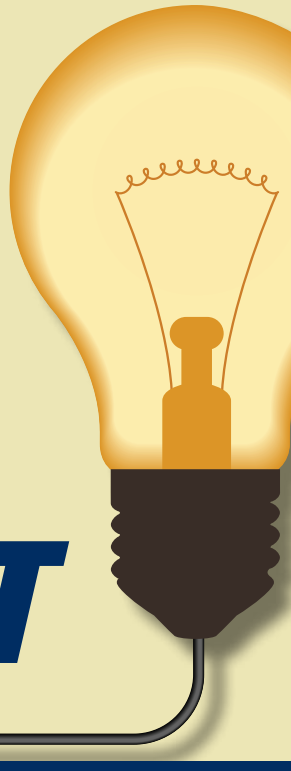
Organizing Around Abundance:
Making America an Energy Superpower



AMERICA NEXT

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Executive Summary

America's Energy and Growth Opportunity

American energy resources and energy technologies are the envy of the world.[1] We have more oil, natural gas, and coal resources combined than any other nation in the world. Our technological innovations on newer and alternative sources of energy from wind, to solar, to biofuels are the most advanced in the world. These are not wild eyed theories, these are the facts.

America is poised for a golden age of energy—an era of energy abundance, low prices, and environmental stewardship that can be the envy of the world.

Energy has already created millions of jobs for the American economy. Consultants at PriceWaterhouseCoopers (PwC) report that the oil and gas industry supports over 10 million jobs across the economy.[2] Another study found that unconventional oil and gas—i.e., the hydraulic fracturing revolution—supported 2.1 million jobs in 2012.[3] But smart energy policy can also turbocharge our existing economic resources to give America an era of significant job and manufacturing growth.

Affordable energy gives American businesses and entrepreneurs a built-in advantage compared to their peers overseas. Companies have made major investments in plants and equipment in the United States—because the hydraulic fracturing revolution and other innovations have made energy more affordable for businesses located on our shores. With the right policies that promote abundant and affordable energy, millions of Americans can and will benefit from new, quality, high-paying jobs.

If we jettison the Obama Administration's left-wing approach, and follow the smart energy path, the new projects created over the past several years could represent a mere prelude to a full-scale energy and manufacturing jobs boom. PwC reports new natural gas production opportunities could add 1 million manufacturing jobs to the U.S. economy by 2025.[4] Other studies confirm this finding, noting the hundreds of thousands of new potential jobs in chemical and other industries. Overall, the number of jobs—direct and indirect—created by unconventional oil and gas could nearly double over the next decade.[5]

Now for the tragic part, none of this is inevitable. Without a smart and aggressive energy plan, we will fail to seize this opportunity. In fact, we are on the road to failure right now.

America's Current Energy Reality

Despite our incredible potential, today America suffers under a government-created energy crisis. Electricity and gasoline prices have risen, and show no signs of easing due to current federal policies. Thousands of unemployed Americans who could be working in good paying jobs remain jobless because of wrongheaded polices from Washington. We must discard the failed policies of the Obama Administration and embrace our energy blessings.

The Obama Administration policies are based on radical leftist ideology which is causing America to snatch defeat from the jaws of victory. The Obama Administration would like Americans to believe in the inevitability of energy scarcity and ever-rising energy prices—the same failed mindset of the Jimmy Carter Administration. Energy scarcity and skyrocketing energy prices result from failed public policy, not our unparalleled energy abundance.

Hostile nations around the world, sitting on fewer energy resources than the United States, celebrate high energy prices and take advantage of these high

prices to make their nations rich. Under the Obama Administration, America neither does everything we can to increase energy production to take advantage of high energy prices nor actively works to bring such prices down. To the contrary, excessive restrictions on American power plants, refineries, and other American energy businesses make our mounting energy problems even worse.

At the same time, the Obama Administration refuses to build the Keystone XL pipeline, brags about bankrupting entire industries, and touts their desire to see consumers pay higher prices. Meanwhile, they pick winners and losers, and they seem to specialize in losers, wasting our tax dollars on left-wing fantasies such as Solyndra.

When it comes to energy policies, the Obama Administration is full of "energy deniers" who pursue radical environmental ideology that flies in the face of the science and the facts, and they do so with religious fervor.

America's Energy Fork in the Road

We have a choice to make.

- Embrace our resources and technological abilities and usher in an unprecedented era of energy independence and job growth.

  OR

- Stay the course of the Obama Administration's radical Left policies and watch these opportunities for job growth, lower prices, and energy independence slip through our grasp.

A truly effective American energy policy will recognize that abundant energy resources are a blessing, not a curse. We must strive for—and achieve—strong environmental stewardship while reaping the benefits of our energy blessings. We must finally have the courage to pursue our bright energy future without resigning ourselves to self-fulfilling prophecies of energy scarcity and environmental ruin.

Principle #1: Promote Responsible Development of Domestic Energy Resources and Construction of Infrastructure to Transport It

Affordable energy is one of the most important prerequisites of a strong economy. America has more oil, natural gas, and coal than any other nation in the world.[6] Punishing conventional energy production and conventional energy utilization will unnecessarily punish the American economy until the day comes when alternative energy sources such as wind and solar power become similarly dependable and affordable.

The Obama Administration continues to limit oil and natural gas production on federal lands even as new technologies are enabling game-changing production increases on state and private lands. Our federal government should take a leadership role in our energy renaissance, not serve as a ball and chain weighing it down. We must make more of our energy-rich federal lands available for energy production.

America must also take better advantage of on-demand, zero-emissions nuclear power. Nuclear power supplies one fifth of America's electricity, yet the federal government is suffocating nuclear power under unnecessary red tape.[7] Nuclear power provides zero-emissions power much more affordably and reliably than renewable energy alternatives. Our federal government should work to facilitate nuclear power production rather than suppress it.

In addition to encouraging domestic production, America must welcome energy resources from friendly nations, particularly those in North America. After more than five years of stalling and delays, the time has come to approve and build the Keystone XL pipeline, which would create American jobs while bolstering American energy supplies.

Principle #2: Encourage Technological Innovation of Renewables and Emerging Energy Resources

Renewable energy offers substantial promise as an environmentally friendly energy source. Wind and solar power are rapidly gaining market share and supporting home-grown jobs. We can encourage continued growth for renewable energy by working to solve intermittency and transmission challenges that currently place restrictions on renewable energy utilization. Hydropower, an often-overlooked form of renewable energy, can also comprise an important piece of America's energy portfolio. At the same time, all energy sources should compete on a level playing field and the federal government should avoid picking winners and losers.

Principle #3: Unlock the Economic Potential of the Manufacturing Renaissance by Putting America's Energy Resources to Work

Domestic energy production does more than reduce scarcity and prices; it creates and supports millions of American jobs. Importantly, the jobs created in the energy industry are high-paying jobs that lift people out of poverty and into prosperity. Many of these jobs are available to young adults with appropriate technical training, providing unique opportunities for America's newest generation to share and improve upon the American dream.

With suppressed energy production and unnecessarily high energy prices, America's manufacturing sector suffers competitive disadvantages versus manufacturers in other countries. Economists agree that America's manufacturing sector is poised for a surge in prosperity and high-paying job creation once our federal government begins embracing rather than suppressing new energy production techniques and recent energy discoveries. Abundant, affordable energy is needed for America to regain its proper place at the forefront of global manufacturing.

Principle #4: Eliminate Burdensome Regulations

Energy may be the lifeblood of the economy, but excessive regulation is clogging our economy's arteries. For example, the Obama Administration has just upped the ante on unjustified energy regulations with excessive carbon dioxide restrictions on America's power plants. Rather than utilizing America's abundant coal resources by working to develop cleaner coal technologies, the Administration has instead promulgated rules targeting the coal industry that could cost 500,000 jobs by 2030, raising electricity prices by 20%.[8] To secure a bright economic future, we must put an end to such regulatory overreach.

To protect American jobs, EPA should be forced to justify its actions under a cost-benefit basis. We must also put an end to EPA abusing its authority and restore EPA's role of carrying out Congress' will rather than supplanting it. Similarly, EPA must no longer be allowed to collude with activist groups in sue-and-settle decrees that take place behind closed doors.

Principle #5: Bolster National Security

American energy production, or lack thereof, plays a crucial role in our national security. America should not put policies in place that ban exporting our natural resources. While the best policies will encourage the use of abundant oil and natural gas here so that we can produce goods competitive in a global marketplace, we should not close the door to exporting the resource when it makes economic sense.

American energy production is ever more important for our longer-term national security. Stale and failed policies are all that are keeping us from realizing North American energy self-sufficiency. It is time to shed our dependency on oil imports from hostile nations and reduce our vulnerability to international political instability. Our energy plan will jettison such dependency and vulnerability while leading America into a bright, abundant, and more self-sufficient North American energy future. American national security requires a strong national economy, and a strong national economy requires abundant, affordable energy.

Principle #6: Take Simple Steps to Address the Possible Risks of Climate Change, in Concert with other Major Economies

The best way to address climate change concerns is to work in cooperation with domestic manufacturers, conservationists, Congress, and other stakeholders to develop smart policies that protect the environment and American jobs. When America imposes unilateral restrictions on itself and does not secure commitments from other nations to do the same, we impose unilateral disadvantages on our economy while failing to make a meaningful impact on the global climate.

Our federal government should focus on agenda-free climate research to best understand what may or may not take place regarding future climate changes. We must also work to develop strategies to adapt to and mitigate whatever climate changes may occur. The climate change issue is too important for the federal government to play political games and engage in demeaning name-calling and grandstanding. While we pursue scientific answers to many climate change questions, we should pursue "no regrets" policies that reduce carbon dioxide emissions without punishing the American economy.

Following these basic principles will lead to changes that generate energy abundance—and stronger economic growth—for the United States for decades to come. This vision of energy abundance represents a way forward far better than the Obama Administration's obsession with energy scarcity—and a policy long overdue.

Governor Bobby Jindal
Honorary Chairman

Congressman Bill Flores
Co-Author

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The Problem With America's Energy Policy: We Don't Have One

Access to affordable energy impacts every aspect of our nation and our families – it is the lifeblood of our economic security, and ultimately our national security. America's energy resources are the envy of the world. Our nation's combined resources of oil, natural gas, and coal exceed those of every other nation on Earth.[1] And these energy resources, if fully maximized, could help create millions of high-quality American jobs. Nevertheless, over many years, Congresses, and administrations, we have enacted a shortsighted patchwork of reactive laws, regulations, and executive orders only dealing with immediate energy issues. We can and must do better.

> President Obama has been in office for nearly six years, during which time the average price of a gallon of gas at your local station has nearly doubled.

For too long, our federal government has pursued energy policies that restrict and stifle energy production rather than encourage it. The Obama Administration has taken this anti-energy sentiment to new extremes with recently announced restrictions on power plant carbon dioxide emissions. As President Obama promised while on the 2008 campaign trail, his carbon dioxide restrictions and anti-conventional energy agenda would cause electricity prices to "necessarily skyrocket."[2] The Administration's failure to utilize all our energy resources has kept energy prices higher than they need to be—while its proposed regulations will raise future energy prices significantly. And without secure, affordable energy, industries nationwide, from manufacturing to tourism, suffer.

Costs to consumers appear to be completely irrelevant to the people currently running our federal government. President Obama has been in office for nearly six years, during which time the average price of a gallon of gas at your local station has nearly doubled. Government policy has profound implications for every American.

To the extent that the Obama Administration does have an energy policy, it can be described this way:

- Make energy cost more for consumers so they will use less of it;
- Over-regulate forms of energy the radical Left opposes—specifically fossil fuels—in hopes of bankrupting the industries that produce them;
- Use tax dollars to fund unproven and untested projects favored by the radical Left; and
- Ignore facts based on science and economic data in favor of idealistic—and unrealistic—left-wing ideology.

The Obama Administration, which is synonymous with left-wing radical environmentalists, wants Americans to believe that we cannot lead the world in energy production and at the same time be good stewards of our planet. We reject this premise.

THE VISION: MAKING AMERICA AN ENERGY SUPERPOWER

Our vast energy resources should make us economically prosperous—a global leader not just in energy production, but in manufacturing as well. An intelligent 21st century energy policy must translate America's energy abundance into energy production and economic prosperity. We can achieve these goals while ensuring we protect our environment—we can do both. America's environmental protections are the most stringent in the world, and enhanced energy production can occur within those environmental protections.

America can become the global energy leader. Our nation has the natural resources, refining capacity, manufacturing know-how, and entrepreneurs with the drive to develop innovative, cutting-edge technology to do it. But to do so, we have to cut through red tape and bureaucracy, and unleash

the creative spirits of America's entrepreneurs, engineers, and workforce.

We believe America benefits from more abundant energy production and affordable energy prices. A forward-thinking American energy policy must encourage affordable, abundant energy, and lay the foundation for technological innovation. Our plan looks to accomplish these goals and to do so with sound environmental stewardship.

The opportunity for economic growth through energy abundance is here. We can seize it, but we must understand that it is NOT inevitable that it will materialize. If we continue on our current path—the path designed by those who want us to shrink our energy production, increase energy costs, and stifle economic prosperity—we can and will miss this opportunity. The price for not seizing the opportunity will be staggering. The stakes are high.

The report that follows surveys the American energy landscape today, and offers our vision for America as an energy—and economic—superpower.

THE OPPORTUNITY: AMERICAN ENERGY CREATING AMERICAN JOBS

Being an energy leader creates more economic benefits than simply affordable prices at the pump or low heating bills. Affordable, abundant, secure, domestic energy promotes American job creation—the cornerstone of our nation's economic prosperity. According to a study conducted by PricewaterhouseCoopers (PwC), the oil and gas industry supports nearly 10 million jobs across the economy.[3] Even more importantly, affordable, secure energy gives American consumers and businesses enormous indirect benefits, creating and sustaining millions of jobs across the economic spectrum.

According to a recent report by IHS-CERA, arguably America's most-respected energy consultancy, in 2012 unconventional oil and gas production saved American households an average of $1,200—with a significant amount of this attributed to the hydraulic fracturing boom. By 2025, these real, i.e., inflation-adjusted, benefits will skyrocket to more than $3,500 per year—a significant savings for American families.[4] The same study found that unconventional oil and gas development will support, either directly or indirectly, almost 3.9 million jobs by 2025—a near-doubling of the 2.1 million jobs supported in 2012.[5]

According to a study conducted by PricewaterhouseCoopers (PwC), the oil and gas industry supports over 10 million jobs across the economy.

The savings from the fracking boom represent both lower direct costs for energy and lower costs for energy-intensive goods and services, which can now be offered more cheaply. Given that the U.S. median household income in 2012 was just over $51,000, the 2025 number represents a 7% increase in income.[6] And this income increase is even more dramatic for lower income Americans, who are disproportionately affected by higher energy costs, and must spend a greater portion of their incomes on energy.

INCREASED ENERGY PRODUCTION MEANS MORE ENERGY JOBS

Energy production creates and sustains millions of American jobs. The benefits of increasing energy production extend throughout the entire economy and to every American household. Data from the U.S. Energy Information Administration[7] and the U.S. Bureau of Labor Statistics[8] illustrate this point. As Figure 1 below shows, when oil prices rise, higher unemployment rates soon follow. More than any other individual long-term factor—be it tech bubbles, housing bubbles, or Wall Street bank crises—energy prices drive our long-term economic prosperity or lack thereof.

Affordable, stable energy prices mean more money in people's pockets, allowing Americans access to better housing, nutrition, education, health care, environmental protections, and other consumer

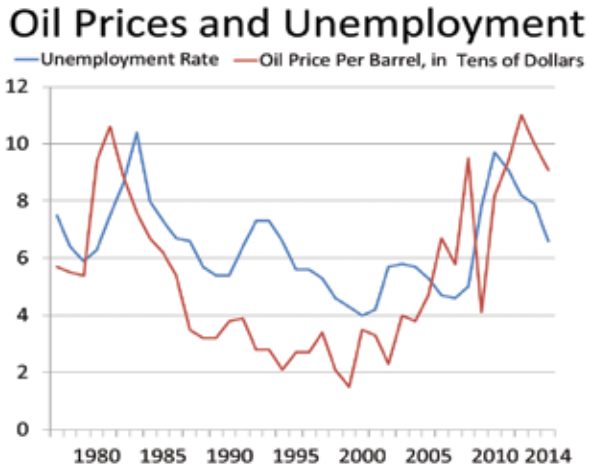

Figure 1: U.S. Unemployment Rate and Oil Prices[7]

goods and services. This in turn stimulates local economies across the nation, creating additional jobs throughout the economy. From caterers and hotels that benefit from increased travel and tourism, to tug boat owners whose business increases from higher shipping traffic, to equipment manufacturers and hardware stores selling more supplies, abundant, affordable energy can drive prosperity, job creation, and a rising standard of living across myriad sectors of the American economy.

And when we talk about jobs created by affordable energy, we don't mean just "energy jobs" or the "green jobs" so beloved by the Left. While we welcome and encourage the growth in jobs in emerging energy technologies and services, we understand that a truly sustainable job is one that does not rely on taxpayer subsidies to be sustainable. If higher priced forms of energy make up too large a part of our portfolio—more than is justified by a financial need for predictability of cost and diversity of supply—it can be a job killer, not a job creator.

The impact of jobs from affordable energy reaches far beyond the energy sector. At a time when much of the Left remains focused on income inequality and the potential lack of upward mobility, the high-quality, well-paying jobs that America's energy abundance can create would do much to bolster a middle class beaten down by six years of economic stagnation under President Obama's failed leadership. Consider what CNNMoney reported about the value of manufacturing and energy production jobs, which provide workers just out of high school with a path to high wages and real opportunity to live the American dream:

> An aspiring machinist—a popular factory job—can start training at 18 and then do a one- or two-year manufacturing apprenticeship. In five years, he or she could be making more than $50,000. In 10 years, that could double to $100,000. Not a bad salary for a 28-year-old.[9]

Six-figure wages come even quicker for workers on oil rigs and natural gas fields. Workers in North Dakota's fracking fields earn an average of $112,000 per year, the Fiscal Times reports.[10]

The quality jobs that affordable energy will generate can help overcome the economic stagnation that stands as President Obama's foremost legacy. In October 2013, the labor force participation rate fell to its lowest level since 1978—and has remained anemic ever since.[11] However, the projected 1.7 million jobs that unconventional oil and gas could create over the next decade could help to draw more discouraged Americans back into the workforce. Thanks to the jobs that abundant energy can create, America's future need not resemble a permanent era of Jimmy Carter-esque economic malaise. Americans can use affordable energy to grow, prosper, and thrive—if only President Obama and Washington would stop impeding this progress.

Energy abundance represents the promise of a better way of life—not just more affordable prices, both at the pump and for consumer goods—but also the job opportunities that can provide a rung up on the social ladder. America's entrepreneurial spirit, and the technological innovation of industry, have placed these goals within reach for millions of Americans. It's why we believe in the benefits of energy abundance—because we believe in America, we believe in the American Dream, and we believe that energy abundance can provide that dream to the American people.

Unfortunately, the Obama Administration does not believe in energy abundance. It has quashed the production of oil and natural gas on public lands—denying the American people a better future by failing to utilize resources owned by the American people themselves. Its Environmental Protection Agency (EPA) has embarked upon a crusade to jettison Americans' affordable energy sources—coal at first, with oil and natural gas likely to follow—raising prices for consumers, and undermining economic growth.

The President and his allies have not attempted to hide or deny the harmful effects of their strategy. After admitting in the 2008 campaign that his anti-growth agenda would cause electricity prices to "necessarily skyrocket," President Obama appointed as his first Energy Secretary Steven Chu—who publicly mused in 2008 that "somehow we have to figure out how to boost the price of gasoline to the levels in Europe."[12] At all levels, this Administration has acted in ways that will harm the American economy—all ostensibly to combat global warming.

The President and his allies have not attempted to hide or deny the harmful effects of their strategy.

But while the President purports his strategy will combat the threat of climate change, in reality wasting America's energy abundance will reduce overall emissions very little—it will just migrate jobs and affluence to other countries that have wisely chosen not to cripple their economies unilaterally. When it comes to reducing global emissions, this Administration's strategy of unilaterally placing a devastatingly high price on carbon represents little more than a pipe dream—but when it comes to protecting American jobs and the middle class, its policies amount to an economic nightmare.

Americans deserve more than a stagnating economy and a preponderance of low-wage, service industry jobs. Our forward-looking energy policy encourages production on federal as well as state and private lands, which will lift the U.S. economy out of its ongoing doldrums and stimulate an unprecedented growth in high-paying jobs. In this way, the American dream can finally become a reality for those trapped in poverty under President Obama's energy-suppressing policies.

CASE STUDIES: ENERGY PRODUCTION HELPING STATES' ECONOMIES

While much of the energy policy discussions taking place in Washington center around projections and models with unrealistic assumptions, the best place to examine the impacts of robust energy policies is in the states actually producing energy and benefiting from it— states like Louisiana, North Dakota, and Texas.

In Louisiana, natural gas production is creating high-paying jobs and lowering energy costs. Since 2007, Louisiana has doubled its natural gas production.[13] Utilizing its natural gas resources and production for exceptionally clean electricity production, Louisiana electricity prices are among the lowest in the nation.[14]

For 2013, Louisiana's electricity prices averaged 8.00 cents per kilowatt hour, versus the national average of 10.08 cents per kilowatt hour.[15] With Louisiana electricity prices more than 20 percent lower than the national average, Louisiana residents and businesses have more money available for a wide range of valuable goods, services, and job creation. Louisiana consumed 85 billion kilowatt hours of electricity in 2013, totaling $6.8 billion in electricity expenses. Had Louisiana paid the same price as the national average, the cost would have been $8.5 billion. As a result, Louisiana energy consumers saved $1.7 billion in 2013 in lower electricity prices versus the national average.

Residential electricity sales accounted for 35 percent of Louisiana's electricity use, meaning Louisiana residential electricity customers saved $600 million in their direct electricity bills. Divided among Louisiana's 1.7 million households, the average Louisiana household saved $350 last year in direct electricity bill savings. Additionally,

Louisiana businesses saved $1.1 billion in their electricity bills, giving Louisiana small business owners a better chance at succeeding and allowing Louisiana businesses to hire more workers. Much of the $1.1 billion in electricity savings for Louisiana businesses undoubtedly stayed in the state, remaining with Louisiana business owners and being passed down to Louisiana consumers buying Louisiana-produced goods and services. The full benefits of Louisiana's low-priced electricity amounted to $1,000 in per-household savings last year, minus the percentage of electricity cost savings that flowed out of state.[16] The savings were even larger in 2012.[17]

The results of this energy renaissance have benefitted the entire Louisiana economy. The state now boasts more than 2 million jobs for the first time in its history,[18] with economic growth rates nearly 86 percent higher than the national average.[19] After decades of outward migration, Louisiana has seen six straight years of migration into the state—as families seek the jobs, and the brighter future, that an economy powered by affordable energy can create.[20] Louisiana now boasts more residents, more workers, and a higher per capita income than ever before.

North Dakota's experience is similarly striking. In 2008, recent oil discoveries and new technologies to tap shale oil began an economic renaissance in the state. Oil production has increased seven-fold since 2008.[21] North Dakota's unemployment rate "peaked" at a mere 4.2% during the Great Recession[22] and stands at 2.7% as of June 2014.[23] Oil and gas tax collections pay the vast majority of the state's $4.3 billion biannual expenditures,[24] funding new schools, roads, infrastructure, health care, and environmental programs. This money generated from shale oil production pays teacher salaries, creates public parks, finances public transportation, and funds the public safety net.

The North Dakota energy renaissance is not just creating jobs; it is creating high-paying jobs.

The North Dakota energy renaissance is not just creating jobs; it is creating high-paying jobs. For six of the past seven years, North Dakota has led the nation in personal income growth. Per-person income in North Dakota has nearly doubled in the past decade, with no other state coming close.[25] North Dakota now ranks third in the nation, with only Connecticut and Washington, DC enjoying higher per-person income.[26]

Taxes and royalties are overflowing state coffers, leading to record budget surpluses and the creation of a rainy day state revenue fund. The rainy day fund, known as the Legacy Fund, is growing by nearly $1 billion per year, quite a windfall considering the state has merely 300,000 households. North Dakota's education sector stands to benefit tremendously from the Legacy Fund, as state legislators indicate they will likely invest many of the fund's proceeds into education.[27]

Texas leads the nation in oil and natural gas production, and continued to emphasize energy production during the recent Great Recession. While America suffered through the Great Recession, Texas' focus on energy production continued creating jobs during the downturn.

In the aftermath of the Great Recession, new oil and gas production in South Texas' Eagle Ford shale formation has lifted thousands of Texans out of poverty and funded state-of-the-art educational programs in previously destitute rural communities. As USA Today reported earlier this year:

> A few years ago, the iPads would have been unthinkable, an unreachable expense in a dirt-poor school district. Today, all 1,300 students in the Cotulla Independent School District have access to new iPads. Their parents no longer have to spend money on school supplies. They ride around in new buses. Once one of the poorest districts in Texas, Cotulla is today one of the richest because of the state's oil boom.[28]

Many other states can experience the striking economic and human welfare benefits brought about by oil and natural gas production in Texas, North Dakota, and Louisiana. Unfortunately, our federal government wants to ensure that does not happen. At the same time that newly discovered energy resources and modern technologies are stimulating greater energy production on private and state-owned lands, federal policy is making it harder and harder to access our energy resources on federally-owned lands. The federal government owns the vast majority of land in the western third of the nation, as well as many large tracts of land in the eastern two-thirds of the nation.[29] These lands contain vast energy resources that can power struggling local economies as they do in Texas, North Dakota, and Louisiana. Only misguided federal policy prevents that from happening.

In our nation's heartland, a liberated national energy policy would deliver particularly powerful benefits. According to the U.S. Department of Agriculture (USDA), agricultural production and the agricultural economy are particularly sensitive to energy prices. USDA reports that farmers require affordable energy to power tractors and other farm equipment, and energy costs are a major factor in determining fertilizer prices:

> Agricultural production is sensitive to changes in energy prices, either through energy consumed directly or through energy-related inputs such as fertilizer.…Over 2005-08, expenses from direct energy use averaged about 6.7% of total production expenses in the U.S. farm sector, while fertilizer expenses represented another 6.6%. However, these sector averages mask much greater energy intensities for major field crops. Agricultural production is therefore sensitive to changes in energy prices, whether the changes are caused by world oil markets, policies to achieve environmental goals, or policies to enhance energy security.[30]

For consumers everywhere, counterproductive energy policy is claiming an ever-greater share of American household budgets. The U.S. Energy Information Administration reports the average U.S. household spent over $2,900 on gasoline in 2012, approximately 4% of the average household's pre-tax income.[31] This was the largest percentage of household income spent on gasoline in nearly three decades, with the lone exception of 2008.

"Although overall gasoline consumption has decreased in recent years, a rise in average gasoline prices has led to higher overall household gasoline expenditures," EIA reports.

At the same time that newly discovered energy resources and modern technologies are stimulating greater energy production on private and state-owned lands, federal policy is making it harder and harder to access our energy resources on federally-owned lands.

High energy prices particularly affect seniors living on fixed incomes and to middle class and lower income families. Middle class families earning between $30,000 and $50,000 per year spend 17% of annual post-tax income on energy costs, compared to just 10% in 2001. Lower income families making between $10,000 and $30,000 per year spend 24% of annual post-tax income on energy costs, compared to just 14% in 2001.[32]

Academic and think-tank discussions of energy often lack a meaningful explanation of new policies' real-world implications for living, breathing Americans—people who work hard and get up every day looking for a better future for themselves and their families. That is why at America Next we have focused our efforts intensively on what American energy means for the American consumer, the American economy, and American jobs—factors that many government bureaucrats tend to neglect.

Energy is the lifeblood of the American economy,

and America has the potential to become the world leader in energy development and innovative energy policy in the coming century. But we must first create an environment that encourages resource development, technological innovation, and education of a workforce that will lead America into economic prosperity. To grow the economy and ensure that America retains its global leadership, we propose an energy platform organized around six central principles:

PRINCIPLE #1: Promote Responsible Development Of Domestic Energy Resources And Construction Of Infrastructure To Transport It

PRINCIPLE #2: Encourage Technological Innovation Of Renewables And Emerging Energy Resources

PRINCIPLE #3: Unlock The Economic Potential Of The Manufacturing Renaissance By Putting America's Energy Resources To Work

PRINCIPLE #4: Eliminate Burdensome Regulations

PRINCIPLE #5: Bolster National Security

PRINCIPLE #6: Take Simple, Tangible Steps To Address The Possible Risks Of Climate Change, In Concert With Other Major Economies

Governor Bobby Jindal
Honorary Chairman

Congressman Bill Flores
Co-Author

Principle #1: Promote Responsible Development Of Domestic Energy Resources And Construction Of Infrastructure To Transport It

OIL AND NATURAL GAS

In many respects, oil is the lifeblood of the American economy. It is our largest source of energy, providing almost 37% of total energy consumed in the U.S., significantly more than any other source.[33] Moreover, 70% of this oil is used in transportation.[34] While there are some alternatives in the transportation sector, 93% of U.S. energy used in transportation comes from oil.[35] This important resource cannot be easily replaced with other fuels, despite substantial gains in natural gas, electric, and hybrid vehicles, and a federal renewable fuel mandate that has failed to meet its goals.

While there are some alternatives in the transportation sector, 93% of U.S. energy used in transportation comes from oil.

While we support the development of commercially viable alternatives, in the short term, we have few commercially viable substitutes for oil, which makes maintaining America's leadership in oil production essential for both our economy and national security. The federal government has tried to mandate fuels and technologies that have resulted in unintended consequences. The beliefs of federal bureaucrats notwithstanding, Washington remains ill-equipped to micro-manage a rapidly evolving energy landscape, and should not be picking winners and losers in the marketplace.

Furthermore, for many rural Americans heating oil remains a critical lifeline—and left-wing plans to raise taxes on oil, making it less affordable, are a direct threat to those rural Americans' well-being.

America is, and has long been, a global leader in oil production. And with the growth of hydraulic fracturing enabling producers to access tight oil, as of the first quarter of 2014, the U.S. is the largest oil producer in the world—and is expected to remain in the number one spot through the next two decades.[36] A combination of technological savvy and entrepreneurial spirit has led to American global leadership in production despite the obstacles that—only a short time ago—made shale oil and natural gas inaccessible.

KEYSTONE XL PIPELINE—BUILD IT NOW

There is no logical, scientific, economic, or environmental reason not to approve and build the Keystone XL pipeline right now. At this point, the Obama Administration is simply bowing to the radical Left, and causing further harm to America's economic interests. It is fair to say that when it comes to the Keystone XL pipeline, our President has become a "science denier."

The Obama Administration's shameful dithering on approval of the Keystone XL pipeline has sent a message to Canada—our friendly, reliable neighbor to the north—that its abundant, reliable energy supplies are not welcome here. As long as the radical Left drives the policies set by the White House, a North American energy community will be nothing more than a pipe dream. The Keystone XL delays have cost thousands of jobs and revealed American strategic weakness—all to placate the desires of environmental radicals, backed by wealthy donors who won't crimp their luxurious lifestyles, but expect others to do so. America should not rely on energy from geopolitically unstable regions of the world that do not share our values.

By failing to approve Keystone XL, the Obama Administration is leaving behind American jobs and American energy needs in the global growth race. The Canadian government recently gave preliminary approval to the Northern Gateway project; when completed, the pipeline will transport oil sands crude from Alberta westward

to Pacific ports, where the oil can be shipped to Asian nations.[37] So the question is not whether the proceeds of oil sands exploration will move from Canada into worldwide use—the only question that remains is whether the United States will capitalize on the potential this abundant, secure energy can create.

By dithering on Keystone XL, the Obama Administration seems insistent on letting this opportunity for economic growth go to waste—and angering an important ally in the process. The Canadian government only accelerated development of the Northern Gateway pipeline after President Obama delayed a decision on Keystone XL in late 2011. Prime Minister Stephen Harper considered that delay a "potential economic calamity"—Keystone XL could generate more than $600 billion in economic growth over the next 25 years—that "jeopardize[ed] Canada's welfare."[38] The Canadian government had the "shocking epiphany" that President Obama—a "kind of frustrator-in-chief"—could not be relied upon to approve the pipeline, and decided to accelerate its own efforts instead.[39] The shabby treatment which the Canadian government has received at the hands of this Administration will not only impede America's own economic growth—it has caused immeasurable damage to a key relationship with a strategic ally.

We recognize the crucial role of pipeline infrastructure to dependably and efficiently deliver oil where it is needed. As a result, we enthusiastically support Keystone XL, which will seamlessly deliver oil from Canada's abundant oil fields to refineries in the United States. Twenty-first century pipeline infrastructure will also suppress wild home heating oil swings while lowering home heating oil prices across the board.[40]

PROPERTY RIGHTS, FEDERAL LANDS, AND RESOURCE DEVELOPMENT

Strong property rights play a critical role in America's proliferation of oil and natural gas production. Our legal regime, which gives subsurface rights to owners of surface land—rather than giving subsurface rights to the government, as happens in most of the rest of the world—has allowed America to maximize its resource base through the continual discovery of new resources made possible by technological breakthroughs. Yet the Obama Administration's efforts to bury the industry in mounds of legal red tape have weakened property rights—the engine of U.S. energy. The lesson is clear: Strong property rights protection combined with innovative technology encourages energy development.

While energy development has increased on private lands, Obama Administration policies have hindered energy development on lands owned by the American people. According to the Congressional Research Service, crude oil production on federal lands dramatically increased in the 2000's, reaching a peak in fiscal year (FY) 2010, with 36% of our nation's oil production taking place on federal lands. However, as a result of the Obama Administration's policies, by 2013, only 23% of our nation's oil production took place on federal lands—a decline of over one-third. Conversely, production on non-Federal lands has dramatically increased due to advances in hydraulic fracturing and horizontal drilling. Oil production on non-Federal lands increased by 21 percentage points in fiscal year 2013 from fiscal year 2012 levels—an increase of nearly one million barrels per day.[41]

> The Administration has trumpeted America's oil production growth, while ignoring the fact that all such growth has happened entirely on state and private lands.

Natural gas production follows a similar path. In FY 2013, natural gas production on non-Federal lands increased by 3%, and natural gas production on Federal lands declined by 9%.[42]

The results of the Obama Administration's policies are clear. The Administration has neglected to develop a regulatory system that incentivizes increased oil production, particularly the rich resources on federal lands owned by the American

U.S. Crude Oil Production: Federal and Non-Federal Areas FY2009-FY2013

(Barrels per day)

Fiscal Year	U.S. Total	Non-Federal	Total Federal (% of U.S. Total)	Federal Offshore	Federal Onshore
2013	7,235,000	5,576,700	1,658,300 (23)	1,294,000	364,465
2012	6,241,000	4,598,000	1,643,000 (26.3)	1,303,300	339,700
2011	5,552,000	3,826,500	1,725,500 (31)	1,415,600	309,900
2010	5,438,800	3,463,700	1,975,100 (36.3)	1,680,300	294,800
2009	5,233,000	3,464,400	1,768,600 (33.8)	1,482,900	285,700

Source: Federal data obtained from the Office of Natural Resources Revenue (ONRR) Statistics, as of February 2014, http://www.onrr.gov (using sales year data), March 2014.

Notes: U.S. Fiscal Year Total data derived from EIA monthly production data contained in its publication *Petroleum and Other Liquids, U.S. Field Production of U.S. Crude Oil*, March 28, 2014, http://www.eia.gov. Data includes lease condensate, defined by EIA as a liquid hydrocarbon recovered from lease separators or field facilities at associated and non-associated natural gas wells.

Figure 2: U.S. Crude Oil Production in Federal and Non-Federal Areas 2009-2013[43]

people, not by our left-wing President. The Administration has trumpeted America's oil production growth, while ignoring the fact that all such growth has happened entirely on state and private lands. The data over the last few years are stark: On federal government lands, oil production has declined 6.2% during the hydraulic fracturing boom—as the figure above shows. However, oil production has surged a stunning 61% on private and state-owned lands in just four years. This enormous discrepancy illustrates the untapped potential resources that the Administration does not want to see developed for the benefit of the American people.

While America experiences an economic boost from domestic shale oil and natural gas production, another economic opportunity awaits us right off of our shores—yet the current Administration's policies have closed the door to these opportunities. Currently, 87% of the Outer Continental Shelf (OCS) remains off limits to oil and natural gas development, compliments of the Administration's 2012-2017 Five Year Plan.[44] According to a 2011 study conducted by Wood Mackenzie, opening up these areas could increase production by 4.2 million barrels of oil equivalent per day, create nearly 450,000 new jobs, and generate over $313 billion in new revenue for state and federal governments.[45]

The Bureau of Ocean Exploration and Management (BOEM) estimates that 88.6 billion barrels of oil and 398.4 trillion cubic feet of natural gas may be held in the OCS. However, because these resource estimates are 30 years old, current data may actually under-estimate the vast potential resources lying just off our shores. To fully realize the potential of these OCS resources, the Administration should allow seismic surveying. In July, the Obama Administration announced that it will permit companies to conduct seismic surveys of the Eastern Seaboard, which will allow energy companies to gather preliminary data on oil and gas deposits. This announcement appears to be a step in the right direction; however, requirements for survey permits that are not based on sound science could discourage companies from gathering data crucial to developing these resources.

In addition to the vast resources that lie untapped in the OCS, the Arctic National Wildlife Reserve

(ANWR) has the potential to produce a million barrels of oil per day.[46] And while radical environmentalists have opposed drilling in ANWR, it is important that one look at the facts. In 1980, a Democratically-controlled Congress and President Jimmy Carter set aside 1.5 million of ANWR's 19 million acres—less than 8 percent of ANWR's total area—for potential oil and gas development.[47] The area, also known as 1002 Area, that can be used for production or support facilities is limited to 2,000 acres—less than 0.01% of ANWR's total acreage.[48] The US Geological Survey has estimated that the 1002 Area could contain 10.4 billion barrels of recoverable oil—which, at current prices, amounts to over $1 trillion in natural resources the Obama Administration does not want to utilize.[49]

Opening up ANWR to responsible development could generate $150 billion to $296 billion in new federal revenue, helping to reduce our nation's debt, create tens of thousands of American jobs, and increase our national security.[50] We can develop 1002 Area in a responsible manner that minimizes environmental impact and protects Alaska's scenic beauty and wildlife.

Despite the tremendous potential of ANWR's natural resources, Congress has not allowed its development. But any nation serious about an energy policy must base its decisions on fact, not fiction. Developing ANWR in an environmentally responsible manner will enhance our nation's economic, energy, and national security.

Furthermore, increasing production in new areas can provide substantial benefits, with states granted the flexibility to dedicate a portion of the proceeds from exploration in new areas used to fund local environmental conservation efforts. Legislation passed by the Republican House of Representatives in June 2013 would dedicate 37.5 percent of revenues from new Outer Continental Shelf exploration back to states.[51] Despite significant support from governors in states with OCS resources, the Democratic Senate has failed to advance the legislation.[52]

Louisiana has led the way in many efforts that use the benefits of expanded energy production to fund conservation programs. The Coastal Impact Assistance Program (CIAP) and others have provided substantial revenues for environmental protection out of a portion of oil production revenues. This model can simultaneously enhance our energy leadership while boosting funding for conservation, restoration, and similar development. One could imagine similar efforts in locales such as Alaska, where revenues from new oil development in currently non-producing areas could provide funding for state and national wildlife protection initiatives. Alternately, a small portion of this funding could also boost federal energy R&D efforts. Many states' revenue bases have yet fully to recover from the economic downturn; additional income from offshore exploration would allow states an additional source of funding for each state's spending priorities.

The federal government would also receive increased revenues due to expanded energy exploration. Congress could dedicate the federal share of offshore royalties towards increased funding on priorities like education and infrastructure, or a lower tax base for all Americans.

> Louisiana has led the way in many efforts that use the benefits of expanded energy production to fund conservation programs.

THE BENEFITS OF INCREASED NATURAL GAS PRODUCTION

The tremendous growth in natural gas production through advances in hydraulic fracturing has fundamentally transformed America's energy landscape. In states where the gas boom has been particularly strong, such as Louisiana, Texas, Pennsylvania, and other states, it has transformed entire economies, bringing jobs to communities that were previously desperate for economic opportunity. Less than a decade ago, experts saw the U.S. with dwindling natural gas reserves and just a decade or so of supply. Now advances in hydraulic fracturing have opened up almost a century's worth of natural gas supply, and

perhaps much more (and remember, this is with current technology).[53] It is important to note that official reserve estimates are very conservative—some estimates put our reserve base well beyond these estimates.[54] The vast increase in shale gas production has led to a dramatic growth of clean-burning, low-cost natural gas, profoundly affecting the U.S. environment and economy for the better.

According to a study released earlier this year by researchers at the National Oceanic and Atmospheric Administration (NOAA), over the past decade, the increased use of natural gas in power production has played a significant role in reducing emission reductions.[55] In 2012, as a result of this increased use of natural gas, emissions of carbon dioxide (CO2), nitrogen oxide (NOx), and sulfur dioxide (SO2) fell by 23%, 40%, and 44%, respectively.[56] However, while the U.S. has been switching to natural gas, Europe saw a 3.3% increase in coal consumption in 2011.[57] This trend results from Europe's market-interfering policies, and the European Union's lack of development of its own shale plays. Europe's failure to capitalize upon the hydraulic fracturing revolution has also done nothing to reduce the region's reliance on Russian natural gas imports.[58]

However, some radical environmental activists want to stop this natural gas revolution in its tracks by putting excessive regulations on hydraulic fracturing, often citing dubious environmental studies. Nonetheless, a compliant media, environmental radicals, and liberal extremists have often pushed these scare stories out to a wider audience.

We should ignore those that continue to promulgate false information. Natural gas production sites require a very small footprint to produce enormous quantities of gas.[59] Moreover, after thousands of water tests performed by government environmental officials throughout the country, EPA officials confirm they have never found a single instance of hydraulic fracturing polluting groundwater.[60] While continuing to rigorously monitor water quality near natural gas production facilities, it is time for the federal government to deliver a clear message that it welcomes natural gas production and the environmental benefits of clean-burning natural gas.

To that end, Washington should focus on streamlining regulations to substantially increase natural gas production on federal lands. A sound policy should ensure the continued safe and environmentally sound growth of pipeline infrastructure, which will further bolster development and effective domestic use of American natural gas.

Natural gas is also a clean-burning source of transportation fuel for buses in many cities.[61] Many corporations and entities with local delivery fleets and other vehicles that return to central stations each evening are using natural gas vehicles. AT&T, Verizon, Federal Express and UPS all have natural gas powered fleets.[62] In many cases, it has become cheaper than gasoline and emits fewer pollutants.[63] Many energy and transportation experts believe natural gas may soon become a viable source of fuel for automobiles and light trucks as well.[64] However, we must ensure the federal government does not pick winners and losers, and that natural gas vehicles—along with other alternative fuel vehicles—compete for automotive market share, and consumers can determine what product is best for them.

HOME HEATING OIL

According to the Energy Information Administration, 6.9 million U.S. households utilize heating oil to heat their homes, 80 percent of whom are located in the Northeast.[65] Households that depend on home heating oil have faced significantly rising prices—which increased from approximately $1.50 in 2000 to over $4.00 in 2013.[66] The cost of crude to refiners comprises the primary factor in the price consumers pay for home heating oil, resulting in the clear correlation of these two figures.

While consumers have some alternative heating options—such as kerosene, wood, propane, or electricity—the data suggest that there is not a significant amount of fuel switching taking place in the Northeast. Encouraging domestic oil production and expanding domestic and global supply will help reduce home heating oil prices and provide much-needed insulation against price spikes during the winter months.[67]

In addition, natural gas may be a viable alternative for consumers in some regions, but the Northeast lacks the capacity to meet the needs of consumers and utilities during peak winter months—meaning the New England states cannot fully utilize the affordable natural gas produced from areas such as the Marcellus shale.[68] In January of this year, unusually cold weather and winter storms sent natural gas prices skyrocketing in the Northeast, forcing many power generators that normally rely on natural gas temporarily to switch to oil.[69] EPA's burdensome regulations will only exacerbate this problem, by leading to the early retirement of nuclear and coal-fired power plants in the region—increasing utilities' dependence on natural gas, even as the region suffers from a lack of capacity to deliver it.

> Increasing capacity to the Northeast is the key to ensuring that this region can take full advantage of our abundant domestic natural gas supplies.

Increasing capacity to the Northeast is the key to ensuring that this region can take full advantage of our abundant domestic natural gas supplies. This means removing red tape that unnecessarily delays infrastructure projects, and ensuring that pipeline projects are not caught up in litigation spearheaded by radical environmentalists.

Recommendations:

- Take a comprehensive approach to energy resource development for both traditional and emerging energy resources, enact pro-growth policies, and cut regulatory red tape that will allow us to increase development of our oil and natural gas resources both onshore and offshore.

- Allow states to opt-in to new energy exploration on the Outer Continental Shelf, with revenue-sharing for those states who decide to participate. States should be allowed to decide whether to utilize the energy resources located off their shores. Likewise, states should share in the proceeds of the new revenue offshore drilling can generate, as they are best positioned to decide for themselves how to spend, or save, the proceeds of their natural resources.

- Create a level playing field, by eliminating unjustifiable subsidies on and barriers to energy production and consumption.

- Avoid a "one-size-fits all" federally-driven shale gas development policy. Washington should focus first and foremost on eliminating regulatory bureaucracy in a way that lets world markets drive investment.

- Ensure the continued development of the hydraulic fracturing revolution in the oil sector with emphasis on state regulation, not one-size-fits-all federal regulation. When it comes to hydraulic fracturing, as with many other policy areas, the federal government should defer to the states, which have unique geology, infrastructure, and regulatory systems. Washington should trust states to set policies that set the right balance between environmental stewardship and production. Every state wants to ensure safe environmental performance, and natural resources regulation at the state level can ensure efficient oversight.

- Allow environmentally responsible energy resource development on state and federal lands—both onshore and offshore.

- Encourage turning waste streams into value streams by eliminating regulatory barriers that impede the use of CO2 in Enhanced Oil Recovery (EOR) and other beneficial uses of CO2. EOR has reduced carbon emissions while simultaneously boosting oil production—a model already working in many locales.

- Repeal the section 526 mandate, which prohibits the federal government from purchasing any "alternative fuel" unless its lifecycle greenhouse gas emissions are less than conventional petroleum fuels. This provision—included to stop coal-to-liquid projects on the incorrect assumption that affordable biofuels would quickly come to market—could lead to EPA mischief making. Over-eager regulators could use this mandate to cut off imports from Canadian oil sands, depriving America of a secure form of energy from a trusted, stable ally.

- Enable the creation of pipeline infrastructure allowing crude to go to the refinery best positioned to maximize its value, while also ensuring that we have robust import and export markets to take advantage of our refining capacity. A better pipeline infrastructure will allow us to use more American crude at home to serve American markets, by improving its economic attractiveness. The U.S. should remove regulatory roadblocks and delays that impede construction of vital pipelines.

- Improve the Endangered Species Act (ESA) so that it cannot be used by radical left-wing groups and anti-development bureaucrats to shut down environmentally sound gas exploration and production.

- Encourage a market-based approach to natural gas as a transport fuel and ensure that our regulatory system regarding fueling stations is flexible enough to permit innovation.

- Streamline oil and gas pipeline infrastructure regulation to address changing marketplace realities. Right now, oil and gas pipelines often receive disparate treatment, a lack of synchronization reflecting their different regulatory histories. Investors need clarity and certainty from government before deciding where and how to invest.

COAL

Extreme environmentalists, including the Obama Administration, have waged an increasingly open war on coal over the past decade, one that threatens America's energy affordability and security. As President Obama told the San Francisco Chronicle in early 2008 when discussing energy markets under his preferred cap-and-trade program for CO2 emissions:

> 'If somebody wants to build a coal plant, they can—it's just that it will bankrupt them.' In the same interview, he told the [San Francisco] Chronicle editorial board that 'under my plan. . . electricity prices would necessarily skyrocket.'[70]

That may be the most succinct summary of the Obama Administration's energy policy—but it's not what America needs.

President Obama has followed through on his promise through his EPA's radical decision to essentially mandate the closure of many of America's coal-fired power plants, while making future electricity rates soar by regulating carbon dioxide emissions from these plants. We believe that the 5-4 Supreme Court decision in Massachusetts vs. EPA allegedly justifying this action is fundamentally flawed, and a classic example of federal government regulatory overreach.

That said, even on its own terms the rule is a disaster, a 645-page monument to bureaucratic obfuscation that rewards insiders and dealmakers.[71] It arbitrarily picks winners and losers among both states and power plants, and fundamentally pushes states into a cap-and-trade system that has already shown great potential for abuse in Europe and elsewhere. While the EPA claims the proposed regulations give states "flexibility," it does so only to the extent that states can "decide" which sectors of their economy they wish to harm—a Faustian bargain to which states and governors should not accede. States that decide to comply with the Obama Administration's unilateral energy disarmament will jeopardize American jobs and American interests vis-à-vis our trading partners.

President Obama's anti-coal policies have devastated jobs in communities across the country—leaving areas such as those in Appalachia crippled. The coal industry supports 800,000 jobs across 25 states—but the Obama Administration's agenda will put many of those jobs at risk.[72] According to a Heritage Foundation study, Obama's war on coal may cost America 500,000 jobs by 2030, resulting in 20% higher electricity prices.[73] Rather than adding to the financial burdens of these hardworking Americans, we need to figure out the best ways that we can take advantage of this abundant and cost-effective resource.

According to a Heritage Foundation study, Obama's war on coal may cost America 500,000 jobs by 2030, resulting in 20% higher electricity prices.

The Obama Administration operates under the fantasy that if we "set an example," China, Russia, and our other competitors will magically choose to harm their own interests in the global economy—because their leadership is full of environmentally conscientious nice guys that put the "global good" ahead of their countries' interests. The Administration appears more keen on negotiating with our competitors—who have every interest in obtaining an economic advantage over the United States—than with a Congress and an American business community interested in promoting strong growth at home hand-in-hand with our environmental goals. With this proposed rule, the Administration has folded America's hand on energy, and now they expect our competitors to do the same—a strategy akin to believing that Russia would never invade Ukraine because that is "so last century." They are certain to be disappointed.

Contrary to those who support this liberal fantasy, American energy policy must advance our interests by creating policies that deal with the reality of our energy mix: coal remains a vital component of America's energy mix, and the largest contributor to America's electric power supply. Furthermore, America's coal reserves—the largest in the world—constitute a powerful energy asset—one that we should be learning how to use more effectively and efficiently, rather than shutting it down.

While politicians debate whether we should or should not export crude oil and natural gas, America has been busy exporting its abundant coal reserves to other countries. According to a study commissioned by the National Mining Association, in 2011 10 percent of the coal produced in the US was exported, supporting thousands of workers.[74] The proposed EPA regulations that would make coal's use economically infeasible in the United States will only exacerbate this trend. Ironically, the EPA's proposals will encourage companies further to increase shipments of coal overseas—doing precious little to stop global warming, but exporting affordable energy and quality jobs to countries like China and India.

A smart energy policy would reject proposals that would unilaterally harm the American economy by frittering away our domestic energy abundance. Instead, we should utilize our existing coal reserves cleanly, both through our existing plants and through the development of new cleaner coal technologies, rather than arbitrarily shutting down existing infrastructure. This strategy is a far better plan than the Obama Administration strategy of letting this enormous energy resource sit unused while China, India, and other major countries continue to consume coal in record amounts. China has added more coal production in the past few years than the entire U.S. coal industry. The radical Left talk frequently about global warming, but they seem unable to reconcile themselves to a global energy economy in which other countries—which have nothing to gain—fail to follow our "example" by similarly wasting resources that can drive economic growth. America's coal policy should work to leverage this tremendous domestic resource. The U.S. should not unilaterally disarm, nor should it simply waste its coal resources.

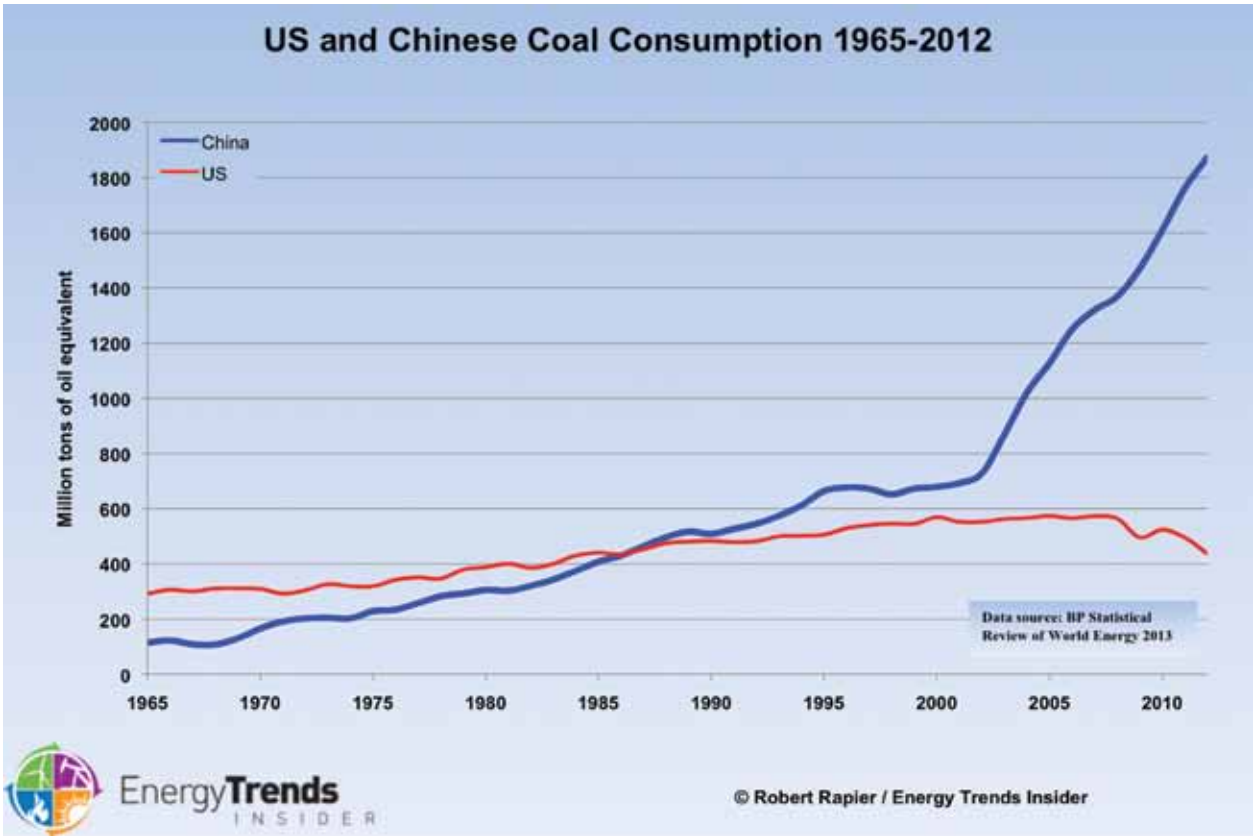

Figure 3: U.S. and Chinese Coal Consumption 1965-2012 [75]

Recommendations:

- Develop and grow clean coal technologies through federal funding of clean coal R&D, given the importance of coal as an abundant natural resource.

- Eliminate the new EPA regulations on existing source carbon emissions. These regulations represent a backdoor climate policy and a unilateral disarmament. No similar demands are being made of coal in countries such as China, whose consumption now dwarfs our own, or in India, where consumption is also rising rapidly. It makes no sense for the U.S. to export jobs and industry abroad to places with few existing environmental safeguards.

- Substantially reform the EPA's Maximum Achievable Control Technology (MACT) standard for criteria pollutants, which acts as stealth anti-coal carbon legislation by effectively banning the construction of new coal power plants. Maximum achievable control technologies for criteria pollutants epitomize regulation run amok. Essentially, these regulations demand that if something reduces pollution by one ounce, yet costs $100 million to implement, a company must utilize the technology, rather than sensibly balancing the costs and benefits of emissions reductions. Instead of such heavy-handed regulation, which completely ignores costs for even the smallest "benefits," regulations should sensibly balance costs and benefits.

NUCLEAR

Nuclear energy has been a key component of U.S. energy generation for decades. The world's leading producer of nuclear power, the nuclear industry supplies one-fifth of total U.S. electricity consumption. Nonetheless, nuclear power today in

the U.S. stands at a crossroads. A complex thicket of regulations and litigation has meant the federal government has not issued a license for a new nuclear plant in over 30 years. And while some new construction has taken place recently, the federal government's attitude towards nuclear energy over generations has ranged from salutary neglect toward outright hostility.

Nuclear power is a zero-emissions energy source cleanly powering 20% of American electricity.[76] While nuclear power costs more to produce than coal, natural gas, or hydropower, nuclear power costs substantially less to produce than other emissions-free competitors, namely wind and solar power.[77] Nuclear also has a relatively small footprint in comparison to wind and solar.

New design concepts also provide great promise. Small modular reactors utilizing advanced new technologies could lower production costs, perhaps by as much as 40%.[78]

Federal energy policy should recognize the game-changing advances in nuclear technology and encourage ongoing nuclear research. Just as importantly, the federal government must trim back the excessive, unnecessary, and expensive red tape that has prevented a new nuclear power plant from coming online in the United States since 1996.[79]

Any growth in nuclear power must put safety first. In that regard, the industry maintains an outstanding history, with an impressive health and safety record. However, as Physics Nobel Laureate Burton Richter wrote:

> The U.S. program has been in systematic decline. We are no longer the leader in matters of policy because the federal government has not been able to agree on one. Bit-by-bit, our R&D facilities and national laboratories have been allowed to decay and we are no longer the leader in manufacturing because we are down to only one U.S.-owned reactor builder [General Electric].[80]

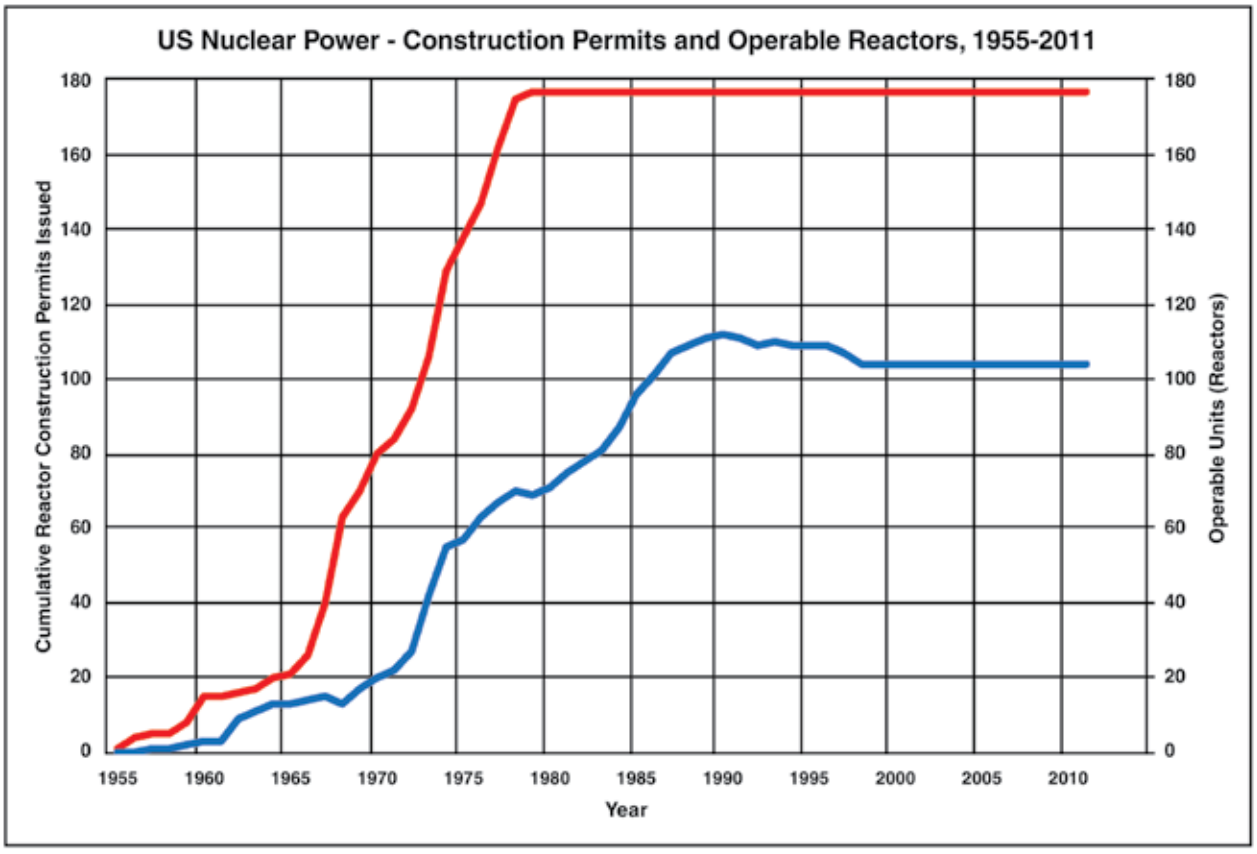

Figure 4: Growth in Nuclear Power Plant Construction 1955-2011—Cumulative Construction Permits (red line) and Plants in Operation (blue line)[82]

In addition, a thicket of regulations has created uncertainty and increased prices for nuclear power. In many cases, radical activists contribute to this uncertainty, by attempting to sue any new nuclear power plant into oblivion. Consequently, nuclear power is currently more expensive than the least expensive fossil fuel alternatives; however, like some renewables, continued development of some nuclear power can be justified as part of a portfolio strategy.

Nuclear power maintains the substantial advantages of a high degree of price predictability and zero emissions, making environmentalists' opposition to nuclear energy an example of ideology run amok. Nuclear energy remains the largest zero-carbon energy source in America's portfolio, exceeding all renewable energy technologies combined. Furthermore, the nuclear industry, given a different regulatory regime, could turn much of its waste to beneficial use, recycling nuclear waste to dramatically reduce its volumes. Economist Pierre Desroschers has showed how in industry after industry, producers reduce waste in response to their own market incentives to do so.[81] In addition, the industry has proposed innovative reactor designs that would dramatically reduce nuclear waste.

Several policies have the potential to improve America's nuclear standing. First, recognizing the unique nature of the extremely lengthy approval process for nuclear power plants, the U.S. could offer federal loan guarantees only against the prospects of unexpected regulatory delay, not technology risk or execution failure. This policy would recognize the government's substantial role in reducing industry's ability to operate, and eliminate the penalty for doing so. As another possible alternative, policy-makers could pursue streamlined permitting processes for new reactors.[83]

The Yucca Mountain storage facility for spent nuclear fuel was approved in a bipartisan manner by Congress in 1987 after extensive research and consideration of various potential sites. While numerous government studies have found Yucca Mountain in Nevada to be a suitable solution for the storage of America's long-term nuclear waste, both residents and politicians in Nevada have raised objections to the site.

The Senate Majority Leader and the current President have raised safety concerns regarding the Yucca Mountain facility. However, the status quo alternative—in which spent nuclear fuel is currently being stored on-site and above ground at temporary, minimally secured storage facilities nationwide—is fundamentally untenable. Our energy plan recognizes the wisdom and necessity of utilizing nuclear energy. But no proposal to do that is realistic absent a plan for storage of long-term nuclear waste.

Recommendations:

- Fund basic research into the development of commercial-scale first-of-a-kind small modular reactors (SMRs), consistent with the government's historical role in helping to develop nuclear technologies.

- Revamp America's domestic nuclear expertise and manufacturing capability to reduce international dependence. The U.S. government should look for appropriate ways to incentivize a rebirth of domestic nuclear technology and manufacturing.

- Offer the people of Nevada and their elected leaders additional financial incentives and a concrete timeline for a final decision on making Yucca Mountain our storage solution for nuclear waste.

- Allow other states to bid on potential nuclear repository sites, indicating the compensation they would request for taking the waste, if Nevada declines new financial incentives. Any potential site would have to be thoroughly vetted, geologically sound, and researched for suitability and safety. To avoid wasting tax dollars, states would have to sign a binding contract before any site is built.

Principle #2: Encourage Technological Innovation Of Renewables And Emerging Energy Resources

Oil and gas technologies are not the only part of our energy economy with substantial growth potential. Emerging energy technologies such as wind and solar are creating jobs at a rapid rate.

While some of these jobs are subsidized, there is also a substantial base of durable jobs that have been created in the emerging energy economy. These emerging energy technologies can increasingly compete with conventional sources without subsidy in certain markets. As prices for new energy technologies continue on their impressive downward trajectory, American jobs in these sectors will grow.

As of November 2013, solar sector jobs have grown 53% to more than 142,000, and are expected to grow a further 15% this year. The largest number of these jobs are actually installers—jobs that cannot be outsourced. Meanwhile, there are more than 80,000 jobs in the wind industry, up from practically none just a decade ago. More than 70,000 more are employed in the ethanol industry.[84]

For the past decade, the growth of renewables in the U.S. stands with the hydraulic fracturing boom as one of the two big stories in energy. In fact, the natural gas boom has actually helped bolster the renewable energy sector. For example, Florida Power & Light, one of the country's largest utilities, operates a 3,722-megawatt natural gas facility in Martin County, the biggest fossil fuel plant in the country. In 2011, the company added a 75-megawatt solar plant to the operation, making it the first-of-a-kind hybrid solar facility in the world.[85]

Renewable energy sources have had the fastest growth curve of any form of American energy. In 2000, there were just 2.4 GW of installed wind power in the United States. At the end of 2013, there were 61 GW, supplying over 4% of U.S. electricity over the last decade while reducing costs dramatically.[86] Solar power installations totaled 4.8 GW in 2013, up from essentially nothing a decade ago; with rapid price declines, the trajectory continues upward. More than 6 GW are projected to be installed this year. To put that in perspective, the more than 10 GW expected to be installed in the U.S. in 2013 and 2014 represent more than the entire cumulative U.S. installed capacity of solar in all of the prior years.[87] While solar and wind produced only a small percentage of power a short time ago, these renewable technologies are slowly emerging as viable power sources.[88]

While still not fully price competitive with conventional alternatives in most situations, renewables can be the lowest cost resource in some cases. With very low pollutants—none from operation—and a high degree of cost predictability, renewables can be an intelligent part of an overall energy strategy, providing very clean energy and predictable pricing, and generating a sensible hedge against the volatility of fossil fuel prices. The decrease in renewable pricing over the past decade has also encouraged new research efforts, which will likely lead to further cost reductions and performance improvements in the future.

Most critically, solving the intermittency and transmission problems associated with solar and wind will be critical before they can truly compete at parity with traditional alternatives. Better energy storage solutions, currently the subject of a substantial research and commercial effort, are essential.

The increasing market competitiveness of these solutions, and the key U.S. role in technology development, paint a rosy picture for the future of renewable energy. At the same time, we must guard against crony capitalism—government making massive "investments" with public dollars in technologies not yet market competitive, such as the Solyndra boondoggle, in which the Obama Administration wasted over half a billion dollars in taxpayer funds on an unrealistic left-wing fantasy. While left-wingers believe that a subsidy-driven

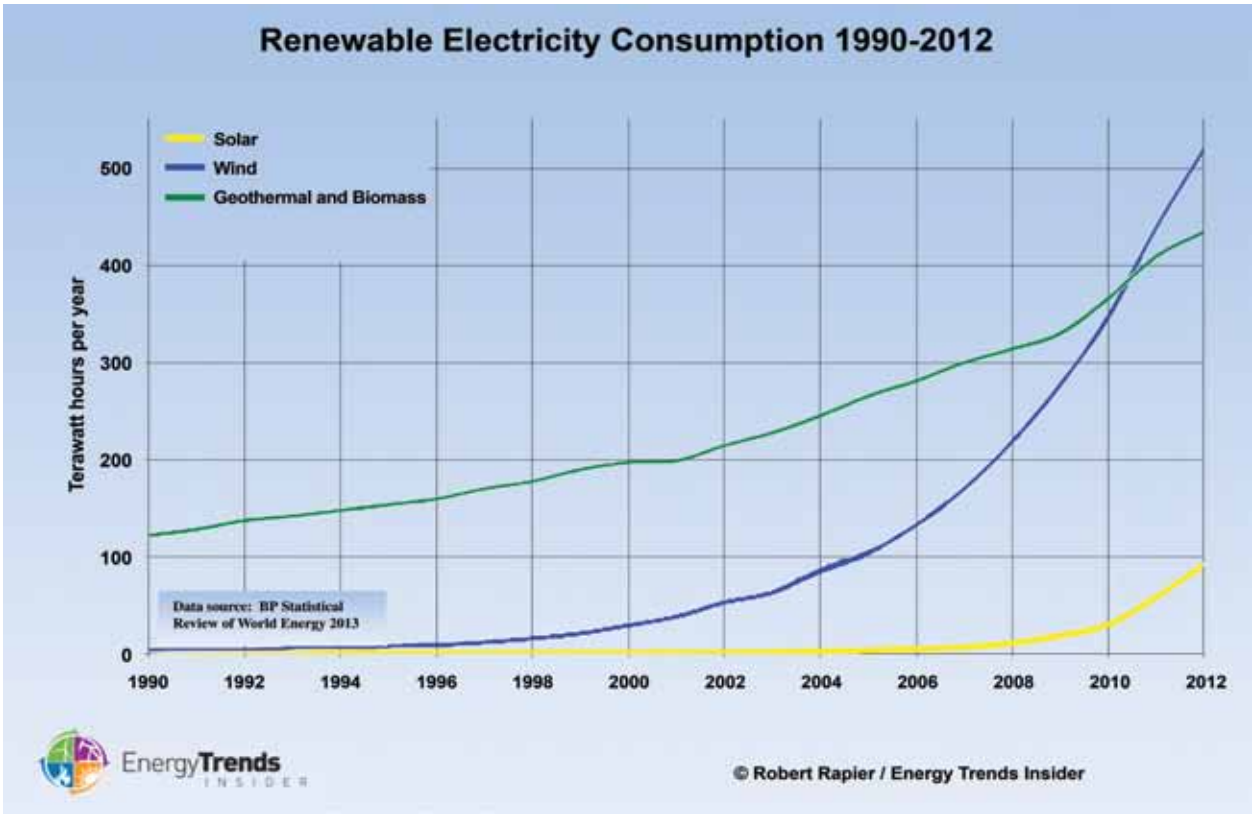

Figure 5: Growth of Renewable Energy Production 1990-2012[89]

boom and bust environment will grow new sources of energy and the new jobs that come with them, we believe that the best road forward for these industries is one that allows them to thrive in a competitive crucible, pushing down costs in ways that justify a growing share of our energy portfolio. If we allow market forces to prevail, we can grow our jobs throughout the energy sector, and the millions of jobs that depend on them.

That said, we believe that there are more cost-effective ways of incentivizing the development of energy than the current system of tax subsidies. All forms of energy—from oil and gas to wind and solar—should compete on a level playing field, with the federal government not picking winners and losers. Our plan envisions a movement away from special federal subsidies for specific industries, with an appropriate transition period to allow individuals who have invested and planned their lives around current federal policies to recover their costs. The federal government should not attempt to pick winners and losers.

And to be clear, we oppose raising taxes on energy production. Energy is the lifeblood of the American economy, and—particularly given the anemic economic growth of the Obama years—we should not raise taxes on an industry that creates jobs on its own, while also lowering costs for other sectors of the economy. Government policies must be evaluated based on whether they lower the cost of energy and create jobs. Today, President Obama appears to evaluate energy policies based on whether or not they increase costs—and make him popular with Hollywood celebrities and liberal elites.

Instead of utilizing explicit taxpayer subsidies for specific sectors and industries, federal policy should instead work to expand innovative, sound financing options for all forms of energy. Under current law, some forms of energy generation—oil, mineral extraction, natural gas, ethanol, and biodiesel—have the ability to form master limited partnerships (MLPs), while other sectors—for instance, wind and other renewable energy sources, and nuclear power—do not.[90] MLPs provide companies with

a partnership structure, while allowing them the benefits, flexibility, and liquidity of trading ownership stakes on the stock market. Extending these benefits to all forms of energy would level the currently unequal playing field among various sectors, and provide particular benefits to renewable industries not currently able to form MLPs, like the wind and solar industry.

The corn and biofuel industries have made an important contribution to America's national security, by developing another energy source free from the whims of foreign potentates.

Renewable fuels are not just limited to solar and wind, however. In liquid fuels, ethanol and other biofuels have long played a substantial role in America's energy mix, one that accelerated over the last decade. The corn and biofuel industries have made an important contribution to America's national security, by developing another energy source free from the whims of foreign potentates. In Louisiana and elsewhere, companies are making investments in facilities converting sugar cane bagasse into high-value biofuels. The rapid growth in the sector, coupled with advances in hydraulic fracturing, suggests that, thanks in part to a robust biofuels industry, a future of American energy self-sufficiency is within reach.

The success of the ethanol industry over the past decade suggests that a gradual phase-out of the Renewable Fuel Standard (RFS) mandate would allow this maturing industry to compete and thrive on a level playing field with other forms of energy. Because these fuels will continue to play a vital role, we must ensure that they do so within an overall framework of market competition—one which eschews government-imposed mandates. However, while government should not pick winners and losers in the marketplace, it also should not make abrupt and radical policy changes that disincentivize investment. In short, the government should not turn specific sectors from "winners" to "losers" overnight. Instead, federal policy should provide a gradual transition away from all sector-specific subsidies and mandates, including requirements like the RFS. In addition, the federal government should continue to fund basic research and development into more efficient forms of ethanol and biodiesel.

Conventional hydropower has long comprised the backbone of America's renewable power efforts, providing clean, affordable baseload power to American consumers. New hydropower projects, however, are often caught in unreasonable permitting delays. The federal government should streamline the permitting process for new hydropower to ensure the continued presence of this clean and affordable energy source as part of our national grid.

Hydropower is relatively inexpensive and, when produced by large-scale dams, is the least expensive electricity source.[91] It is no coincidence that Washington State produces more hydroelectric power than any other state and also has the nation's lowest electricity prices.[92] In addition to being less expensive than other renewable energy sources such as wind and solar, hydropower is much more reliable—and emissions-free. States like Connecticut,[93] Missouri,[94] and Montana[95] have taken steps to include hydropower in their renewable power mandates.

Because the next best source of energy we have is the energy we do not waste, energy efficiency, if done properly, can be the cheapest form of energy available. So-called "negawatts" (i.e., megawatts of energy saved through efficiency) are often far cheaper than installing new megawatts.

Intelligent energy efficiency regulation for new construction, focusing on projects which have very fast payback (i.e., three years or fewer) can make sense. At the same time, these benefits should not be overstated as a justification for overly heavy-handed regulation, especially at the federal level. A recent paper by Arik Levinson of Georgetown University, one of President Obama's appointees to the Council of Economic Advisors, suggests that more than 90% of California's touted energy efficiency gains over the last several decades are a statistical myth. Even proponents acknowledge that the substantial majority

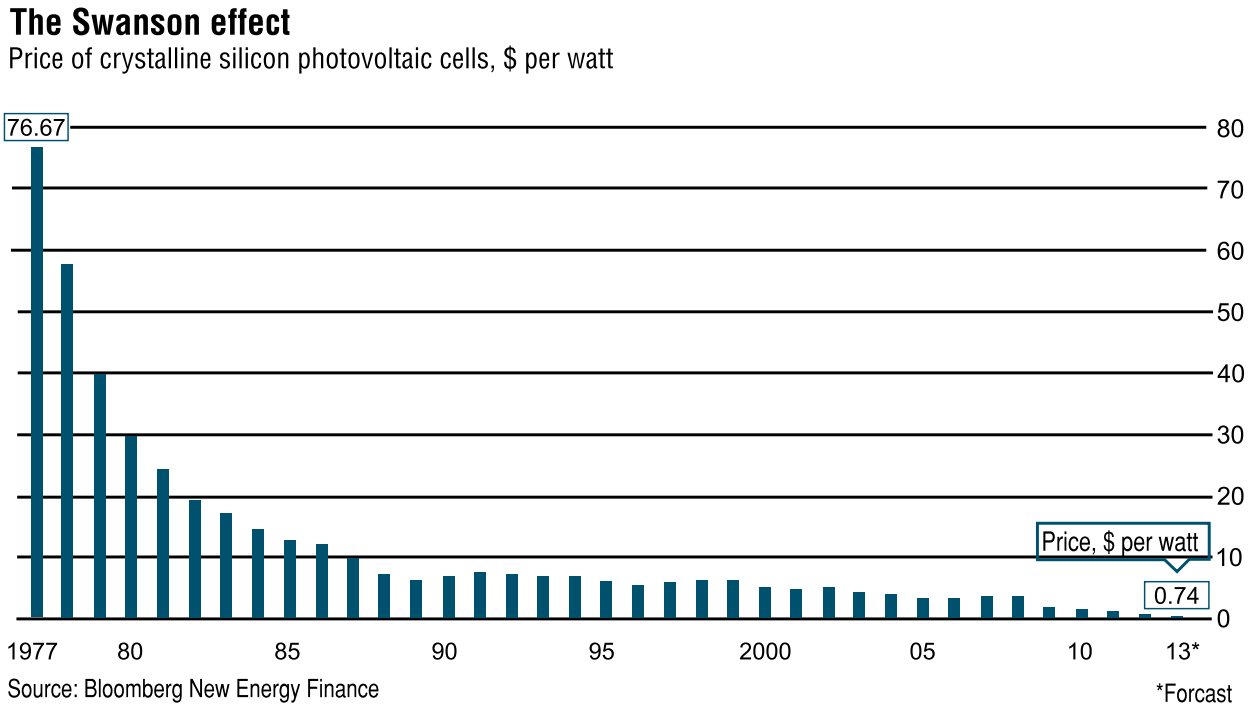

Figure 6: Decline in Price of Solar Panels 1977-2013[98]

of the alleged efficiency gains are in fact, illusory, the product of structural transformation of the economy rather than true energy savings.[96]

Renewable Portfolio Standards (RPS) have become a popular way for states to boost renewables, with 30 states and the District of Columbia enacting mandatory renewable portfolio standards and seven others enacting non-binding, voluntary goals.[97] While renewables can play a valuable role as part of our energy portfolios, some members of Congress continue to engage in misguided attempts to enact a federal Renewable Portfolio Standard (RPS). Current RPS standards at the state level vary widely in terms of included technology, size of renewables in the portfolio, and other characteristics. Federalizing such standards into a one-size-fits-all approach—a typical Washington move—would be a strategic mistake with negative consequences for our economy.

Recommendations:

- Rationalize the energy taxation system for financing all forms of energy—both renewable and non-renewable—with fewer carveouts and tax incentives.

We strongly oppose raising taxes on energy production. In the important work of tackling subsidy reform, we should not pick and choose among existing subsidies—we should attempt an across the board reform that lowers taxes on energy production while consistently reducing carve-outs.

> Because the next best source of energy we have is the energy we do not waste, energy efficiency, if done properly, can be the cheapest form of energy available.

- Encourage innovative, sound financing options for all forms of energy, as an alternative to explicit tax subsidies. Rather than focus on production subsidies, we should enact federal legislation that will provide all energy sectors with easier access to private-sector capital markets. We should also reform regulatory policies so that renewables have a

better chance of competing on a level playing field. Different financing mechanisms, including community solar, on-bill repayment, and Master Limited Partnerships (MLPs) in renewable finance could dramatically expand opportunities for renewables.

- Create a level playing field between ethanol and other forms of energy. Ethanol should remain an important part of America's energy future, but it is mature enough to compete and thrive on its own merits. To respect existing investments and create an expectation of stable and predictable rules, we should gradually phase out the Renewable Fuel Standard, allowing existing investors and individuals who have planned their lives around current federal policies to transition while moving toward a more market-centered approach to ethanol production and consumption.

- Develop and grow more efficient ethanol blends through federal funding of R&D into new forms of biodiesel.

- Avoid a federal Renewable Portfolio Standard. While RPSs have been enacted by 30 states as a way to boost renewables, they should not be part of any federal energy policy.

- Increase energy information disclosure requirements for energy-intensive product purchases, so consumers, not bureaucrats, can decide what works best for their budgets. Programs such as Energy Star or those that list expected fuel costs for vehicles can provide a valued service to consumers, while potentially reducing national energy demand and enhancing our energy security. In general, where lifetime energy costs of a good comprise a substantial portion of its purchase price, consumers should have the right to know about those costs. Energy disclosure regulations can be an effective way to inform consumers of lifetime product costs without forcing people to buy more "efficient" products they may not want.

- Implement renewables more effectively into the grid. Current renewables are intermittent, and not always available when needed. More effective wind and solar forecasting, and better computer models to more tightly integrate renewables into a more modernized grid, can help efficiency. In general, many federal policies can help enable the increased penetration of distributed power resources on to the grid. Working to combine intermittent renewables with fast-ramping natural gas backup, enabled by the fracking revolution, can also lead to promising outcomes.

- Demonstrate a sustained American commitment to energy RD&D (Research, Development, and Demonstration), both through legal and regulatory reforms that can unleash greater private sector financing for emerging technologies, and through sustained and predictable support of RD&D at the federal level. At the same time we must end the government's role as a fourth-rate venture capitalist—a role that brought us Solyndra and other debacles which wasted taxpayer dollars in a cavalier manner.

Principle #3: Unlock The Economic Potential Of The Manufacturing Renaissance By Putting America's Energy Resources To Work

While the Obama economy has crippled U.S. growth, one promising sign amidst the downturn has been the growth of U.S. manufacturing, particularly in energy-intensive industries. This growth has come from the availability of abundant, low-cost natural gas brought into the market through advances in hydraulic fracturing technology. Unfortunately for the American people, the Obama Administration has impeded natural gas production, holding back this promising future. Our forward-looking energy plan, by contrast, will unleash an American manufacturing sector revving its engines and ready to create an unprecedented number of high-paying, quality jobs.

> The Obama Administration is stifling energy production on federal lands, leaving state and private lands the sole players in America's energy revolution.

Manufacturers use approximately one-third of the energy produced in the United States, making energy prices one of the most important factors in manufacturing growth. Advances in hydraulic fracturing technology have greatly expanded natural gas production and lowered natural gas prices. The fracking boom has put a halt to a long-term decline in America's manufacturing competitiveness—but merely halting the decline should not represent "success" for a global energy leader. The Obama Administration is stifling energy production on federal lands, leaving state and private lands the sole players in America's energy revolution. It is time for federal policy to lead America's energy revolution rather than fight it. Our energy plan will help spur a rebirth in America's manufacturing sector.

The energy abundance created by unconventional oil and natural gas holds enormous economic potential across the entire economy. PwC reports new natural gas production opportunities can add 1 million manufacturing jobs to the U.S. economy by 2025; "with shale gas resources more abundant than previously thought, U.S. manufacturers can look forward to multiple new opportunities and a significant uptick in employment in the sector."[99]

The petrochemical industry benefits enormously from hydraulic fracking, as it utilizes natural gas-derived liquids (Ethane, Propane, and Butane) as fundamental feedstocks to make the building blocks used in a variety of products. The decline of natural gas prices led to a reduction in the price of ethylene from over $1,000 per ton to just $323 per ton, a transformation that made the U.S. the world's low-cost producer of this critical manufacturing feedstock.[100] These lower prices for producer inputs mean that U.S. manufacturers could lower their raw materials and energy costs by as much as $11.6 billion annually, creating more manufacturing jobs, more affordable goods, and a more robust economy.[101]

The natural gas renaissance has amounted to a massive stimulus program across many parts of the country, with companies considering or already implementing major new projects and workforce expansions as a result of enhanced natural gas production and lower prices. In Louisiana and the Gulf Coast region alone, Dow Chemical, Formosa Plastics, Chevron Phillips Chemical, Westlake Chemical and Nucor plan major new business expansions. The projects hold tremendous economic benefits, with the Formosa Plastics project alone accounting for $1.5 billion in new investments.[102] In the Northeast, Bayer Corp. and Shell Oil are planning new facilities to take advantage of Marcellus Shale gas, while U.S. Steel and Vallourec have invested millions in new plants in Ohio.

It is also important to highlight the competitive edge our domestic, natural gas-based petrochemical industry has over its global competitors, particularly those in Europe, which often depend on oil as a feedstock for their petrochemical industries. According to IHS, because of America's increased domestic natural gas production, "With natural gas now available at a fraction of its oil-equivalent price, the United States has become one of the world's lowest-cost petrochemical producers."[103] In addition, this significant cost advantage is a key factor in determining where companies choose to build new petrochemical facilities and what feedstock will be used to produce its output. The U.S. chemical industry will gain a significant competitive advantage, with natural gas now available at a fraction of its oil-equivalent price.[104] U.S. based petrochemical companies will not only benefit from availability of low-cost feedstock, but also from cheaper energy to run their facilities.[105]

This renaissance in energy production has helped to restore U.S. manufacturing competitiveness with low-priced Chinese products. Charles Schwab & Co. reported earlier this year: "U.S. export gains have come at the expense of leading European nations, Japan, and China.…China's manufacturing cost advantage over the United States is projected to shrink to just 5% by 2015."[106] Companies like Nucor have decided to invest in the United States, as opposed to Brazil or China, precisely because of our access to more affordable energy sources; "plentiful gas supplies…offer the prospect of creating thousands of jobs by providing a reliable energy source for domestic manufacturing."[107]

In Convent, Louisiana, a new direct reduced iron plant epitomizes the potential economic benefits American energy can provide. The plant's initial $750 million investment will take advantage of abundant and affordable natural gas to provide hundreds of new jobs at the facility—each paying an average salary of $75,000 annually. If additional phases come to fruition, investment could grow to over $3 billion, employing more than 1,000 individuals.[108] These new jobs are just the tip of the iceberg for economic growth and job creation made possible by the natural gas renaissance.

With the natural gas industry announcing new investments across the country, announcements like those in Convent only stand to increase as the fracking revolution gains steam. But "there is a catch, of course. The U.S. government needs to give the industry what it wants, such as more access to federal land for drilling" and no new regulatory obstacles.[109]

Unfortunately, however, the Obama Administration insists on stifling rather than encouraging this tremendous economic opportunity. The Congressional Research Service (CRS) reports oil and natural gas production on federal lands has declined, even as the fracking revolution stimulates a tremendous increase in production on state and private lands. According to CRS, natural gas production on state and private lands increased by 33% from 2009 to 2013, while production on federal lands fell by 28%.[110]

The economic boom generated by hydraulic fracking on private lands proves the growth potential of the resources sitting on federal lands that the Obama Administration refuses to unlock. As IHS-CERA's study on energy and manufacturing showed, the full value chain for new unconventional oil and gas, i.e., the hydraulic fracturing revolution, supported 2.1 million jobs by 2012, a number expected to grow to almost four million jobs by 2025. Cumulatively these new jobs will provide trillions of dollars in economic output, and more than $1.6 trillion in tax revenue through 2025. By way of comparison, $1.6 trillion exceeds the combined total of all federal, state and local income taxes collected in the first year of the Bush Administration.[111]

The economic growth from the fracking boom does not even take into account the enormous value and job creation generated by our conventional energy production or emerging energy sources. However, 90% of this new unconventional oil and gas activity occurs on state or private lands.[112] If we could boost federal production by cutting red tape and bureaucracy—using the solutions recommended in our report—we could potentially add billions of

dollars more revenue and hundreds of thousands more jobs to these already impressive totals.

Needless to say, the advances in unconventional oil and gas have a number of other positive follow-on effects, including a reduced trade deficit, the ability to trade with friendlier countries, and greater economic stability.

Growth in the manufacturing sector has been greatly aided by low-cost natural gas brought into the market through hydraulic fracturing technology. In addition to the oil and natural gas sectors, industries such as chemicals, fertilizer, iron and steel production, and general manufacturing all benefit from the fracking revolution. Chemical manufacturing alone represents 12% of U.S. exports, and is the second largest exporting sector in the U.S., with $189 billion of exports in 2013.[114] America's competitive position in this field is hugely impacted by the availability of low-cost energy.

However, to fully take advantage of this energy revolution, we must substantially increase our pipeline, refinery, and other midstream infrastructure, allowing affordable energy to get where people can use it.[115] In a world in which the federal government refuses to approve even something as obviously beneficial as the Keystone XL pipeline, more Washington obstruction means that many of these enormous potential benefits may never be realized.

The U.S. has a potentially durable comparative advantage in the development of inexpensive natural gas, both due to our property rights protection that encourages drilling for natural gas, and the technological prowess of our world-leading oil and gas companies. The shale gas and tight oil revolutions provide a lesson for energy more broadly—strong property rights protection combined with leading technology can result in dramatic production gains.

Creating high-quality, well-paying manufacturing and petrochemical jobs also requires a well-educated workforce equipped to compete in the global economy. Many manufacturers cannot find enough well-qualified, skilled workers to fill empty positions—a dearth of talent that impedes growth for these companies and the economy as a whole. Neglected by some policy-makers for far too long, greater promotion of vocational education throughout our education system will provide young Americans with more educational choices. In Louisiana a new $40 million higher education Workforce and Innovation for a Stronger Economy (WISE) fund will aid in workforce training, and comes on the heels of legislative initiatives to expand community and technical college capacity, so that more students can receive the training they need to qualify for well-paying jobs.[117] Expanding these efforts nationwide will enhance workers' economic

Employment Contribution due to the Unconventional Activity Value Chain: Base Case*

(Number of workers)

	2012	2020	2025
Upstream Energy Activity	1,748,604	2,985,168	3,498,678
Midstream and Downstream Energy Activity	323,648	73,530	56,989
Energy-Related Chemicals Activity	53,252	277,356	318,748
Total Activity	**2,125,504**	**3,336,055**	**3,874,415**

NOTES: Numbers may not sum due to rounding.

*The unconventional activity value chain represents the sum of unconventional oil and natural gas value chains and energy-related chemicals.

Source: IHS Economics

Figure 7: Employment Growth from Unconventional Oil and Gas[113]

Figure 8: Announced Manufacturing Projects in the U.S. Related to Shale Gas Availability [116]

Industry	Company	Project	Location	Announced Investment	Time of Announcement
Petrochemical	Methanex Corp.	Methanol manufacturing plant moved from Chile	Ascension Parish, Louisiana	$550 million	Jan. 2012
Petrochemical	Williams	Expansion of an ethylene plant	Geismar, Louisiana	$350-400 million	Sep. 2011
Petrochemical	Dow Chemical	A new ethylene plant	Freeport, Texas,	N/A	Apr. 2012
Textile	Santana Textiles LLC	Denim plant	Edinburg, Texas	$180 million	Jul. 2008
Fertilizer	CF Industries	Expansion of a nitrogen fertilizer manufacturing complex	Donaldsonville, Louisiana	$2.1 billion	Nov. 2012
Fertilizer	Orascom Construction Industries	Nitrogen fertilizer production plant	Southeast Iowa	$1.4 billion	Sep. 2012

opportunities, while making manufacturers more competitive, sparking faster growth.

Some of the best opportunities to promote skills training can come from partnerships with businesses themselves, which are looking to improve the quality of the labor force they can attract and retain. The Louisiana WISE fund requires higher education institutions receiving grants to partner with private industry; allowing employers to participate in the curricular development process will ensure that students in these programs will have relevant skills—and bright job prospects—upon their graduation. Companies like Phillips 66 are also providing a valuable service by working to re-train veterans returning into civilian life, taking the skills developed during years of military training and utilizing those talents in well-paying refining, engineering, and other careers.[118]

Recommendations:

- Enact federal legislation to require more transparent rules, use of sound scientific data, and use of a better review process to ensure a balanced and effective regulation process that increases certainty and predictability for the federal regulatory review process.

- Streamline and improve coordination of federal agency administration of the regulatory review, environmental decision-making, and permitting process for major construction activities (related to new or modified manufacturing facilities, infrastructure needs, etc.) reviewed by federal agencies.

- Encourage the return of vocational and technical education at the high school and post-secondary levels, so that those who will be entering the workforce can take advantage of the jobs resulting from the manufacturing renaissance.

- Implement policies that incorporate industry recruitment and potential training into the United States military's Transition Assistance Program (TAP), to ensure that our veterans are able to return home and have the good paying jobs that they deserve.

Principle #4: Eliminate Burdensome Regulations

U.S. energy policy today is a tangled regulatory mess. Most of what Washington does today strangles the growth of affordable, reliable energy. Technological changes have transformed the world of energy in recent decades—but American policy remains stuck in the past, unable to adapt to advances in the energy sector.

> We need a complete rethink—one that defines an appropriate role for energy policymaking and implementation between the federal government and the states.

Under President Obama, the Department of Interior seems more interested in shutting down domestic energy production under a tidal wave of regulation than it does in growing it. Meanwhile, the EPA and an activist Supreme Court continue to overreach, invading the policy-making turf that Congress has quiescently ceded. But unelected bureaucrats and judges should not substitute for our elected representatives in formulating American energy policy.

We need a complete rethink—one that defines an appropriate role for energy policymaking and implementation between the federal government and the states. But we aren't going to achieve that with a 20th century energy paradigm. Through obstruction and misinformation, many on the Left ignore the science and the facts. The greener technologies they advocate are simply not capable of generating the amount of affordable energy America needs to drive our economy.

The first problem with energy regulation in Washington, D.C., is that it tries to do too much, centralizing decision-making under the mistaken theory that "Washington Knows Best." While some elements of energy policy and regulation have legitimately large national components, e.g., permitting interstate oil and gas pipelines, others represent inappropriate intrusions by the federal government into state and local issues, e.g., attempting to regulate hydraulic fracturing at the federal level.

We must take a closer look at regulations flowing from laws such as the National Environmental Policy Act (NEPA), the Clean Air Act, and Clean Water Act, and their appropriate role in energy policy development. Fundamental reforms to these statutes will improve their friendliness to energy development without sacrificing environmental protection, clean air, or clean water.

We should not throw the baby out with the bathwater; each of these policies had legitimate reasons for their enactment. However, as they enter their fifth decade, all of these policies should be revised in light of new technologies to reflect the current state of play of resource development and environmental progress.

The most ludicrous recent example of federal overreach came in a 5-4 Supreme Court decision in the Massachusetts vs. EPA case. The decision gave the EPA wholly inappropriate authority over greenhouse gases under the Clean Air Act—the sort of authority not remotely contemplated under its original enacting authority. We must work to find a legislative solution that will restore Congress' appropriate authority over such a critical policy matter.

For another example of regulatory overreach, one need look no further than the Utility Maximum Achievable Control Technologies (MACT) standards, implemented by the Obama Administration's EPA in 2011. Such standards will cost American consumers more than $15 billion in 2015 (well over $130 per household) for highly uncertain benefits.[119] Moreover, the EPA's own estimates demonstrate that prior efforts to reduce criteria pollutants have succeeded beyond all expectations. As the EPA data below show, six leading criteria pollutants have dropped dramatically since 1980. Americans now enjoy healthier air quality than they have in decades—and probably even longer.

While many prior environmental regulations have delivered significant benefits, the Obama Administration has abandoned any sense of proportionality in its regulatory agenda. Policies such as the MACT attempt to justify any new pollution controls, no matter how costly, that deliver any environmental benefit, no matter how small. This lack of balance by the Obama Administration's EPA has sacrificed economic growth at the altar of fealty to a radical environmental agenda. While we should take sensible steps to reduce pollution and increase air quality, expensive, one-size-fits-all federally-generated mandates are not the best way to do so. Liberals seem terrified of declaring that we are winning the war on air pollution, even though the scientific data clearly illustrate our progress.

While American businesses struggle to comply with the vast number of federal regulations, the Obama Administration continues to propose even more job-killing rules. A recent study by NERA Economic Consulting notes that the stricter ozone standards from the Obama Administration would be "the most expensive regulation ever imposed on the American public."[121] The impacts are tremendous—these regulations could reduce GDP by $270 billion per year, place millions of jobs at risk, and cost the average American household $1,570 per year in the form of lost consumption.[122]

Recommendations

- Enable a One Project, One Review approach to energy project development and environmental regulation.[123] Any proposed energy project should receive one comprehensive review over a defined period of time, rather than a decade or more of challenges, duplicated rulings, and

Figure 9: Reduction in Six Leading Criteria Pollutants 1980-2012[120]

National Emissions Estimates
(fires and dust excluded)
For Common Pollutants and their Precursors

	Millions of Tons Per Year						
	1980	1985	1990	1995	2000	2005	2012
Carbon Monoxide (CO)	178	170	144	120	102	85	51
Lead	0.074	0.023	.0005	0.004	0.002	0.001	0.001
Nitrogen Oxides (NO_x)	27	26	25	25	22	19	11
Volatile Organic Compounds (VOC)	30	27	23	22	17	16	13
Particulate Matter (PM)							
PM_{10}	6	4	3	3	2	2	2
$PM_{2.5}$	NA	NA	2	2	2	1	1
Sulfur Dioxide (SO_2)	26	23	23	19	16	15	6
Totals	267	250	218	189	159	137	83

Notes:

1. For CO, NOx, SO2, and VOC emissions, fines are excluded because they are highly variable; for direct PM emissions, both fires and dust are excluded.
2. PM estimates do not include condensible PM.
3. The estimates for 2008 and beyond are based on the final version 3 of the 2008 NEI.
4. PM2.5 emissions are not included when calculating the emissions totals because they are included in the PM10 emissions number.
5. EPA did not estimate PM2.5 emissions prior to 1990.
6. The 1999 estimate for lead was used to represent 2000; the 2002 estimate for lead was used to represent 2005; and the 2008 estimate for lead was used to represent 2012.

delays. While the Obama Administration has recently made some noises in its direction, its track record of action—most notably when it comes to projects like the Keystone XL pipeline—is extremely poor. Job creators wanting to invest in American energy should not face a perpetual "Lucy and the Football" scenario, whereby different bureaucratic agencies take turns establishing roadblocks to energy development and exploration.

This process will not mean short-circuiting environmental protection. However, a One Project, One Review framework would enhance the predictability necessary to maintain energy investments and the jobs those investments create.

Companies considering investments will not move if they fear years and sometimes decades of arbitrary regulatory decisions and litigation—fearing that any approval they gain may ultimately be tenuous. Therefore, a One Project, One Review approach should also include provisions for expedited judicial review of projects to provide more certainty for those contemplating massive investments in the energy industry.

- Remove EPA authority to circumvent Congress by issuing unilateral decrees on regulations with a net cost exceeding $100 million—using independent, third party evaluations of cost—without specifically granted congressional authority.[124] The EPA was not designed as a lawmaking body, but it has effectively become one, violating Congress' Constitutional authority. This change would return EPA to its original mandate of offering technical advice and implementation, rather than usurping Congress' policy-making role.

- Crack down on "sue and settle" decrees that take place behind closed doors between radical NGOs and unaccountable EPA bureaucrats. The current EPA bureaucracy is overrun with advocates who have pushed aside dispassionate science and any semblance of balancing costs and benefits. In many cases, regulated industries have effectively lost all input into the design of appropriate environmental regulations.[125] As the U.S. Chamber of Commerce noted in its report on the practice:

  > Under this sue and settle process, EPA chose at some point not to defend itself in lawsuits brought by special interest advocacy groups at least 60 times between 2009 and 2012. In each case, it agreed to settlements on terms favorable to those groups. These settlements directly resulted in EPA agreeing to publish more than 100 new regulations, many of which impose compliance costs in the tens of millions and even billions of dollars.[126]

- Force EPA and other federal agencies to fully disclose the taxpayer funds spent reimbursing groups that sue the government, along with their settlement practices and policies.

- Require the EPA to use cost-benefit analysis in all of its energy-related rulemaking, with the analysis conducted by independent third parties mutually chosen by the EPA and regulated industries, to minimize bias in favor of more regulation.[127]

Principle #5: Bolster National Security

Many nations blessed with plentiful oil and natural gas reserves have generated economic prosperity from exporting some of their resources. In just a few years, America has become a world leader in the production of these important resources. Yet, despite possessing substantially greater energy resources than other nations, U.S. federal policy restricts energy production, discourages natural gas exports, and bans the export of crude oil.

The U.S. currently underplays its fundamental strengths in global energy diplomacy. For example, Russia's increase in oil and natural gas production since the 1990s has given it leverage over its energy-importing neighbors.[128] America's weakness on the global energy stage has been exposed by Russia's bullying of Ukraine, a country weakened by its dependence on Russian gas supplies—a trait it shares with much of Europe.

Natural gas and crude exports have been a subject of much debate. Unfortunately, that debate has often centered on an over-simplified "yes-we-should or no-we-shouldn't" mentality that does not take into consideration many other factors that should inform the export discussion. The question shouldn't be simply are you for or against exports—the question should be are policy makers putting the right policies in place to ensure that we can capitalize upon these vast domestic resources for our economic benefit—be it through utilization of these resources to produce power, in our transportation sector, to realize the manufacturing renaissance, or by selling them on the global market.

America produces so much clean-burning natural gas that energy companies find it increasingly less profitable to tap our natural gas resources.[129] However, global demand for natural gas remains sufficiently high that natural gas exports can benefit the American economy the way oil exports benefit OPEC nations.[130] While natural gas is the key to realizing an American manufacturing renaissance, we shouldn't close the door to exports as part of our overall strategy. According to a recent study conducted by ICF, by 2035, liquefied natural gas (LNG) exports could contribute $10-31 billion to the economies of natural gas producing states.[131] While producing states will certainly benefit from the production of their resources, the benefits would go well beyond their state borders and into the wider American economy.

A 21st century American energy policy must recognize the economic, environmental, and national security benefits of exporting clean-burning natural gas overseas to energy-starved nations that currently rely on high-polluting energy sources. Some have argued that we should ban exports in order to preserve a domestic market flooded with cheap natural gas. However, prices kept artificially low by the suppression of trade discourage production of natural gas here at home. The vast majority of studies, including a recent analysis commissioned for the Department of Energy, show that the domestic price of natural gas will drive the amount of natural gas exported.[132] Thus, America should not put policies in place that ban exporting this strategic resource. While the best policies will encourage the use of natural gas here so that we can produce goods competitive in a global marketplace, we should not close the door to exporting the resource when it makes economic sense.

The growth of natural gas exports can also bolster broader U.S. strategic interests and dramatically strengthen our hand in foreign policy. Natural gas exports would also provide another source of affordable energy to European nations frequently subject to Russian energy extortion. Nations like Georgia, Belarus, and Ukraine have repeatedly faced Russian threats to withhold natural gas exports if those nations did not make foreign policy concessions to Moscow. Russia has cut-off gas supplies to the Ukraine three times in the past eight years—twice during winter months.[133] Removing barriers to American natural gas exports provides the simultaneous benefits of strengthening our economy and peacefully strengthening our allies' energy security.[134]

The case for crude exports is a similar one. While the increase in oil production from shale has transformed the United States into the largest oil producer in the world, America remains bound by a nearly 40 year-old policy that bans the export of crude oil. According to a recent study by IHS, lifting the ban on crude oil exports would result in increased domestic oil production, reduce global oil and gasoline prices, and create at its peak 1 million jobs, with 25 percent of these jobs in non-producing states.[135]

Lifting the ban on crude exports would remove distortions in the market, generating a positive impact on our economy and our national security.

Lifting the ban on crude exports would remove distortions in the market, generating a positive impact on our economy and our national security. The IHS study notes that increased production from the fracking boom has increased 64% from 2008 to March 2014—an astonishing 3.2 million barrels per day. The unprecedented increases in output during this time period exceeded combined production gains of all other countries around the world.[136]

Increased domestic crude oil production also has a profound impact on the US trade deficit. The IHS study notes that:

> US crude oil production has surged—displacing large volumes of imported crude—and US refiners have ramped up their exports of refined products such as gasoline and diesel. As a result, US net oil imports of crude and products have declined almost 20% in dollar terms, from $388 billion in 2008 to $239 billion in 2013…. This shift has lowered the overall US trade deficit to its lowest level in four years, despite annual average world oil prices during this time that have been at record historical levels.[137]

Reducing our trade deficit benefits America's economy, and our national security. However, once again, we must not view exports through a single lens. America should strive to create an environment where we can put our domestic resources to work for our economy domestically. But that does not mean we should close the door to exports.

Similarly, we should eliminate regulatory roadblocks that could impede our refiners from expanding refining capacity and fully utilizing our domestic crude productions, along with a streamlined process for the infrastructure to get crude to the refineries for processing.

While Beltway insiders debate whether we should lift the crude oil export ban, many policy-makers ignore the fact that such a ban may violate our international obligations as a member of the World Trade Organization (WTO). The General Agreement on Tariffs and Trade (GATT), the foundation agreement for the WTO, "prohibits the quantitative restriction on exports" except under very limited circumstances.[138] Those limited exceptions include exhaustible natural resources, as well as the potential for a ban on the export of fossil fuels due to essential security interests. However, the U.S. did not request—and has not requested—a derogation from its GATT obligations with respect to either crude oil or natural gas.[139]

A global energy leader should not arbitrarily restrict crude exports, particularly in ways that violate the spirit of existing free trade agreements. Increased exports would reduce our trade deficit, put product on the market that can help reduce volatility in crude prices, and further America's position as a leader in global energy production. Increased exports from the fracking boom can also enhance our foreign policy credibility in energy. More broadly, we need to recognize that we are and can be an energy superpower in production, resources, and technology. We need to move forward with assertive and confident energy diplomacy that recognizes this fact. We can also enhance our energy foreign policy credibility closer to home, by working in partnership with Canada and Mexico.

North America possesses tremendously abundant energy resources that should leave us energy

independent from oil imports from hostile and unstable nations. Nevertheless, the Obama Administration's stale political and economic thinking has left America dangerously and unnecessarily dependent on oil imports from hostile and unstable nations. Canada and Mexico produce more oil than they use, and both nations are poised to dramatically increase their oil production, yet the Obama Administration habitually fails to take advantage of this North American energy surplus.

Our plan calls for immediate and enthusiastic Presidential approval of the Keystone XL pipeline. However, we can and must do more to develop cooperative North American markets and reduce our Middle Eastern oil imports. We should strengthen the North American Free Trade Agreement (NAFTA) to remove bureaucratic barriers requiring special government approval for U.S. natural gas exports to Canada and Mexico. NAFTA should also be strengthened to open up Mexico's energy exploration and production market to U.S.-based energy production companies.[140] Similarly, a U.S. commitment to welcome oil imports from Canada will halt Canadian plans to ship precious oil exports overseas to China and other Asian nations. Infrastructure to transport oil and other energy resources freely between North American nations should never require special approval of political bodies; free and welcome energy trade must be guaranteed under North American free trade agreements.

Stale and failed policies are all that are keeping us from realizing North American energy independence. Ironically enough, even as our North American allies Canada and Mexico move in a pro-market direction, seeking to liberalize their energy sectors and maximize their abundant resources, the Obama Administration insists on moving in the opposite direction, pursuing an anti-market, anti-exploration agenda. It is time to shed our dependency on oil imports from hostile nations and reduce our vulnerability to international political instability. Our energy plan will jettison such dependency and vulnerability while leading America into a bright, abundant, and more independent North American energy future.

> The Obama Administration's stale political and economic thinking has left America dangerously and unnecessarily dependent on oil imports from hostile and unstable nations.

Recommendations:

- Work to build a North American energy community with an energy technology free trade zone. We should also eliminate tariffs for oil, coal, and natural gas between the U.S., Canada, and Mexico, allowing the free flow of all energy commodities. Strengthening our energy relations with two of our largest trading partners and reliable allies can put the U.S. at the center of a North American Energy community.

- Approve the Keystone XL pipeline immediately. Keystone XL, once again delayed by the Obama Administration, could serve as the centerpiece of North American energy integration. The U.S. and its North American allies could also explore extending its partnership to Asia through vehicles such as the Trans Pacific Partnership (TPP).

Principle #6: Take Simple, Tangible Steps To Address The Possible Risks Of Climate Change, In Concert With Other Major Economies

Climate policy is one of the most contentious policy areas related to energy. Nobody disputes that the climate is always changing. The question is what is the role of humans in that change—and what, if any, dangers that change presents for Americans. However, the highly politicized nature of this debate has taken real, practical solutions to address potential climate risks off the table. As Charles Krauthammer observed:

> I'm not a global warming believer. I'm not a global warming denier. I've long believed that it cannot be good for humanity to be spewing tons of carbon dioxide into the atmosphere. I also believe that those scientists who pretend to know exactly what this will cause in 20, 30, or 50 years are white-coated propagandists.[141]

As Intergovernmental Panel on Climate Change (IPCC) 2007 members/reviewers and climate scientists John Christy and Richard McInder noted in the Wall Street Journal, computer models have consistently and dramatically overestimated observed warming, and failed to account for other observed phenomena. While the climate system is enormously complex, Christy and McInder observe that "The modelers say they are unlucky because natural temperature variability is masking the real warming. They may be right, but when a batter goes 0 for 10, he's better off questioning his swing than blaming the umpire." As Christy and McInder note, advocates should tone down their histrionic climate claims; a more modest approach, not overwrought hyperbole, would help generate practical solutions to mitigate climate risks.[142] People who ask hard questions of models and demand that observations match up with theory before we spend billions of dollars of taxpayers' money are not "deniers"—they are confirmers of a true scientific method.

Now for the inconvenient truth: Global warming has become a religion for many on the Left. For most radical environmentalists, their response to any questioning of their views on climate change is simply to yell "Heretic!" This is not a logical, rational, or scientific way of approaching public policy.

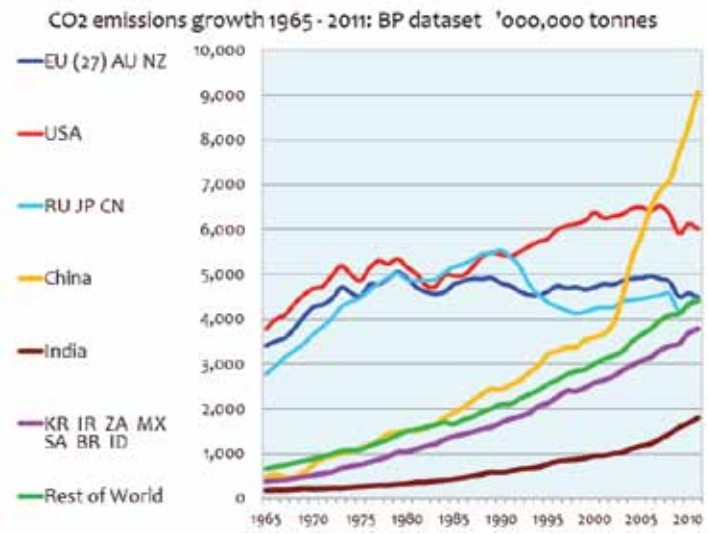

Figure 10: Change in Global Carbon Dioxide Emissions 1965-2011

Furthermore, it does not help the cause of objective science that many climate activists often use climate change as an anti-capitalist Trojan horse for things they want to do anyway—stop people from driving cars, promote more "sustainable," i.e., slow to non-existent, economic growth, and engage in massive transfers of wealth from the U.S. to various countries in the developing world, many of which have deeply corrupt governments.

As a guiding principle, any major step the U.S. takes on climate should be done in conjunction with American job creators, to ensure we protect both the environment and American jobs. The U.S. should not enter into any climate-related agreement that fundamentally disadvantages our country relative to our major competitors, nor one that simply deposits cash in the personal bank accounts of corrupt foreign leaders to appease environmental radicals. Furthermore, any possible

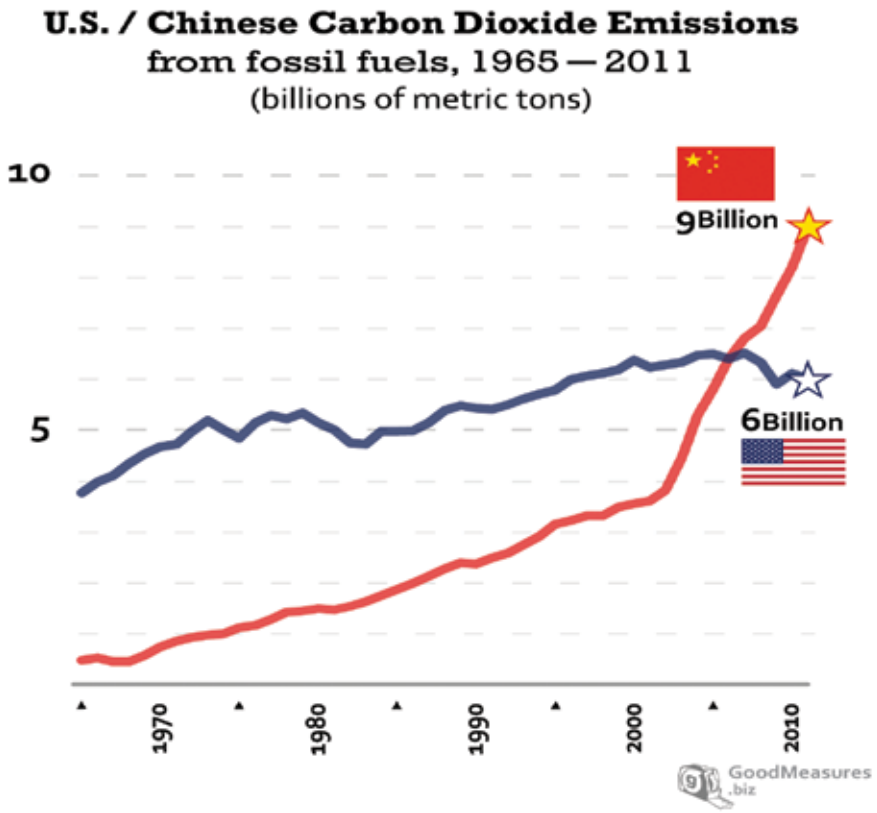

Figure 11: Change in U.S./Chinese Carbon Dioxide Emissions 1965-2011[143]

climate deal must recognize that virtually all of the growth in emissions comes from the developing world, and that China, not the U.S., is now by far the world's largest emitter of CO2. We can work to engage with others, but we should not unilaterally disarm to indulge in the Left's job-killing, destructive policies.

At the same time, America must always balance our energy needs with our commitment to be good stewards of the planet. We can and should take sensible steps to mitigate our future risks.

Recommendations:

- Avoid unilateral steps that would put us at a disadvantage when compared to our major trading partners. We should accept that there are currently many known and unknown unknowns, both environmental and economic, around the issues of climate change, and we should pursue a strategy that is flexible and agile—not moralistic, rigid, dogmatic, or wedded to a particular technology or policy.

- Focus on technology development and R&D as the key to addressing possible risks of climate change. New energy technologies have dramatically reduced the cost of zero and low carbon energy sources. Continued funding of basic science research at both the university and national level could sustain prior gains. Appropriate regulatory incentives can encourage the private sector, which has the best sense of market needs, to invest more heavily in energy and climate-related R&D.

- Focus on "no regrets" policies that can reduce carbon emissions. These policies include such steps as improved forest management; forest fires from poorly managed forests release huge amounts of stored carbon. Appropriate management and thinning of forests that have grown unnaturally thick due to excessive fire suppression activities can

reduce danger from forest fires and lower carbon emissions. Energy biotechnology approvals currently take far too long and go through an excessively lengthy process; streamlining approvals can dramatically increase the arrival of products to market. Even projects with seemingly little relevance to carbon emissions can have substantial impacts. For example, modernizing our air traffic control systems to allow pilots to fly more direct routes can have a number of beneficial effects, including the reduction of fuel use and decreased emissions.[144]

- Withdraw immediately from the counter-productive UN/Kyoto Copenhagen process. The Kyoto Protocol, and its successors in Copenhagen and elsewhere, have been deeply divisive accords that have undermined American sovereignty, trapping the entire climate change debate in a cul-de-sac of liberal wishful thinking. The fundamental and underlying problems with Kyoto style solutions, run through a corrupt and unaccountable United Nations, have been pointed out again and again, not just by climate change skeptics, but by many who, though concerned about climate change, understand the UN's dismal record in international environmental treaties and the inherent structural flaws in the Kyoto process.[145] Instead, the United States should work with American job creators to develop a smart plan to preserve the environment, and then engage the international community in a fair, transparent, and realistic process that focuses on achieving agreement among all the largest economies and emitters.

Conclusion: American Energy—The Ultimate Resource

The U.S. has a major choice to make when it comes to energy policy. The left-wing's "solutions"—more taxes, more regulations, and more expensive, less secure energy—stand completely isolated form what is best for America, and American jobs. And while the radical Left loves to claim the "clean energy" mantle, their hostility to clean energy solutions such as natural gas and nuclear power make it clear that their agenda is not about "clean energy" at all but about control, political posturing, and pushing certain favored energy solutions over others.

America, lately crowned the world's leading producer of oil, is rich with abundant energy resources.

We believe there is a better way, one that unleashes the power of the market, reduces redundant regulations, and minimizes frivolous lawsuits while protecting the environment and supporting the development of new and emerging energy technologies and resources—not just politically favored ones like wind and solar, but shale gas, tight oil, next-generation nuclear, and clean coal.

America, lately crowned the world's leading producer of oil, is rich with abundant energy resources. It has the world's largest coal reserves, one of the largest global reserves of natural gas, the largest nuclear power plant base, and pioneering technologies from wind power to solar. This track record didn't just happen because the U.S. happened to benefit from a lucky coincidence in geography. It happened because of the ingenuity, efficiency, and dynamism of the American people, who created our abundance of natural resources by seeing the world in new ways, taking risks, developing resources out of conditions where people tried and failed in less free and dynamic countries—and having a government that allowed them to innovate and prosper. As the late economist Julian Simon responded several decades ago to the doomsayers and pessimists, those who were convinced we were running out of natural resources, in his landmark work *The Ultimate Resource*:

> The main fuel to speed our progress is our stock of knowledge, and the brake is our lack of imagination. The ultimate resource is people—skilled, spirited, and hopeful people who will exert their wills and imaginations for their own benefit, and inevitably they will benefit not only themselves but the rest of us as well.[146]

If we take Simon's words to heart—and unleash the spirit and vision of American energy and innovation, unshackled by Washington—America can indeed establish itself as an energy superpower in the 21st century.

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