges of the west coast. There, protecting old-growth forests from conversion to shorter-rotation production systems can maintain high volumes of on-site carbon (Harmon et al., 1990). However, those protections are largely in place today as a result of federal policies adopted over the past decades for other reasons, e.g., to protect endangered species such as the spotted owl.

Another opportunity exists in the drier forests of the Intermountain West (the area between the Cascade and Coast ranges on the west and the Great Plains on the east). This huge, diverse area contains almost 100 million acres of federal forests where a century of fire suppression has resulted in significant biomass buildups on the land (see Box 2, page 17). Recent policy changes and budget authorizations have dramatically increased federal agency efforts to carry out fuel-reduction projects on this land—thus reducing risks of highly destructive fires with their attendant large losses of carbon stock. However, with some 40 million acres at risk, the task will take years, if not decades, to complete (Hardy et al., 2000). While federal land holdings are fairly small in the eastern United States, the regrowth of the eastern hardwood and southern pine forests has contributed to a steady increase in forest biomass since 1952 (Powell et al., 1993). However, these increases are predicted to slow in the 21st Century as the forests reach maturity.

As limited as the data are on federal forests, they are far more limited on the non-forested federal lands (desert, alpine areas, brushlands, grasslands, etc.). In most cases these lands, largely in the West and Alaska, are too unproductive to be capable of sequestering significant additional quantities of carbon. Some creative ideas have been proposed, such as growing salt-tolerant crops using saline water for irrigation, harvesting the resulting biomass, and either incorporating it into (or with) desert soils where it would last for decades before decomposing, or using it as an energy feedstock to replace fossil fuels (Glenn et al., 1993). A few such projects are in the research stage, but none have been expanded to production scale, and it is still uncertain whether or when they may become feasible.

Cost and Environmental Effectiveness

Government production of carbon sequestration is relatively easy to implement and entails low monitoring and enforcement costs. The cost of a program in which the government was responsible for increasing carbon on government-owned lands would fall squarely on taxpayers with the attendant costs associated with increased demand for government revenues.[12] To maintain or increase carbon stocks on its own lands, the government can either adopt a sequestration target and appropriate funds sufficient to

achieve that goal, or it can set a funding level and seek to accomplish as much carbon sequestration as the funds permit. While there are only limited opportunities for the government to create and expand carbon stocks, government action to preserve existing carbon stocks, particularly through efforts to decrease highly destructive forest wildfires, is likely to be both more effective and more feasible from a political and physical perspective. Preserving carbon stocks through fire control has the added benefits of protecting people, structures, and communities from fire damage, thereby preventing significant economic losses. As a result, forest fire prevention programs are hugely popular and comparatively well funded. Introducing fire back into ecosystems is more problematic, as it involves direct costs to agencies as well as the risks of loss of control of fires and the health impacts of smoke. But fuel management programs can effectively address these risks in most cases, and the accompanying benefits—in terms of healthier forests, improved wildlife habitat, enhanced biodiversity, and the reduced risk of uncontrollable wildfires—are significant.

Advances in carbon sequestration also hinge on education, research, and the dissemination of information. Indeed, governmental opportunities to provide information-related services such as education and research are, like efforts to preserve existing stocks, likely to be more significant, effective, and politically feasible than the opportunities to directly increase carbon on federal lands. Education can include providing technical assistance to individuals, producing and distributing educational materials, as well as holding conferences, workshops, tours, and classes (Baughman, 1993). The USDA, for example, has historically provided information through its research, extension, and education programs. These programs have included technical assistance to assure quality control and to avoid the use of public funds on ill-advised projects.[13] In practice, these educational programs are carried out largely by State Land Grant Universities and Cooperative Extension Services. The Natural Resources Conservation Service (NRCS), in cooperation with local soil and water conservation districts, is also involved in educating landowners. Recently USDA has also begun to provide information relevant to carbon sequestration on the web. State forestry agencies implement most of the educational portion of the forestry programs administered by the U.S. Forest Service. Other government departments that undertake research and information dissemination include, for example, Oak Ridge National Laboratory, which had an active program of carbon sequestration research, and the National Energy Technology Lab, which continues innovative sequestration work. Finally the U.S. Environmental Protection Agency actively provides information on carbon sequestration to the public through its website and conferences. There are also a number of relevant private educational initiatives.[14]

C. The Second Rung on the Policy Ladder: Regulatory Programs

In the United States, state and local governments have used regulatory programs to direct forestland practices, and increasing regulation of private forest management seems likely. The multitude of governing bodies involved in regulating forestlands results in program coordination challenges at the state level and confusion on the part of landowners. Most early state laws governing forestry practices were a reflection of the concern for improving forest harvest and regeneration practices, as well as a demonstration that states could regulate private land use in ways that the federal government could not. New environmental legislation at the federal level during the 1970s and growing public concern about the environmental impact of forestry practices led several states to enact broader and more comprehensive legislation (Ellefson et al., 1995; Ellefson, 2000).

As of 1992, 38 states had at least one program regulating forestry practices on private lands. Ten states had comprehensive forest-practice regulatory programs based on individual acts, while three states had a cluster of separate but complementary acts that constituted a comprehensive program (Ellefson et al., 1995). The effect by 1995 was that about 22 percent of privately-owned timberland was subject to a state regulatory program. By 2000, nearly 40 percent of private forests were subject to state regulation, affecting an estimated 135 million acres (Ellefson, 2000). Not only is the scope and range of state forest regulation growing, so is the variety and type of public bodies involved. In a 2000 survey, Ellefson et al. (2002) identified 356 cabinet-level agencies, 652 sub-cabinet agencies, 197 bureaus and offices, and 248 governing and advisory bodies that had regulatory influence over private forest activities. In addition to state forestry agencies, public authorities involved in forestry issues may include pollution control agencies, departments of agriculture, departments of health, and many other agencies. This can be a challenge for program coordination at the state level and can result in some degree of confusion on the part of landowners and the general public (Ellefson et al., 2002).

In addition, private forest certification programs in the United States are increasingly having the effect of "leveraging" state programs. Participants in the largest certification program in North America, the Sustainable Forestry Initiative (SFI), are required to implement all state-adopted best management practices (BMPs). For example, BMP for water quality protection are voluntary in some states, mandatory in others. But participants in private forest certification systems are required to comply with them,

whether voluntary or mandatory (AF&PA, 2002). This has the effect of making the protection of water quality, prevention of soil erosion, and reforestation of harvested forestlands a requirement for the 150 million acres of private U.S. forestland that are enrolled in the program. In addition, a 2002 requirement that SFI participants encourage similar actions on all the private forestlands from which they purchase timber makes sustainable forest management a higher priority for virtually all private forestland owners. While these private programs do not have the force of law, they are important in affecting landowner decisions because they target a critical point in the forest management cycle—the harvest and regeneration period. Since the SFI program affects some 90 percent of the industrial forestland in the U.S., and its members purchase most of the timber processed in the country, it is estimated that it now affects the way forestry is practiced on nearly half a billion acres in the United States and Canada (AF&PA, 2005).

In addition to state regulations and private certification programs, many local ordinances regulate forestry practices. Where these have proliferated in the absence of a comprehensive state regulatory framework, the issue may become whether a patchwork of local regulations is preferable to an overall state framework administered by one agency (Ellefson, 2000). Given the long history of state and local regulation in forestry, and the growing public concern over environmental issues and sustainable development, increasing regulation of private forest management seems likely.

Cost and Environmental Effectiveness

The carbon and cost effectiveness of regulatory efforts has been difficult to measure, and indeed may not be measurable. Estimating absolute changes in carbon stocks is straightforward. However, estimating program results is more challenging due to the difficulty of determining the causes of the changes. Figure 1 (page 2) indicates that changes in carbon stocks are a result of at least three different forces: (a) background changes in land-use trends, markets, natural conditions, and technologies; (b) changes related to ongoing government forestry, agriculture, and environmental programs; and (c) changes arising from programs and policies targeted at carbon stocks. Since there is interaction among the three influences, any increases in carbon sequestration may be partly driven by government programs designed for other purposes, partly by forest regulations, and partly as a result of shifts in background factors.

To separate the effects of forest regulations from other factors requires establishment of a baseline or business-as-usual forecast for carbon sequestration. This is a complex task that can involve sophisticated

economic and forestry models (Kerr et al., 2003, Sohngen and Mendelsohn, 2003). Methods for establishing baselines for evaluation of national carbon sequestration programs are still being developed. Once developed, it is possible that these methods could be applied or adapted to evaluate the effects of state-level programs. In any case, further work in assessment of program effectiveness is needed.

Cost-effectiveness studies have been few and inconclusive (Cubbage, 1996). In the ten states with comprehensive laws governing forestry practices, lead agencies spent $21.9 million in 1991—an amount that had more than doubled since 1985. While regulatory program administration budgets increased about twice as fast as total forestry budgets, regulation still accounted for less than 4 percent of total state expenditures on forestry activities in these ten states (Ellefson et al., 1995). Most of the state expenditures on regulatory programs are for administrative costs (permit issuance, etc.) and field compliance checks by state forestry employees.

The costs to landowners of complying with regulatory requirements can be significant as well. In California, the average cost of hiring a registered professional forester to prepare a timber harvesting plan was above $11,500 in 1992, and special surveys can double that figure (Henly, 1992). Obviously, these costs discourage small timber sales, and raise the possibility that small owners may need to band together to develop plans. Costs are also incurred in meeting the on-the-land requirements imposed by regulations. One five-state review of 18 harvesting operations in the Midwest found that complying with water quality protection regulations reduced net revenue by an average of $73,500 (from $124,300 to $50,800) for the average landowner (Ellefson and Miles, 1985). A study in southern states found the cost of implementing water quality practices reduced gross harvest revenues per timber harvest by an average of $58,864 (Lickwar et al., 1992). Since a reduction in gross revenue translates directly into a similar reduction in net revenues, the findings of the two studies are comparable.

In discussing the costs of regulatory programs, however, it is important to note that voluntary approaches may impose costs of a similar magnitude, both to government and to the private landowner (Cubbage, 1995). This will be particularly true where landowners are expected to achieve the same results, or apply the same practices. If the BMPs require similar effort, the costs will be the same for those who comply with them regardless of whether the state BMPs are voluntary or mandatory. The voluntary approach may allow more flexibility, which may achieve similar results with lower costs in some cases, but the differences may be less than political arguments would suggest.

D. The Third Rung on the Policy Ladder: Practice-Based Incentives

Provision of direct financial assistance to landowners has been an important part of USDA's program mix since the 1930s. Historically, the USDA cost-share contracts and subsidies have proven popular mechanisms for engaging the private agricultural and forestland owners who hold approximately 60 percent of the land in the United States and 70 percent of the land in the contiguous states.

The important role that the USDA will play in any future national carbon sequestration effort is reflected in the many programs that were created or expanded in the Farm Security and Rural Investment Act of 2002, also known as the 2002 Farm Bill. The 2002 Farm Bill made important additions and changes to agricultural conservation and forestry programs (see Table 8). In virtually every case, program objectives were expanded to include carbon sequestration as an activity that could qualify for federal

Table 8

USDA Programs Created or Expanded in the 2002 Farm Bill

(USDA-FSA 2002)

Program	Function	Agency	Changes in 2002
Environmental Quality Incentives Program (EQIP)	Cost-sharing, technical assistance	NRCS, FSA	Re-authorized to 2007, funded with $5.8 billion in CCC funds. Non-industrial forestland made eligible
EQIP Innovation Grants	Grants for innovative approaches (includes carbon sequestration and connection to market mechanisms)	NRCS	New program element added to EQIP in 2002
Conservation Reserve Program (CRP)	Cost sharing, land rental	FSA	Extended to 2007, acreage cap raised to 39 2 million acres
Conservation Reserve Enhancement Program (CREP)	Cost-sharing, land rental Done in cooperation with states; program details vary state to state	FSA	Continued, minor changes
Forestry Land Enhancement Program (FLEP) (replaces FIP and SIP)	Financial (cost-sharing), technical, and educational assistance to private forestland owners of less than 1,000 acres	FS	New program; funded with $100 million in CCC funds through 2007
Wildlife Habitat Incentives Program (WHIP)	Cost-sharing, technical assistance	NRCS	Re-authorized to 2007
Wetlands Reserve Program	Cost-sharing, term (30 year) or perpetual easements	NRCS	Re-authorized to 2007, maximum acres set at 2,275,000
Conservation Security Program	Cost-sharing for new or maintaining existing conservation practices	NRCS	New program, being tested on watershed basis
Sustainable Forestry Outreach Initiative (SFOI)	Education	CSREES	New program

Agency acronyms CCC – Commodity Credit Corporation; CSREES – Cooperative State Research, Extension, and Education Service; FS – Forest Service, FSA – Farm Services Agency; NRCS – Natural Resources Conservation Service

educational, technical, and cost-sharing assistance. It should be noted, however, that currently these are rather blunt policy tools. Carbon sequestration is one of many goals, not the primary program focus, and there are no provisions for estimates of carbon levels achieved.

The oldest USDA cost-sharing program, the Agricultural Conservation Program (ACP), provided cost sharing for such practices as grass and tree planting, timberstand improvement, and wildlife-habitat improvements. Cost-share rates were generally around 50 percent. Studies of the program found that it was effective in encouraging landowners to plant trees and implement forest management practices, and that areas planted in trees under this program tended to remain in forest use (Kurtz et al., 1994).

Dwindling resources in the ACP program and its lack of focus on forestry concerns led to enactment of the Forestry Incentives Program (FIP) in 1973. FIP was aimed directly at timber production. A more recent effort—the Stewardship Incentives Program (SIP)—attempts to broaden the cost-sharing approach beyond timber to encourage more ecosystem-based practices and management. The Forest Land Enhancement Program (FLEP) replaced both of these programs in 2002, and continues the trend toward broader program objectives.

The largest land conversion programs were the Soil Bank Program of the 1950s and 1960s and the Conservation Reserve Program (CRP) of the 1980s to the present. Both programs were designed to address commodity surplus situations, both encouraged landowners to retire cropland and restore either grass or tree cover, and both provided cost sharing for initial implementation plus land-rental payments under contracts that generally ran 10 to 15 years. The CRP was directed specifically toward the retirement of marginal crop and pastureland to reduce soil erosion losses, so it had a more direct conservation focus than the Soil Bank. In its 16 years of operation, the CRP has had a major effect on America's farm landscape. The 1997 National Resources Inventory listed 32,697,000 acres of land in CRP in 1997 (USDA-NRCS, 2000). Table 9 illustrates the extent of CRP practices that are likely to sequester carbon in soils or wood.

Concern about the continued fragmentation of forestland into smaller and less manageable tracts as a result of economic and development forces led to the Forest Legacy Program in the 1990 Farm Bill. In this program, the Forest Service cooperates with states to negotiate and purchase permanent conservation easements on private forestlands. By 2004, the program had conserved over one million

Table 9

Area of Conservation Reserve Program

By Practice, for Active Contracts for All Program Years 1987-2003

Practice	Acres	Practice	Acres
Introduced Grasses	4,327,016	Tree Planting	1,166,988
Native Grasses	6,239,811	Wildlife habitat	2,283,598
Grass Waterways	74,586	Field Windbreaks	42,326
Established Grass	14,957,376	Established Trees	1,037,816
Wildlife Food Plots	68,976	Shelterbelts	20,651
Filter Strips	31,829	Riparian Buffers	427,120
Contour Grass	60,944	Wetland Restoration	1,840,298

Source. U.S. Department of Agriculture.

acres, with a value estimated at over $361 million, for a program investment of $183 million in federal funds (USDA-FS, 2004).

All of these programs provide subsidies for specific practices. However, it is also possible to use taxes to implement practice-based programs. For example, one can imagine a program that would assess a fee on landowners who clear their land of forests and do not replant within a specified time. Relative to subsidies, taxes have the advantage of decreasing the amount of revenue the government must raise, and thereby decreasing the public finance burden. However, proposing new taxes always entails a substantial political risk. Alternately, if a cap-and-trade program were established, emission credits could be awarded to encourage desired practices.[15] Rather than paying subsidies for adoption of specified practices, the government could provide rewards in the form of credits that could be sold to entities to assist them in meeting their obligations under a cap-and-trade program (see Section E for further discussion of cap-and-trade approaches). For example, the government could provide credits of one ton per acre per year for landowners who convert their cropland to forest stands and agree to maintain them for fifty years.

Cost and Environmental Effectiveness

As discussed in connection with regulatory programs, measuring the carbon sequestration benefits of subsidy programs—and therefore their environmental effectiveness—will be challenging. In addition to the difficulties involved in ascribing carbon results to specific programs, the length of time over which carbon stock increases are maintained (their "permanence") plays a role in environmental and cost-effectiveness. The costs and cost-effectiveness of practice-based incentive programs also depend on the extent to which payments can be targeted to maximize carbon gains per dollar spent. These issues are discussed below.

Measurement of Carbon Stock Changes

The United States measures changes in carbon stocks at the national level, and, under the United Nations Framework Convention on Climate Change, reports aggregate rates of carbon sequestration based on changes in national carbon stocks. For example, the 2002 U.S. Climate Action Report estimated that the net increase in terrestrial carbon stocks in the United States was 270 million metric tons per year. To estimate national carbon stocks, the government draws on several sources.

For forest carbon, the U.S. Forest Service has maintained the Forest Inventory and Analysis (FIA) program since 1928. The FIA has produced comparable national inventories since 1952 (Powell et al., 1993). In the past, the FIA only inventoried private forestlands, and was carried out on a roughly 10-year cycle, although in some states the interval between inventories has been as long as 15 years. In part because of the increased national interest in trends in carbon sequestration, and in part due to other forest conservation issues, the FIA program has recently been upgraded from a 10-year inventory cycle to a 5-year cycle, with 20 percent of the area inventoried each year (Gillespie, 1999). The new inventory will also include both private and public forestlands. In addition, new sampling will capture attributes such as soil carbon and forest-floor carbon, including deadwood, that will add statistical accuracy to national estimates of carbon stocks. Full implementation of this enhanced inventory program is anticipated by 2008 (Heath and Smith, 2002).

For estimates of carbon on non-federal (including state and local) crop and grasslands, National Resource Inventories (NRIs) are the primary source of data. These inventories (which do not include Alaska) are carried out by the USDA's Natural Resources Conservation Service on a 5-year cycle. The inventories rely on a statistically established set of fixed plots that are sampled for a variety of characteristics, including land use, management, and soil characteristics. National-level land-use and management changes are used to estimate associated effects on carbon stocks. For agricultural soils, a combination of data from the NRI on cropland use and localized information about tillage and cropping practices are fed into the CENTURY model, which then predicts changes in soil organic carbon content (Brenner et al., 2002). Collection of additional, more specific information on management practices, plus measurement of soil carbon at a subset of NRI plots, would greatly improve the accuracy of model results. (See Paustian et al., 2006 for further discussion of this issue.)

There is at present no inventory of federal lands comparable to either the FIA or the NRI. Current estimates of carbon stocks on federal lands are derived from analysis of very coarse land-cover data from satellite imagery and general estimates of the carbon stocks of various types of cover. By 2008–2010, the new FIA program may provide estimates of carbon stocks on federal lands that are statistically comparable to those now available for non-federal lands.

Based on the inventories and models mentioned above, the USDA reports estimates of absolute changes in carbon stocks; it does not identify causes for these changes. Determining the extent to which any given change is the result of carbon sequestration programs and policies will be significantly more challenging.

Maintaining Environmental Gains (Permanence)

Another issue that emerges in considering the effectiveness of practice-based incentive programs is permanence. It has been suggested that both cost- and environmental-effectiveness of carbon sequestration programs could be reduced because stored carbon can be released back into the atmosphere. However, while permanence or duration has become a much-discussed issue in carbon sequestration projects, the concern is not new to conservation programs. Practices designed to limit soil erosion and/or water pollution also need to be maintained or their benefits can be lost. Management practices need to be consistently pursued and physical infrastructure (e.g., terraces or grassed waterways) need to be properly maintained. Various approaches have been used to address the problem of permanence. For example, the government has used payback clauses in some of its cost-sharing programs such as the Environmental Quality Incentives Program (EQIP). Under a payback clause producers agree to maintain a practice for a normal life span (usually determined by the local technical guide) or pay back the federal dollars received. This approach, of course, places the burden on the government to monitor that the management practice has continued and to collect any repayments that may be due if the agreement is violated.

An alternative to the payback clause is a long-term contract based on conservation plans. The Great Plains Conservation Program, for example, was based on long-term contracts between the producer and the federal agency (now NRCS). These long-term contracts were generally judged to be effective and are still a feature of programs such as CRP and EQIP. One of the major advantages of the long-term contracts is that they provide the stability needed to fund all elements of the landowner's conservation

plan, which may need to be implemented over the course of several years. (See Paustian et al., 2006 for a discussion of costs of long-term contracts for soil carbon.) Under annually funded conservation programs, a delay in Congressional appropriations can cause major disruptions in project implementation. Practices such as tree planting, for example, must be carried out at the appropriate time of year (usually late fall or early spring, depending on the area's climate and soils). When cost-sharing funds are not available until after the planting season, or are not available at all in a particular year, planting may be delayed for a full year. The disruption affects not only the planned planting but leaves nurseries with excess stock that must be destroyed and contractors without planned work or income.

Targeting Strategies

The USDA subsidy programs can involve large government expenditures. To contain costs and increase cost-effectiveness there have been ongoing attempts to target conservation and forestry programs, both to landowners that are most in need of assistance (financial targeting) and to lands where the most conservation benefit can be gained (environmental targeting). These efforts have had mixed results.

Two methods of financial targeting have been tried: limiting payment amounts and applying "means" tests. In some federal land-use programs, financial benefits have been limited to a specified annual amount per producer to target recipients most in need of incentives. As costs for some types of practices (e.g., animal-waste management systems) rose, these limits became an obstacle to achieving program goals. In cases where the landowner truly needed federal assistance to adopt the new practice, the landowner might resist investments that exceeded the assistance limit. As a result, subsidy limits under various programs have been raised significantly over the years (e.g., to $450,000 per producer for 2002–2007 under the EQIP program), to the point where it is doubtful whether today's limits provide much of a positive targeting effect. The other approach, a "means test," has been used in some cost-share programs like the ACP. This program requires an applicant to certify that they would not be able to implement the practice without federal assistance. Those certifications were routinely signed by producers on the basis that, without federal help, they would choose not to go ahead. The difficulty of proving intent—i.e., what an individual or entity would have done in the absence of a carbon payment—is a lesson that has been re-discovered in the context of carbon sequestration credits.

In the context of GHG emission reduction programs, it has been proposed that credits be awarded only for carbon sequestered (or emissions avoided) in "addition" to what would have happened

in the normal course of business. This has created a debate as to whether "financial additionality" is an appropriate or viable test; i.e., can it be determined whether a project is financially viable on its own merits (would have occurred in the normal course of business) or requires carbon incentives to be carried out (i.e., qualifies as "additional")? In general, even the most scrupulous landowners will have little trouble justifying a statement that they would not have proceeded with a project "but for" the additional benefits or incentives provided by a government program.

Targeting payments to achieve the most environmental benefit (environmental targeting) has also been tried. Where the government is providing incentives to encourage carbon sequestration, it will get the most "bang for the buck" if it is able to provide incentives where they will achieve the greatest increases in carbon stocks per dollar spent. However, just as it can be difficult to target the landowners most in need of financial aid, it can also be challenging to target the most cost-effective situations or applications. A proposal during the Reagan Administration to limit forestry technical assistance to landowners above a certain size met with opposition and was never fully implemented. This proposal was intended to maximize timber output per dollar of federal investment, but by systematically eliminating the vast majority of forestland owners from the programs, it was feared that political support for improving forest management (which was never very strong) would be decimated.

A major effort to target program resources to the most serious soil erosion situations was launched in 1985, when critics pointed out that much of USDA's technical assistance and cost-sharing was being directed to areas where soil erosion studies indicated lesser problems. Local conservation-district officials, however, strongly resisted the effort to target resources on the most serious problems, arguing that it would often penalize effective programs while rewarding "bad actors." In the context of carbon sequestration it has been proposed that payments would only be provided to "new adopters" of carbon sequestering practices or for carbon stored after the effective date of the program. As in the soil conservation context, targeting new carbon sequestration has been criticized for penalizing "good actors", i.e., early adopters of practices that increase carbon, and rewarding "bad actors." Those who had already adopted carbon-sequestering practices, or had already stored carbon, would not qualify for payments for carbon stored, while those who had not yet adopted desirable practices would qualify for payments. (See Paustian et al., 2006 for a discussion of costs of paying only new versus all adopters.)

Past experience indicates that it is at best a difficult process to differentiate between those who would have undertaken a particular practice or project in the absence of an incentive and those for whom

the incentive was the deciding factor. Experience also suggests that rewarding only new adopters or large landowners may prove politically difficult. This does not suggest that using practice-based approaches to carbon sequestration will yield no gains in carbon stocks or will yield gains only at prohibitive costs. It does, however, suggest that costs may be higher than estimated in typical cost-effectiveness models. Concomitantly, programs will likely have less effect on carbon stocks than might be surmised based on program expenditures and landowner claims. The difficulty of targeting incentives suggests that the U.S. government should invest substantially in careful program evaluation to estimate the actual impacts of its investments in carbon sequestration.

E. The Fourth Rung on the Policy Ladder: Results-Based Incentives

The key advantage of results-based approaches is that they provide private parties with a great deal of flexibility in pursuing sequestration goals and could minimize costs. Results-based approaches allow for innovative approaches customized to local circumstances and create incentives that closely coincide with the sought-after outcomes. There are two basic results-based approaches for including the forest and agricultural sectors in a climate mitigation strategy: direct and indirect. The direct approach is for the government to deal with landowners by establishing contracts or providing subsidies for specified amounts of carbon sequestration, or even taxing releases from carbon stocks. For example, a landowner who clears a forest and does not replant could be assessed a fee in proportion to the estimated carbon losses. Where the results-based subsidy rewards beneficial carbon sequestration changes, the results-based tax would penalize or discourage undesirable changes. Like the practice-based tax, the results-based tax has desirable properties in terms of revenue raising, but carries with it a substantial political liability. The direct approach is not predicated on any particular assumption about emissions control programs and can therefore operate independently of a wider program to control GHG emissions from fossil fuels.

The indirect approach involves a program operated as a part of a cap-and-trade system. Under this system, emission limitations (caps) are placed on utilities, manufacturers, and other large sources of emissions. Those covered under the "cap" (capped sources) can choose whether to reduce their emissions or purchase credits from others. The program could be designed in such a way that the government issues credits to landowners for carbon stock gains and emission reductions achieved through projects on their agricultural and forestlands. For example, a landowner who demonstrates a 100-ton increase in carbon

stocks might be granted 100 tons of credit. Landowners would be allowed to sell these credits directly to capped entities. Capped sources would be allowed to purchase and use these credits to assist in meeting their emission limitations, purchasing the credits either directly from landowners or from intermediaries. If credits are issued to individual landowners, mechanisms to evaluate the benefits of specific projects must be developed. An alternative program design would be for the government to sell directly to capped sources credits based on changes in national carbon stocks (Andersson and Richards, 2001). Whichever program design is used under the indirect approach, the market would determine the monetary value of credits. The indirect approach also allows the government to set an overall net emissions reduction goal and meet it using whatever combination of sequestration increases and emission reductions is least expensive.[16]

The direct and indirect approaches are not necessarily mutually exclusive paths to promoting carbon sequestration. For example, it is conceivable that the government could establish a practice-based or a results-based payment program for carbon sequestration before there is a cap-and-trade program for emissions. Then, when a cap-and-trade program is established, the sequestration program could be easily subsumed into it. To make the transition, government could change from providing cash (in dollars per ton) to providing credits (in tons of sequestration) that can be sold to capped sources.[17]

It has been argued that, if the federal government provides cost-sharing to a private landowner for conservation work that produces some carbon sequestration as one of many objectives, the landowner should not be allowed to sell or trade the carbon "credits" if a market emerges. The charge is that this would amount to double payment. Currently, however, the USDA policy is that their cost-share and long-term contracting programs such as the Conservation Reserve Program are designed and administered to pay for soil erosion control, water quality protection, and commodity production control. If farmers can sell other environmental services on the market, they are free to do so.

Current conservation and forestry cost-share programs do not pay for the measuring, monitoring and independent third-party verification that will probably be a necessary component of an emission credit program based on carbon sequestration (WRI-WBCSD 2003). In addition, in some conservation programs there is no requirement for maintaining forest practices for a specified time period. Thus, it may be possible that landowners in the future could face a choice. They could accept payments in a practice-based cost sharing program offered by USDA, in which case the amount of sequestered carbon would be estimated by the government for inclusion in the national reports. Alternatively, if higher

payments are offered under a cap-and-trade program, farmers could accept measuring, monitoring, and verification systems, and more stringent contract requirements, such as providing guarantees for maintenance of carbon. In the end landowners will likely opt for the approach that provides the greatest return on their investment.

Cost and Environmental Effectiveness

Any results-based approach will place additional requirements on the measuring and monitoring elements of a sequestration program. Moreover, experience with voluntary reporting of emission reduction projects suggests that monitoring and measuring may be needed for large numbers of small projects and projects spanning many orders of magnitude in size. Under practice-based programs, the government monitors compliance largely through self-reporting and visual inspection. Under a results-based approach, the government and program participants must employ some mechanism to estimate, report, and verify the actual carbon sequestration achieved by land-management and use changes. To engender popular and political support—particularly if credits that can be used to meet obligations under a cap-and-trade program are allocated to individual landowners—it will be necessary to develop procedures that assure the public that estimates of carbon gains represent actual gains.

Lessons from Voluntary Reporting

Since 1994, the U.S. Department of Energy has maintained a database where parties can record their GHG emission reductions efforts. This database was created under Section 1605(b) of the 1992 Energy Policy Act, and it is important to understand that the guidelines for this voluntary program were deliberately designed to encourage participation rather than to ensure analytical rigor. As a consequence, the data reported in the 1605(b) database are of limited use in estimating the actual impact that projects have had on net emissions. The information in the database is useful, however, for another purpose: it indicates the type, size, and number of forest and agricultural activities that might potentially be involved in a results-based program. In this respect, several observations are instructive.

First, in 2003, the database recorded 2,188 projects from 234 reporting entities. Of these, 446 projects were reported in the "carbon sequestration" category by 51 different entities. According to database summaries, carbon sequestration projects accounted for 2.1 million tons of net carbon emission reductions compared to 72.4 million tons for non-sequestration activities. Of the 2.1 million tons of

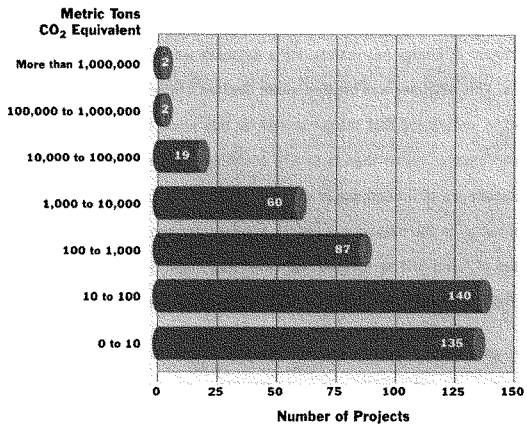
carbon sequestration, 89 percent were for foreign projects. Virtually all of these reductions were reported for five large forest preservation projects; as a result, just 10 percent of all reporting entities accounted for 92 percent of the total sequestration reported in 2003.

Second, the carbon sequestration projects in the 1605(b) database almost all involve forestry projects, the vast majority of which entail preservation, conservation, and afforestation or similar tree-planting activities (Brown et al., 2000). While only 39 of the projects reported are based on forest preservation, those few projects account for 88 percent of the total carbon sequestration reported. Third, based on annual carbon increments reported in 2003, the size of the projects spans six orders of magnitude, from a fraction of a ton of carbon sequestered per year to 1.13 million tons per year, with the two largest projects accounting for 81 percent of all reported carbon sequestered in that year (Figure 4).

It is impossible to extrapolate from the 1605(b) voluntary program to a national sequestration program with substantial monetary incentives. Incentives might encourage a wider range of sequestration projects, including management changes on agricultural and grazing lands, than is reflected in the 1605(b) database. Nevertheless, experience to date would suggest that a national carbon sequestration program could include a large number of small projects if they were allowed. In the 1605(b) database, even a project that captures only 10,000 tons of carbon per year is in the top 5 percent of all

Figure 4

Carbon Sequestration Projects Reported to 1605(b) by Amount of Carbon Sequestered, 2003



Source. http://www.eia.doe.gov/oiaf/1605/vrrpt/figure_12.html.

Note. One metric ton CO_2 equivalent = 27 metric tons of carbon.

sequestration projects by size. Thus, the first important lesson from the 1605(b) experience is that a government sequestration program may be dealing with many thousands of projects with sizes spanning many orders of magnitude, but with most concentrated in the low end of the size range. Moreover, if they are allowed, international projects will likely account for a very large amount of the carbon sequestration reported. Similarly, forest preservation projects, if they are allowed, may account for a disproportionately large amount of the carbon sequestration reported.

The second important lesson from the 1605(b) experience is that in the absence of financial incentives for carbon sequestration there is unlikely to be a large number of projects, and the amount of carbon sequestered will be relatively small. While public recognition and government encouragement may be sufficient to induce a few parties to develop projects, it will likely take significant subsidies, contracts, or value derived from an active carbon market to create a substantial response.

Measurement Issues

To implement a results-based program a number of issues must be addressed. Evaluation of the results from land-management and use changes involves several components, including measuring changes in emissions or carbon stocks at the project site, developing reference cases or baselines, and evaluating off-site or secondary effects. While there is virtually unanimous agreement that on-site carbon changes can be measured and monitored with both accuracy and precision,[18] there is less consensus regarding the development of reference cases and the evaluation of off-site effects (Richards and Andersson, 2001). These exercises are integral to results-based approaches.

The U.S. Department of Energy has revised the 1605(b) Guidelines for Voluntary Reporting of Greenhouse Gas Emissions and Emissions Reductions that provide the basis for attributing GHG reductions to individual entities and their projects (Federal Register, 2002, 2003, and April 21, 2006). In the original guidelines, both the development of reference cases and the evaluation of off-site effects were dealt with flexibly. Carbon sequestration was counted from the initial reporting date, and effects outside the reporting entity's control did not have to be included in the report. The new guidelines contain prescribed methods for measurement, and entities can select the method to be used. This approach was considered important for making the reports more consistent while maintaining a process that would attract potential reporters who faced weak economic incentives for participation.

What effect the revised 1605(b) voluntary reporting guidelines, released by USDOE on April 17, 2006, will have on the rigor of the reports and the willingness of agriculture and forestland owners to participate is still unknown. The USDA has developed several tools to aid in estimating carbon sequestration amounts from a variety of practices, but there are still questions regarding how the final guidelines will be perceived by small producers. The policy guidelines and the record of public comment, which illustrates many of these issues, are available at http://www.pi.energy.gov/enhancingGHGregistry/.

Measurement of On-Site Carbon Changes

A variety of well-developed and relatively inexpensive methods are available for measuring on-site changes in carbon stocks in forests and agricultural soils. These methods have been developed by soil scientists, foresters, and ecologists over the course of many years. While traditional methods for measuring carbon in forests and soil are rather labor-intensive[19] and can be relatively costly, new quicker and more cost-effective methods are being developed. For example, remote systems that collect aerial digital imagery at very high resolution (10 cm pixel size), enabling measurement of individual trees, have been shown to produce accurate and precise estimates of the carbon stocks in live forest vegetation at costs one-half to one-third the cost of conventional field methods (Brown et al., 2005). For soil sampling, one new method—laser-induced breakdown spectroscopy (LIBS)—reduces the costs compared to earlier methods (Cremers et al., 2001). No matter which method is used for monitoring forest and soil carbon, accurate and precise estimates of carbon at the field, farm, or regional level require statistically robust sampling designs (Post et al., 1999) and use of relevant models. See Paustian et al., 2006 for further discussion of soil measurement, sampling, and models.

The cost of field sampling and analysis is directly related to the number of plots required to adequately sample the area in question, which in turn is a function of the levels of precision and accuracy of the estimated change in carbon stocks required.[20] Work on existing carbon sequestration projects in the forest sector has demonstrated that estimates at the 95 percent confidence level[21] can be achieved with modest costs (i.e., less than 50 cents per ton of carbon) for projects of several thousand acres or more (Brown, 2002). Sufficient experience with sampling soils in existing agricultural-based carbon sequestration projects is lacking and thus monitoring costs are unknown. However, at least one report has provided an upper estimate of measurement costs that is as low as 3 percent of the value

of the carbon credits (Mooney et al., 2004). As with many measurement and monitoring procedures, there are certain fixed costs that are independent of project size. This leads to economies of scale in monitoring and measurement. Practical experience to date demonstrates that bundling small projects can reduce per project costs significantly and still result in valid and transparent carbon estimates. Aggregating organizations could assemble portfolios of similar projects that could be submitted as one report with identifiable parts. Compared to a system in which each project is independently reported by a different party, aggregators would also be likely to provide reports that would be more consistent and therefore easier to audit. Thus, the cost of measuring and monitoring changes in on-site carbon need not be a barrier to small or large-scale sequestration projects.

One option for reducing measurement, monitoring and verification costs to landowners participating in results-based carbon sequestration programs would be to provide financial support for hiring a qualified private professional consultant. Consulting assistance has been a feature of the Forest Stewardship and Forest Incentives programs, and several states have initiated service charges for state foresters that are the equivalent of private fees (Sampson and DeCoster, 1997). Thus landowners can either hire the state foresters or a private consultant, and federal cost sharing under these forest programs will cover part or all of the costs. Since state and local agencies cannot expand their work force easily (and many are shrinking under budget pressure), the effect of federal assistance for consultants is to create additional work for private-sector consultants when these programs are expanded. The 2002 Farm Bill also allows USDA to pay the cost of third-party, private, technical service providers under soil and water conservation programs if the landowner wants to use them to audit reports of carbon sequestered. Third-party auditors would not have a financial interest in the projects or provide the primary project reports. Rather, auditors would simply certify that the reports submitted by the project developers comply with the measurement requirements of the program.

Measurement of Other Impacts

Projects undertaken in the context of results-based programs should be evaluated for their net effect on carbon sequestration levels. In its most thorough execution, evaluation involves adjusting estimates of onsite changes for offsite effects, losses from the project over time, and any changes in other greenhouse gases caused by the project.

To evaluate on-site impacts of management or land use changes, the carbon measured at some time after project initiation is compared to the level of carbon levels that would have been present at that point in time in the absence of those changes. This comparison requires development of a reference case, sometimes referred to as a business-as-usual scenario (Bashmakov, I. and C. Jepma, 2001, Chapter 6). The challenge in development of a reference case is that it is hypothetical; it cannot be observed. Hence, developing the reference case requires the project evaluator to employ some combination of control plots, modeling, and conjecture—similar to what would be needed to evaluate the impacts of regulatory or subsidy-based state or national-level programs.

Different types of projects require different types of reference cases. For example, a project to afforest land that has been in agriculture for decades with very little change in carbon levels can credibly use the historic on-site carbon stock as the reference case for evaluating changes attributable to the project. In contrast, a project designed to preserve a forest in its current state by, for example, preventing deforestation, must employ a reference case that involves assumptions about the causes, extent, and timing of deforestation that are expected to occur if the project is not undertaken. Methods to develop reference cases are being developed; all involve analyses of past trends that are then projected into the future using a variety of models (e.g., Brown et al., 2006).

Evaluating the effects of a sequestration project also involves controlling for gains or losses off-site, over time, and among the various GHGs. These gains or losses are sometimes referred to as leakage. The reason to adjust for leakage is that it might reduce (or increase) the overall benefits of the project. Consider the case where agricultural land is converted to managed forestland. The on-site effects might be relatively simple to evaluate. However, the loss of the agricultural land could have the effect of increasing the value of agricultural land, which in turn could lead to conversion of other, existing forestland back to agricultural land (Murray et al., 2002; Marland et al., 2001). This countervailing effect must be considered in a full treatment of project impacts. Another example is the preservation of forests from timber harvesting. Here it is important to consider the mobility of lumbering activities or, in many areas of the United States, the mobility of residential development. Ending harvesting or conserving forests on one tract could result in greater pressure to harvest or develop other areas. The problem with evaluating leakage effects of this type is that the market signals from any one individual project may be too weak to discern within the economy as a whole. Land conversions involving a few hundred or even a few

thousand acres (a typical scale for many projects) may create some market pressures that would lead to leakage, but like the pebble thrown into the ocean, the impacts are unlikely to be discernible, let alone measurable.

The off-site leakage effect described above can be thought of as *geographic* leakage. However, leakage effects can also occur over time (*inter-temporal* leakage, also referred to as lack of permanence). For example, the effect of a project involving conversion of agricultural land to forests depends on how long the trees grow and live. If the forest is burned, or the land is later re-converted to a non-forest use, the sequestration benefits would be lost. Similarly, preservation of existing forests decreases emissions only as long as the protection remains in place. Hence, where some or all of the effects of a project can be "undone" in the future, evaluation of project results or program effectiveness must take leakage over time into account, and program design must accommodate that possibility. Proposals to address the permanence issue include use of easements on project lands that prohibit future conversion to non-forest or non-agricultural use. Easements may need to be coupled with contracts to insure reforestation in case of losses due to fires, disease, or insects. Alternatively, contracts could require repayment of subsidies, or replacement of credits, to cover losses due to land use or practice changes that "undo" the gains for which the subsidies or credits were granted. Other proposals to address permanence include rental, temporary, or time-limited credits for stored carbon; and ongoing payments for maintenance of increases in carbon stocks.

The problem of inter-gas leakage is self-descriptive. In some cases, projects can lead to an increase in carbon stocks or a decrease in emissions of carbon while causing an increase in other GHG emissions such as nitrous oxide (N_2O), methane (CH_4), or CO_2 from combustion of fossil fuels (e.g., due to increased use of equipment). For example, nitrogen fertilization can increase forest growth (thus increasing carbon stocks) but lead to an increase in N_2O emissions. These effects must be addressed by netting out the global warming impact of any increases in other GHG emissions from carbon sequestration benefits.

Implications for Results-Based Programs

The challenges presented by evaluating project impacts are not new issues. The original 1605(b) Guidelines for Voluntary Reporting of Greenhouse Gas Emissions and Emissions Reductions (USDOE, 1994) discussed options for establishing baselines and dealing with leakage. However, those guidelines were

written to encourage, not burden, greenhouse gas mitigation projects and their reporting. As such they left much to the discretion of the project developer and reporter and explicitly accepted the fact that project reports might not provide accurate estimates of project effects. While this may have been acceptable in the case of a voluntary program in 1994, it would be highly problematic in a results-based program where sequestration projects receive tradable emissions credits or other substantial incentives.

If carbon sequestration is linked to a substantial results-based reward system, the incentive to abuse discretion in the calculation of impacts could be substantial. For example, if credits in a cap-and-trade program are selling at $30 per ton, a project reporter who can raise the estimated increase in carbon stocks from 3,000 to 4,000 tons per year will reap a financial reward of $30,000 annually. Some project developers will maximize their rewards by being more efficient and designing better projects. Others are likely to do it by telling better stories, selecting more advantageous baselines, or ignoring significant leakage.

From the standpoint of overall program design, the difficulty is that no one knows how serious the abuses would be in an actual system. If abuses turn out to be a minor problem, they could simply be viewed as the cost of doing business. If, however, "carbon fraud" proves to be substantial, it may be necessary to be more prescriptive about the methods used by project developers to estimate and report their accomplishments.

Since the 1605(b) Guidelines were published in 1994, an extensive literature has developed to address baseline development and leakage in project evaluation (Chomitz, 1998; Chomitz, 2000; Michaelowa and Dutschke, 1999; Moura-Costa and Stuart, 1999; Aukland et al., 2003; Schwarze et al., 2002; Sohngen and Brown, 2004). Although sequestration projects have continued to expand and be successfully implemented in the United States, questions continue to arise about whether it is possible to preserve the integrity of the emission limits of a large-scale cap-and-trade program while allowing for broad use of credits from projects in uncapped sectors. Until recently, attempts to meet these twin objectives have relied on a variety of safeguards, including case-by-case expert evaluation of reference cases and leakage estimates; restrictions on the types of projects allowed in the system; limitations on the use of project-generated reductions; and discounting of the tons achieved as a proxy for leakage.

It is still unclear how the recently published revisions of DOE's 1605(b) will strike the balance as the government drives to simultaneously reduce the burden of reporting and increase the quality of the

reports. Meanwhile, the State of California has developed and published guidelines for parties reporting to its greenhouse gas registry. Several nongovernmental organizations have also developed standardized procedures providing guidance on estimating the impacts of the GHG reduction and carbon sequestration projects. All of these procedures are relatively new and will warrant close attention as they are applied, critiqued, and evaluated.

In summary, desirable features of a climate change mitigation program that includes awarding credits to individual projects in the forest and agricultural sectors would include:

- A description of accepted practices for sampling and measuring carbon stocks at the project site;[27]
- Methods to develop reference cases or baselines against which observed changes in carbon levels can be compared. Several different approaches to reference case development may be needed to accommodate the wide range of potential activities and settings (see Table 1);
- Methods to estimate or address the leakage effects, including permanence, geographical leakage, and trade-offs among different GHGs;
- Program methodologies designed to provide results that are reproducible by competent, independently-operating evaluators.

A broad results-based program that provides rewards to project developers in proportion to the amount of additional carbon sequestered has the potential to improve the cost-effectiveness of a national program for mitigating greenhouse gas emissions. A results-based program is also likely to result in more innovative solutions than practice-based approaches. However, some observers still question whether the government—in cooperation with researchers, landowners, and project developers—can develop project measurement and monitoring methods that are sufficiently accurate and reproducible to protect the environmental integrity of a large-scale program that allocates rewards on the basis of evaluations of individual projects. These questions can only be answered by developing and testing the needed methods. At this stage, the goal of any program should be continual improvement, not absolute accuracy. The policy challenge, therefore, is to design programs that not only encourage improvement, but also allow improvements to be incorporated into the program on a regular basis. "Locking in" measurement and monitoring methods at the outset will potentially hinder the improvements needed for strengthening programs over time.

V. Conclusions: Developing a Coherent National Strategy for Carbon Sequestration

The United States can capitalize on its substantial natural, institutional, and human resources to develop a strong, integrated, carbon sequestration program. The goals of a national sequestration strategy should include:

- Achieving actual increases in carbon stocks on its forest and agricultural lands,
- Maintaining existing carbon stocks,
- Producing more reliable estimates of changes in the absolute levels of these stocks, and
- Developing the methods needed to allow policy-makers to evaluate the effectiveness of government-sponsored sequestration programs.

Given the variety of activities, land types, and ownership patterns involved, policy-makers will need to include several different components in designing a national strategy for U.S. forest and agricultural lands. They will also need to draw on a variety of approaches to implement this strategy. To maximize results, government should employ the full range of policy tools at its disposal, including: direct government provision of information and increasing carbon on federal lands, regulations, practice-based incentives, and results-based mechanisms. Table 10 provides a summary of the many policy tools available to the government for implementing a national carbon sequestration program. Given the multiplicity of policy tools and mechanisms available, it will be important to assure that future programs complement each other and are presented to potential participants in a lucid manner.

As a first step in increasing carbon sequestration, the government should examine how it can modify management practices on its extensive land holdings to emphasize carbon sequestration in a manner that is consistent with other land management objectives such as habitat protection, erosion control, and timber production. The most promising avenue involves reducing the risk of catastrophic loss of forests to wildfires (see Box 2, page 17). The regulatory approach, which may be particularly helpful in preserving existing forests and decreasing losses of forest carbon on private land, must be implemented through state

Table 10

Summary of Key Characteristics of Policy Tools

Policy Tool	Description	How GHG Goal is Set	Monitoring and Measurement Approach	Who Bears the Financial Burden	Comment
Government Production	Government uses own resources to increase carbon sequestration	Quantity target or budgetary constraint	Ex post program evaluation	Government/ taxpayers	Potential political resistance to government acquisition of new land. May be limited to modified management on existing government holdings
Command-and-Control	Compliance with regulations, civil/criminal penalties for noncompliance	Quantity-based target or Technology/practice-based regulation	Inspection for compliance	Private sector	Potential political resistance to government (especially federal) control of private land-use and management decisions
Practice-based Contracts or Subsidies	Money payment for adoption of carbon-enhancing practices across negotiated number of acres (contract) or general offer of money payment or tax advantage in $/acre to any adopters of specified practice (subsidy)	Quantity-based target (acres) or price-based target ($/acre)	Inspection for adoption of practice, number of acres	Government/ taxpayers	Similar to Conservation Reserve Program Requires government to raise additional revenue through taxes.
Practice-based Tax	A levy in $/acre on specified activities that decrease land-based carbon sequestration	Price-based target ($/acre)	Inspection for activities that release carbon, number of acres	Private sector	Potentially useful for preventing leakage, likely to face stiff political resistance among landowners
Practice-based Credits	Award of credits per acre, for adoption of specified practices	Quantity-based target on fossil fuel sources of emissions (tons)	Inspection for adoption of practice, number of acres	Depends upon specific program design	Only applicable in conjunction with a cap-and-trade program for emissions
Results-based Contracts or Subsidies	Monetary payment for a negotiated amount of carbon sequestration (contract) or general offer of monetary payment or tax advantage in $/ton to any landowner (subsidy)	Quantity-based target (tons) or price-based target ($/ton)	Estimation of amount of additional carbon	Government/ taxpayers	Requires government to raise additional revenue through taxes.
Results-based Tax	A levy in $/ton on releases of terrestrial carbon	Price-based target ($/ton)	Estimation of amount of released carbon	Private sector	Potentially useful for preventing leakage, likely to face stiff political resistance among landowners
Results-based Credits	Award of credits in tons of credit per ton of sequestered carbon	Quantity-based target on fossil fuel sources of emissions (tons)	Estimation of amount of additional carbon	Depends upon specific program design	Only applicable in conjunction with a cap-and-trade program for emissions

governments where the power to directly control land-use and management is vested. Recent experience suggests that private-sector certification programs like the SFI that promote adoption of best management practices for sustainable forests can provide an important supplement to state and local regulations.

In the past, the federal government has predominantly employed practice-based incentives to influence private landowner decisions. This tendency is reflected in the 2002 Farm Bill, which contains a number of programs that provide cost-sharing incentives for practices that enhance carbon stocks on the lands where the practices are adopted. These programs generally serve multiple objectives that include soil, water, and habitat conservation in addition to carbon sequestration. The 2002 Farm Bill increased funding for these programs substantially. Practice-based incentive programs have two advantages as vehicles for promoting carbon sequestration. First, they operate through established networks of organizations to implement the policies. This reduces both the financial and political costs of shifting the focus of farm programs toward carbon sequestration. Second, practice-based programs avoid the transaction costs associated with measuring, monitoring, and tracking site-specific changes in carbon stocks. They also rely on a less intrusive monitoring process since it is only necessary to check for the existence and extent of the practice, rather than determining actual carbon stocks. Thus, practice-based programs are likely to be the most cost-effective, familiar, and feasible components of a larger national strategy to promote carbon sequestration, at least in the near term.

To fully exploit the potential of practice-based approaches, the U.S. government must assure continued funding for the relevant programs. Volatility in program funding will reduce the effectiveness of the government's financial resources as landowners hesitate to make long-term commitments due to programmatic uncertainty. The government should also establish a high priority research initiative to evaluate the carbon benefits and cost-effectiveness of Farm Bill initiatives. In particular, the research should examine whether the programs are inducing actual changes in practices beyond what landowners would have done in the absence of incentives. As these programs mature, the government should revisit the question of whether practice-based programs should be expanded. For example, if the Conservation Reserve Program (CRP) proves particularly successful, the government should consider increasing its funding level and removing the current cap of 39.2 million acres.

An important element of a national strategy will be to explore whether it is possible to develop a credible program incorporating results-based incentives for individual carbon sequestration projects. Results-based approaches have the advantage of providing high-powered incentives for innovative approaches to carbon sequestration. However, they are also less familiar than the well-established practice-based approach, and will require both overcoming information challenges and choosing among several options.

The first step to developing a program that bases incentives on the results of individual projects is to establish a viable, cost-effective method of measuring impacts of practice and land-use changes in specific locations. The government appears to have started this process with its program to reassess and redesign the 1605(b) reporting guidelines. Whether those revisions will provide guidelines that are adequate for a cap-and-trade program remains to be seen. Ultimately guidelines will need to provide methods that address development of reference cases, potential leakage, permanence, and effects on other greenhouse gases in a manner that is sufficiently clear and comprehensive so that independent evaluators of a given project will arrive at essentially the same estimate of carbon benefits.

The second step to adding a results-based approach to the national strategy is to determine how incentives will be provided to project developers. For example, the government could provide subsidies or contracts where payments to landowners are proportional to the amount of carbon actually sequestered. Alternatively, if there are caps on emissions of greenhouse gases from industrial sources, project developers might receive credits issued by the government, but the payments to project developers would come from sales of these credits to industrial sources which would use the credits to assist in meeting emissions limits.

Once key stakeholders are satisfied that methods are available that accurately assess the carbon effects of individual projects, then a results-based program for promoting carbon sequestration on agricultural and forestlands should be included in the national carbon strategy. Doing so will unleash the creativity and innovation of U.S. landowners and lead to lower overall costs of achieving national climate goals.

Opportunities for augmenting carbon sequestration may be even greater, and costs may be substantially lower, in developing countries than in the United States. Therefore, U.S. policy-makers should consider expanding the scope of a sequestration strategy to provide incentives for projects outside U.S. borders. The U.S. government could also work directly with other governments to identify, promote, and fund new policies and practices that will protect and increase carbon stocks in those countries. The incentives could be largely the same as for domestic initiatives, and could include practice-based or results-based payments. However, the process for including results from efforts in other countries in the national report would be different. Whereas the impacts of domestic initiatives would be included automatically in the inventory of national carbon stocks compiled by the United States under the U.N. Framework Convention on Climate Change, inclusion of international accomplishments would not be automatic (see Figure 1). Sequestration benefits achieved in other countries would have to be measured separately. The sum of these impacts would then be added to the national change in domestic stocks to estimate the total change in global carbon stocks for which the United States might claim credit. If the national strategy includes incentives for sequestration accomplishments in other countries, it will become even more critical to develop consistent methods for program and project evaluation.

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Endnotes:

1. A short ton = .907 metric tons.

2. For a discussion of conservation tillage, see Chapter III, Section C. Forest certification refers to a variety of programs under which third-party auditors certify that the management practices used for a particular forest stand conform to specified environmental standards.

3. Farm and forest statistics are not directly comparable, because the definition of a "farm" is an enterprise that sells more than $1,000 of agricultural products per year, while the definition of "forest" is an area larger than 1 acre that is covered with trees. The farm definition leaves out a large number of "hobby" or non-commercial farms and large-lot homesites that have pasture or other non-forested land. There is overlap between the two sets of statistics because many farms contain some forestland. Birch (1996) estimated that 738,000 forestland owners were farmers. At this point, there are no readily available statistics that would categorize all rural landowners in a comparable fashion.

4. Afforestation is the establishment of tree cover on land that has previously been in a non-forest use, such as cropland or pasture. Reforestation is the establishment of trees on land that has not been taken out of forest use, but for some reason has not regenerated an adequate forest stand after the previous forest was removed or destroyed.

5. One study of forest inventory data for the western United States suggested that an average of 15 tons of biomass fuel could be harvested per acre, and that a fuel treatment program in the western United States, spread over ten years would produce over 40 million bone dry tons (BDT) of biomass fuel per year (Sampson et al., 2001). It takes on the order of 180,000 BDT per year to run a 20 MW plant, thus requiring recovering fuel from about 12,000 acres. This means that, on a 30-year harvest rotation, a 20 MW plant needs about 360,000 acres of accessible forest needing thinning within 50 road miles. 360,000 is approximately 7 percent of the land area of a 50-mile radius circle.

6. Proper application of fertilizers, including amount, timing, and formulation can also be an important contributor to reducing the risk of air and water pollution.

7. There are important pools of soil inorganic carbon (SIC) compounds such as calcium carbonate (lime) in agricultural soils as well, but their fluxes in response to management are not well known, so changes in SIC are not estimated in most sequestration calculations at this time.

8. Rangelands are defined as "land on which the historic climax plant community is principally native grasses, grass-like plants, forbs, or shrubs suitable for grazing and browsing." Pasturelands are defined as "land used primarily for the production of introduced or native forage plants for livestock grazing" (USDA-NRCS, 1997). The distinction, therefore, is largely on the basis of the intensity of land management, where pastureland is more intensively managed with practices such as periodic plowing and re-establishment, fertilization, irrigation, or other inputs designed to increase forage production

9. The actual period of time over which the sequestration would occur might be shorter or longer than one hundred years, depending upon the specific species of tree and the location of the land involved. The figures in the cited study were converted to a time-weighted (amortized) equivalent yield over 100 years using a five percent discount rate. The conversion provides comparability across studies, as well as species and locations.

10. Opportunity cost is an indication of what must be sacrificed to obtain something. In the environmental context, it is a measure of the value of whatever must be sacrificed to prevent or reduce the chances of a negative environmental impact or achieve a positive environmental impact. (Stavins and Richards, 2005). Early cost-effectiveness studies suggested that conversion of marginal agricultural land to forests could sequester as much as 600 million tons of carbon per year at costs ranging from $10 to $60 per ton (Richards et al., 1993; Adams et al., 1993). Subsequent more sophisticated econometric studies indicate that the cost may be substantially higher due to countervailing market responses and landowner reluctance to commit to long-term forest production (Stavins, 1999; Plantinga et al., 1999). According to one study, the marginal costs for a national program designed to capture 500 million tons per year through conversion of agricultural land to forests would exceed 100 dollars per ton (Stavins, 1999).

11. The FIA has not historically included the collection of statistically valid data on the National Forest System, the National Park System, or other federal lands, and has avoided the low-producing forests (those that produce less than 20 cubic feet of merchantable wood per acre per year and therefore are not defined as "timberland" in the Forest Service system). The NRI is limited to non-federal lands, so it produces no data at all on the federal land base. There are plans to increase the monitoring of federal lands in the future, but it will be many years before useful trend data are developed.

12. In general, when the government raises a dollar of revenue through taxes, the cost to its citizens is greater than a dollar, perhaps quite a bit more. In general, instruments that require the government to raise revenue to make payments to private parties will have a greater social cost than those that do not require additional financial resources for the government.

13. Technical assistance refers to on-site land management assistance by a qualified resource professional. A major problem with technical assistance is that each new client requires a significant amount of time; so increased program levels mean increased personnel needs. As these programs reach more people and more acres, they also reach landowners with less sophistication in practical management. This means that the hours per landowner/acre rises, and program cost-effectiveness declines.

14. The forest products industry, through its Sustainable Forestry Initiative (SFI), works to educate landowners on sustainable forestry objectives and techniques (AF&PA, 2002). This is a new private sector initiative (created in 1995), and its effectiveness remains to be seen. Prior education efforts by the industry were carried out through its support and management of the Tree Farm Program, which is still in operation. In agricultural conservation, the private sector promotes conservation practices such as no-till farming and the prevention of water pollution. A leading example is the Conservation Technology Information Center, a cooperative effort that involves the National Association of Conservation Districts, a significant number of private firms from the machinery, chemical, seed, and agricultural sectors, and several federal agencies (CTIC, 2002). One of the major outcomes of these private education programs is that people are motivated to take advantage of other, governmental, forms of assistance such as technical assistance or cost sharing (Baughman, 1993).

15. Under a cap-and-trade program, emissions from some sources—typically large point sources—are limited. These sources must submit an allowance for each ton they emit. However, some emissions often are not covered under such a program—typically including emissions from agricultural and forestlands. The program can allow reductions from these "non-limited" sources to be used by sources whose emissions are limited to meet program mandates. If so, emission reductions by sources not covered under the program are awarded credits which can be used as allowances by sources which need to submit an allowance for each ton of emissions.

16. Generally, rational project developers will undertake carbon sequestration projects when the value of allowances or other payments exceeds the cost of the project. In a cap-and-trade program of the type described, project developers will undertake sequestration projects up to the point where the additional cost of carbon sequestration is equal to the marginal cost of emissions reductions in the capped emissions sectors. In the abstract this is a roughly efficient outcome.

17 It is commonly assumed that a program would employ a one-to-one reward structure in terms of emissions allowances per ton of sequestration; e.g., 100 ton of emissions allowance for 100 tons of sequestration However, there may be variety of reasons related to uncertainty, leakage, impermanence, other programmatic issues or even politics that would lead the government to adopt a ratio of less than one-to-one: in effect, to discount these credits.

18. Accuracy is how close to the actual value the sample measurements are. Accuracy details the agreement between the *true value* and *repeated measured observations* or estimations of a quantity. Precision is how well a value is defined. In sampling, precision illustrates the level of agreement among *repeated measurements* of the same quantity. This is represented by how closely grouped the results from the various sampling points or plots are.

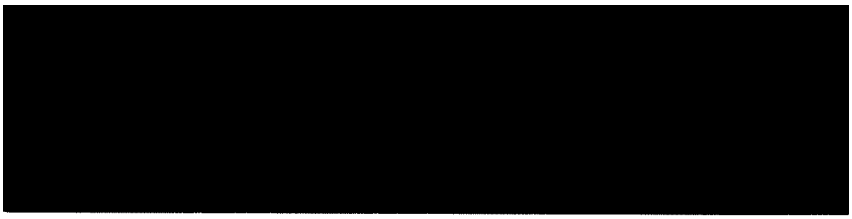
19. Forest carbon is measured with standard field techniques that normally consist of physically measuring tree diameter and often height within sample plots located by a statistically designed plan. Tree measurements are then converted to estimates of total carbon through the use of empirical equations developed by forestry researchers that relate tree diameter (or tree diameter and height) to carbon content (Brown, 2002; Brown and Masera, 2003). The carbon content in other forest components such as shrubs, dead wood, and other dead organic matter is generally measured directly through the use of standard field techniques. Examples of standard field techniques can be found in A Guide to Monitoring Carbon Storage in Forestry and Agroforestry Projects; available at http://www.winrock.org/REEP/PDF_Pubs/carbon.pdf.

20. The number of plots needed is a function of how variable (measured by coefficient of variation) the changes in carbon stocks are expected to be and what precision level is desired for the carbon measurements. For a given precision level, the more variable the project area the more plots are needed; and for a given variability more plots are needed to achieve higher precision. The coefficient of variation is a statistical term and is equal to the standard deviation of the sample divided by the mean of the sample.

21. The 95% confidence interval means that there is a 1 in 20 chance the true value lies outside the interval boundaries.

22. Comparing the results of reports in the existing 1605(b) database can be difficult due to a lack of consistency in methods and units. Some project results are reported in English units while others employ metric units. Some sequestration projects report changes in carbon stocks while others report changes in flows. In some cases it is difficult to determine the exact location of the project. The reporting and measuring system should provide a set of standard definitions and measurement units that lead to clear, consistent, reliable reports; and records should include the physical locations of projects.

notes



This report describes the ways in which U.S. forest and agricultural lands can assist in reducing net greenhouse gas emissions and reviews policy approaches that promote these opportunities.

The Pew Center on Global Climate Change was established by the Pew Charitable Trusts to bring a new cooperative approach and critical scientific, economic, and technological expertise to the global climate change debate. We inform this debate through wide-ranging analyses that will add new facts and perspectives in four areas: policy (domestic and international), economics, environment, and solutions.

Pew Center on Global Climate Change
2101 Wilson Boulevard
Suite 550
Arlington, VA 22201
Phone (703) 516-4146
www.pewclimate.org

III

110TH CONGRESS
1ST SESSION

S. RES. 30

Expressing the sense of the Senate regarding the need for the United States to address global climate change through the negotiation of fair and effective international commitments.

IN THE SENATE OF THE UNITED STATES

JANUARY 16, 2007

Mr. BIDEN (for himself and Mr. LUGAR) submitted the following resolution; which was referred to the Committee on Foreign Relations

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RESOLUTION

Expressing the sense of the Senate regarding the need for the United States to address global climate change through the negotiation of fair and effective international commitments.

Whereas there is a scientific consensus, as established by the Intergovernmental Panel on Climate Change and confirmed by the National Academy of Sciences, that the continued buildup of anthropogenic greenhouse gases in the atmosphere threatens the stability of the global climate;

Whereas there are significant long-term risks to the economy and the environment of the United States from the temperature increases and climatic disruptions that are pro-

jected to result from increased greenhouse gas concentrations;

Whereas the potential impacts of global climate change, including long-term drought, famine, mass migration, and abrupt climatic shifts, may lead to international tensions and instability in regions affected and, therefore, have implications for the national security interests of the United States;

Whereas the United States has the largest economy in the world and is also the largest emitter of greenhouse gases;

Whereas the greenhouse gas emissions of the United States are projected to continue to rise;

Whereas the greenhouse gas emissions of developing countries are rising more rapidly than the emissions of the United States and will soon surpass the greenhouse gas emissions of the United States and other developed countries;

Whereas reducing greenhouse gas emissions to the levels necessary to avoid serious climatic disruption requires the introduction of new energy technologies and other climate-friendly technologies, the use of which results in low or no emissions of greenhouse gases or in the capture and storage of greenhouse gases;

Whereas the development and sale of climate-friendly technologies in the United States and internationally present economic opportunities for workers and businesses in the United States;

Whereas climate-friendly technologies can improve air quality by reducing harmful pollutants from stationary and mobile sources and can enhance energy security by reducing reliance on imported oil, diversifying energy sources, and

reducing the vulnerability of energy delivery infrastructure;

Whereas other industrialized countries are undertaking measures to reduce greenhouse gas emissions, which provides the industries in those countries with a competitive advantage in the growing global market for climate-friendly technologies;

Whereas efforts to limit emissions growth in developing countries in a manner that is consistent with the development needs of those countries could establish significant markets for climate-friendly technologies and contribute to international efforts to address climate change;

Whereas the United States Climate Change Science Program launched by President George W. Bush concluded in April 2006 that there is no longer a discrepancy between the rates of global average temperature increase observed at the Earth's surface and in the atmosphere, strengthening the scientific evidence that human activity contributes significantly to global temperature increases;

Whereas President Bush, in the State of the Union Address given in January 2006, called on the United States to reduce its "addiction" to oil and focus its attention on developing cleaner, renewable, and sustainable energy sources;

Whereas President Bush has launched the Asia-Pacific Partnership on Clean Development and Climate to cooperatively develop new and cleaner energy technologies and promote their use in fast-developing nations like India and China;

Whereas the national security of the United States will increasingly depend on the deployment of diplomatic, mili-

tary, scientific, and economic resources toward solving the problem of the overreliance of the United States and the world on high-carbon energy;

Whereas the United States is a party to the United Nations Framework Convention on Climate Change, done at New York May 9, 1992, and entered into force in 1994 (hereinafter referred to as the "Convention");

Whereas, at the December 2005 United Nations Climate Change Conference in Montreal, Canada, parties to the Convention, with the concurrence of the United States, initiated a new dialogue on long-term cooperative action to address climate change;

Whereas the Convention sets a long-term objective of stabilizing greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system;

Whereas the Convention establishes that parties bear common but differentiated responsibilities for efforts to achieve the objective of stabilizing greenhouse gas concentrations;

Whereas an effective global effort to address climate change must provide for commitments and action by all countries that are major emitters of greenhouse gases, developed and developing alike, and the widely varying circumstances among the developed and developing countries may require that such commitments and action vary; and

Whereas the United States has the capability to lead the effort to counter global climate change: Now, therefore, be it

Resolved, That it is the sense of the Senate that the United States should act to reduce the health, environmental, economic, and national security risks posed by global climate change and foster sustained economic growth through a new generation of technologies, by—

(1) participating in negotiations under the United Nations Framework Convention on Climate Change, done at New York May 9, 1992, and entered into force in 1994, and leading efforts in other international fora, with the objective of securing United States participation in binding agreements that—

(A) advance and protect the economic and national security interests of the United States;

(B) establish mitigation commitments by all countries that are major emitters of greenhouse gases, consistent with the principle of common but differentiated responsibilities;

(C) establish flexible international mechanisms to minimize the cost of efforts by participating countries; and

(D) achieve a significant long-term reduction in global greenhouse gas emissions; and

(2) establishing a bipartisan Senate observer group, the members of which shall be designated by

the chairman and ranking member of the Committee on Foreign Relations of the Senate, to—

(A) monitor any international negotiations on climate change; and

(B) ensure that the advice and consent function of the Senate is exercised in a manner to facilitate timely consideration of any applicable treaty submitted to the Senate.

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