



Testimony of
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I. Introduction

Mr. Chairman and members of the Committee, good morning. My name is Athán Manuel, and I am the Director of Lands Protection for the Sierra Club. I am here representing over 750,000 Sierra Club members who belong to more than 65 chapters and 450 groups nationwide. We are the largest environmental grassroots organization in the country. I am very appreciative of the opportunity to testify this morning regarding H.R. 2227, the “American Conservation and Clean Energy Independence Act.”

The Sierra Club agrees with the goals of the American Conservation and Clean Energy Independence Act. However, we think the best way to enhance America’s path toward energy independence – for American citizens and for our environment – is by dramatically increasing the use of renewable energy and aggressively reducing our demand with energy efficiency programs.

In that regard, we applaud HR 2227’s support for funding conservation and energy research, clean energy production and conservation initiatives, and diversification. However, we do not support new off shore oil and gas drilling in areas that had been protected by the Congressional drilling moratorium.

As part of our transition to a clean and green energy future we do not think Congress and the Obama administration should support new off shore oil and gas drilling. New drilling will only deepen our reliance on fossil fuels, and will not help our environment, the climate, consumers or coastal economies. We feel that conservation, efficiency and clean energy technologies, projects

and proposals covered in Titles II, III and IV, far outweigh the meager benefits of any oil and gas thought to be in the outer continental shelf.

In contrast, we see a great future for off shore wind. The wind potential energy off the coast of the lower 48 states is greater than the entire U.S. electricity demand. The National Renewable Energy Lab has identified over 1000 gigawatts of wind power off the Atlantic coast, and over 900 gigawatts off the Pacific coast¹.

Contrast the estimates for new, clean off shore wind with estimates for oil and gas off our outer continental shelf. The outer continental shelf of the continental United States is estimated to have around 59 billion barrels of oil.² Considering that the U.S. consumed around 7 billion barrels³ in 2008, the total amount of oil would only be enough for 8 years. The interest in renewable energy resources is evident. There are 2000 megawatts of off shore wind energy projects currently proposed. With continued technological advancements, off shore wind power has the potential to make a long term impact in the U.S. energy mix.⁴

There is an estimated 930 million barrels of oil in the entire eastern Gulf of Mexico, the area with the most industry interest. Against current rates of consumers, that breaks down to approximately 47 days worth of oil.

The vast majority – 80 percent – of the nation’s undiscovered technically recoverable oil and gas is located in areas that were already open to drilling when the Congressional moratorium was in place, according to the Department of the Interior’s 2006 Report to Congress: Comprehensive Inventory of U.S. OCS Oil and Natural Gas Resources.

Just last week, BP announced the discovery of the Tiber well in the Gulf of Mexico.⁵ An analyst for the consulting firm Wood Mackenzie Limited in Houston said the Tiber well “confirms there are more large reservoirs of crude off the coasts of Louisiana and Texas.”⁶ The Tiber well is located in an area that was not covered by the Congressional moratoria, and underscores the findings of the 2006 report.

Even without opening up any news areas oil and gas companies have plenty of places to drill. Instead of allowing oil and gas company access to new areas, we think the best use of the areas on America’s outer continental shelf is for new and cleaner technologies such as off shore wind.

Finally, we feel that bills that propose new drilling are premature in light of the pending new five-year plan for America’s outer continental shelf being developed by the Obama Administration and the Department of the Interior. The Sierra Club does not think Congress

¹ “Secretary Salazar: U.S. Offshore Wind Resources Could Lead America’s Clean Energy Revolution” *U.S. Department of Interior News Release*, April 2nd 2009.

² Survey of Available Data on OCS Resources and Identification of Data Gaps, Report to the Secretary US DOI. OCS Report MMS 2009-015p II-8

³ Energy Information Administration. “http://tonto.eia.doe.gov/ask/crudeoil_faqs.asp#barrels_consume_year,” Accessed September 6th, 2009.

⁴ Survey of Available Data on OCS Resources and Identification of Data Gaps, Report to the Secretary US DOI. OCS Report MMS 2009-015p I-11

⁵ “BP Finds Giant Oil Field Deep in Gulf of Mexico,” *New York Times*, September 3, 2009

⁶ “BP’s Tiber Find May Signal Oil Revival in U.S. Gulf of Mexico,” *Bloomberg News*, September 2, 2009.

should get out in front of the Administration in terms of off-shore drilling and energy policy. DOI has released findings that clearly show the potential and promise of renewable energy and it would be a mistake for Congress to move backwards by advocating new oil and gas drilling.

II. Environmental Consequences of Drilling

Despite better technology and know-how, oil and gas drilling, both on shore and off shore, is a dirty and risky business.

Offshore oil and gas drilling

New off shore oil and gas drilling is bad for our coastal environment, our beaches, for marine life and their habitat, and for the broader environment. While there have been many advances in oil and gas recovery technologies in recent decades, many serious consequences still result from exploration and drilling for either oil or gas.

Oil spills

According to statistics compiled by the Minerals Management Service, since 1964 there have been over 40 spills greater than 1,000 barrels (42,000 gallons). During Hurricanes Katrina and Rita alone some 9 million gallons of oil were spilled from offshore and onshore operations.⁷ Oil is extremely toxic to a wide variety of marine species, and as noted by a recent National Academy of Sciences study, current cleanup methods are incapable of removing more than a small fraction of the oil spilled in marine waters.

The massive new oil spill off the coast of Australia, from a relatively new and high-tech drilling rig, punctures a hole in the argument that drilling can be done safely. The Australian rig blow out is expected to spill oil into the sea for another six weeks, and the spill is already larger than the state of Delaware.

To view satellite images of the Australian spill please visit: <http://blog.skytruth.org/>

The Australian spill is just the latest mishap that has plagued the oil and gas industry this summer. In the last 2 months we have seen major oil spills from an underwater pipeline in the Gulf of Mexico and from a ship off the Norwegian coast, and tar balls washing up on the shores of Texas:

On August 21st, a new, high-tech rig began leaking about 150 miles off the northwestern Australian coast. That spill is ongoing and is estimated to currently cover 2500 square miles. The oil spill is expected to continue for another seven weeks, dumping 300 – 400 barrels of oil every day directly into the Timor Sea until it can be properly contained.⁸ In the path of the slick lies the West Kimberley region of the Timor Sea, one of the last untouched marine wilderness areas.

On July 31st a ship ran aground outside Langesund off the Norwegian coast and spilled around 1,100 tons heavy bunker oil. This is well over 300,000 gallons of the most

⁷ *Houston Chronicle*. "Industry Says There Was No Way to Prepare for Spills." 13 November 2005.

⁸ "Seadrill Offers Rig to Help Australian Oil Gush." *Reuters*. August 25, 2009.

<http://www.reuters.com/article/environmentNews/idUSTRE57O1XY20090825>

destructive type of oil.⁹ Two and half years ago, Norway had a spill of 370 tons. That spill was the most expensive clean-up operation in Norwegian history and resulted in the deaths of 8,000 seabirds.

On July 25th an underwater pipeline owned by Shell leaked 58,000 gallons of oil into the Gulf of Mexico. Such pipelines are an essential component of any offshore operation. Already, we have aging pipelines crisscrossing the Gulf. Clearly, they are not up the task of cleanly and safely transporting oil. Within a matter of days, that spill grew to cover 80 square miles.¹⁰

On July 23rd tar balls began washing up on the shore of South Padre Island, Texas. By the end of the day, officials had already filled seven 55 gallon drums with oil that had washed ashore.¹¹ The source of this oil remains unknown. South Padre Island is a barrier island that is extremely popular both as a fishing destination as well as a resort location.

It is important to note that, with the exception of oil spills, the environmental damages described above result from drilling or exploring for either oil *or natural gas*.

Harm to wildlife

America's coasts are a complex mosaic of sea grasses, wetlands, estuaries, beaches, and dunes. Off shore drilling is simply not compatible with this fragile ecosystem.

The Gulf of Mexico alone is home to more than twenty species of marine mammals, four species of shark, seven species of tuna and five species of sea turtle. All five turtle species found in the Gulf are either endangered or threatened, making any adverse effects very significant to the overall populations.

This area is the heart of one of the most important migration corridors in the world, traveled by hundreds of species of birds¹². Offshore oil rigs interfere with migratory routes, spawning, and feeding areas for target species, generate pollution that destroys crucial nursery habitat for larval and juvenile stages, and cause large and small oil spills that reduce catches.¹³ In addition to migratory birds, the eastern Gulf of Mexico supports large populations of brown pelicans and bald eagles.

America's coasts host a number of environmentally sensitive animals such as, sea turtles, whooping cranes, bald eagles, brown pelican, and manatees, among other charismatic species.

⁹ *Stockholm News*. "Oil Spill Outside Norway Can Reach Sweden." August 2, 2009.
<http://www.stockholmnews.com/more.aspx?NID=3691>

¹⁰ *Rockford Register Star*. "Gulf of Mexico Oil Spill Sheen Grows." July 28, 2009.
http://hosted.ap.org/dynamic/stories/L/LA_OIL_SPILL_LAOL-?SITE=ILROR

¹¹ *My San Antonio*. "Texas, Coast Guard Scramble Against Oil on Beach." July 24, 2009.
<http://www.mysanantonio.com/news/51521182.html>

¹² Deepwater Gulf of Mexico Environmental and Socioeconomic Data Search and Literature Synthesis. Volume I: Narrative Report. 2000. Minerals Management Service.

¹³ Interactions Between Migrating Birds and Offshore Oil and Gas Platforms in the Northern Gulf of Mexico. Final Report. 2005. Minerals Management Service.

Important beach areas include the: Florida Panhandle, southwest Florida, the Grand Strand of South Carolina, North Carolina's Outer Banks, popular beaches in Maryland, Delaware, New Jersey, and Cape Cod. All these environmentally sensitive and economically important beaches could be damaged by a large oil spill and by the routine pollution that accompanies off shore oil and gas drilling.

Onshore damage

The onshore infrastructure associated with offshore oil or gas activities causes significant harm to the coastal zone. The shoreline processing infrastructure for offshore drilling often requires industrialization within the coastal zone of affected states, using installations similar to onshore storage and processing facilities including miles of pipeline and roads and other industrial apparatus like ports, helipads, and dorms.

For example, OCS pipelines crossing coastal wetlands in the Gulf of Mexico are estimated to have destroyed more coastal salt marsh than can be found in the stretch of coastal land running from New Jersey through Maine.¹⁴ Years of wear and tear by the oil and gas industry has torn apart the coastal wetlands of the Louisiana Bayou. Thanks in part to drilling operations, Louisiana is losing 25 square miles of coastal wetlands each year, eating away at natural storm barriers.

Water pollution

Drilling muds are used to lubricate drill bits, maintain downhole pressure, and serve other functions. Drill cuttings are pieces of rock ground by the bit and brought up from the well along with used mud. Massive amounts of waste muds and cuttings are generated by off shore oil and gas drilling operations – an average of 180,000 gallons per well.¹⁵ Most of this waste is dumped untreated into surrounding waters. Drilling muds contain toxic metals, including mercury, lead and cadmium. Significant concentrations of these metals have been observed around drilling sites.¹⁶

A second major polluting discharge is “produced water,” the water brought up from a well along with oil and gas. Offshore operations generate large amounts of produced water. The Minerals Management Service estimates that each platform discharges hundreds of thousands of gallons of produced water every day.¹⁷ Produced water typically contains a variety of toxic pollutants, including benzene, arsenic, lead, naphthalene, zinc and toluene, and can contain varying amounts of radioactive pollutants. Most major field research programs investigating the fate and effects of produced water discharges have detected petroleum hydrocarbons, toxic metals and radium in the water column down current from the discharge.¹⁸

Air pollution

Drilling an average exploration well for oil or gas generates some 50 tons of nitrogen oxides (NOx), 13 tons of carbon monoxide, 6 tons of sulfur dioxide, and 5 tons of volatile organic hydrocarbons. Each OCS platform generates more than 50 tons per year of NOx, 11 tons of

¹⁴ Boesch and Rabalais, eds., “The Long-term Effects of Offshore Oil and Gas Development: An Assessment and a Research Strategy.” A Report to NOAA, National Marine Pollution Program Office at 13-11.

¹⁵ MMS, 2000. Gulf of Mexico OCS Oil and Gas Lease Sale 181, Draft Environmental Impact Statement (DEIS), p. IV-50.

¹⁶ *Id.*

¹⁷ *Id.*, p. IV-32.

¹⁸ *Id.*, p. IV-32-33.

carbon monoxide, 8 tons of sulfur dioxide and 38 tons of volatile organic hydrocarbons every year.¹⁹

Hurricane risks

The Gulf Coast and East Coast - the two offshore areas most coveted by the oil and gas industry - are no strangers to destructive hurricanes that could wreak havoc on offshore drilling operations. The 2005 hurricane season highlighted the danger of depending on this vulnerable offshore oil and gas infrastructure. It was the first year in recorded history with three category 5 storms--- Katrina, Rita, and Wilma.

In 2005, Hurricanes Rita and Katrina caused massive spills of oil and other pollutants and seriously affected the production, refinery capacity, and price of oil in the United States. The storms caused 124 oil spills into the waters of the Gulf of Mexico. During Hurricane Katrina alone 233,000 gallons of oil were spilled. There were 508,000 gallons spilled during Hurricane Rita.²⁰ The U.S. Minerals Management Service reports that Hurricanes Katrina and Rita destroyed 115 petroleum production platforms in the Gulf of Mexico. The storms also damaged 457 pipelines connecting production facilities in the Gulf and bringing oil and natural gas to shore²¹.

A full year after Katrina, BP admitted that a damaged oil well valve in the Gulf of Mexico was still leaking oil. The knee-jerk reaction to throw up more rigs offshore – especially in hurricane-prone waters like Florida’s Gulf Coast and the Eastern Seaboard – is precarious at best and not smart energy policy.

Seismic Surveys

The first step to drilling for oil and gas involves doing an inventory of estimated resources. One technology used for this type of inventory is a “seismic survey.” This technology involves ships towing multiple “airgun” arrays with tens of thousands of high-decibel explosive impulses to gather geologic profiles of seabed rock structures. These airgun arrays fire regular bursts of sound at frequencies in the range of 20 to 150 Hz, which is within the auditory range of many marine species, including whales.

As the National Marine Fisheries Service explains:

Aside from explosions, the loudest human noise in the oceans is from airgun arrays used in oil and gas exploration. . . . With source levels of up to 255 dB, and capable of shooting every 10 seconds around the clock, any one of these surveys can put more acoustic energy into the ocean annually than [Navy Low Frequency Active] sonar.²²

¹⁹ *Id.*, p. IV-40.

²⁰ U.S. Minerals Management Service. Estimated Petroleum Spillage from Facilities Associated with Federal Outer Continental Shelf (OCS) Oil and Gas Activities Resulting from Damages Caused by Hurricanes Rita and Katrina in 2005. 8 August 2006.

²¹ U.S. Minerals Management Service. News Release. MMS Updates Hurricanes Katrina and Rita Damage. 1 May 2006.

²² 67 Fed. Reg. 46,712, 46,718 (July 16, 2002)

The noise generated by seismic airguns can “substantially harass and injure” marine mammals in numerous ways.²³

Increased noise levels could interfere with communication among whales, mask important natural sound, cause physiological damage, or alter normal behavior, such as causing avoidance behavior that keeps animals from an important area or displace a migration route farther from shore. Noise from various sources has been shown to affect many marine mammals in ways ranging from subtle behavioral and physiological impacts to serious injury and death.²⁴

Marked changes in behavior in marine species in response to loud underwater noises in the ocean have been well documented. Seismic survey devices and military sonar (which operate at a similar decibel level) have been implicated in numerous whale beaching and stranding incidents, including a December 2001 mass stranding of 16 whales in the Bahamas, an incident of Cuviers beaked whales being beached and stranded in the Galapagos Islands and a more recent stranding in the Canary Islands.²⁵

The auditory organs of fish are particularly vulnerable to loud sounds such as those produced by survey airguns. As fish rely on their ability to hear to find mates, locate prey, avoid predators, and communicate, damage to their ears can seriously compromise their ability to survive.²⁶ In addition, mortality is possible in species like salmon that have swim bladders (the flotation organ that fish use to orient themselves vertically in the water), which have been shown to rupture on exposure to intense sounds.²⁷

“Dart Core” Seabed sample extractions

“Dart core” sampling, another survey technique, consists of dropping large hollow metal tubes from ships to vertically puncture the seafloor. The samples are retrieved and analyzed for information about sub sea rock structures. This technique is extremely destructive to seafloor benthic organisms and fish habitat, discharging silt plumes that are transported on ocean currents and smothering nearby life on the seabed.

Seafloor “Grab samples”

“Grab samples” are retrieved from the seafloor sediments with large hinged “buckets” dropped from the shipboard into the seafloor to analyze silt, rocks, and seabed sediments and seafloor organisms. These buckets damage benthic organisms at the seafloor and cause silt plumes.

Directional Drilling

Directional drilling has been used to access oil and gas reserves under our National Parks, the Great Lakes, and the Gulf of Mexico. In the case of drilling off shore, the wellhead is on shore

²³ Minerals Management Service, Draft Programmatic Environmental Impact Statement, Alaska Outer Continental Shelf, Seismic Surveys in the Beaufort and Chukchi Seas, Alaska (OCS EIS/EA MMS 2007-001) (February 2007).

²⁴ Id.

²⁵ NMFS, NOAA Fisheries Status Report: Preliminary Findings on the Stranding of Beaked Whales in the Bahamas (June 14, 2000); NMFS, NOAA Fisheries Status Report; NMFS, NOAA Fisheries Status Report on the One Year Anniversary of the Stranding of Beaked Whales in the Bahamas (Mar. 26, 2001).

²⁶ McCauley, R.D., J. Fewtrell and A.N. Popper, 2003. “High intensity anthropogenic sound damages fish ears.” J. Acoust. Soc. Am. 113, January 2003.

²⁷ Id.

while the bottom of the well may be thousands of feet offshore. In 1997, Governor Engler of Michigan directed the Michigan Environmental Science Board to study the impacts of directional drilling on environmental and human activities. This study concluded impacts from directional drilling could result in the contamination of groundwater aquifers and loss of habitat while also increasing noise levels, odor, and congestion, impacting recreation and tourism.²⁸

Impact on coastal economies

Our coasts and marine waters provide the economic lifeblood for thousands of tourism and fishing communities, providing billions of dollars of economic activity and millions of jobs. They are destinations for thousands of vacationing families each year, sanctuary for fish and wildlife and a critical part of America's "sea to shining sea" natural heritage. Offshore drilling is simply not compatible to the quality of economy and life this fragile ecosystem supports.

There are five main economic benefits attributed to beaches and coastlines.

1. Increased sales, income and employment opportunities resulting from spending
2. Enhanced property value
3. Expansion of the federal, state and local tax base
4. Protection of developed shorefront property from storm surges
5. Provide recreational opportunities for people

Tourism in America is a \$1.2 trillion industry with coastal communities representing over \$700 billion annually²⁹. Travel and tourism is one of the largest employers in America, employing approximately 16.9 million people³⁰. Two weeks ago, the Sierra Club released a white paper detailing the economic benefits of tourism and coastal economies. The white paper, while discussing the entire continental United States, highlighted Florida's robust economy.

Home to 825 miles of beach, Florida is one of the world's favorite vacation spots.³¹ The state's sandy coastline serves as a gateway to the Atlantic Ocean, the Gulf of Mexico, and the Straits of Florida, and is one of Florida's most valuable resources. More than 12 million people—77 percent of the state's population-- live in Florida's coastal communities.

Florida's coastal economy contributes over \$550 billion, or 79 percent of the state's economic productivity. This represents close to 6 million jobs.³² The state's ocean economy ranks second in the nation, behind only California.

The resilience of Florida's beaches has already been tested once by a major oil spill. In 1993, three tankers collided at the entrance to Tampa Bay. This resulted in 300,000 gallons of heavy oil and 33,000 gallons of jet fuel being spilled into the water. It tarred 13 miles of beach in Pinellas County. This spill came only a year after Pinellas County drafted up an exhaustive

²⁸ Long, D.T., W.E. Cooper, W.B. Harrison III, R.H. Olsen, B.J. Premo and K.G. Harrison. 1997. *Evaluation of Directional Drilling under the Great Lakes*, October 1997. Michigan Environmental Science Board, Lansing, Michigan.

²⁹ Houston, James R. (2002). *The Economics Value of Beaches*. U.S. Army Engineer Research and Development Center.

³⁰ World Travel and Tourism Council. (2001). *Year 2001, World, United States, TSA Research Summary and Highlights*.

www.wttc.org/eceres/pdfs/a111/pdf

³¹ Murley, James, Lenore Alpert, William Stronge. (2005). *Tourism in Paradise: The Economic Impact of Florida Beaches*. 14th annual Biennial Coastal Zone Conference.

³² Florida Oceans and Coastal Council, "Florida's Ocean and Coastal Economies Report, Phase II."

2006. http://www.dep.state.fl.us/secretary/news/2008/10/files/1001_02.pdf

account of how a major oil spill would affect their tourism revenue. That report estimated that such a spill would devastate many of the state's best beaches. Over the course of two years, it estimated that the county would see a 45.2 percent drop in tourism. This would account for an almost \$5 billion dollar loss to the county's GDP (2008 dollars).³³

In addition to potentially catastrophic effects on the tourism industry, drilling for gas and oil off our coasts could have significant negative impacts on commercial and recreational fishing. Florida has more than \$5.6 billion in annual recreational fishing expenditures.³⁴

In a Norwegian study conducted in the central Barents Sea, seismic shooting severely affected fish distribution, local abundance, and catch rates over a large geographic area. In this study, catch of cod and haddock fell precipitously within a 38-nautical-mile by 38-nautical-mile area, and remained depressed for at least five days following the conclusion of seismic survey activities.³⁵

In addition, the Canadian T. Buck Suzuki Environmental Foundation and the United Fishermen and Allied Workers Union – CAW recently weighed in on the Canadian Statement of Practice on the Mitigation of Seismic noise, citing their concern for the B.C. marine-based industries, which employ over 20,000 and contribute over \$2 billion in revenues and \$600,000 in total GDP. These groups point to mortalities in fish eggs, fish and shellfish larvae, and adult fish with swim bladders; trawl catch declines from 50 to 70 percent and long line catch declines by 44 percent for 5 days after cessation of seismic shooting; and the particular concern about seismic activity during salmon migration or herring spawning. Salmon are of particular concern because of the endangered status of some populations off the Atlantic and Pacific coasts, and because of their apparent inability to detect and avoid low-frequency sound until damaging levels are reached.

III. There is no shortage of places to drill in the United States

There is no shortage of places to drill in the United States; in fact, the opposite is true. Companies hold thousands of unused oil and gas leases. There are more than 7,500 active leases in the outer continental shelf and only 1,655 in production.³⁶

According to a report issued last year by the House Natural Resources committee, the number of drilling permits has exploded in recent years, going from 3,802 five years ago to 7,561 in 2007. Between 1999 and 2007, the number of drilling permits issued for development of public lands increased by more than 361 percent, yet gasoline prices have also risen dramatically

³³ „Impacts of a Major Oil Spill on the Tourism Industry of Pinellas County: A Recovery Scenario Analysis.” Prepared by Research Data Services, Inc. for the Pinellas County Board of Commissioners and the Pinellas Suncoast Convention and Visitor Bureau. 1992.

³⁴ American Sportfishing Association. 2006.

<http://www.asafishing.org/asa/images/statistics/resources/Sportfishing%20in%20America%20Rev.%207%202008.pdf>

³⁵ Engas, Arill, Svein Lokkeborg, Egil Ona, and A.V. Soldal. Institute of Marine Research, 1996. Effects of Seismic Shooting on Local Abundance and Catch Rates of Cod (*Gadus morhua*) and Haddock (*Melanogrammus aeglefinus*). *Can. J. Fish. Aquat. Sci.* 53: 2238-2249.

³⁶ (Sources: Department of the Interior, unpublished table entitled “Total Number of Acres Leased, Data from FY 1994 through FY 2007” from Response to Questions for the Record from the House Appropriations Subcommittee on Interior, Environment, and Related Agencies, February 7, 2008; MMS, “Producing and Nonproducing OCS Oil, Gas, Slat, Sulphur Leases under Federal Supervision by Year Since 1960,” *Region's Quarterly Reports*, as of April 2006.

contradicting the argument that more drilling means lower gasoline prices. There is simply no correlation between the two.³⁷

In the last four years, the Bureau of Land Management has issued 28,776 permits to drill on public land; yet, in that same time, 18,954 wells were actually drilled. That means that companies have stockpiled nearly 10,000 extra permits to drill that they are not using to increase domestic production.

Despite the federal government's willingness to make public lands and waters available to energy developers, of the 47.5 million acres of on-shore federal lands that are currently being leased by oil and gas companies, only about 13 million acres are actually in production, or producing oil and gas. Similar trends are evident offshore as well, where only 10.5 million of the 44 million leased acres are currently producing oil or gas. Combined, oil and gas companies hold leases to nearly 68 million acres of federal land and waters that they are not producing oil and gas.

According to the 2003 Energy Policy and Conservation Act (EPCA) report issued by the Department of the Interior, 85 percent of federal onshore oil resources and 88 percent of federal onshore natural gas resources (122.6 trillion cubic feet, or tcf) occurring on federal lands in Montana, Colorado, New Mexico, Utah and Wyoming are already available for leasing and development. Only 12 percent of federal onshore natural gas resources are off-limits to leasing.³⁸

In addition to availability for leasing, Bureau of Land Management (BLM) data indicates that the vast majority of federal lands currently under lease are not being developed. Of the more than 35,000,000 acres of public lands under lease, development is occurring or has occurred on approximately 12,000,000 acres.³⁹ Drilling permit approvals on Western public lands by the BLM increased by 62 percent in 2004, to a record number of 6,052, while the number of new wells that were drilled declined by nearly 10 percent, to 2,702.⁴⁰

IV. Solutions

New off shore drilling will not bring down — and keep down — energy prices. The bottom line is the United States has about 3 percent of the world's population but consumes about 25 percent of the world's energy.⁴¹ Instead of more drilling, which will only add to the billions in profits already being made by ExxonMobil and other oil companies, Congress should continue to raise the fuel economy of our cars, encourage the use of renewable energy like wind and solar power, and adopt other, existing energy-saving technologies that cut pollution, curb global warming and create good jobs.

³⁷ The Truth About America's Energy: Big Oil Stockpiles Supplies and Pockets Profits, Rahallreport.pdf, June 2008

³⁸ BLM, "EPCA Inventory Fact Sheet," 1/15/03, p. 3

³⁹ BLM, "Total Number of Acres Leased" (unpublished table, January 31, 2005) and BLM, "Number of Producing Acres on Federal Lands" (unpublished table, January 31, 2005)

⁴⁰ BLM, "Number of APDs approved by Year on Federal Lands" (unpublished table, January 31, 2005) and BLM, "Number of Well Spud During the Year on Federal Lands" (unpublished table, January 31, 2005)

⁴¹ Energy Information Administration, "U.S. Crude Oil, Natural Gas and Natural Gas Liquid Resources, 1999 Annual Report," DOE/EIA-0216 (99) (December 2000).

For example, if our cars, trucks and SUVs together averaged 40 miles per gallon — something that is achievable with existing technology — we would save as much oil as the United States currently imports from the Persian Gulf, with another million barrels to spare. And the average driver would save nearly \$600 a year at the pump⁴². A single modern wind turbine can produce enough power to meet the annual electricity needs of 500 average homes.⁴³

There are other examples of clean energy solutions and alternatives to off shore oil and gas drilling. Many states have adopted renewable energy standards. By simply making our homes, offices, cars and trucks more efficient we will save energy and money today and far into the future. Instead of relying on volatile and expensive sources of oil and gas, we can use better technology to reduce our energy demand while producing more energy from renewable sources of energy like wind and solar power. These cheaper, cleaner and faster policies reduce short-term demand and costs while also providing long-term solutions to our energy needs. And it does not require you to put our most sensitive ecosystems and our favorite vacation spots on the chopping block.

Finally, fixing our economy, making America energy independent, transforming our energy future, slowing and ultimately reversing climate change and its consequences will require a clear agenda and aggressive timetable that will allow us to Repower, Refuel, and Rebuild America. Working with some of the world's top climate scientists, engineers, and energy experts, the Sierra Club has developed a Climate Recovery Agenda that will help our economy recover, reduce our dependence on foreign oil, cut carbon emissions 80 percent by 2050, and protect our natural heritage, communities, and country from the consequences of global warming.

Putting our planet on the path to economic and climate recovery will require Congress, working with the Obama Administration, to:

- Invest at least \$150 billion in clean energy to create millions of new, high-quality jobs.
- Reduce our dependence on oil by making our cars go farther on a gallon of gas, deploying innovative technologies, low-carbon fuels, and more transportation choices.
- Move America to 100 percent renewable energy for electricity and dramatically increase the efficiency of our buildings and homes.
- Tackle global warming by establishing an economy-wide cap on carbon emissions. Ensure that carbon permits are auctioned not given away. Action by Congress will provide leadership on the international stage to both work with and be competitive with other nations as we invest in these advanced technologies.
- Acknowledge the consequences of global warming that are already occurring and the need to protect vulnerable communities, wildlife and their habitat from drought, flooding, wildfires, and other dangerous impacts.

⁴² Freidman, David, et al. "Drilling in Detroit: Tapping Automaker Ingenuity to Build Safe and Efficient Cars." Union of Concerned Scientists. June 2001. p. 41.

⁴³ American Wind Energy Association – <http://www.awea.org/pubs/documents/FAQ2002percent20-percent20web.PDF>.

