

**OIL AND GAS RESERVES ON THE
OUTER CONTINENTAL SHELF**

HEARING
BEFORE THE
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE
ONE HUNDRED TENTH CONGRESS

FIRST SESSION

TO

RECEIVE TESTIMONY ON OIL AND GAS RESOURCES ON THE OUTER
CONTINENTAL SHELF AND AREAS AVAILABLE FOR LEASING IN THE
GULF OF MEXICO

JANUARY 25, 2007



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OIL AND GAS RESERVES ON THE OUTER CONTINENTAL SHELF

THURSDAY, JANUARY 25, 2007

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The committee met, pursuant to notice, at 9:45 a.m., in room SD-366, Dirksen Senate Office Building, Hon. Jeff Bingaman, chairman, presiding.

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

The CHAIRMAN. All right. We'll go ahead with the hearing. I thank you all for being here. Today we will receive testimony on the oil and gas resources in the Outer Continental Shelf and the areas available for leasing in the Gulf of Mexico.

I'm very glad to have this hearing, at the request of Senator Domenici, today. During the last Congress, of course, Senator Domenici sponsored and I co-sponsored legislation, S. 2253. It would have required a previously un-leased portion of the Gulf of Mexico to be made available for leasing.

That legislation was modified during consideration in the Congress. Unfortunately I was not able to support the final version, but I am glad that there are new areas of the Gulf of Mexico that are now available.

The Outer Continental Shelf and the Gulf of Mexico hold abundant oil and gas resources. The latest assessment undertaken by the Minerals Management Service indicates a total hydrocarbon endowment in the Gulf of Mexico of almost 72 billion barrels of oil and 443 trillion cubic feet of natural gas. Estimates of oil in deep water have increased, as have the estimates of deep gas reserves in shallow water.

So we look forward to hearing about these resources and those in the new Gulf of Mexico areas to be opened and to finding out when these resources can come on line and what role they can play in meeting our national energy needs.

With respect to the remainder of the OCS, of course, production offshore—some areas of Alaska and also from longstanding leases off Southern California, but the OCS Leasing Program has generated substantial controversy here in the Congress. As most everybody knows, there are congressional moratoria and there are Presidential withdrawals of the remaining portions of the OCS. With only minor exceptions for many years, there has not been the political will to reverse these leasing bans. I would doubt seriously that

that political will exists today. Our time and efforts are, in my view, better spent focusing on areas that are available in the Gulf of Mexico and also, of course, on alternatives to OCS production. Many of those we are already scheduling meetings and hearings on, such as renewables, energy efficiency, biofuels, new technologies and opportunities to enhance oil and gas recovery.

So again, I thank the witnesses for being here and I thank Senator Domenici for suggesting the hearing and I'll turn it over to him for any statement he has.

[The prepared statement of Senator Martinez follows:]

PREPARED STATEMENT OF HON. MEL MARTINEZ, U.S. SENATOR FROM FLORIDA

Chairman Bingaman: Thank you for holding this hearing today. I wanted to share some of my thoughts as I reflect on the passage of S. 3711, the Gulf of Mexico Energy Security Act and the importance of its environmental protections to Florida and the energy resources it will provide for our economy.

I want to thank members of this Committee and especially Senators Domenici and Landrieu and others who were so helpful in shepherding the passage of S. 3711.

I thank them for their willingness to allow me the opportunity to help craft its environmental protections. Chairman Bingaman, I know you and I have different opinions on this legislation but I've always appreciated your efforts to find common ground between both parties on the energy issues that come before this committee. But I think what is clear today is that the desire and need to explore for energy resources in the Outer Continental Shelf, especially in the Gulf of Mexico; this has not changed with the elections of last November.

High oil and natural gas prices are not Republican or Democrat problems; they are our nation's problems. As long as prices remain high, coastal states with offshore resources will continue to face pressure to explore. Recently, the Administration lifted the executive moratoria in Bristol Bay, off the coast of Alaska, and the area known as Lease 181 in the Gulf of Mexico. For those who were critical as to the need for action on S. 3711, these two examples underscore why I found it imperative to act. Without the protections of federal law, the President has the power to remove coastal buffer zones.

That is why I pushed for the passage of S. 3711, and refused to roll the dice in the hopes that a new Congress would be better able to protect the Gulf coast of Florida.

For those that think we have protected too much territory, I am encouraged that we have witnesses testifying today on the amazing deep-water discoveries they have made 270 miles off the coast of New Orleans that potentially contain billions of barrels of oil.

We are making incredible technological breakthroughs to discover new reserves of oil and gas, and I would encourage the industry to utilize these new techniques in the deep-water areas that are now available, so that we don't have to continually pressure extraction on near-shore resources that predictably draw opposition from states like Florida.

This week, in his State of the Union address, the President laid out ambitious and positive goals for alternative fuel development, greater independence from foreign oil, and a reduction in fuel consumption over the next decade.

We are only scratching the surface of our future potential and we should not limit the capacity or ingenuity of America's scientists to tackle this energy problem. However, we need a bridge to get to that future. The promise of deep-water exploration like the enormously energy-rich Jack Well off the coast of Louisiana and the passage of S. 3711 are good ways to keep our industries and utilities running while we find new ways to power our cars and cities, and create new and smarter sources of energy.

**STATEMENT OF HON. PETE V. DOMENICI, U.S. SENATOR
FROM NEW MEXICO**

Senator DOMENICI. Thank you very much, Mr. Chairman. Clearly, there are a lot of people here, so we ought to get on with the hearing, not delay them unduly. But I thank you for calling this important hearing.

I've said on many occasions that a strong energy policy means utilizing a diverse supply that encompasses a spectrum of energy sources and technologies and it also means meeting our responsibility to deploy these resources in a smart, efficient and environmentally sound way. It is unacceptable to me to speak of energy independence on the one hand while supporting a moratorium that locks up 85 percent of the OCS acreage on the other.

While vast resources in the Atlantic and Pacific coasts provide us with hope, this promise is an uncertain one. Based on old inventory data, we are told that the Atlantic and Pacific Oceans together contain nearly 17 billion barrels of oil and nearly 170 trillion cubic feet of natural gas.

Despite this promise, for 25 years the Interior Appropriations Moratorium has quietly barred us from producing in vast areas of the OCS. This moratorium locks up our Nation's resources and it weakens our foreign policy, our national security and economic strength. This is about American oil and gas and it is a debate that we should have, in the light of day, with the American people watching.

Last year, on a bipartisan basis, my colleague joined me in such a debate, and as a result, we opened a substantial area in the eastern Gulf of Mexico to oil and gas leasing. I said then and I say now, we will not strengthen our energy security by locking up our Nation's energy resources.

In discussing energy independence, many people point to the role that ethanol has played in turning Brazil into a net exporter of oil in 2006. While this is true, they often fail to mention that Brazil's oil production has risen significantly in recent years and the untold story is that most of Brazil's crude oil is offshore in the deep water. Similarly, most of Mexico's crude oil production occurs off the southeastern coast of the country in the Gulf of Mexico.

Finally, within 50 miles of American land, Cuba leases to China's national oil companies to explore in deep water. As we wring our hands, other nations act. And as a result, our increased dependence weakens our economic and diplomatic strength in the world.

The task of energy security calls for us to be bold. We must rethink longstanding policies, like the OCS moratorium, stagnant CAFE standards and we must do more than that. It will require us to do things that some in this body don't like and it will require us to do things that Republicans don't like—Democrats sometimes, Republicans other times. And it will require us to do things that Republicans don't like. It requires us to think differently.

I thank the chairman for the opportunity to have this discussion and I look forward to hearing from the witnesses. Thank you very much, Mr. Chairman.

The CHAIRMAN. Thank you very much. Let me just introduce our witnesses here and then we will hear a short statement from each of them. If they can make their main points, we will include all of your written statements in the record of the hearing.

We are going to have a vote, we're informed, at 10:30, so we probably will have to interrupt the hearing for about 15 minutes at that time and come back to ask a lot of our questions.

Starting on the left-hand side, our left here, we have Assistant Secretary Stephen Allred, who is with the Department of the Inte-

rior. He is a regular visitor at this committee, as all of us know, and we appreciate him being here.

Next is Marjorie McKeithen, who is the Assistant Secretary for Mineral Resources for the State of Louisiana. Thank you very much for being here.

Next is a witness—and Senator Menendez may want to say a word here—it's Lisa Jackson, who is the commissioner of the New Jersey Department of Environment Protection. Did you want to make any statement about this witness, since she is here at your urging?

Senator MENENDEZ. Well, thank you, Mr. Chairman.

I want to take a moment just to both thank and introduce Commissioner Jackson. She is—since she has been sworn in as the commissioner of the Department of Environmental Protection in New Jersey, she has been a tireless champion of the environment and has earned a tremendous amount of respect from all corners of the State.

Being the environmental commissioner in a State like New Jersey is an incredibly challenging job and she has met those challenges exceptionally well, making sure we're good stewards of the land for future generations of Americans and New Jerseyans, most particularly, but at the same time, reconciling that with some of the economic concerns we have. And we certainly want to thank her for being here to share, particularly in our concerns about the Outer Continental Shelf, which is of incredible concern to us because of what it means to New Jersey's economy and tourism and, of course, its natural resources. And we look forward to her testimony. We thank her for coming and thank you for the opportunity to recognize her.

The CHAIRMAN. Thank you very much. Also as witnesses, we have Mr. Larry Nichols, who is the chairman and CEO of Devon Energy Corporation. We welcome him.

Mr. Athan Manuel, who is the director of lands protection for the Sierra Club. Thank you very much for being here.

And finally, Mr. Paul Siegele, who is the vice president for deep water for Chevron Corporation. Thank you for being here.

Why don't we start to the right and just go across and have all the witnesses make their statements and then we will take questions.

STATEMENT OF C. STEPHEN ALLRED, ASSISTANT SECRETARY FOR LAND AND MINERALS MANAGEMENT, DEPARTMENT OF THE INTERIOR

Mr. ALLRED. Thank you, Mr. Chairman, Senator Domenici, and members of the committee. I appreciate the opportunity to appear before you here today. I'll quickly summarize the written material that we've provided to you and then certainly be prepared to answer questions.

The Federal portion of the OCS covers some 1.76 billion acres and is a major source of crude oil and natural gas for the domestic market. Since 1982, the Department has overseen the production of over 9.6 billion barrels of oil and more than 109 trillion cubic feet of natural gas from the OCS.

I'm sure you're going to get tired of me showing you the first slide, because you've seen it before, but I think it is important to continue to emphasize that there is no silver bullet to our energy needs and going forward, we will need, in addition to conservation and alternative and renewable energy supplies, to continue—

The CHAIRMAN. Would you move that podium out there so we can see it a little better? Thanks.

Mr. ALLRED [continuing]. To continue to develop and supply oil and gas from the resources we have in the United States, a significant amount of which are found in the OCS. As you can see from that graph, our demand is expected to grow more than 25 percent. These slides, incidentally, are also in the written information that we have provided to you.

Even with renewable energy and conservation, we expect that oil and natural gas will continue to account for the majority of energy use through the year 2030.

This next slide that I have again is from the Energy Information Administration and it shows the 2007 forecast for total domestic oil and gas production and illustrates the significance of the OCS in that production. As you can see, it is a large amount of the production that we expect to occur.

Now to talk about the OCS role. Much of the growth in the Nation's energy demand will have to be met by OCS production in the Outer Continental Shelf, especially for new areas in the Gulf and Alaska. In the Energy Information Agency's 2007 Annual Energy Outlook, the data shows a trend of increasing oil production from the Outer Continental Shelf to about 750 million barrels per year by the year 2010. National gas production should begin increasing again in 2007 and reach about 4 trillion cubic feet by the year 2011 and we should be able to sustain those levels through at least 2022.

The Gulf continues to represent a major domestic energy source for the United States. There is intense interest in our oil and gas potential in the deep- and ultra-deep-water areas. In 2006, there were 12 new deep water discoveries announced. These new discoveries represent a significant increase in the oil and gas reserves for decades to come.

In looking at our 2006 resource assessment, which we completed on the potential oil and gas resources on the OCS—and I have, again, a map here that shows in summary, what those are. These again, are in the information that you have. According to that assessment, the OCS is thought to contain over 86 billion barrels of oil and 420 trillion cubic feet of natural gas that is undiscovered and technically recoverable. The OCS oil and gas resources represent about 65 and 40 percent, respectively, of the Nation's remaining undiscovered oil and natural gas resources.

However, about 20 percent—as you can see from the map that you have—of these undiscovered OCS resources have been unavailable for leasing due to either congressional or presidential moratorium or withdrawal.

There is great uncertainty regarding the potential resources in these withdrawn areas. The last geophysical surveys and drilling exploration occurred more than 25 years ago. We simply do not have specific reliable estimates without the information or new geo-

physical and exploration methods and the information that they would provide.

Today, even using outdated information, however, we have, for the areas under moratoria, undiscovered technically-recoverable resources of over 18 billion barrels of oil and 76 trillion cubic feet of gas.

Now, typically these numbers will change substantially as we get additional information. Just for an example, the resource estimates for undiscovered economically recoverable oil and gas resources for the Gulf of Mexico, in 1975, were 6 billion barrels of oil and 50 trillion cubic feet of natural gas. Thirty years later, with the new information gained through exploration and production activities, those numbers are 38 billion barrels of oil and 185 trillion cubic feet of natural gas. That's over a 470 percent increase just because we have better information.

With regard to access, of the 1.76 billion acres of offshore land on the OCS, about 600 million are off limits to oil and gas leasing. The Department has finalized our new 5-year oil and gas—or is close to finalizing—a leasing program for 2007 to 2012. The proposed plan was published in August 2006 and identified 21 lease areas that would be offered over that 5-year period.

The analysis completed anticipates production of an additional 10 billion barrels of oil and 45 trillion cubic feet of gas worth \$170 billion in net benefits for the Nation over a 40-year period of time. With the enactment of the Gulf of Mexico Energy Security Act, these numbers will probably change upward.

In addition to moving forward with the planning of two lease sales required under the Gulf of Mexico Energy Security Act, the recent modification of the presidential withdrawal was in response to this legislation and to requests from Alaska State leaders.

MMS is incorporating the sales called for by the Gulf of Mexico Energy Security Act into the new 5-year plan. While we are experiencing budget constraints under the continuing resolution, MMS has begun planning with the conducting of required environmental studies, in compliance with the National Environmental Policy Act, in preparation for the sales in 181 and in what we now call 181 South.

I'd like to just quickly mention that in addition to traditional resources, the OCS is poised to provide us with renewable and alternative sources of energy, with wind, wave and ocean currents. Through the new authorities that you provided us in the Energy Policy Act of 2005, the Department is moving forward to establish programs, including royalty evaluation, regulatory and leasing framework plans, to facilitate the development of these potent energy resources on the OCS.

Our target is to have a programmatic EIS and draft rule available for public comment in late spring and finalize these documents toward the end of the year. The Department remains committed to the production of traditional energy that is environmentally acceptable as well as increasing energy conservation and alternative and renewable sources as critical components of a balanced and comprehensive energy policy.

Thank you very much, Mr. Chairman. I'll be prepared to answer your questions.

[The prepared statement of Mr. Allred follows:]

PREPARED STATEMENT OF C. STEPHEN ALLRED, ASSISTANT SECRETARY FOR LAND AND MINERALS MANAGEMENT, DEPARTMENT OF THE INTERIOR

Mr. Chairman, thank you for the opportunity to appear here today to discuss the Federal Outer Continental Shelf (OCS) and the role these Federal lands play in providing a secure source of domestic production of oil and gas.

The Department and its agencies, including the Minerals Management Service (MMS), serve the public through stewardship of our Nation's natural resources. The Department also plays an important role in facilitating domestic energy development. One third of all energy resources produced in the United States are managed by the Department of the Interior.

The MMS has two significant missions: managing access to offshore Federal energy and mineral resources and managing revenues generated by Federal and Indian mineral leases, on and offshore.

Managing access has resulted in OCS production of almost 11 billion barrels of oil and more than 116 trillion cubic feet of natural gas since 1982. Since 1982 OCS leasing has increased by 185 percent, and since 1994 OCS oil production has increased by 34 percent.

NATION'S ENERGY OUTLOOK

The United States continues to face an energy challenge with high prices and increasing dependence on foreign supplies. Our security, economy, and our quality of life are dependent on energy. As this Committee knows well, there is no single solution. Achieving energy security will require diligence on both the supply and demand sides of the energy equation.

Oil will continue to be vital to the American economy. According to the Energy Information Administration (EIA), over the next 20 years Americans' demand for energy is expected to grow 25 percent. [see figure A: EIA projection of U.S. energy consumption*] Even with more renewable energy production expected, oil and natural gas are projected to account for a majority of energy use through 2030. This projection incorporates continued gains in energy efficiency and movement away from energy-intensive manufacturing to less energy intensive service industries. Offshore oil and gas production will continue to be a vital part of our Nation's domestic energy resource portfolio. [see Figure B: EIA projection of U.S. energy resource production]

Continued and growing reliance on oil and natural gas coupled with the need to reduce our dependence on foreign energy supplies causes us to look increasingly at the potential oil, natural gas and other energy resources from Federal waters on the Outer Continental Shelf (OCS) to enhance environmentally safe domestic energy production.

Today, MMS administers more than 8,400 leases and oversees over 4,000 facilities on the OCS. According to MMS's calculations, within the next 5 years, offshore production will likely account for more than 40 percent of domestic oil and 25 percent of U.S. natural gas production, owing primarily to deep water discoveries in the Gulf of Mexico.

OCS ROLE IN NATION'S ENERGY PORTFOLIO

Much of the future United States oil and gas demand will have to be met by OCS production, especially from new areas in the Gulf of Mexico and Alaska.

The Gulf of Mexico continues to represent a major domestic energy source for the United States. There is intense interest in oil and gas potential in the deep and ultra-deep water areas. Exploratory drilling in the deep water increased in 2005 despite the disruptions caused by hurricanes; and 12 new deep water discoveries were announced in 2006. Recent discoveries in the ultra-deep waters of the Gulf of Mexico represent a significant increase in oil and gas reserves for decades to come. The large volume of active deep water leases, the steady drilling program, and the deep water infrastructure indicate that the deep water Gulf of Mexico will continue to be an integral part of the Nation's energy supply.

The EIA provided MMS with Federal OCS data pulled from its soon to be published 2007 Annual Energy Outlook.¹ The Federal OCS data shows a trend of in-

*All figures have been retained in committee files.

¹Energy Information Administration, Annual Energy Outlook 2007 Data (Special National Energy Modeling System run AEO2007.D112106A for MMS).

creasing oil production from the OCS to about 750 million barrels per year by 2010. Natural gas production should begin increasing in 2007, again reaching 4 trillion cubic feet by 2011 and sustaining that level through at least 2022. Significant additional oil and natural gas production is expected when new projects, like Atlantis, Thunder Horse, and Independence Hub, come on line in 2007 and 2008. However, new deep water natural gas production may not keep pace with the expected declines in production from the shallow waters of the Gulf of Mexico.

To encourage energy development from Federal offshore lands, MMS provides an orderly and predictable schedule of oil and gas lease offerings through competitive bid. Production from leases issued as a result of these sales will contribute substantially to future domestic oil and gas production and will provide bonuses, rentals and royalties to the U.S. Treasury and adjacent coastal states. To encourage increased drilling and production from the OCS, sales in the Gulf of Mexico have included royalty incentives authorized by Congress for the drilling of deep depth wells in shallow waters and for producing from deep water leases. Incentives have also been provided for newly issued leases offshore Alaska to encourage industry interest in that area.

2006 RESOURCE ASSESSMENT

Last year, as part of the OCS inventory requirements of the Energy Policy Act of 2005, MMS completed an assessment of the potential quantities of undiscovered technically recoverable oil and gas resources that may be present on the OCS.² According to this assessment, the OCS is thought to contain (at the mean level) 86 billion barrels of oil and 420 trillion cubic feet of natural gas. For comparison, the most recent resource assessment estimates from the United States Geological Survey National Oil and Gas Assessment indicate that the total mean, undiscovered technically recoverable resources for onshore and State owned waters offshore are approximately 46 billion barrels of oil and 627 trillion cubic feet of natural gas. Thus, the OCS represents about 65 percent of oil and 40 percent of natural gas resources of the Nation's remaining undiscovered technically recoverable oil and natural gas resources. [see Figure C: Resource Assessment Map]

Approximately 20 percent of those undiscovered technically recoverable OCS resources have been unavailable for leasing due to longstanding congressional moratoria and/or Presidential withdrawal. When the 2006 resource assessment was completed, areas under congressional moratoria or Presidential withdrawal included the North Aleutian Basin off Alaska, the Pacific, the Eastern Gulf of Mexico, and the Atlantic. As discussed further in my statement, modifications to the status of some of these areas have recently been made.

There is great uncertainty regarding the resource potential in areas where leasing has been prohibited and where the last geophysical surveys and drilling exploration occurred more than 25 years ago. Using the information available to us, we estimate that nearly 17.8 billion barrels of oil and 76.5 trillion cubic feet of technically recoverable gas remain unavailable for leasing consideration.

ACCESS TO RESOURCES

Of the 1.76 billion acres of Federal offshore lands on the OCS, about 600 million acres are not available for oil and gas leasing. The potential resource in the areas under remaining moratoria and withdrawal are estimated to be approximately 18 billion barrels and 76 trillion cubic feet of gas.

There has been a 20-year congressional moratorium on new leasing along the Atlantic and Pacific coasts and in the Eastern Gulf of Mexico. In 1990, Congress placed Alaska's North Aleutian Basin under a leasing moratorium. In 1998, these areas were placed under a Presidential Withdrawal which continues through 2012.

In 2004, at the request of the Alaska delegation, Congress dropped the North Aleutian Basin from the annual moratoria language. The Gulf of Mexico Energy Security Act (GOMESA)³ was signed into law in December 2006, establishing a new moratorium on leasing activities until June 30, 2022 in the new Eastern Gulf Planning Area outside of Sale 181, and a portion of the Central Gulf Planning Area that, in general, is within 100 miles of the coastline of Florida. There are two small areas in the new Eastern Gulf Planning Area west of the Military Mission Line and one small area in the new Central Gulf Planning Area north of the Sale 181 Area that remain subject to the Presidential Withdrawal through 2012, but are not subject to

²Report to Congress: Comprehensive Inventory of U.S. OCS Oil and Natural Gas Resources. <http://www.mms.gov/revdiv/PDFs/FinalInvRptToCongress050106.pdf>.

³GOMESA was Title I of Division C of Public Law 109-432, an act to amend the Internal Revenue Code of 1986 to extend expiring provisions, and for other purposes.

the new 2022 moratorium under GOMESA. In addition, GOMESA repealed the congressional moratorium for the area in the Central Gulf Planning Area, known as "181 Area South." [See Figure D: Map of Sale 181]

5-YEAR OCS OIL AND GAS LEASING PROGRAM (2007-2012)

The MMS is nearing completion of a new 5-Year OCS Oil and Gas Leasing Program for sales beginning in July 2007 through June 2012. MMS is preparing the Proposed Final Program and Final Environmental Impact Statement (EIS) for issuance in April of this year. Pursuant to the OCS Lands Act, the Program will be sent to Congress and the President for at least 60 days before the Secretary approves the final program.

The Draft Proposed Program, issued in February 2006, contained 21 sales in seven planning areas—Western and Central Gulf of Mexico, Beaufort and Chukchi Seas, Cook Inlet and North Aleutian Basin off Alaska, and the Atlantic offshore Virginia.

Following scoping and public comment, the Proposed Program and Draft EIS were issued in August 2006. The sales in Alaska are proposed in response to the State of Alaska and industry interest, especially the Chukchi Sea. The North Aleutian Basin, as well as the 181 South Area in the Gulf of Mexico and the Atlantic offshore Virginia were included as areas for further consideration of leasing should Congress and the President modify the pertinent congressional moratoria and Presidential Withdrawal language.

On January 9, 2007, the President modified the 1998 withdrawal to allow leasing in the North Aleutian Basin planning area offshore Alaska and the 181 South Area of the Gulf of Mexico. These actions were in response to the requests from Alaska state officers and local communities and enactment of the GOMESA respectively.

The analysis completed for the proposed 5-year plan indicated that implementing the new program would result in the anticipated production of an additional 10 billion barrels of oil and 45 trillion cubic feet of gas, with \$170 billion in net benefits for the Nation over a 40-year time span. With the enactment of the GOMESA, these numbers will probably change. Those changes will be reflected in the Final Plan.

In response to passage of the GOMESA, which directs lease offerings in two areas of the Gulf, MMS plans to move forward with this Congressional directive in connection with the new 5-year program. Adding these two important areas to the leasing schedule under the final 2007-2012 leasing program provides access to a potential 637 million barrels of oil and 2.8 trillion cubic feet of natural gas.

The first area consists of approximately 546,000 acres that lie within the Sale 181 area and in the Eastern Gulf Planning Area. MMS has begun preparation of a supplemental EIS to a previous National Environmental Policy Act (NEPA) document prepared in 2001 for Sale 181.

The second area consists of approximately 5.8 million acres in the deep waters of the Central Gulf and was included in the Proposed Program as an area for further consideration for leasing. In response to the GOMESA and modification of the Presidential withdrawal, MMS intends to prepare a supplemental EIS and include this area in the Central Gulf sale scheduled for March of 2009.

On the Atlantic coast, Virginia expressed an interest in looking into the gas resources off its coastline. While this area has been included in the Proposed Program and discussions continue, no leasing will occur in this area unless Congress lifts its moratorium and the President modifies the withdrawal to allow leasing activities to occur.

Sales proposed will be completed in compliance with the National Environmental Policy Act to analyze potential environmental impacts. Other laws, such as the Marine Mammal Protection Act and the Endangered Species Act, will be complied with.

RENEWABLES: ALTERNATIVE ENERGY ON THE OUTER CONTINENTAL SHELF

The United States faces a future of increasing energy demand causing a search for new sources of domestic energy supply. Our ocean frontiers may play a significant national role in this quest, particularly in the areas of new renewable and other alternative energy sources. MMS, drawing on its vast offshore engineering and environmental expertise, will work to help secure America's energy future while protecting the environment.

In addition to supplying the Nation with "traditional" energy resources, the OCS is poised to provide us with "alternative", renewable sources of energy such as wind, wave, tidal, and ocean current. Through new authorities established by the Energy Policy Act of 2005, the Department, specifically MMS, is establishing a regulatory framework to harness these potent energy sources. Our goal is to create a program that provides for meaningful dialogue with states and stakeholders; relies on sound

environmental, engineering and scientific analyses; and culminates in a balanced approach that promotes safe and environmentally responsible renewable energy production.

Along with the program, MMS is preparing a programmatic EIS that will focus on general impacts from each industry sector based on global knowledge and identify key issues that future project or site-specific environmental analyses should consider. Our target is to make the programmatic EIS and draft rule available for public comment in the spring of this year, and finalize these documents in the near future.

The Energy Policy Act also gave the Secretary responsibility for two existing offshore alternative energy proposals, the Cape Wind Energy and the Long Island Offshore Wind Park projects. The MMS is reviewing each proposal and supporting information, and is preparing project-specific environmental analyses.

Cape Wind Associates (CWA) has proposed to construct an offshore wind park located on Horseshoe Shoal in Nantucket Sound, 4.7 miles offshore Massachusetts. The purpose of the project is to provide a utility-scale renewable energy facility project providing electricity to the New England Power grid. The proposed wind park will consist of 130 offshore wind turbine generators arranged to maximize the park's maximum potential electric capacity of approximately 454 megawatts. The draft EIS is anticipated to be available for public comment in late spring.

The Long Island Power Authority (LIPA) and Florida Power & Light (FPL) have proposed an offshore wind park located between 3 and 4 miles off the South Shore of Long Island, New York. The proposed wind park would entail installation of 40 turbines with a capacity of 140 megawatts of electricity for use in Long Island communities. The draft EIS is anticipated to be available for comment in late summer.

CONCLUSION

The Department of the Interior remains committed to doing its part to provide access to both traditional energy resources and alternative and renewable sources on Federal lands as a critical component of a balanced, comprehensive energy policy. For this reason, the Department has ensured that the OCS remains a solid contributor to the Nation's energy needs. The relative contribution from Federal offshore areas will increase in the coming years due to increased access and increased activity in the deep waters of the Gulf of Mexico.

Mr. Chairman, this concludes my statement. I appreciate the continued support and interest of this Committee in MMS's programs. It would be my pleasure to answer any questions you or other members of the Committee may have at this time.

The CHAIRMAN. Thank you very, very much.

Ms. McKeithen, why don't you go right ahead. Thank you. Tell us the perspective from the State of Louisiana.

STATEMENT OF MARJORIE A. MCKEITHEN, ASSISTANT SECRETARY, OFFICE OF MINERAL RESOURCES, DEPARTMENT OF NATURAL RESOURCES, STATE OF LOUISIANA

Ms. MCKEITHEN. Good morning and thank you, Mr. Chairman and Mr. Ranking Member, distinguished members of the committee, in particular Senator Landrieu and her staff for having a representative from Louisiana here today. It is an honor.

My name is Marjorie McKeithen. I am assistant secretary for the Department of Natural Resources for Louisiana, in charge of the Office of Mineral Resources, and I am secretary of the Louisiana State Mineral Board.

Louisiana has a long and distinguished oil and gas history for our country both onshore and offshore. We look at ourselves as the heartbeat of America's energy coast, sort of the working capital. While many companies may be headquartered elsewhere these days, we're where the activity takes place.

Thirty-four percent of the Nation's natural gas supply and 30 percent of the Nation's crude oil supply is either produced in Louisiana, produced offshore Louisiana or moved through Louisiana's coastal wetlands.

Just a brief look at our rank among the 50 States will just give you a snapshot of Louisiana's importance and our role in supplying energy to our great Nation. We are first, when you include offshore OCS production, in total crude oil production; first in OCS crude oil production; first in OCS natural gas production; first in OCS revenue generated for the Federal Government; first in mineral revenues from any source to the Federal Government; first in Federal oil import volume; first in LNG terminal capacity; and first in natural gas plant processing capacity. The list goes on and on, but we're starting to become second right there so I'm going to stop.

The bottom line is that Louisiana has provided a tremendous contribution to the energy needs of our Nation and we look forward to moving to forward. Of the offshore territory, off Louisiana's coast, it is the most extensively developed offshore territory in the entire world. Of the 15.9 billion barrels of crude oil and 162 trillion cubic feet of natural gas ever produced, from all OCS Federal territories combined, 85.4 percent of the crude oil and 81.1 percent of the natural gas has come from Louisiana's coast. And we're proud of that. We want to continue. We want to move forward. We thank you so much, from the bottoms of our hearts, for sharing with us in this historic legislation and we're ready to move forward as partners now, for the first time ever, getting a share of the money and not just the impact of all that activity. Thank you.

Now, with this expansion is going to—with this expanded area is going to come some expanded needs and we need to be honest about it, take a look at it and know that it is going to have an impact on Louisiana's infrastructure. Although this expanded area is off the coast of Alabama and Florida, the nearest oil and gas infrastructure and the nearest oil and gas ports are in Louisiana.

And I wanted to just take a brief minute to look at those and talk briefly about what we can expect. Morgan City is close to the area in question. It is very important and advantageous to the oil and gas industry because it's at the intersection of several waterways and important for shipbuilding and repair.

The Port of Iberia is on the Commercial Canal and it is important for platform fabrication, repair and maintenance. And Port Fourchon is the largest Gulf supplier base for all offshore oil and gas services right now, and that is also expected to expand with the expanded activity.

The bottom line is that developing these new areas will undoubtedly require a bolstering of our ports and infrastructure in Louisiana. We are thrilled to do it. We are thrilled for the economic activity that will be coming to Louisiana. We're thrilled about the jobs but we've got to be honest about the impact that it is going to have and move forward in an environmentally responsible way, and we're prepared to do that.

Louisiana is a working wetland and Louisiana is not an "either-or State". Louisiana firmly believes that—hey, Senator, good morning—that production and protection can co-exist. We have proved that time and time again. Louisiana's wetlands is a place where crops are grown, energy is produced, petrochemicals are manufactured, and our ports are buzzing all at the same time where fish is being harvested. Louisiana's commercial fisheries account for 30

percent of the total catch, by weight, of commercial fisheries for the lower 48 states.

We pride ourselves on being the “Sportsman’s Paradise”. We have a ton of—what’s the word I’m looking for? Your brother is in charge of it—tourism. Focused on leisure and sports activities in Louisiana. Our recreational fishing industry—well, I guess, our pastime—is a \$1 billion a year industry. Our hunting generates \$446 million a year, all on Louisiana’s coast—or a lot of it in Louisiana’s coastal areas.

Louisiana knows that production and protection can co-exist because we’ve been doing that. But we know that we can’t continue to do it without learning some of the hard lessons from the past. Those lessons cannot go unlearned.

The massive energy infrastructure that I described in more detail in my testimony, sits atop an extraordinarily fragile environment. Louisiana continues to lose about 25 square miles a year, roughly an acre every 33 minutes. Through coastal loss—yes, sir?

The CHAIRMAN. Can you go ahead and summarize the rest of your statement for us? We’re going to have to get on.

Ms. MCKEITHEN. I will. Did I run out of time already?

The CHAIRMAN. Yes, you have.

Ms. MCKEITHEN. All right. Just one more minute and I’ll be done.

The CHAIRMAN. That would be fine. One more minute, please.

Ms. MCKEITHEN. Thank you very much. The good news is that scientists know now how to restore wetlands. They know how to bolster our Barrier Islands. What has been lacking in the past was not the will or the way but the resources to make a difference, and now you are providing us with those resources and we thank you.

Now that it matters for us, now that we are getting a portion—I’d just like to make a brief comment on the way we conduct our business in Louisiana, because it now matters to us more how the minerals off our coast are managed. We look at our model in Louisiana as Louisiana’s business, and it is a business. While industry are our customers, the people of Louisiana are our shareholders and we want to keep our customers happy and keep them coming back, but we want to maximize the profits for our shareholders as well.

Three things dominate our process in Louisiana: transparency, checks and balances, and market—let the market drive the price. We have transparency in that our bidding process is done in a public forum, field bids, opened in public. We have checks and balances, because only the State Mineral Board, not me, not the Governor, not the Secretary of our Department, can grant a mineral lease in Louisiana, only a board appointed by the Governor and confirmed by the Senate can do that. And finally, we have bidding in Louisiana and let the market set the price, as to bonus, as to royalty, as to rentals and as to the actual acreage that is being put up.

We have tract nomination, and then if a particular tract is on another company’s back burner and someone else nominates that tract, they have to advertise for 60 days and then they may realize they may need to put it on their front burner. While our royalty percentage is set at a 12.5 percent minimum, the industry has sig-

nificantly raised that through competition. Our average royalty is 22.5 percent in Louisiana.

The CHAIRMAN. Why don't we get into some more of the detail here in the question and answer.

Ms. MCKEITHEN. All right. Thank you very much for the opportunity to speak to you here today and I'm sorry, I've tried to talk fast.

[The prepared statement of Ms. McKeithen follows:]

PREPARED STATEMENT OF MARJORIE A. MCKEITHEN, ASSISTANT SECRETARY, OFFICE OF MINERAL RESOURCES, LOUISIANA DEPARTMENT OF NATURAL RESOURCES, STATE OF LOUISIANA

INTRODUCTION

Mr. Chairman, Mr. Ranking Member, and distinguished members of the Senate Committee on Energy and Natural Resources, I thank you for extending to me the honor of testifying before you here today.

My name is Marjorie McKeithen, and I serve the State of Louisiana as Assistant Secretary for the Department of Natural Resources, Office of Mineral Resources.

LOUISIANA: HEART OF AMERICA'S ENERGY COAST

Louisiana has a long and distinguished history of oil and gas production, both onshore and offshore. While many oil and gas companies may have their corporate headquarters elsewhere these days, Louisiana is the nation's energy backbone—the working capital of our nation for crude oil and natural gas exploration, production, refining, and distribution, as well as for imports of foreign crude oil and liquefied natural gas. I make this statement with a tremendous sense of pride on behalf of the citizens of our great state. And I want you to know that Louisiana not only understands, but embraces, her role as the working energy capital for America.

Currently, approximately 34% of the nation's natural gas supply and almost 30% of the nation's crude oil supply is either produced in Louisiana, produced offshore Louisiana, or moves through the state and its coastal wetlands. Together with the infrastructure in the rest of the state, this production is connected to nearly 50% of the total refining capacity in the United States. Moreover, over 40,000 miles of large transmission pipelines traverse the state to transport oil and gas from production centers to consumption markets throughout the country.

Louisiana has 17 petroleum refineries, most of them large, world-scale facilities, with a combined crude oil distillation capacity of approximately 2.77 million barrels per calendar day, which is 16.2% of total U.S. refinery capacity of 17.1 million barrels per day, the second highest in the nation after our sister America's Energy Coast, Texas. Louisiana produces approximately 42.1 million gallons of gasoline per day and 29.9 million gallons of distillate fuel (that is, jet fuel and diesel fuel) per day. Two of the four Strategic Petroleum Resource storage facilities for our country are also in Louisiana. Louisiana is also home of LOOP (Louisiana Offshore Oil Port), the only deep-water offshore oil import terminal in the world.

Finally, while almost every state in the nation is trying to prevent the siting of any new liquefied natural gas (LNG) facilities, Louisiana is the site of the largest permitted LNG import terminal in the nation (Cheniere Energy's 2.6 billion cubic feet per day facility in Cameron Parish) and the home of the largest throughput facility of the existing LNG import terminals in the country (Southern Union in Lake Charles, which is undergoing more than a doubling of capacity from 1 billion cubic feet per day to 2.5 billion cubic feet per day).

The magnitude of Louisiana's contribution to the nation's energy supply is punctuated by taking a brief look at Louisiana's rank among the 50 states on the following (numbers include Louisiana's Outer Continental Shelf production):

- 1st in total crude oil production
- 1st in OCS crude oil production
- 1st in OCS natural gas production
- 1st in OCS revenue generated for the federal government
- 1st in mineral revenues from any source to the federal government
- 1st in LNG terminal capacity
- 1st in foreign oil import volume
- 1st in natural gas plant processing capacity
- 2nd in total natural gas production
- 2nd in total energy production from all sources

2nd in petroleum refining capacity
 2nd in primary petrochemical production
 2nd in dry natural gas proved reserves
 2nd in crude oil proved reserves

When it comes to developing the nation's offshore petroleum resources, there simply would not be much if it were not for Louisiana's leadership and participation. The offshore territory of Louisiana's coast is the most extensively developed offshore territory in the entire world. As most of you know, the offshore area beyond three miles from Louisiana's coast is federal territory called the Outer Continental Shelf, or OCS. OCS production off Louisiana's coast constitutes approximately 91% of oil and 75% of natural gas production from all of our nation's OCS areas combined. Additionally, Louisiana OCS territory has produced 85.4% of the 15.9 billion barrels of crude oil and condensate and 81.1% of the 162 trillion cubic feet of natural gas ever extracted from all federal OCS territories.

Simply put, based on its energy producing value to the nation, Louisiana is, acre for acre, the most valuable real estate in the nation.

The landmark passage of the Domenici-Landrieu Gulf of Mexico Energy Security Act recognizes the critical role that Louisiana and other Gulf Coast producing states play in our national energy supply. By sharing a portion of the revenue from OCS oil and gas activity with these states, the nation is re-investing in one of its critical assets and ensuring that a sustainable landscape exists to support these activities for generations to come.

LOUISIANA'S INFRASTRUCTURE: PLANNING FOR THE IMPACT

For the first time in more than 20 years, the Domenici-Landrieu Gulf of Mexico Energy Security Act opened up a significant portion of new Outer Continental Shelf (OCS) acreage to oil and natural gas development. The addition of this 8.3 million acre area increases the available acreage in the Gulf of Mexico OCS by nearly 20 percent.

The area, Eastern Gulf Lease Sale 181, lies approximately 125 miles due south of Pensacola and Mobil; however, the nearest port is in south Louisiana, which is roughly 90 miles from the Lease 181 area and roughly 130 miles from the Lease 181 south area.

Preliminary estimates show that this area contains at least 1.3 billion barrels of oil and 5.8 trillion cubic feet of natural gas. However, virtually no modern seismic surveys have been conducted in the area, and its potential resource base could be significantly larger.

As a result, most experts predict significant interest in the region from oil and gas companies. After all, the Gulf of Mexico has been one of the most productive oil and gas provinces in the world for more than fifty years. And while politics may respect state boundaries, geology does not. The oil and gas resources that have been found in such bountiful quantities just to the west of this new region are also likely to be found there.

An effective logistical support system is an important prerequisite for deepwater oil and gas exploration and development. Ports are critical activity centers connecting the onshore processing plants, pipelines and markets with the offshore oil and gas reservoirs.

In addition to cargo handling, ports also serve as industrial sites for large shipyards, equipment fabrication and repair, and value-added processing activities for both inputs and outputs of the industry. In south Louisiana, the Ports of Iberia, Morgan City and Fourchon are the largest service providers to the Gulf of Mexico offshore oil and gas industry.

Morgan City is an important onshore supply base currently serving several deepwater oil and gas installations. Shipbuilding and repair activities at Morgan City play a larger role, and the port's location at the intersection of several major waterways is advantageous.

The Port of Iberia is located along the Commercial Canal approximately 7 miles north of the Gulf Intracoastal Waterway. The port specializes in platform fabrication, repair, and maintenance.

Port Fourchon has developed into the largest Gulf supply base for offshore oil and gas services, due to its central location with easy access to the OCS and the availability of port infrastructure. Distinct advantages to the port are its proximity to offshore installations in the Central and Eastern Gulf and its 300-foot wide navigational channel with a 24 ft depth. In 2002, approximately 44 percent of the exploration plans filed by oil and gas companies in the Gulf indicated that Port Fourchon would serve as their supply base, and the market share of the port is expected to expand as the industry develops the areas opened by the *Gulf of Mexico Energy Se-*

curity Act. Port Fourchon is roughly 90 miles away from the newly-available acreage opened by the bill, and thus it is the closest and most likely port to be used by operators developing this region.

Each of these ports plays a critical role in the development of the nation's offshore energy resources, and each of the communities around these ports is strongly influenced by the growth trend of the offshore industry.

Developing these newly-available oil and gas resources will undoubtedly require a bolstering of the region's land based infrastructure and industrial activity. This activity generates jobs and energy and economic growth in the region and across the nation, but it also generates wear and tear on roads, congestion, and significant coastal development in one of the world's largest and most fragile estuarine environments. Port Fourchon is connected to the State's main highway network through a two-mile segment of LA Hwy 3090 that runs from the port to LA Hwy 1, and a 40-mile segment on LA Hwy 1 to US Hwy 90. Excessive roadway flooding, an older two-lane mechanical lift-span bridge at Leeville, and the two-lane undivided roadway are identified as the major constraints resulting in congestion, delay, incidents and excessive travel times on this segment of the highway. Among the major improvements planned are to construct a two or four-lane elevated highway structure from Port Fourchon to Golden Meadow, construct a four-lane fixed span bridge over the Gulf Intracoastal Waterway and Bayou Lafourche at Larose, and widen and upgrade LA Hwy 1 from Grand Isle to Port Fourchon.

Accordingly to MMS data, it is estimated that for every OCS well drilled there is a corresponding increase in truck trips on LA Highway 1 by 744 trips per year. For every additional mile of pipeline extension, the truck traffic will increase by 217 trips per year. Accordingly to model estimates, for each additional OCS well drilled, port tonnage will increase by 114,500 tons; for each exploratory well, port tonnage will increase by 148,500 tons. For every additional extension of the pipeline network by one mile, port tonnage will increase by 45,000 tons.

Between 1993 and 2000, Louisiana port tenants serving the offshore industry have increased their share of port-owned land by 23 percent. Since 2000, deepwater exploration has only increased, and with the opening of new areas, this trend will continue. The State of Louisiana will monitor this growth and work to ensure that it proceeds in ways that protect local communities and are environmentally sound.

AMERICA'S WETLAND: PRODUCTION AND PROTECTION CAN CO-EXIST

Louisiana is not an "either-or" state. Louisiana's coastal wetland is a working wetland where crops are grown, energy is produced, fish are harvested, petrochemicals are manufactured and ports are buzzing with activity. Thirty percent of the total catch of commercial fisheries by weight in the lower 48 states comes from coastal Louisiana, and our coastal wetlands provide a habitat for over five million migratory waterfowl. Louisiana knows that her oil and gas can be produced from offshore regions in a manner compatible with the nation's highest environmental standards and has taken steps to ensure just that.

Louisiana has certainly suffered some negative impacts in the past from offshore production. And, yes, we still have to deal with some of those legacies of the past, but that is largely because Louisiana pioneered offshore production in the days before modern technology, before the awakening of America's environmental consciousness, and before the advent of environmental regulatory agencies and regulations.

Louisiana's first oil well was drilled in 1901. The first oil well over water in the world was in Louisiana in 1910 in Caddo Lake. The first well drilled off the coast of Louisiana was in 1938 near Creole, Louisiana. Louisiana was the site of the first well drilled out of sight of land in 1947. Those eras spawned some practices that harmed the ecology of the state—indeed some of the effects are still reverberating through the region today.

However, we have learned some hard lessons, and things are different today. They have to be: since the 1930s some 1,900 square miles of coastal wetlands—an area nearly the size of Delaware—have been eroded away into the Gulf of Mexico. For the industry to maintain its access to these natural resources and protect its infrastructure, it has needed to adapt its environmental practices.

Maintaining any ongoing operation requires reinvestment to maintain, repair, and replace worn out or outdated equipment and facilities. As any farmer can tell you, you cannot just take from the land forever without putting something back into the operation. Out of the harvest of crops, the farmer has to set aside a portion as seed to plant for the next harvest. He has to fertilize the land to replace depleted nutrients, plow and till the soil, rotate crops, control runoff and erosion, irrigate, apply pesticides and herbicides, buy and repair machinery. Likewise, to maintain, much less increase, production from off our coasts, we must reinvest in the infrastructure

that makes all of the activity possible, whether it be port facilities, roads to transport equipment and supplies, erosion control, or barrier island and wetlands storm protection.

As is abundantly clear today, the massive energy infrastructure that I have described rests atop an extraordinarily fragile environment. Louisiana continues to lose about 25 square miles (65 square kilometers) of land each year, roughly one acre every 33 minutes. Due to hurricanes Katrina and Rita alone, coastal land lost totals the equivalent of 217 square miles. Imagine that—an area the size of Washington, DC lost in a matter of hours over two days. When the Louisiana coastline is eroded at that rate, previously buried pipelines that carry the nation's oil and natural gas are left perilously exposed to the elements. Refineries that produce gasoline for Americans across the country are compromised, as are the power plants that convert natural gas into electricity that heats home in dozens of surrounding states.

But these fragile wetlands are precisely what protect communities and infrastructure from destructive storms. One study has indicated that for every mile of wetland, the storm surge in adjacent inland areas is reduced by one foot.¹ The nation's energy infrastructure—all of the waterways, energy conduits, ports, pipelines, refineries and process plants—is dependent upon the wetlands to protect and sustain them from the elements.

Barrier islands also act as a buffer to reduce the effects of ocean waves and currents on associated estuaries and wetlands. A recent study indicates that the bays adjacent to the Isles Dernieres (about 75 miles southwest of New Orleans) could experience an increase in wave height of 700 percent if the Isles Dernieres barrier chain is reduced to shoals. The interior marshlands of the fringing bay marsh can expect increases in wave and storm surge height of greater than 2 meters.²

Today, scientists know how to restore the wetlands and they have been very successful in reinforcing barrier islands so that they will dramatically lower storm surges and waves. What has been lacking heretofore is neither the will, nor the know-how, but the resources to attack the problem. Until now, states have been rewarded with the impacts of OCS development and not the benefits.

For the State of Louisiana and its neighboring energy producing states on the Gulf Coast, the most important aspect of the Gulf of Mexico Energy Security Act are its revenue sharing provisions. This landmark legislation will share 37.5 percent of new revenues with Gulf energy-producing states: Louisiana, Texas, Mississippi and Alabama. The revenues will be used for wetlands restoration, hurricane protection and flood control projects. An additional 12.5 percent share will be used for the state side of the Land and Water Conservation Fund, which funds building parks and preserving green spaces in all 50 states.

The revenue shared with Louisiana under this new law will not be wasted. The citizens of Louisiana recently created a constitutional "lock box" by overwhelmingly passing a constitutional amendment that specifically directs that the funds be used for restoring Louisiana's working wetlands and for hurricane protection. Under the *Gulf of Mexico Energy Security Act*, Louisiana is projected to receive at least \$13 billion over the next 30 years. The dedicated funds will be used to finance a comprehensive coastal protection and restoration plan that will be finalized this spring.

As noted, Louisiana has supported a great deal of oil and gas activity, which can cause significant coastal wetland losses. Through hard work, Louisiana has been successful in achieving its goal of no net loss of coastal wetland habitat values, caused by activities over which the State has control. Through innovative approaches such as the State-led interagency review of proposed drilling projects and our SONRIS computerized data base, Louisiana has been successful in reducing the amount of coastal wetland impacts caused by State-regulated oil and gas development.

Despite our efforts, the indirect and cumulative effect of OCS energy development is still causing significant adverse impacts to our coastal resources and communities. The cumulative effects of human and natural activities in the coastal area, including OCS activities, have severely degraded essential natural processes and shifted the condition of the coastal area from one of net land building to one of net land loss.

In order for OCS energy development activities to be consistent with State and national policies specifying no net loss of wetlands, it is necessary for the Minerals Management Service to provide for compensatory mitigation for all losses of wetland

¹"Regaining Ground: In the aftermath of Katrina and Rita, scientists make case for coastal recovery balancing ecology with economy" *University of Texas at Austin*. <http://www.utexas.edu/features/2006/coastal/index.html>.

²Source: Prof. Gregory Stone, Coastal Studies Institute, Louisiana State University.

values that result from OCS-related activities and that might not be obtained through the State and Federal regulatory processes. This need, as well as the need for more-accurate assessment of the impacts of OCS development on Louisiana's coastal communities and infrastructure in the aftermath of the recent devastating hurricanes, formed the primary basis for the State's litigation last year involving OCS Lease Sale 200. Those concerns were also paramount in the State's recent comments on MMS's Draft Environmental Impact Statement for Gulf of Mexico OCS Oil and Gas Lease Sales for 2007 through 2012. We are eagerly awaiting MMS's actions in response to those comments.

LOUISIANA: MANAGING HER MINERAL ASSETS

Given the profound purposes for which Louisiana's portion of the shared revenue will be used, Louisiana has a heightened interest in how the minerals off its coast are managed. In this regard, Louisiana offers a brief outline of how her own minerals are currently managed.

The duties for managing Louisiana's mineral assets lie with the Office of Mineral Resources within the Department of Natural Resources. Currently, this includes approximately 5.4 million acres of state-owned water bottoms, and approximately 1.9 million acres of state lands.

The Office of Mineral Resources is essentially the intersection for private industry and the public's resources. And we certainly try to conduct our business like just that—the state's business. While industry is our customer, and we pride ourselves on good customer service, the people of Louisiana are our shareholders, and we owe them a fiduciary duty of good asset management, from both a fiscal and an environmental standpoint. Toward these ends, Louisiana's policies are geared toward conducting our business at a fair, market-driven price to maximize the return to the people of Louisiana, while at the same time providing good, fair customer service to keep our customers coming back.

The actual awarding of state mineral leases and the oversight of the Office of Mineral Resources is performed by the Louisiana State Mineral Board, a seven-member body appointed by the Governor of Louisiana and confirmed by the State Senate. Neither the Governor, the Secretary of the Department of Natural Resources, nor I have authority to award a mineral lease. This is exclusively the function of Louisiana's Mineral Board.

Louisiana's leasing procedure is carried out primarily by the Petroleum Lands Division of the Office of Mineral Resources and can be summarized as follows: Industry nominates acreage for leasing every month. By law, nominated tracts cannot exceed 5,000 acres, but by Mineral Board policy, the size limit of a nominated tract is further limited to only 2,500 acres. The nominated tracts are then advertised in official state and parish journals. Competitive, sealed bidding then takes place on bonus, royalty and rental to be received by the state. The sealed bids are opened and read into the record at a public meeting of the Louisiana Mineral Board at the time and place advertised. The Mineral Board then awards the leases to the highest bidder, if it determines that the bids are sufficient, after evaluating data provided from the staff geologists from the Geology and Engineering Division of the Office of Mineral Resources. The term of the lease is limited to three years for inland tracts and five years for offshore tracts.

By law, the royalty received must be at least 12.5%; however, in reality, market competition has raised the average royalty received considerably higher. The average royalty that Louisiana has received for the last six fiscal years is 22.5%. The inland tract average is 22.85%, while the offshore tract average is 21.85%. Louisiana currently has four existing recent units involving common reservoirs with the federal governmental on state leases granted from 1993 to 2002. Two of the state leases have a 21% royalty provision, one has a 22% royalty provision and one has a 23% royalty provision.

Louisiana currently has 2,368 active state leases covering over 1,022,000 acres, most of which are submerged, and Louisiana's leasing program generated approximately \$430 million in mineral income last fiscal year.

Each lease is reviewed at least once a year by the staff of the Geology and Petroleum Engineering Division of Mineral Resources, with further reviews dependent on lease development activity, the nonproductive acreage attributed to each lease and the royalty income per acre.

The Mineral Income Division of the office of Mineral Resources is then responsible for auditing at least 22% of the royalties received by the state each fiscal year. The Mineral Income Division is directed by a Certified Public Accountant and consists of a team of 25 auditors, some of whom are officed in Louisiana's Houston and Dallas offices, where most of Louisiana's payors are headquartered. Louisiana's Mineral

Income Division has recouped approximately \$146.5 million in royalty underpayment, interest and penalty over the past six years.

CONCLUSION

Louisiana is indeed proud of its long and distinguished history fueling America. We believe that our efforts can be summed up as “nation building.” When it comes to America’s energy security there is no more important piece of real estate than this, the great 18th state of our union. We must do everything as a nation to ensure its sustainability.

The environmental lessons of the past must not be forgotten. We must be prepared to mitigate the impacts of energy development of our coast. We must remember that the production of this energy can only be made possible through the cooperation of a host state. The state is doing its part to mitigate the impacts of these activities and create a safe and sustainable landscape for the continued support of OCS activities in the Gulf of Mexico, but we still rely on our federal partners and the commitment to safely and responsibly deliver these critical resources to the nation.

The CHAIRMAN. Not a problem.

Let me now call on the Honorable Lisa Jackson, the commissioner for the New Jersey Department of Environmental Protection. Thank you for being here.

STATEMENT OF LISA P. JACKSON, COMMISSIONER, NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

Ms. JACKSON. Thank you. Thank you, Mr. Chairman, ranking member and members of the committee. Good morning. I am pleased to be here today to represent Governor Jon Corzine and the citizens of New Jersey and the staff at the Department of Environmental Protection on this very important issue.

I’d first like to recognize our Senator, Senator Menendez, for the leadership he has shown in protecting New Jersey’s coastal environment. We are a State that has consistently, consciously, objected to exploration and exploitation of the resources off of the Outer Continental Shelf and I come here today to say that our position has certainly not changed.

We strongly support your legislation, Senator, to prohibit offshore drilling in the vicinity of New Jersey’s coastline, which coincidentally, was previously introduced by then-Senator Jon Corzine.

I want to reaffirm our opposition to oil and gas lease sales off the coast of New Jersey as well as the opening of the Mid-Atlantic to offshore oil and gas development. Such actions leave us vulnerable to future damage, and quite frankly, in our opinion in New Jersey—and I carry with me the opinion not just of State leadership, but many of our mayors along the coast, who wrote specifically to ask me to convey their concerns that our coastal economy is frankly too important—our tourism economy is too important for us to move in the direction of exploiting our resources, natural gas or oil resources, off of our coast.

I know that I can only speak for New Jersey, but I think it’s on the record that other Northeast States, certainly including Delaware and Connecticut, have been vocal in their opposition as well.

It’s important for you to understand that in New Jersey, the coast drives our economy. In fact, it brings in about \$36 billion a year. One in six jobs are related to our coastal zone, making coastal revenues our State’s largest economic sector. We have \$4.5 billion that come from commercial, recreational fishing and aquaculture alone.

As such, we are simply not interested right now, as we have not been interested, in risking that in any way in order to explore resources off the Outer Continental Shelf. We frankly feel that the risks of such exploration do not meet the potential for reward, and we think there are alternatives that are better and smarter at this juncture.

There are environmental impacts as well. I don't need to repeat what is in my written testimony, which I know will be in the record, Mr. Chairman, about those potential environmental impacts. And quite frankly, I would prefer us to avoid them rather than to learn to mitigate or restore, if we are unfortunate enough to have to deal with damages to our marine mammals, our coastal habitats, our recreation, our tourism, our commercial fishing, and our cruise ship economies.

We strongly support the moratoria. And although Virginia seems to be a ways away, I do want to point out that the Virginia proposed program area is only 75 miles from the New Jersey coast. So we are very interested in what happens with that area as well.

Physical processes do not honor administrative boundaries and we believe that that is why Federal leadership, in honestly evaluating the risks versus potential rewards, lead us and we hope you, to understand that the area of the North Atlantic and Mid-Atlantic areas should not be open for development.

Instead, Governor Corzine and I ask this new Congress and you to be more comprehensive and forward-looking when you evaluate the North Atlantic and Mid-Atlantic regions and energy needs for our country. America certainly needs to strongly promote energy efficiency and conservation. We also need to be serious about producing alternative means of energy, and New Jersey would certainly like to partner with the Federal Government and join with other States that have led and embarked on initiatives that make our buildings more green, increase the use of hybrids and enhanced-mileage vehicles, and reduced our energy consumption.

In our State, we have a strong push to look at alternative energy production. In fact, New Jersey is a national leader in solar energy. We have strong standards to implement, in New Jersey, the California low-emissions vehicles law. We have a renewable portfolio standard of 22½ percent portfolio standard and we have a projected—we are set and will meet a goal of reducing energy demand 20 percent by 2020 as a key goal of the Governor's Energy Master Plan.

I think, in conclusion, it is time for us to lead by example and that the specific decisions made when you weigh exploration and development in the Outer Continental Shelf and our region do not in any way justify going there at this time. I thank you for the opportunity to appear and I am happy to answer questions for you.

[The prepared statement of Ms. Jackson follows:]

PREPARED STATEMENT OF LISA P. JACKSON, COMMISSIONER, NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Good morning Mr. Chairman and members of the committee. My name is Lisa Jackson; I am Commissioner for the New Jersey Department of Environmental Protection.

I appreciate the opportunity to testify before you today on natural resources on the Outer Continental Shelf.

I would first like to recognize Senator Menendez for the leadership he has exhibited in protecting New Jersey's coastal environment. We strongly support your legislation to prohibit offshore drilling in the vicinity of New Jersey's coastline, which coincidentally was previously introduced by then-Senator Jon Corzine.

I would like to reaffirm the State of New Jersey's opposition to oil and gas lease sales for areas off the coast of New Jersey, as well as the opening of the mid-Atlantic to offshore oil and gas development. Such an action would leave New Jersey vulnerable to damage caused by drilling-related incidents in nearby waters. While I can only speak for New Jersey, other northeast states, including Delaware and Connecticut, have been just as vocal in their opposition to drilling in the Outer Continental Shelf.

Our coast helps drive our tourism economy, which brings in more than \$36 billion a year. In fact, one out of every six jobs in New Jersey is related to the "Coastal Zone," making coastal revenues our state's largest economic sector. \$4.5 billion comes from commercial and recreational fishing and aquaculture alone.

As such, development for oil and gas off our coast has the potential to threaten the economy of our entire state and the region as well. Adverse impacts on commercial and recreational fishing could deal a catastrophic blow to the economic welfare of the State and the region.

Furthermore, the potential adverse impacts of development for oil and gas would not just be felt economically, but environmentally as well. New Jersey and other Northeast and Mid-Atlantic states have worked hard to enhance and protect our water quality and marine habitat and resources. New Jersey's 127-mile coastline is a treasure of great ecological value; its integrity is essential to the environmental health of this state.

The potential impacts of drilling are too risky to the health of our residents, coastal heritage, economy and environment. The potential impacts of a large oil spill include:

- effects to marine mammals and sea turtle populations,
- adverse impacts on coastal habitats,
- effects on the recreation, tourism, commercial fishing and cruise ship economies,
- negative effects on the real estate markets and losses of job and income.

We strongly support the existing moratoria on OCS activities. The proposed special interest sale in the Mid-Atlantic planning area offshore Virginia is in conflict with this policy and presents serious environmental concerns to the New Jersey Coastal Region. I would like to point out that, while it may seem like different worlds, the Virginia Proposed Program Area is only 75 miles from the New Jersey coast.

The physical processes in the ocean do not honor administrative boundaries. Activities anywhere in the Mid-Atlantic region could affect the uses and resources of the coastal zone and the marine environment off the New Jersey coast.

In addition, there has been no evidence to date that exploring for oil and gas off our coast would be productive or economically feasible. Balanced against the downsides I have already discussed, the risks are way too high.

New Jersey therefore has a direct interest in any proposed resource evaluation in the Mid-Atlantic region. Our State is opposed to any activity on the Outer Continental Shelf that could adversely impact our economy, maritime ecology, fishing and coastal-dependent tourism, particularly in a case such as off Virginia, where the Outer Continental Shelf development would be likely to make only a limited contribution to our energy needs.

Instead, Governor Corzine and I are asking this new Congress to be much more comprehensive and forward-looking in its search for ways to meet our country's energy needs. America needs to strongly promote—as well as mandate—energy efficiency and conservation. We also need to be serious about developing alternate means to produce energy. Besides reducing our dependence on traditional fossil fuels, the use of these types of power has the additional benefits of reducing air pollution and greenhouse gases.

New Jersey and many other states have already embarked on initiatives that would make our buildings more green, that would increase the use of hybrid or other enhanced mileage vehicles in our fleets or have taken other measures to reduce our energy consumption. At the state level, there has been a strong push to evaluate and implement alternative energy production strategies such as solar, geothermal, wave and wind power. In fact, New Jersey is a national leader in the solar market.

Examples of Governor Corzine's initiatives in this regard include:

- Implementing greenhouse gas tailpipe standards for automobiles, through New Jersey adoption of the California Low Emissions Vehicles (LEV) Program;

- Moving forward on a commitment that 22.5% of electricity consumed in the State will be met with renewable energy resources via the New Jersey Renewable Portfolio Standard (RPS);
- Setting an achievable goal to reduce total projected electricity demand by 20% by 2020 as key goal of the Energy Master Plan;

It is time for the federal government to follow the lead set by New Jersey and other states. Administration officials are only now acknowledging that climate change may in fact be a real phenomenon and that we need to take steps to reduce emissions of greenhouse gases. However, it is not too late for federal action and we urge Congress to act.

As this committee explores the range of issues to be considered for offshore oil and gas exploration and production, I advise you to undertake a comprehensive review of not only potential energy alternatives and energy efficiencies but also the potential consequences of going down the wrong path. The risk to our economy and this natural treasure are too great to do anything less.

Again, I thank you for the opportunity to appear before you today. I am available to answer any questions you may have.

The CHAIRMAN. Thank you very much.

Next is Mr. Larry Nichols, the chairman and CEO of Devon Energy Corporation. Thank you very much for being here. You should push the button there to be sure that microphone works.

STATEMENT OF J. LARRY NICHOLS, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, DEVON ENERGY CORPORATION

Mr. NICHOLS. Thank you. Thank you, Mr. Chairman. As I was saying, I am Larry Nichols, chairman and CEO of Devon Energy Corporation. My father and I started Devon in 1971 as a very tiny company and owning an interest in five wells. Today, we are one of the largest U.S. producers of natural gas and oil in America. We are an independent producer, which means we focus purely on exploration and production, not on refining and other downstream operations.

We are very excited about the potential of the Outer Continental Shelf. It has tremendous potential. The scientists of our industry, American scientists, are continually pushing things to a new frontier.

I have with me a sand sample. This is a core that actually came from 27,000 feet in the ground, 7,000 feet below the ocean or the water. This core sample cost us about \$100 million to get. It's from a new discovery that we got recently with Chevron, our partner in the Lower Tertiary. I will pass this around so that the Senators can see it. It is a piece of rock. Not many people have held a piece of rock that old, that deep, but there it is. And I'll use the Lower Tertiary as an example of the potential that exists in the Outer Continental Shelf.

Mr. Chairman, if you had held this hearing 5 years ago or 7 years ago, those people who are opposed to developing our resources, our American resources, would have told you that there was no scientific evidence that there was any oil and gas in this depth of water. And they would have been correct. There was none. They would have cited governmental studies that did not include this as a technical resource that our country could develop. And they would have been correct. Seven years ago, there were no drilling rigs that could sit out there in 5,000 and 10,000 feet of water and drill an oil and gas well. Our industry did not have seismic that could see that deep, could see the structures that were there that would allow us to do that. So they would have been correct

in opposing that and saying that there were no resources there, as, indeed, we've just heard from the preceding witness.

If you look at it today, we do have drilling rigs that can drill in 10,000 feet of water. Today we do have seismic that can see to that depth and discover oil and gas reserves that are there. And we indeed do have discoveries. We've had 12 of them already, as the Assistant Secretary of the Interior said. The press has characterized those discoveries as the largest in the United States since Prudhoe Bay. No rational person can say with credibility that that kind of a discovery is not significant. The Department of the Interior projects that in the next 5 years, 40 percent of our oil and 20 percent of our natural gas will come from the Gulf of Mexico. No one can say with credibility that that is not significant. And that only comes from the 15 percent of the Outer Continental Shelf in the United States, excluding Alaska, that is available for leasing now. The original estimate back in the 1970's for natural gas in the Gulf of Mexico was 50 trillion cubic feet. We have already produced 150 trillion cubic feet. And the current estimate is that we can produce 232 trillion cubic feet in addition to that.

So these resources, the technology of our industry has demonstrated time and time again that whenever someone says it's not there, it's not technologically feasible, we have proven that to be wrong, time and time again. Not only offshore, but onshore. The same thing happens onshore. The second largest gas field in the United States is the Barnett Field in east Texas, which is a field that, in 2000, no one believed existed. And there it is, on the outskirts of Fort Worth, the largest gas field in Texas, the second largest gas field in the United States.

Back in the Gulf of Mexico, the Independence Hub is about to come on string. It was a part of a lease that was originally authorized—that single gas hub is going to produce the gas equivalent—enough gas to be the gas equivalent, the energy equivalent of wind-mills covering 300 square miles. We need to develop our alternative energy sources, we need conservation, but until we advance new technology to discover alternate energy, this country desperately needs the Outer Continental Shelf, not as a total solution, there is no total solution, but as a part of our country's overall response to meeting the legitimate energy needs of our communities.

It is a false choice to say you can either have a clean environment on one hand or you can have energy security on the other. We have both. The experience with the recent hurricanes—the worst hurricanes in history that blew through the Gulf of Mexico—the beaches are clean and the fishing industry of Louisiana is in great shape, as the previous witness said. It is a false choice to say that we can do either/or. We can have both. We can have a clean environment and we can have energy security in the United States. Thank you, Mr. Chairman.

[The prepared statement of Mr. Nichols follows:]

PREPARED STATEMENT OF J. LARRY NICHOLS, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, DEVON ENERGY CORPORATION

Mr. Chairman and members of the Committee, I am Larry Nichols, Chairman and Chief Executive Officer of Devon Energy Corporation, one of the largest independent exploration and production companies in the United States.

I am pleased to be here today. Thank you for the opportunity to share some of the excitement of our Devon Energy team—from geoscientists to our production personnel—as we work hard to provide the secure supplies of natural gas and oil that America needs.

That excitement is especially keen with respect to offshore energy resources that are the focus of today's hearing.

Who could not be excited about our being able to tap potential energy-bearing geologic formations five miles below the seabed, under a mile-and-a-half-deep water?

The sand sample I am going to pass to you to look at is from just such a formation. (There is oil trapped within the small pores of the sample, providing both the potential energy and some of the extraction and cost challenges for the future that must be understood.)

This sample provides the starting point for my remarks today that will focus on our views of available Gulf of Mexico resources, other areas that should be made available for exploration, the advanced technologies that make our industry the best and most efficient in the world, and the need for good, stable energy and investment policies for us to best meet the nation's energy requirements.

GULF OF MEXICO

The members of this Committee know very well the crucial role that the Gulf of Mexico and the Gulf Coast states have today in providing oil and gas for America. The Department of the Interior projects that within the next five years fully 40 percent of U.S. oil production and 20 percent of U.S. natural gas production will come from the Gulf of Mexico.

Some of that natural gas production will undoubtedly come from the areas in the Central Gulf that will be leased as a direct result of the Gulf of Mexico Energy Security Act passed first by the Senate and then approved by the House and signed into law late last year. That new access is shown in the beige shading on the map.*

Opening this new area and putting in place the revenue sharing principle included in the new law are very significant steps toward what the country must do in providing increased access to better prospects for natural gas and oil exploration and production. I commend you and your colleagues for this progress.

Devon Energy is already carefully evaluating where, and at what levels, we will be prepared to bid in the original Sale 181 area that is to be leased to the north later this year. We are also interested in acquiring seismic and other data to better assess the potential of the area to the south.

We and others, including the large independents that are leading the way in developing the Independence Hub in the part of the Sale 181 area leased several years ago, are well positioned to be major participants in these new areas.

In terms of resource expectations in these areas, we'll defer to the MMS for official numbers. But these areas are very significant. They may even hold potential to have more gas than are in current official estimates.

We must always keep in mind that resource estimates are based on available information. As more information is gained, resource estimates can grow substantially. That has certainly been the case in the Central and Western Gulf of Mexico where exploration and production has been allowed for decades. In those parts of the Gulf *we have produced three times more natural gas than the first comprehensive resource estimates identified—and we now believe the Gulf still contains nearly five times those original estimates.* The more we explore, the more we know.

If you detect excitement about the natural gas potential in the Gulf, the same should be true with respect to oil potential. However, in the most promising areas in the deeper waters and deeper geologic formations, our enthusiasm must be tempered with a realization that we face very high technology hurdles and costs. We also face very long lead times—perhaps a decade—before there is any production, much less cost recovery or profit, from even the best prospects.

You have seen and heard about recent deep water discoveries in what is known as the Lower Tertiary trend located hundreds of miles off the central and western Gulf of Mexico coasts. Devon has been associated with four of those discoveries, including Chevron's Jack prospect (from which the sand sample was provided). The graphic shows industry results to date.

Devon Energy has additional prospects and leases in the trend area.

The trend's resource potential may indeed eventually be in the billions-of-barrels ranges reported by media. But my previous point bears repeating: We are at the leading edge of technology and we have very high costs that may or may not lead to any particular project's being determined to be economic.

*All visuals have been retained in committee files.

Technology and Costs

Today we are able to use our geoscience technology such as 3- and 4-dimensional seismic imaging to “see” geologic formations better than ever before.

For example, in the year 2000 we could not see through deep salt formations that cover parts of the Lower Tertiary trend. But with new seismic acquisition and improved processing capability we are able to study and target interesting formations we knew little about only a few years ago. At the same time, drilling and well completion technology that allows exploration and production in today’s water depths and deep formations did not exist.

Today our advanced technology allows us to both find new supplies and then make the most efficient and cost-effective development and production facility decisions.

The new technologies are expensive. Drill ships that use satellite and thruster positioning because of ultra deep water conditions cost one half million dollars a day—more than twice as much as just a few years ago. We’re also contracting for new high-technology moored semi-submersible rigs that can operate in 10,000 feet of water.

This means that we have single well investments of \$100-million or more, field development costs that may exceed \$1.5 billion, and project costs in excess of \$2.5-billion. Again, most of these costs may be incurred years or even a decade before any revenue is obtained, even if a project is assumed to be commercial.

With such costs and timelines we must have a stable investment climate.

Devon Energy and other companies in the large independent sector have a record of investing more than we earn, and 100 percent or more of our total cash flow to find and produce more energy. But we cannot risk making multibillion dollar decisions only to have royalty, tax or regulatory policies change—pulling project economics out from under us.

The same is true for regulatory or other delays, such as in leasing processes. Given the many people involved at every phase of activity from leasing to the construction by service companies of drill rigs to actual drilling and development, slowdowns at any stage cause disruption and higher costs.

On the other hand, if we assume a good, stable investment regime and smooth government and other processes, we are excited about the country’s offshore oil and gas potential in the Gulf of Mexico and beyond.

This brings me to my comments on other offshore areas.

Other Areas

The remarkable technology improvements that we continue to experience have made our industry one that is sought after to explore offshore around the world.

We explore, develop and produce oil and gas safely, cleanly and efficiently from the Gulf of Mexico to Angola and Azerbaijan, to Norway and the UK. But we don’t do it off the U.S. Atlantic and Pacific coasts. We hope this will change. We will continue to work in that direction.

Which brings me back to the focus of this hearing—offshore resources.

Offshore resources in current moratoria areas may be very large. When opponents of more access argue to the contrary, they turn logic on its head. Without access we do not know what is there—and remember that resource estimates are made on the basis of information—information ultimately available only by exploration.

Based on exploration done in the Atlantic decades ago, for example, we know that there is natural gas 100 miles or more off the mid-Atlantic coast. But without further exploration we don’t yet know how much, or whether it is in formations that, with today’s technology, might be economic.

With increased reasonable access to new areas in the future, we and our employees are excited about the possibility of providing more natural gas, with less price volatility, to heat our homes, generate our electricity and manufacture fertilizer, plastics, and the many consumer products America relies on everyday.

Thank you once again, Mr. Chairman, for the opportunity to share my views today.

I would be pleased to answer questions.

The CHAIRMAN. Thank you very much for your testimony.

Mr. Athan Manuel, who is the director of lands protection of the Sierra Club. Thank you for being here.

**STATEMENT OF ATHAN MANUEL, DIRECTOR, LANDS
PROTECTION PROGRAM, THE SIERRA CLUB**

Mr. MANUEL. Thank you, Mr. Chairman and Ranking Minority Member Domenici and members of the committee, good morning. My name is Athan Manuel and I am the director of the lands protection program for the Sierra Club. It is great to be here this morning representing the 750,000 members of the Sierra Club nationwide. Our membership makes us the largest environmental grassroots organization in the country.

I want to thank you for the opportunity to testify this morning regarding oil and gas drilling in the eastern Gulf of Mexico and the Outer Continental Shelf. It will probably come as no surprise to the members of the committee that the Sierra Club strongly opposes any new offshore oil and gas drilling in areas that are currently off-limits and we oppose opening up the areas in the eastern Gulf that were opened up by S. 3711, the Gulf of Mexico Energy Security Act.

Senator DOMENICI. Do you oppose it? You say that rather nonchalantly. I don't know why—

Mr. MANUEL. Well, I'll be happy to enumerate those reasons this morning, but I think most folks here know the reputation of the Sierra Club—that we work on environmental issues, but we also support clean energy programs—and I can give you the reasons why.

We have three primary reasons why we oppose any new offshore oil and gas drilling and the primary reason is that it is still—despite increases in technology, it is still a dirty industry that is prone to accidents that leave problems for the environment.

As we saw in the wake of Hurricanes Katrina and Rita, there were hundreds of spills that spilled oil and gas throughout the central and western Gulf of Mexico. And we just feel that new offshore oil and gas drilling represents a real threat to America's marine environment.

We do not believe that our beaches, coasts and marine resources and a billion-dollar tourism industry should be sacrificed for a relatively small amount of oil and natural gas, especially when we have alternative and clean energy resources that we can develop here in the United States.

America's coasts are a complex mosaic of sea grasses, wetlands, beaches and sand dunes. Our coastal waters support huge populations of fish, which commercial and recreational fishermen depend on. There are thousands and hundreds of species of birds and marine mammals, including environmentally sensitive species like sea turtles, whooping cranes, bald eagles, brown pelicans and manatees, that are found specifically in the eastern Gulf of Mexico.

We just think again, offshore drilling is incompatible with this kind of environment and these kinds of environmental resources. Some of America's most popular and famous beaches, from Pensacola Beach in Florida to Myrtle Beach in South Carolina to the Outer Banks in North Carolina, to Cape May in New Jersey and Cape Cod and the beaches of Maine, all those would be threatened by new offshore oil and gas drilling.

Obviously, our chief concern is the potential for spills, both routine spills from operations, but also the threat of a catastrophic spill. Current cleanup methods are incapable of removing all the oil and usually only a small portion of the oil is recovered from spills.

Offshore drilling platforms and pipelines spilled 1.8 million gallons of oil into U.S. waters from 1990 to 1999 in 224 reported accidents. That breaks down to about an average of 500 gallons spilled a day.

The eastern Gulf of Mexico and America's East Coast are the two areas most coveted by the oil and gas industry and are no strangers to hurricanes. We saw what happened in 2005 when Hurricanes Rita and Katrina caused spills off our coasts and damaged production and refining capacity and caused a spike in the price of gas. The storms caused 124 oil spills in the waters of the Gulf of Mexico, and during Katrina alone, 223,000 gallons of oil were spilled and there was 508,000 gallons spilled during Hurricane Rita.

The Minerals Management Service reported that Hurricanes Rita and Katrina destroyed 115 production platforms in the Gulf of Mexico and damaged 457 pipelines connecting facilities in the Gulf to the shore.

We simply think that putting more oil and gas rigs into hurricane-prone waters is precarious at best and simply is not a smart energy policy.

Drilling rigs also produce a significant amount of air and water pollution. Rigs produce about 214,000 pounds of air pollutants every year. An average exploration well, either for oil or natural gas, generates tons of nitrous oxide, carbon monoxide, sulfur dioxide and other volatile organic hydrocarbons. These pollutants are the precursors to smog and acid rain and contribute to global warming as well.

Water pollution is an issue. According to the National Academy of Sciences, a single well produces between 1,500 and 2,000 tons of waste material. Debris includes drill cuttings and toxic drilling mud that contain toxic metals, such as lead, cadmium and mercury.

It's not just pollution. The onshore network of roads, docks and buildings also hurt wetlands on our coasts. As the commissioner said, years of wear and tear by the oil and gas industry have damaged coastal wetlands in Louisiana. Twenty-five square miles of coastal wetlands each year are lost, wetlands that serve as important natural storm barriers for hurricanes.

These are some of the environmental reasons we oppose offshore drilling and opening any new areas. The second reason we oppose it is that natural gas and oil estimated to be recoverable will simply not solve America's oil problems or meet our energy challenges.

As the commissioner mentioned, 80 percent of the areas that contain oil and natural gas off of our coasts are already opened up. We're talking about the last 20 percent and we think that the oil and natural gas in those areas, again, could be replaced by increasing fuel economy standards for our cars and being more energy efficient and using renewable energy.

And also, the area opened up by S. 3711 will produce a small amount of natural gas and oil, about 25 days worth of oil at current rates of consumption, and about 35 days of natural gas, again at current rates of consumption. That seems to be one of the main tradeoffs for us, is that again we see this one-of-a-kind environmental resource that contributes to a billion dollar tourism econ-

omy around our country, then we see a small amount of oil and gas that would come on-line. Again, even the oil companies acknowledge that there is only about 3 percent—that the U.S. contains only about 3 to 4 percent of the world's proven oil reserves.

So, in conclusion, the Sierra Club feels there are smarter and cleaner ways to meet our energy needs. Last November, Americans cast their ballots and called for a new direction on a number of fronts, including energy policy. We now have an opportunity to make a fresh start and to shelve bad ideas like new offshore oil and gas drilling.

The Sierra Club believes that the best and boldest way to address our energy concerns is to promote energy efficiency and renewable energy programs. We do not believe that our beaches, coasts, and marine resources and again, a billion dollar tourism industry should be sacrificed for a small amount of oil and natural gas, especially when efficiency and renewable energy programs are available to us right now.

For instance, it typically takes——

The CHAIRMAN. Could you summarize the remainder of your——

Mr. MANUEL. Yes. Second to last paragraph.

The CHAIRMAN. Great.

Mr. MANUEL. For instance, it typically takes 7 to 10 years to bring an oil field on-line, but it only takes 1 year to build a 15-megawatt wind farm that produces clean, renewable and domestically-produced energy. We strongly feel that it is time to begin to wean America off of fossil fuels, and instead, promote energy efficiency programs, such as increased fuel economy for our cars, trucks and SUVs and to promote renewable energy such as wind, solar and other clean energy sources.

Again, thank you for the opportunity to testify and I look forward to questions later. Thank you.

[The prepared statement of Mr. Manuel follows:]

PREPARED STATEMENT OF ATHAN MANUEL, DIRECTOR, LANDS PROTECTION PROGRAM,
THE SIERRA CLUB

Mr. Chairman, ranking minority member, and members of the Committee, good morning. My name is Athan Manuel, and I am the Director of the Lands Protection Program 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 oil and gas drilling on the Outer Continental Shelf and areas available for leasing in the eastern Gulf of Mexico. Most of my comments will focus on the environmental problems caused by off shore oil and gas drilling.

NEW OFFSHORE OIL AND GAS DRILLING

It will come as no surprise that the Sierra Club strongly opposes drilling in the eastern Gulf of Mexico, the area opened by the Gulf of Mexico Energy Security Act of 2006 (S. 3711), or in any off shore areas in the outer continental shelf currently off limits, for a number of important reasons:

1. New off shore oil and gas drilling represents a measurable hazard to the marine environment of the eastern Gulf of Mexico and all our coastal waters. We do not believe that the beaches, coastal environment, marine resources, and billion-dollar tourism industry of the eastern Gulf of Mexico should be sacrificed for a small amount of oil and natural gas.

2. The natural gas and oil estimated to be recoverable in the eastern Gulf of Mexico will not solve our energy problems. According to the Minerals Management Service, offshore areas opened by S. 3711 will supply only 25

days of oil and 35 days of natural gas over the next 60 years at 2004 consumption rates. The new area, loosely called 182, is in very deep water and contains relatively small amounts of oil and natural gas, about 525 million barrels of oil and 2.2 trillion cubic feet of gas, according to MMS.

3. Most off shore oil and gas reserves are already available. According to the MMS, 80 percent of recoverable oil and natural gas reserves are in areas already available for leasing and drilling. The Sierra Club feels that there is no justifiable reason to turn to our special places for drilling.

4. Finally, there are smarter ways that we can and should address our energy needs rather than allowing our coastlines to be threatened with oil and gas drilling.

1. 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.

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 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 birds.¹ 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.² In addition to migratory birds, the eastern Gulf of Mexico supports large populations of brown pelicans and bald eagles.

The eastern Gulf coastal waters are also home to a number of important environmentally sensitive areas like the Big Bend Seagrass Area and Tortugas Ecological Reserve. These reserves and coastal shoreline host a number of environmentally sensitive species such as:

Important beach areas include the: Florida Panhandle, the Big Bend area, southwest Florida, and Ten Thousand Islands. All these could be affected by a large oil spill in the eastern Gulf with the beaches of the Florida Panhandle most at risk.

Onshore damage

The onshore infrastructure associated with offshore oil or gas 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.³ Years of wear and tear by the oil and gas industry had 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

¹Deepwater Gulf of Mexico Environmental and Socioeconomic Data Search and Literature Synthesis. Volume I: Narrative Report. 2000. Minerals Management Service.

²Interactions Between Migrating Birds and Offshore Oil and Gas Platforms in the Northern Gulf of Mexico. Final Report. 2005. Minerals Management Service.

³Boesch 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.

180,000 gallons per well.⁴ 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.⁵

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.⁶ 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. All 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.⁷

Air pollution

Drilling an average exploration well for oil or gas generates some 50 tons of nitrogen oxides (NO_x), 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 NO_x, 11 tons of carbon monoxide, 8 tons of sulfur dioxide and 38 tons of volatile organic hydrocarbons every year.⁸

Global warming pollution

Methane hydrates are ice-like structures formed from frozen water and methane. These structures are found in Arctic permafrost and beneath the seafloor of the Outer Continental Shelf where water depths are greater than 500 feet. The Congressional Research Service reports "safety problems related to gas hydrates may be anticipated. Oil and gas operators have recorded numerous drilling and production problems attributed to the presence of gas hydrates, including uncontrolled gas releases during drilling, collapse of well casings, and gas leakage to the surface." The report continues that methane hydrates easily become unstable, potentially triggering seafloor subsidence and catastrophic landslides. In addition, a single unit of methane hydrate can release 160 times its own volume in gas.⁹ As methane is a greenhouse gas more than twenty times more potent than carbon dioxide in contributing to global warming, this volume of gas release would be extremely dangerous.

Oil spills

If offshore areas are leased for gas exploration there is always the possibility that oil also will be found. There is no known example of a case where a lease prohibits an oil company from developing oil if oil is found in a "gas prone" region. There is no documented instance of any company ever agreeing to such a condition in the history of the OCS leasing program. Without such a restriction included in a lease there would be no assurances that oil would not in fact be developed, raising the possibility of an oil spill. According to statistics compiled by the Department of the Interior, there were some *3 million gallons* of oil spilled from OCS oil and gas operations in 73 incidents between 1980 and 1999.¹⁰ 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.

It would only take 24 hours after a petroleum spill in the eastern Gulf of Mexico's Lease Sale 181 area for oil to "sully Florida's Panhandle beaches if the spill was swept up by the gulfs powerful Loop Current. This spill could travel around the Florida Keys and contaminate estuaries and beaches from the Everglades to Cape Canaveral," according to Congressional testimony by oceanographers from the University of South Florida.

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*. Any suggestion that restricting leases to natural gas drilling only will not adequately reduce risk of environmental impacts

⁴MMS, 2000. Gulf of Mexico OCS Oil and Gas Lease Sale 181, Draft Environmental Impact Statement (DEIS), p. IV-50.

⁵*Id.*

⁶*Id.*, p. IV-32.

⁷*Id.*, p. IV-32-33.

⁸*Id.*, p. IV-40.

⁹Congressional Research Service, Report RS20050, "Methane Hydrates: Energy Prospect or Natural Hazard?" James E. Mielke, February 14, 2000

¹⁰MMS, 2000. Gulf of Mexico OCS Oil and Gas Lease Sale 181, Draft Environmental Impact Statement (DEIS), pp. IV-50.

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.¹¹ 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 shore.¹²

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. For more on the pollution and hurricane risks of offshore drilling:

*Drilling and Testing**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.

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 sonars (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.¹³

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.¹⁴ 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.¹⁵

“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 subsea 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.

¹¹U.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.

¹²U.S. Minerals Management Service. News Release. MMS Updates Hurricanes Katrina and Rita Damage. 1 May 2006.

¹³NMFS, 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).

¹⁴McCaughey, R.D., J. Fewtrell and A.N. Popper, 2003. “High intensity anthropogenic sound damages fish ears.” *J. Acoust. Soc. Am.* 113, January 2003.

¹⁵*Id.*

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 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.¹⁶

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 annually.¹⁷ Travel and tourism is one of the largest employers in America, employing approximately 16.9 million people.¹⁸ It is estimated that in 1992 beaches contributed approximately \$170 billion annually to the national economy.¹⁹ In South Carolina alone, beaches generate \$1.54 billion in wages and earnings.²⁰

Florida is one of the world's top travel destinations with 825 miles of beaches.²¹ With nearly 80 million tourists in 2005, the hospitality industry generated approximately \$57 billion for Florida's economy and helped create nearly one million jobs. Florida's tourism industry is responsible for 20 percent of Florida's economy. Miami Beach alone reports approximately 21 million tourist visits annually. In 1992, about 40 million tourists visited Florida, spending nearly \$14 billion and creating about 630,000 jobs with a payroll of \$8.9 billion.²²

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 fishing. Florida generates more than 800 million dollars worth of commercial fish caught annually. Florida also has more than \$5.6 billion in annual recreational fishing expenditures.

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-

¹⁶Long, 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.

¹⁷Houston, James R. (2002). *The Economics Value of Beaches*. U.S. Army Engineer Research and Development Center.

¹⁸World Travel and Tourism Council. (2001). *Year 2001, World, United States*, TSA Research Summary and Highlights. www.wttc.org/ecres/pdfs/a111/pdf.

¹⁹U.S. Travel and Tourism (1993). *World Tourism at the Millennium*. U.S. Department of Commerce.

²⁰Marlowe, Howard. *Assessing the Economic Benefits of America's Coastal Regions*. Trends and Future Challenges for U.S. National Ocean and Coastal Policy.

²¹Murley, James, Lenore Alpert, William Stronge. (2005). *Tourism in Paradise: The Economic Impact of Florida Beaches*. 14th annual Biennial Coastal Zone Conference.

²²Strong, W.B. (1994) *Beaches, tourism and economic development*. *Journal of the American Shore and Beach Preservation Association*. 62(2).

nautical-mile by 38-nautical-mile area, and remained depressed for at least five days following the conclusion of seismic survey activities.²³

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.

2. MORE OFFSHORE OIL AND GAS DRILLING WILL NOT SOLVE OUR ENERGY PROBLEMS

The natural gas and oil estimated to be recoverable in the eastern Gulf of Mexico will not solve our energy problems. According to the Minerals Management Service, offshore areas opened by S. 3711 will supply only 25 days of oil and 35 days of natural gas over the next 60 years at 2004 consumption rates. The new area, also referred to as lease sale 182, is in very deep water and contains relatively small amounts of oil and natural gas, about 525 million barrels of oil and 2.2 trillion cubic feet of gas, according to MMS.

The same is true for oil and gas in areas in the eastern Gulf of Mexico outside of Lease Sale 182. There is an estimated 930 million barrels of oil in the entire eastern Gulf of Mexico, which breaks down to approximately 47 days worth of oil when you consider that Americans use about 21 million barrels of oil a day. Obviously, that is not enough oil to impact the price of a gallon of gas or solve our energy problems.

Drilling anywhere on the Outer Continental Shelf will not solve the problem of high natural gas prices either. It simply takes too long to develop a natural gas field to impact prices in the short term (1-3 years). Natural gas from areas currently off limits to drilling will not reduce prices in the long term either, since there is not enough gas there compared to either annual U.S. production or consumption.

A Department of Energy, Energy Information Administration study done in 2001, *U.S. Natural Gas Markets: Mid-Term Prospects for Natural Gas Supply*, SR/OIAF/2001-06, compared the price of natural gas with the OCS moratoria areas kept out of production and the price of natural gas with all of the moratoria areas opened for drilling in the 2007-2012 MMS 5 Year Plan.

With all of its supply and demand information, DOE's National Energy Model Modeling System (NEMS) predicted that the price of natural gas would be \$3.26 per thousand cubic feet in 2020 without the gas under moratorium and \$3.22 per thousand, or four (4) cents less with access to the additional gas in moratoria areas. This is a predicted price drop of a 1.2 percent from the addition of 10 times more gas reserves than would be freed up under this bill.

This is hardly major or even significant price relief. The effect is of such a magnitude that it would probably be drowned out by the marketplace or normal fluctuations, or by catastrophic events we have no control over like the impact of a Hurricane Katrina. Catastrophic events that effect production or distribution assets clearly have the ability to move prices much more than a mere addition of 5 TCF of technically recoverable resources.

3. MOST OFF SHORE OIL AND GAS RESERVES ARE ALREADY AVAILABLE

The vast majority—80 percent—of the nation's undiscovered technically recoverable OCS gas is located in areas that are already open to drilling, according to the Department of the Interior's 2006 *Report to Congress: Comprehensive Inventory of U.S. OCS Oil and Natural Gas Resources*. There are estimated to be 86 TCF of Undiscovered Technically Recoverable Resources (UTRR Mean Estimate) in all OCS areas withdrawn from leasing compared to 479 TCF of Reserves, Reserve Appreciation and UTRR in the total OCS of the U.S. Therefore, all the potential gas placed off limits to drilling at present constitutes less than 20 percent of the gas thought to exist in the OCS.

²³ 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.

Furthermore, 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.²⁴

Thus, permanent protection for the coastal moratorium areas will leave the vast majority of the nation's OCS gas available to the industry.

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.²⁵ 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 2,702.²⁶

Based on this data, it is clear that the vast majority of federal oil and gas resources occurring on federal lands and waters are available for development. The oil and gas industry clearly has plenty of access to our public lands already; there is no reason to grant access to additional areas currently under moratorium for additional leasing.

4. THERE ARE SMARTER, CHEAPER, AND FASTER SOLUTIONS FOR RISING GASOLINE AND NATURAL GAS PRICES

America's coasts and marine waters provide the economic lifeblood for tourism and fishing communities, a destination for thousands of vacationing families each year, and sanctuary for fish and wildlife. Offshore drilling would industrialize our coasts and put our coastal communities and economies at risk.

Sacrificing America's shoreline is not what will bring down—and keep down—energy prices. The United States has about 5 percent of the world's population but consumes about 25 percent of the world's energy. Instead of drilling off our coasts, which will only add to the billions in profits already being made by Big Oil, Congress should raise the fuel economy of our cars, encouraging the use of renewable energy like wind and solar power, and adopting other, existing energy-saving technologies that cut pollution, curb global warming and create good jobs.

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 pump.²⁷ A single modest turbine can produce enough power to meet the annual electricity needs of 500 average homes.²⁸

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 2017, the renewable energy standards already enacted by states such as New Mexico, California and Texas will produce as much renewable energy as would be produced by gas fired power plants using 0.6 TCF of gas per year. That is twice as much gas annually than the amount of oil and gas thought to be in the area covered by the original Lease Sale 181.

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 your favorite vacation spot on the chopping block.

²⁴ BLM, "EPCA Inventory Fact Sheet," 1/15/03, p. 3

²⁵ BLM, "Total Number of Acres Leased" (unpublished table, January 31, 2005) and BLM, "Number of Productible Acres on Federal Lands" (unpublished table, January 31, 2005)

²⁶ 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)

²⁷ Freidman, David, et al. "Drilling in Detroit: Tapping Automaker Ingenuity to Build Safe and Efficient Cars." Union of Concerned Scientists. June 2001. p. 41.

²⁸ American Wind Energy Association—<http://www.awea.org/pubs/documents/FAQ2002percent20-percent20web.PDF>.

CONCLUSION

The Sierra Club strongly opposes efforts to open areas currently off limits to off shore oil and gas drilling. Off shore oil and gas drilling is a dirty business, one incompatible with America's coastal ecosystems and economies.

We feel that the oil and natural gas thought to be in these areas will make, at best, a very marginal difference in the supply or price of gas in the future. Any oil and gas found would not be available any time soon and therefore would not address immediate concerns regarding prices or supply.

We suggest that a better way to address these concerns is to promote energy efficiency and renewable energy programs. For instance, it typically takes seven to ten years to bring an oil or gas field on line. But it only takes one year to build a 50-megawatt wind farm that can produce 50 megawatts of clean, renewable electricity.

Finally, we do not believe that the beaches, coastal environment, marine resources, and billion-dollar tourism industry of the eastern Gulf of Mexico should be sacrificed for a small amount of oil and natural gas, especially when efficiency and renewable energy solutions to our energy problems are available right now.

We strongly feel that it is time to begin to wean America off of fossil fuels, and in their stead promote energy efficiency programs such as increased fuel economy for our cars, trucks and SUVs, and to promote renewable energy such as wind, solar and other clean energy sources.

Once again, thank you for the opportunity to testify before this committee.

The CHAIRMAN. Thank you very much.

Our final witness here is Paul Siegele, who is the vice president of deep water exploration and projects for Chevron's North American Exploration and Production Company.

STATEMENT OF PAUL K. SIEGELE, VICE PRESIDENT, DEEP-WATER EXPLORATION AND PROJECTS, CHEVRON NORTH AMERICA EXPLORATION AND PRODUCTION COMPANY, CHEVRON U.S.A. INC.

Mr. SIEGELE. Thank you, Mr. Chairman, members of the committee. I appreciate the opportunity to be able to appear here today. As Chevron's vice president of deep water exploration and projects, my responsibilities involve exploring for, developing, and bringing on-line new sources of oil and gas in the deep water Gulf of Mexico.

Energy diversification is a good way to provide energy security. The Gulf's deep water is a critical part of a diversified energy portfolio because it has a tremendous potential for significant new finds of oil and gas. However, it is also a high-cost, high-risk area to explore and produce and it requires new technology to develop these resources.

For instance, we have drilled six to eight exploratory wells per year over the past several years. These wells cost \$50 million to \$100 million each and often result in dry holes.

We are also participating in three new offshore developments that are anticipated to yield 300,000 barrels of oil per day within the next few years. We operate two of these, the Tahiti and Blind Faith projects, which will represent over \$4.5 billion in capital investment.

Chevron is also a partner in the Perdido Regional Development Project, another multi-billion-dollar effort. All these are located in exceptionally deep waters, requiring development of new technologies.

As Mr. Nichols has mentioned, an example of how we are meeting deep-water challenges is the record-setting Jack #2 production test conducted in June 2006. This well was completed and tested

in 7,000 feet of water and more than 20,000 beneath the sea floor. More than half a dozen world records for test equipment pressure, depth and duration were set during the test. The test was significant because, for the first time, we showed that oil could be commercially produced from the newly discovered Lower Tertiary area, given the right economic conditions. Due to the exceptionally high costs, the ultimate potential for this area is particularly sensitive to oil prices and fiscal terms.

To ensure that we can implement our long-term deep water plans, in 2006 we committed \$2.5 billion to extend two deep water rig contracts and entered into two long-term lease agreements to build two new, state-of-the-art drill ships. These new ships will be capable of drilling in 12,000 feet of water and to a total depth of 40,000 feet.

Deep-water exploration and production is commercially risky and success is in no way guaranteed. As mentioned earlier, exploratory wells can cost up to \$100 million each and many result in dry holes or are uncommercial. Companies invest billions of dollars in early phases of exploration and development and income from production can be a decade away or longer.

Government incentives designed to stimulate activity and grow energy production from high-risk, high-cost areas, such as the deep water Gulf of Mexico, encourage companies to invest by reducing costs or increasing revenues, ultimately resulting in reducing the need for foreign sources of oil.

The Deep Water Royalty Relief Act is a successful program. Production from the Gulf's deep water has grown dramatically over the past decade and will continue to grow as projects currently under construction are completed and energy production starts.

Before closing, I would also like to address the issue of price thresholds for deep-water leases issued in 1998 and 1999. We remain committed to finding a mutually acceptable resolution to this issue. With this in mind, we have had a series of discussions with MMS officials where we have proposed a range of options and we have submitted a written proposal for resolution of the issue. We continue to honor the proposal and look forward to further discussions with the MMS. There are many details to work out and we remain hopeful that we will reach an agreement.

In summary, Chevron has a long history of working to maximize the production of energy from the Gulf of Mexico, and our efforts will continue. We are committed to being a leader in deep-water exploration and development, a partner of choice and a leader in innovation and technology development. We take our job of providing energy for our great Nation very seriously and look forward to working with all stakeholders to ensure we maximize energy production to meet our Nation's energy needs.

Thank you again for giving me the opportunity to be here today. I will be happy to answer any questions you may have.

[The prepared statement of Mr. Siegele follows:]

PREPARED STATEMENT OF PAUL K. SIEGELE, VICE PRESIDENT, DEEPWATER EXPLORATION AND PROJECTS, CHEVRON NORTH AMERICA EXPLORATION AND PRODUCTION COMPANY, CHEVRON U.S.A. INC.

Mr. Chairman and Members of the Committee, on behalf of Chevron North America Exploration and Production Company (hereinafter "Chevron") I wish to express

our appreciation at having the opportunity to appear here today to discuss oil and gas resources on the Outer Continental Shelf and areas available for leasing in the Gulf of Mexico.

As Vice President, Deepwater Exploration and Projects, my job responsibilities include looking for new sources of oil and gas in the deepwater Gulf of Mexico. My previous position was General Manager for Deepwater Exploration and Production.

INTRODUCTION: ENERGY SECURITY AND GULF OF MEXICO DEEPWATER EXPLORATION

In a world of increasing strategic competition for resources and heightened geopolitical risks, safeguarding America's energy security requires an integrated, strategic approach. This approach must focus on reducing and managing America's energy vulnerabilities while providing Americans with affordable, reliable energy—the foundation of our competitiveness and way of life. Energy portfolio diversification is the best way to provide energy security. Long-term energy security will require increasing our energy assets here at home (efficiency measures, alternative energy sources, and traditional hydrocarbons), while engaging strategically with foreign partners who share these same goals of increasing energy supplies, reducing energy demand and promoting global energy diversification.

Oil and gas production from the deepwater Gulf of Mexico is a critical part of a diversified energy portfolio. The Gulf's deepwater is an important frontier area for oil and gas exploration in the U.S. My testimony focuses on Chevron's deepwater exploration prospects because the deepwater is the area of the Gulf of Mexico with the most potential for significant new finds of domestic oil and gas at this time and because it is my job to steer Chevron's deepwater Gulf of Mexico exploration activities. My testimony addresses our current activity in the deepwater Gulf of Mexico, our future plans for growth, and our vision to remain an industry leader in producing tomorrow's energy resources from this basin. My testimony also provides examples of our design and application of industry-changing technology.

CHEVRON'S PARTICIPATION IN GULF OF MEXICO DEEPWATER EXPLORATION

Chevron is a leader in drilling exploratory wells in the deepwater and is a leading leaseholder in the region. (An exploratory well is a "wildcat" well, a well drilled in an area where it is unknown whether crude oil or natural gas is present.) We drilled an average of 6-8 exploratory wells per year over the past few years in the Gulf of Mexico and plan to maintain a robust drilling program for the long term. Exploratory wells cost \$50 to \$100 million dollars to drill and often result in dry holes, wells not capable of producing in commercial quantities, rather than discoveries.

Chevron is participating in three new offshore developments involving investments of more than a billion dollars each that are anticipated to yield approximately 300,000 barrels of oil production per day within the next four years. Chevron operates two of these—the Tahiti and Blind Faith projects—which represent over \$4.5 billion in capital investment and are designed to produce 165,000 barrels of oil per day. In these projects, we are drilling development wells (wells drilled in a known reservoir in a proved oil-or gas-producing area) and constructing associated facilities, with first oil production targeted for 2008. Chevron is also a partner in the ultra-deep Perdido Regional Development Project, which will include a regional production host facility to allow future expansion beyond the initial core fields. This facility is expected to be on production near the turn of the decade and is capable of handling 130,000 barrels of oil per day of production. These projects are located in very deep waters (4000 feet to 9500 feet), which requires the development of new technologies for successful completion.

In addition to these new offshore developments, Chevron is involved in six projects where the company and its partners are actively appraising significant discoveries. Chevron is the operator of three of these projects, those involving the Jack, Saint Malo, and Big Foot discoveries. These projects are anticipated to provide significant volumes of production for the U.S. for the long term. Each of these projects faces challenges, however, as each requires significant commitment to capital investment, subsurface evaluation, development and testing of new technology, and design of complex subsea production systems.

An example of how we are meeting deepwater development challenges is the record setting Jack well production test in June 2006. The Jack well was completed and tested in an area 270 miles southwest of New Orleans in 7,000 feet of water and more than 20,000 feet under the sea floor. The Jack well test broke Chevron's own 2004 Tahiti well test record as the deepest successful well test ever completed in the Gulf of Mexico. During the test, the well sustained a flow rate of more than 6,000 barrels of crude oil per day, with the test representing approximately 40 percent of the total net pay measured in the Jack #2 well. More than a half a dozen

world records for test equipment pressure, depth, and duration in deepwater were set during the Jack well test. For example, the perforating guns were fired at world record depths and pressures. Additionally, the test tree and other drill stem test tools set world records, helping Chevron and its partners to conduct the deepest extended drill stem test in deepwater Gulf of Mexico history. The test was also significant in that it proved the application of technology required to achieve substantial production rates from a reservoir type and a reservoir depth not previously proven to be economically productive in the Gulf of Mexico deepwater. As a result of the Jack well test and other company activities, Chevron has become the recognized leader in exploring, evaluating, and developing the promising area of the deepwater Gulf of Mexico known as the "Lower Tertiary Trend."

Chevron is applying its experience in deepwater appraisal and project design methods to all of its deepwater Gulf of Mexico projects in order to improve productivity, reliability, and safety, and to expedite production in both current and future projects. Further, to assure that Chevron will have the capability to implement its long-term deepwater exploration and development plan, in 2006 we committed \$2.5 billion to extend two long-term deepwater drilling rig contracts and to enter into long term lease arrangements to build two new state-of-the-art drill ships. The ships will be capable of drilling in 12,000 feet of water and to total depth of 40,000 feet, further extending our ability to explore for and produce new deepwater Gulf of Mexico resources.

ROLE OF INCENTIVES

From a fiscal perspective, deepwater exploration and production is a risky business proposition. As discussed above, exploratory wells can cost \$100 million each, and many result in dry holes. The process of bringing new energy supplies to the marketplace, from leasing through exploration, development, and construction, can take a decade or more. Companies invest billions of dollars years before there is any income from production, and assume all this risk. Government incentives, designed to grow energy production from high-risk, high-cost areas such as the deepwater Gulf of Mexico, encourage companies to invest by reducing costs, and thereby reducing reliance on foreign sources of oil. The Deepwater Royalty Relief Act is a successful program—production from the Gulf of Mexico has grown dramatically over the past decade, and will continue to grow as projects currently under construction are completed and energy production starts.

CONCLUSION

Chevron has a long history of commitment to the development of resources in the Gulf of Mexico, and this commitment will continue. We are the largest operator on the Gulf of Mexico shelf and a leader in all aspects of deepwater exploration, appraisal, and new project design and execution. We are a partner of choice and a leader in innovation and technology development. We look forward to continuing to explore for and produce oil and gas from the Gulf of Mexico for years to come.

The CHAIRMAN. Thank you very much for your testimony. I thank all the witnesses for your testimony. Why don't we take 5-minute rounds. I'll start and then Senator Domenici, and we'll just take people in the order that they arrived.

First, Secretary Allred, let me ask you: There are about 33 million acres of Federal Outer Continental Shelf, as I understand it, that are currently under lease but are not producing; could you explain why there is such a large amount that is not in production? Do we have rules to encourage diligent development of leases once a lease is issued and are those adequate to get the production underway?

Mr. ALLRED. Thank you, Mr. Chairman. Yes, in the offshore leases, when we offer them for sale, depending upon the depth of water, they are offered for a term of either 5 years or 10 years and essentially, it's about—that breaking point is 400 feet.

They are required, in that lease term, to start producing or to do certain diligence or the lease expires and then it comes back on the market and is resold.

The CHAIRMAN. Expires in what period of time? Are these 5-year leases?

Mr. ALLRED. Either a 5-year or 10-year, depending upon the depth of the water where the lease occurs.

The decisions that the oil companies make—and it's probably a better question to ask them, but the decisions that the oil companies are faced with on those leases has to do with the information that they gain after they are awarded the lease and decisions that they have to make as to where the most productive information—or the information indicates where the productive resource is, as they develop it under their lease, after the lease is acquired. So they're making decisions, after they acquire the leases, as to whether they should go.

Now, we will see—remember, there are payments with regard to rental rates on these leases going forward, before they produce. They will make decisions, sometimes, to turn those leases back, before the 5- or 10-year period is up. And again, they will go back onto the market in our next sale in that area. So there are due diligence requirements. They have to proceed or they cannot retain the lease. But there are many decisions that they have to make, based upon data that they acquire after they are awarded that lease.

The CHAIRMAN. Let me ask, also, as I heard Ms. McKeithen's testimony, and in her written testimony as well, she points out that in Louisiana, the royalty received has to be, by law, at least 12½ percent—in fact, it's on average 22.85 percent for inland tracks and 21.85 percent for offshore—and I believe she said that the leases that the State of Louisiana issues for the land it owns or has leasing rights in, those leases are bid, not just the original bid price, but also the rate; why do we not pursue that at the Federal level, if that's what the market will bear?

Mr. ALLRED. Mr. Chairman, we try to analyze what market conditions are when we make decisions as to what to set the royalty rates on a particular sale. One of the differences between the lease rates or the royalty rates with regard to market conditions in the inland waters and the waters on the Outer Continental Shelf, of course, is the depth and the cost of developing those. In the 3-mile areas, you're talking about technology that is well developed and costs, which when compared to the OCS, are fairly moderate. So we try to make decisions as to what is attractive or what will be attractive in the lease sales that we offer in order to maximize the greatest money to the United States.

Now remember, they are bidding-in the U.S. sales, they are bidding two items and both of those are driven by the market. The first is the bonus bid that they give us, which is a fairly immediate income to the United States, and then second, they are required to pay the royalty rate that we specify in the sale. If you raise the royalty rate—the companies are going to be able to pay a certain amount in their minds for that lease. If you raise the royalty rate, then you're probably going to get less on the bonus bid. And that was the kind of analysis we looked at when the President decided to raise the royalty rate to 16⅔ percent. And our analyses indicate that when we did that, we probably—in the short term, we're going to decrease the bonus bids.

So we try to balance those two in the process that we have, and which is in legislation, to make sure we get the best money for the United States.

The CHAIRMAN. My time is up.

Senator Domenici.

Senator DOMENICI. Thank you, Mr. Chairman.

I am really very impressed that I see the Honorable Marjorie—how do you say your last name?

Ms. MCKEITHEN. “Mc-KITH-in.” I think we mispronounce our own names, Senator.

Senator DOMENICI. “Mc-KITH-in,” and the Honorable Lisa Jackson, sitting side by side, and one is so happy about offshore leasing and the other is so dour and so scared. I do not quite understand that we are living in the same world. But nonetheless, it is nice that we can sit together and talk and be decent about things.

Let me move from that to a couple of questions. Mr. Secretary, when we did 181 and 181 North and opened that up, we tried to put in language expediting you as much as possible, so we do not have that very valuable leasehold sitting around, that we would get it done, that we would get on with it. Is that happening? Are we working on what must be done to get that lease up and get it going?

Mr. ALLRED. Senator Domenici, yes, we are working on both lease sales to try to make sure we have the information and have met the requirements of NEPA with regard to that sale. I think we have told you before that we have some concerns that we are going to be able to complete this sale by the end of the year because of the NEPA documentation and the studies that have to be done. But we are doing what we can to do that.

We are further complicated, as I think we have said before, by the continuing resolution. But we are proceeding expeditiously. If we cannot do it by the end of the year, it will be soon after. So we understand what you want and we are working as hard as we can to do it.

Senator DOMENICI. The same person. Would you comment, sir, on Mr. Manuel’s contention that there were hundreds of oil spills during Hurricane Katrina on the OCS? Is this true?

Mr. ALLRED. Mr. Chairman—Senator Domenici, our records with regard to—this is the Federal OCS.

Senator DOMENICI. Yes.

Mr. ALLRED. I do not have information on the other areas down there. But our records indicate that there were a little over 17,600 barrels of oil spilled during Katrina and Rita. That was 124 spills—89 of them were classified by the Coast Guard as minor, 52 of the spills were from platforms and rigs, and 72 of those 124 were from pipelines. The pipelines represented a little over 7,000 barrels of oil. The spills from the rigs represented about 10,000 barrels of oil.

But as we looked at the results, I think it is rather amazing, all of the shut-off or shut-in valves performed as they were intended. There were no reports of spills from OCS facilities reaching shore. There were no reports of oiled birds or mammals from the OCS spills and there were no observations of large slicks that required collection or clean-up.

Now, there were spills that reached the ocean from onshore facilities, but as best we can tell the OCS facilities performed as we had expected.

Senator DOMENICI. Thank you very much.

Mr. Nichols, could I ask you, you went out there and drilled extremely deep and kind of struck it rich in terms of finding a new yield that may not have been expected, that indicates there might be more oil in the offshore than we had expected; is that true?

Mr. NICHOLS. We potentially have major discoveries out there. We have drilled discoveries, in our case, in four different wells, four different fields. Each of these wells are costing about \$100 million each. To fully determine commerciality of these projects, it is going to cost \$2 billion to \$3 billion of additional money.

We are right on the edge of technology. As my colleague from Chevron testified, we are breaking world records every time we do something out there. So there is, potentially, major discoveries out there and we have 35 prospects that we have already identified seismically that look very attractive. We are eager to move forward with those as aggressively as we can.

We, as an independent producer, get measured by how we book reserves and how we build production. So there is tremendous pressure on us to move as fast as we possibly can. Our shareholders demand that.

The delays are caused by equipment. Because we are on the edge of technology, there is not an abundance of drilling rigs out there or equipment to allow us to do that.

Senator DOMENICI. Sir, when we look at the offshore are you—these that you have found, discovered, that you continue to go after, are they on open leaseholds or do we have to let these?

Mr. NICHOLS. No, they are on prospects that we have already leased from the Department of the Interior.

Senator DOMENICI. All right. So that business of whether you can do it or not has already been accomplished as far as the Government of the United States is concerned?

Mr. NICHOLS. Yes. And those are in the western part of the Gulf that is now available for leasing.

Senator DOMENICI. I think I am finished. Thank you very much.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

We have 13 minutes on this roll call vote. As we know, the Majority Leader is trying to get these votes done on time. Senator Wyden has asked to go ahead with his 5 minutes of questioning, and why do we not do that, and then if he would just recess the committee at that point and we will come back in about 10 or 15 minutes and startup again.

**STATEMENT OF HON. RON WYDEN, U.S. SENATOR
FROM OREGON**

Senator WYDEN [presiding]. Thank you very much, Mr. Chairman.

Mr. Siegele, to me, it just defies common sense to argue for opening new environmentally-sensitive areas to oil and gas drilling when so much land already leased for oil and gas drilling in envi-

ronmentally-sensitive areas just sits out there idle. So I want to ask you about a concrete case, to begin with.

The State of Alaska recently terminated the Point Thomson unit on the North Slope in Alaska. Chevron and its partners—Exxon, BP, and Conoco—held the leases for more than 20 years without developing the field. Chevron owns about 14 percent. Now, the Thomson Sand Reservoir is known—known—to contain 200 million barrels of oil and the shallower reservoirs are known to contain hundreds of millions of barrels of oil more. And yet Chevron has never developed this field.

Now, after years of listening to excuses, the State of Alaska basically said there is no legitimate reason to let Chevron sit on these leases. Now, this is a huge deal for us in the Pacific Northwest. Alaskan crude is our major source of crude in our part of the country.

Why should the Congress let Chevron or Exxon or BP drill off the coast of Oregon for oil when we have these kind of concrete examples of you all not developing the resources you have?

Mr. SIEGELE. Let me answer that question by starting with—my responsibilities are for the deepwater Gulf of Mexico, not for Alaska. So with that caveat, maybe I could attempt to answer it by—what little I know, and it has been years since I have worked Alaska, but I think the answer to your question lies in the commercial uncertainty. And it is the very same problem that we face in the deepwater Gulf of Mexico, particularly with this new trend that we were talking about, the Lower Tertiary. The costs are enormous. In the case of Point Thomson, I believe part of the issue is pipeline and getting into the Trans-Alaska Pipeline. There are a lot of commercial issues. So it is not due to an unwillingness of companies to go forward, it is due to a lack of commercial incentive.

Senator WYDEN. I recognize you may not know much about this, but there are scores of these kinds of examples, example after example. And nobody can divorce politics from this debate. I will tell you, you just cannot reconcile arguing for going into new areas when so much has been passed up, to date.

I am going to see if I can get one more in and it deals with the royalty issue that, as you know, our committee feels strongly about. Mr. Nichols, your company, Devon, unfortunately has been one of those to sue the government in recent years in order to avoid paying billions of dollars in royalties to the taxpayers. Devon was a plaintiff in the *Santa Fe Snyder* case, and in 2004 convinced a U.S. Circuit Court of Appeals to apply price thresholds to individual leases in the Gulf, not to overall fields, thereby guaranteeing companies a more generous level of royalty relief than the Interior Department ever intended.

Now the decision in your case is being cited by another company, Kerr-McGee, in its lawsuit to erase any price thresholds on any Gulf lease issued from 1996 to 2000, potentially costing the taxpayers \$60 billion. Devon says it agrees. You informed your shareholders in your 10Q statement, filed with the Securities and Exchange Commission, that it does not recognize the Interior Department's right to impose any price thresholds on the Gulf leases issued from 1996 to 2000. And I gather that you have said how

great it is to save this \$100 million in royalties and that more will be forthcoming.

Tell me, if you would, so we have it on the record, why you think your company should not pay the Federal Government royalties on the oil you produce from these Federal leases?

Mr. NICHOLS. Several corrections, Senator. First, that lawsuit filed by Santa Fe Snyder was a separate company that was filed and litigated long before we bought them, so I really have no knowledge about that particular lawsuit.

Senator WYDEN. Do you agree with the Kerr-McGee position, sir?

Mr. NICHOLS. We did not join Kerr-McGee in that lawsuit.

Senator WYDEN. Do you agree with the position?

Mr. NICHOLS. I have not studied that. We did not file that lawsuit.

How we got those leases I think, though, is instructive. Devon bought several companies. We did not buy those leases through the open auction bid that came from the Department of the Interior. Instead, we bought two companies that had those leases. Part of our due diligence, Senator, was we go in and look at the terms of all the leases that we buy, both onshore and offshore, and in the process of that, run it through our computers to evaluate those leases.

We looked at the terms of those leases. They were offered by the Department of the Interior during the Clinton administration. We evaluated them. The leases had been in existence for 5 or 6 years. We evaluated based on the terms.

So there was no reason for us to assume, in evaluating those, that the Government would not honor the terms of those leases.

Senator WYDEN. Mr. Nichols, do you deny that you informed your shareholders, in the 10Q, that you do not recognize the Interior Department's right to impose any price thresholds on those leases?

Mr. NICHOLS. The terms of those leases do not have price thresholds in them. We have disclosed in our 10K obviously the amount of money that would be owed to the Government if those leases were retroactively amended to include price thresholds. That is clearly laid out in the 10K for all of our shareholders to see.

Senator WYDEN. My time has expired. Perhaps my colleague wants to get into this before the vote. But I think this is a textbook case of what has gotten us into this predicament on these oil leases. I think everybody knows that there is plenty of blame to go around. It goes back to the past administration.

But companies like yours have got to be constructive rather than look for ways—and it is stated in your 10Q statement that you all basically think it is a great thing that there should not be any price thresholds. That is not in the public interest.

I want to recognize my colleague.

**STATEMENT OF HON. MARY L. LANDRIEU, U.S. SENATOR
FROM LOUISIANA**

Senator LANDRIEU. We only have 7 minutes. And I will be back, but I wanted to follow this line of questioning, because I am looking forward to working with my colleague Senator Wyden to work through these many difficult challenges. But for the record, I want

to say that it would be no sense for an oil company to drill any well, whether it was 10 feet or 10,000 feet, or a gas well, 10 feet or 10,000 feet, if there was no way to get the oil or gas to market.

Now, I know that there are some people that represent States that do not know a lot about oil and gas drilling, so I am going to be patient with my colleagues as they learn. But you have to have a pipeline or a railroad or a road or some infrastructure to distribute the oil and gas to other places. It would be foolishness for any company to drill anywhere where there was not the infrastructure.

I am not familiar, Mr. Siegele, with Alaska and the details of that, but for the record, I just want to be clear that you would be a fool to drill if you did not have the infrastructure. So one of the reasons that oil companies and gas companies drill in some places more than others is because some places have more infrastructure.

I am going to leave that fact there and then, Mr. Manuel, I am going to come back and talk to you about the spillage that occurs naturally in the ocean versus the spillage that occurs from the oil and gas platforms. Also, you might want to get your windmill information out, because I am going to ask you how many windmills it is going to take to keep the lights on in California. So you can start your calculating, and I will be back.

[Recess.]

The CHAIRMAN. The next set of questions is from Senator Craig. Why don't you go right ahead.

**STATEMENT OF HON. LARRY E. CRAIG, U.S. SENATOR
FROM IDAHO**

Senator CRAIG. Mr. Chairman, thank you very much.

For the hearing today, I think it is tremendously enlightening for all of us to understand what is and is not possible, and that our limitations today are more political than they are either scientific or engineeringly so, and the choices that we as a Nation have to make in relation to the politics of the issues versus the technology of the issues.

I am not going to embarrass anybody this morning by asking any of you your age, especially you ladies. That would be inappropriate. But I did a little math and I find that the Sierra Club is still suffering under a ghost effect of Santa Barbara. But many in the audience would not know what I was talking about if I mentioned Santa Barbara. I am talking about something that happened in January 1969, 38 years ago.

I find it also interesting that the world we live in today is so dramatically advanced from 1969, even though some of us are still stuck in that mind set. I think that is what Larry Nichols and Paul—how do you pronounce your last name, Paul?

Mr. SIEGELE. "SIGG-lee."

Senator CRAIG. "SIGG-lee." In part are telling us, that their world has changed dramatically. It has even changed in the last few years, based on technology or reprogrammings or some ability to change an old instrument into a newer instrument, and to do so in a very safe and environmentally-sound way. That causes us to arrive at—having to look, from a public policy point of view, at what we do for our country for energy security.

Of course, I have been a bit direct and open about it. I was the first to go to the floor to talk about the hypocrisy of Florida and our allowing—by disallowing ourselves—China to drill just literally miles off our coast in the Northern Cuban Basin. And, of course, I was extremely pleased this past year when 181 finally made it across the finish line to be now implemented by the Department of the Interior.

There are three levels of protection for the Gulf: there is Presidential moratoria; there is the Interior Department's 5-year MMS plan, also at the Presidential discretion; and then there is the Interior Appropriations moratoria. Now that I am ranking on Interior, I really think we ought to change that attitude there to an opt-out, so that if New Jersey wants to opt out they can. But other States might not want to any more, based on what we now know as capable and potentially possible.

I do not know if I have got that chart here. I love showing it, because it is a direct contradiction to what Steve Allred is telling us. Not that it is not there, but because—now I know that Democrats will accuse me of being Kent Conrad. I always accuse Senator Conrad of being unable to speak without a chart and now I am doing the same thing.

This is Santa Barbara, 1969, Mr. Chairman. This is not the America we live in today. And therefore I am pleased you are revisiting this issue. Whether it is adjustments in royalties, whether it is the bringing on of new technology, this is all about energy security today in an environmentally sound way. It has nothing to do with conservation. It has nothing to do with new technologies. We are going to do all of those, and over the decades to come we will do more of those as we deal with this. But I think the core sample that was sent around today is literally an example of a very real change in our capability.

I am sorry, I can't live in the past and I won't live in the past, and if I have anything to do about it, public policy will adjust a little bit to be reflective of that.

Let me come back to you, Steve, Secretary Allred. In the implementation of the legislation that has been passed relating—well, the Gulf of Mexico Energy Security Act that we passed in 2006, you talked about where we are on timelines; can you be more specific? When will leases be let, to your knowledge, based on the work you have yet to get done?

Mr. ALLRED. Senator, we expect that the first sale—first of all, the plan will be done midyear. It will be adopted by midyear. The first sale will probably be in August, and then the second sale probably a month after that. That is our current—what we anticipate. The only question is the one new area, whether or not we can get the environmental studies done to include that in a sale this year.

Just from a business standpoint, from the standpoint of getting the most return to the Federal treasury, it may also be better to wait until early spring of 2008. But those are the things that we will evaluate. We will be ready to go as quickly as we can and it makes sense.

Senator CRAIG. We understood during the debate over 181 that this was not an unknown area, that it was relatively well known and known prior to it being taken out of lease or lease opportunity

some years ago. Is that, based on your knowledge, a fact and will that expedite it at least as it relates to industry's interests?

Mr. ALLRED. Senator, I think it will. There is a lot of information known there, although as you go out further, obviously, you will gain additional information. What we have not been able to do, when an area is under a moratorium, we cannot begin the environmental studies that are necessary, so while on all of the other areas in the plan we were well along on the collection of environmental data and the analysis that was required under NEPA, on those that were added in last December's legislation we had not been able to start that. So that is why it is a little bit later.

But we are accelerating that and I think there will be, from what we understand, a tremendous amount of interest.

Senator CRAIG. I see I am out of time. Thank you, Mr. Chairman. The CHAIRMAN. Thank you.

Senator Menendez.

Senator MENENDEZ. Thank you, Mr. Chairman.

I appreciate all the witnesses being here. Let me start with Secretary Allred. We have only touched on the question of whether there is enough oil and gas in the Atlantic Ocean to make this all worthwhile in the first place. So my question, Mr. Secretary, is are you familiar with the most recent MMS resource assessment on the Outer Continental Shelf?

Mr. ALLRED. Senator, in general terms, yes.

Senator MENENDEZ. So is it correct that the entire Atlantic OCS is estimated to hold less than 6 percent of the total gas on the OCS and about 3 percent of the total oil?

Mr. ALLRED. Senator, I can give those to you in cubic feet, but I do not remember what the percentage rates are.

Senator MENENDEZ. Well, let me just tell you, the actual numbers, from what I have gleaned from the Department's statements, are 5.8 percent of the gas and 3.3 percent of the oil, according to your 2006 assessment. So that is about 37 trillion cubic feet out of a total of 633 trillion. But that is over the entire Atlantic seaboard, is that correct?

Mr. ALLRED. That is correct.

Senator MENENDEZ. Now, in that respect, that is about 259 million acres that covers that stretch of territory; is that correct?

Mr. ALLRED. That is correct.

Senator MENENDEZ. So meanwhile the western and central Gulf of Mexico planning areas have over 400 trillion cubic feet of gas; is that correct?

Mr. ALLRED. That is correct.

Senator MENENDEZ. And those two planning areas cover only about 84 million acres, about $\frac{1}{3}$ the size of the Atlantic planning area; is that correct?

Mr. ALLRED. Correct.

Senator MENENDEZ. So let me get this straight. In the Gulf of Mexico, you have over ten times the natural gas concentrated in an area $\frac{1}{3}$ the size, that is far easier to find. You have the infrastructure. You have legal authority to drill. So why in the world are we looking at the Atlantic seaboard when you look at the benefits versus the potential costs and the amount that your own Department determines may be available?

Mr. ALLRED. Senator, as you are aware, we cannot do anything on the areas that are under moratoria until such time as you change that. The reason that the sliver off Virginia was included in the plan was at the request of the State. And even with that request, we could not proceed until such time as this committee and the President were to decide that the moratoria or the withdrawal should be released. So as far as being in the 5-year plan, they cannot be unless you took action to change that.

I will say, though, that again I want you to realize that the numbers on which we developed the resource estimates are over 25 years old and are not comprehensive. Our experience elsewhere is that if the data were there you might find substantially more than what is in our assessment. We do not have the resources or did not have the resources to gather new data for that assessment.

Senator MENENDEZ. Well, I am working with what we have now and listening to the other witnesses' costs of expenses of drilling and all of that, I am not quite sure. I learned—I listened to one of my colleagues suggesting that we are living in the past, but sometimes the past is prologue in terms of consequences.

Commissioner Jackson, first of all, thank you for your powerful statement laid out in terms of New Jersey's vision in all of this, and particularly the economic consequences to New Jersey if, in fact, we had a challenge. We heard a little while ago, in answer to one of the questions, that there was a spill in New Orleans during the context of the hurricane, so this is not without some risk.

In a different context, we have seen some environmental damages in New Jersey in the past during the 1980's, did we not?

Ms. JACKSON. Thank you, Senator. We certainly did, and I do remember the past and certainly I remember the 1980's, without telling my age.

Senator CRAIG. How about the 1960's?

Ms. JACKSON. Yes, I do, unfortunately.

I think it is important for you to realize that we—

Senator MENENDEZ. In her infancy, I would add.

Ms. JACKSON. Thank you, Senator.

We face a variety of issues besides this. Certainly in the 1980's our issue then on the shore was wash-ups on our beaches. We had medical waste, we had sewage spills from some of our neighbors and from plants in our own State. We had nonpoint pollution. And in that year, 1988, we had over 800, 803 beach closings. We normally average—our lowest ever has been 30 and last year we had about 79. Those are—by the way, that 79 was almost entirely because of one area on our coast.

Senator MENENDEZ. And what happened, Commissioner, to our economy?

Ms. JACKSON. Our economy suffered tremendously at that point, Senator. We saw about a third—we went from 8.6 million people traveling to our shores to under 7 million, about 6.7 million. Our numbers dropped 22 percent. There was a decrease of \$800 million in revenue just from that one incident. And it took several years—and it is important for people to realize that—for a shore-based economy, several years for people to feel comfortable coming back to the clean beaches of the Jersey shore again.

Senator MENENDEZ. And I will finish on this. I see my time is up, Mr. Chairman.

But \$800 million in the 1980's is a lot more today.

Ms. JACKSON. It certainly is, Senator.

Senator MENENDEZ. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much.

Senator Murkowski.

**STATEMENT OF HON. LISA MURKOWSKI, U.S. SENATOR
FROM ALASKA**

Senator MURKOWSKI. Thank you, Mr. Chairman.

I appreciate all those of you who have joined us here this morning and for the hearing. Again, it is a very important issue.

To you, Secretary Allred, we understand that MMS has been holding meetings with the six current OCS-producing States, and this is to implement the coastal impact assistance program that we approved in 2005. And that law calls for the States to split \$250 million of the nearly \$8 billion a year that the Treasury is collecting from OCS. Now, I understand that, in implementing this act, MMS feels that it needs to spend money to essentially set up a funding formula for allocation and to monitor the State's use of the funds.

I think we can understand that, but it has recently come to our attention that MMS feels that it doesn't have the funding needed to implement the program unless the budget for fiscal year 2007, the likely-permanent continuing CR, adds several million dollars to it. I understand that MMS wants \$2.5 million extra to administer this, which seems like a large amount of overhead. But my question to you is whether or not it is true that MMS does not plan to make any disbursements to the States unless the CR accommodates such additional money.

Mr. ALLRED. Senator, we have gone ahead and developed the procedures and the rules and regulations in draft form and the actual process that had to be developed so we could go ahead. The problem we have is that in order to undertake the activities that are contemplated and to actually look at the proposals that we have, do the engineering, the environmental work, and all of the things that have to be done, the only way we could do that without additional funding is at the expense of other programs.

So the issue with the continuing resolution is a real issue for us just from a staffing standpoint.

Senator MURKOWSKI. Well, we understand that. I guess I would just ask that you look specifically to that language that directs the Secretary to disburse the impact aid without further appropriation. Now, for my State this is not—the dollars coming are not that significant, but I think certainly for those Gulf States that were affected by Katrina and Rita it is significant, and we would like to see that certainly be implemented.

Next question for you, Mr. Allred, is about the 5-year OCS sale schedule, which I understand will be released—or the final schedule will be released in mid-April. When this comes out, what can we expect in terms of the public's opportunity to have the ability to express their views as to size, specific location, conditions, any

kind of environmental stipulations that might be imposed? What is that process, if you can just lay that out quickly for me?

Mr. ALLRED. Senator, as you are aware, the proposed plan was released and has been subject to public comment. There was an environmental impact statement that was done for the plan. That has been released and has been subject to public comment, and we have gotten significant comments. Those closed I believe—it closed just recently, I don't remember the date. But there was a significant amount of information that we received.

As we go forth with those sales, we have to look at those sales from a standpoint of what we will offer for sale. And again, the Secretary has not made a decision on the plan.

Senator MURKOWSKI. And let me ask you further on that, as it relates to Alaska and the North Aleutian Shelf specifically, it has not been announced whether or not that will absolutely be added to the 5-year schedule, but again the question is what type of environmental stipulations might be included to provide for the protection that we would like to see for our fisheries and the other resources there; can you speak more specifically to that?

Mr. ALLRED. Yes. I was just double-checking to make sure I get it right.

Each sale requires an EIS. Also, at the time we offer the sale there will be a preliminary notice of sale that will have all of the restrictions that would be applied to any resulting lease from that sale. So there will be a number of times that people can look at what is going on and there will be the opportunity to influence it.

With regard to—I think there were two comment periods specifically with regard to the plan and the overall EIS. But there will be individual EIS's with regard to these sales as well.

Senator MURKOWSKI. We also have a related issue—I know my time is up, but up north in the Beaufort and the Chukchi Sea, where we have whalers that are very concerned about providing for those environmental stipulations and protections, so we want to again ensure that those are taken into account and consideration.

Mr. ALLRED. Senator, we understand that very well. In fact, I have a real interest in, particularly, the marine mammals up there, and to make sure that if we make decisions, we know what the impacts are. We have been closely working with the boroughs and with the people up there to make sure that what we do does not adversely impact their subsistence.

Senator MURKOWSKI. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much.

Senator Domenici has to leave for another meeting. Let me just defer to him to ask another round of questions, and then I will have some questions.

Senator DOMENICI. Thank you very much, Senator Bingaman.

I want to make, just as a general statement for the record, because we have been talking about both estimates of what we have got by way of resources and we have been talking a lot about what kind of environmental damage we might be causing by this activity. And I want to make sure that the record is clear that most of what we have been talking about is old information. And when you are talking with offshore and talking about estimating reserves and talking about estimating what kind of damages are going to ensue,

if you are dealing with any back information, late information, old information, you really are not dealing with what is relative to the offshore today. Things having changed so dramatically in terms of the equipment that is used to do the work, to drill the holes, in terms of cleanliness and getting down without making any mess, that it is not fair to compare 15 years ago with today, because that is really worse than apples and oranges, they just are not comparable.

The best we can do is to get busy providing you with sufficient money, Secretary Allred, so you can do the kind of broad and lengthy evaluation that we have asked be done with reference to the geological—putting the geological estimators and experts out there to tell us what is in certain areas that we know we want to take on after—the next, and next and next, so that we can tell the American public what they own. We also can be honest with them as to what kind of damage will be caused and what kind won't.

And those will oppose it and talk in terms of 10 and 15 years ago, I hope you are wise enough to tell the American people that they have got to get up out of their slumber and their sleep and come alive and do their looking and estimating today, not what they expected 15 or 20 years ago, because it just ain't true. Right?

Mr. ALLRED. Yes, Senator.

Senator MURKOWSKI. If I can just interrupt the Senator for one moment. We had asked for an inventory of all that we have, but I understand that, even though the Department has conducted the inventory, they rely on—they have not done new seismic testing. So it is basically an inventory based on old information that is 25 years old.

Senator DOMENICI. That is true, and I guess their excuse is they do not have enough money.

Is that true, Mr. Secretary? What is the answer to that? I was going to get to that.

Mr. ALLRED. Senators, as the oil companies have testified here, some of those holes can cost \$100 million, and the seismic work, while less expensive, is still very expensive. So it is very difficult to gather new information on these deep areas with any of the resources that MMS has available.

I think it is important, though, while it is not directly related to the oil and gas inventory, it is certainly related to the inventory—environmental inventory of the oceans. And one of the things that is not well recognized anyplace is that MMS is one of the primary research organizations for ocean environmental situations. We have spent over \$780 million in environmental studies on the Outer Continental Shelf and environs over the last 30 years. That is a lot of money.

It is done for a number of reasons. Part of it, one of the most important, is that we have to have that information in order to make intelligent decisions on when we go forward with leases or the other regulations that we have.

I certainly would like to go out and get more information. However, I think that would also require a change in your moratoria. But we know that there are—we are pretty sure that there are resources out there. Given our experience elsewhere, the numbers

that we have, since they are based on old data, probably would increase substantially if there were new data available.

Again, it is under moratoria and it is not going to be offered for lease unless you were to change your position with regard to that moratoria. But there are resources there, they are valuable, and I think that we would find over time that they would probably increase.

Senator LANDRIEU. Mr. Chairman, can I interject on that for 1 minute? Because both the chairman and the ranking member came to agreement and pursued a more up-to-date, modern inventory of the assets that the American people own. Regardless of whether you are for or against drilling, I do not know anybody in America that would not like to know what assets they own.

I think it has a great deal of bearing not only on our energy industry, but in our security, particularly in our current challenging situation. I would urge the chairman and the ranking member to pursue vigorously this more modern inventory.

And I wanted to ask for the record if there was a better way to get the data using the private sector, which may have more information than we might, and if we could pursue or you could submit for the record on this point, some suggestions to us about how to. I do not know, Mr. Nichols, if you wanted to say a word about or a suggestion real briefly. Is that OK, Senator Domenici, or should I wait for my questions?

The CHAIRMAN. Why do we not just see if Senator Domenici had one final statement. He is going to have to leave here.

Senator DOMENICI. Well, I have to go see Senator Byrd with an appointment that I made. I do want to know what you think about this, Mr. Nichols, and I will read about it afterwards because I will not be here. I consider the question to be very important to me. I would second it and ask that you answer it.

And, Mr. Secretary, I wanted to say, from my standpoint, whatever you are doing is not enough unless you are able to answer that you are proceeding either with—vigorously with—the drilling and the kind of work that is necessary to prove up the next and the next and the next, however you do that. Because it seems to some of us that we have a huge inventory that we have not touched, and that we should be deciding, based upon its proximity to the United States—the fact that we can prove that it will do no damage to the abutting property, and it is seriously something that moves us toward independence or at least moves us to using less of somebody else's oil.

I do not see how we can, as a committee, not insist that the information be forthcoming as to what these assets are worth. And if we have to go to the private sector to get it, we are going to have to get it. You can't just be getting \$100 million or \$200 million in royalties or \$500 million and not paying for the best information on the future that is out there.

I do not know what the Senators here think about it, but I think we could win that in this committee, and I think Senator Bingaman would have to help us do it. But they have to get it done. I do not know what they are charged with yet, but I think we ought to charge them with it pretty darn soon, because we cannot sit around here 6 months from now and say nobody has told the Inte-

rior Department, subject to whatever limitations they insisted that they needed, go ahead and find out.

Do you agree with me?

Senator LANDRIEU. Yes.

Senator DOMENICI. It is a big-time asset and we have got to find out. It is pretty darn close to or shoreline. We do not have to run off to Alaska. I am sorry, we should and we are, but it is pretty close.

Thank you. Thank you very much, Senator.

The CHAIRMAN. Thank you very much.

Senator Landrieu had not had her chance for 5 minutes of questions. Why don't you go ahead.

Senator LANDRIEU. Thank you.

I will start with Mr. Nichols. If you could respond to the question that I just asked for the record: Are there any ideas that you might have about how we could work more in partnership with MMS to get a better idea—without divulging proprietary information, because I understand this industry is quite competitive. We hope to make it even more competitive. But do you have any suggestions to MMS about how we could get an accurate inventory of the Outer Continental Shelf?

Mr. NICHOLS. Thank you, Senator.

Of course, the entire Pacific coast, the entire Atlantic coast, and the eastern half of the Gulf of Mexico have been off limits for seismic work, for exploration for decades, if not generations. There is very little information out there as to whether there is anything there or how big it would be. Anyone who argues that there is nothing there cannot do that with certainty, anymore than we can argue with certainty that there is a lot there. It is just a great void on the map that has not been explored.

We are the only country in the world that has that kind of acreage offshore that is off limits, including very environmentally conscious countries like England and like Norway, that certainly do not look—are not inferior to the United States in their environmental sensitivity. Because that it is all off limits and it has been off limits for so long, my company, and I would speculate very few—and most other companies, have done no work out there, certainly not to apply modern technology. You use your shareholders' money where you have some prospects, and if you discover something you can go work on it.

Senator LANDRIEU. To follow up, the seismic that is available to us now, which is so much more superior than it was even 10 years ago and most certainly in the early part of the century, are there serious or moderate or minimal environmental impacts to just tests to see what is there? Could you talk about it, because the argument is we cannot even run the test because it will damage the environment. And we would like an answer from you about your knowledge about that.

Mr. NICHOLS. There is no serious environmental damage to do that. There are people who do not want that knowledge because they are afraid that we might discover that there is actually something there and then we would want to develop it, to provide for this country's energy resources. To do a simple seismic survey out

in the middle of the ocean is as environmentally friendly as you can be, certainly when you compare it to other alternatives.

Senator LANDRIEU. Thank you.

If I could ask about this seepage or spill issue, because I most certainly think that we need to enter this argument, not with fear and ignorance, but with fact and reason. And I am going to try to do everything I can to make sure that organizations—and I have great respect for members of the Sierra Club, but sometimes I think the leadership of organizations like that leads with fear and ignorance as opposed to fact and reason.

So I want to, just for this record of this committee, to have it either challenged or I want to put it on the record unchallenged that there are 43 million gallons of oil released by natural seepage in the Gulf each year. Does anybody disagree with that at this table? 43 million gallons of oil, of seepage, every year in the Gulf?

Mr. MANUEL. We will get back to you on that. I do not have that in front of me, but I am happy to.

Senator LANDRIEU. Would you check that? And if you have any question about the validity of that I would like to hear directly from the Sierra Club and why you will not acknowledge that. Because the percentage of oil that is spilled from pipelines and the rigs is less, according to my data, than one-tenth of 1 percent—no, one one-thousandth of 1 percent. I want to say that again. Naturally, by nature, if no human ever touched or swam in the ocean or fished one fish out of it, 43 million gallons of oil will seep naturally into the Gulf. Yet, with all the human activity, to create the lights that turn this room on, the energy that keeps this great country moving, we spill less than one-tenth—one one-thousandth of the amount of the oil.

So Mr. Chairman, I have to insist that the Sierra Club get the facts straight, not just for your members, but for the whole country.

Now, No. 2, I would like to ask, Ms. McKeithen, if you would describe—and I only have a minute or two—why you think that our process of competition for revenues in Louisiana, why our system is superior to the Federal system? And you may not know all the details of the Federal system, and if you do not that is fine. But again, for the record, say how you think the Louisiana system encourages competition, makes sure that the taxpayers get a good return for the resources that they own, and that the companies are also encouraged to continue the drilling?

Ms. MCKEITHEN. Thank you, Senator.

Well, it is market-driven. We let the market do the work. We have tract nominations, limited to 2,500-acre tracts, and they are nominated so everybody is on notice for 60 days. We have public advertising about what tracts are being nominated by industry for public bid. That way, as I said earlier, if another company has an interest in that particular tract, they are on notice that somebody else does, too. That promotes competition.

Then I think it increases because we have bidding, competitive bidding, on our royalty, on our bonus and our rentals. It increases—the market increases our price. And I do think that that is superior, as evidenced by the common reservoirs. Just a sampling that I gave in my written testimony, we have four common

reservoirs, recent ones, where we actually—there is no difference in depth appreciable.

So I understand the concerns as you go deeper. There may be some reasons for some adjustments as you go deeper, but at the 3-mile mark: common pools. The Federal Government we know is getting no more than 16.7 percent. We are getting in those pools—if they are older leases, it would be less than that, but we are getting 21 percent on two of them, 22 percent on one of them, and 23 percent on the fourth one. That is just a sampling.

We are averaging 21.8, I think—I can't tell you the exact number, but it is in my testimony—on our offshore leases.

Senator LANDRIEU. Mr. Chairman, considering that we have an extraordinary deficit and rising—although the Federal deficit has been coming down, the debt relative to the gross national product and the debt we are carrying in this country is tough, and we have got a challenge by the President to balance our budget and we would like to help do that. One way is to make sure that this system is not only transparent and accountable, but that the market is driving it and that the companies are being treated fairly in the sense that they have a return on their investment, but the taxpayers can feel like they are getting a good bargain, too.

I would like to suggest that this committee pursue more vigorously this, not only reform of MMS, but look to what Texas, Louisiana, and Alaska, to get best practices for maybe how we shape MMS, because these moneys can come for good uses to the Federal treasury. Obviously, we are directing most of ours to save our wetlands.

But I want to remind this committee that children are sent to college with these revenues, roads are built with these revenues, and jobs are created with these revenues. So leaving something on the table or underneath the water just because we do not want to spend the time to figure out how to do it better is not what this Senator would suggest.

My time is up, but I have additional questions and I will submit them for the record. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much.

Let me just ask a few other questions and then we will finish the hearing. Let me ask, Mr. Manuel, about the Sierra Club position on the development of alternative energy on the Outer Continental Shelf. I think Secretary Allred pointed out that is a new authority they have in their Department. Is it your view that we should go forward with that or not? What is the position of the Sierra Club?

Mr. MANUEL. I think our general position on alternative energy off our coasts is that as long as they follow NEPA, we do not have any opposition to the siting of alternative sources of energy off of our coasts.

The CHAIRMAN. So additional wind farms off the coast, if they are put there in conformity with NEPA requirements, are acceptable, from your perspective?

Mr. MANUEL. Yes, from our perspective, they are not as hazardous as certainly offshore drilling for oil and gas. So again, as long as they abide by NEPA, we do not oppose those projects generally.

The CHAIRMAN. Let me ask Secretary Allred a couple more questions here. In the 2005 energy bill we put a directive in there to provide deepwater royalty relief. I think we did that over the objection of the administration, that is my recollection. Given the level of industry interest in the area, does the administration have a position as to whether deepwater relief is still warranted as an incentive to drilling in that area?

Mr. ALLRED. Mr. Chairman, as you are aware, we try to look at it on a lease—or a sale-by-sale basis. And that is one of the questions we will look at for the next sale—whether or not we think that market conditions and the difficulty involved should or would dictate that we give some royalty relief. But at this point in time, the Secretary has not made any decision.

The CHAIRMAN. I assume that is still—that is also your position—we also had a provision in there regarding royalty relief in deep gas, for deep gas wells in shallow water; is that your position with regard to that as well?

Mr. ALLRED. Mr. Chairman, we would have the same position there, that we need to look at it on, not a well-by-well basis, but a lease-by-lease, given the market conditions that are projected to exist during that lease.

The CHAIRMAN. Let me just ask Mr. Nichols and Mr. Siegele if they have any more information for us. I think, Mr. Siegele, you indicated that you are still in negotiations with the Department of the Interior with regard to the leases that you have that were issued in 1998 and 1999 and trying to settle up on royalty issues there; is that a correct understanding on my part?

Mr. SIEGELE. That is correct.

The CHAIRMAN. Do either of you know whether the other leaseholders that have those leases are still pursuing a settlement of that, or do we have a group that are just adamantly opposed to any change in the agreement? Do either of you know? Mr. Nichols, do you have any information?

Mr. NICHOLS. Well, we too are in conversations with the Department of the Interior, as recently as yesterday in fact. As to what other companies are doing, I do not know.

Mr. SIEGELE. I do not know either.

The CHAIRMAN. Well, we had a hearing on this issue last week, or at least partially on this issue, with Secretary Allred, and obviously it is a major issue of concern here in the Congress. As I am sure you have noticed, the activity on the House side has been focused on this as well. So we are going to have to make some decisions on it here in the fairly near future.

That is all the questions that I had at this point. Senator Landrieu, did you have another question?

Senator LANDRIEU. Just one.

Ms. Jackson, thank you very much for coming to testify. Your Senators, both Senator Lautenberg and Senator Menendez, have been very vocal on this subject, and of course the New Jersey position is not to drill. So I am going to address this request to you and to Governor Corzine, and I will copy them as well so they will know. But if New Jersey is not interested in drilling off the coast, since you are a large State, not in land mass but population-wise, and you consume a tremendous amount of energy per capita, not

just your residential consumption, but you are also a very strong industrial State like we are, so we can appreciate that, what is the plan that New Jersey has to be more energy sufficient?

Are you supporting nuclear? Are you supporting wind farms in your State? What exactly is New Jersey prepared to do to contribute to the electricity grid and the power grid of the Nation?

Ms. JACKSON. Thank you, Senator. New Jersey is in the process and by October will have developed its first energy master plan in well over a decade. And Governor Corzine has stressed from the beginning of his term and before he was Governor that it was vitally important for New Jersey, both from an economic growth perspective as well as an environmental perspective, for a myriad of reasons, to address the issue of energy generation and use in our State.

A couple of options are clear. Governor Corzine personally supports nuclear power. He has been very vocal about that. Just recently—actually, it has been almost 6 months now, but we concluded a blue ribbon task force on offshore wind. Wind resources in New Jersey are, unfortunately for us, almost entirely located offshore. So that means higher costs, but it is also certainly not something that we are willing to walk away from. And I am very hopeful that we will be able to put some resources into doing the environmental studies to determine where it is best, in terms of other offshore coast, for wind. And we look forward to MMS's work to allow us to move forward with permitting and licensing there.

I think, for a variety of reasons, we have done a lot of work in New Jersey to move our portfolio standards, not just toward renewable, but toward generation for our coal plants that—until greenhouse gases, which is our latest challenge—are well controlled. And we have quite a bit of generation from nuclear as well.

So while I do not have the answer yet—and I am happy to give you, through the chair, more information, Senator—I think we do recognize that we have to plan and make policy decisions based on a realistic plan for New Jersey.

Senator LANDRIEU. I appreciate that, and I really do appreciate your forthrightness, because I plan to write a letter to every Governor of every State in the Union, particularly the coastal States, to ask them, if they are not for drilling oil and gas, what are they for?

Because I want to show a chart, for the record. This is what the gas grid looks now. The gas that comes to the Northeast, as you can see, comes basically from the Gulf of Mexico, which is why we are proud of the drilling that we do for the country, proud to lay these pipelines, because we think that America does well when it has reasonable prices for energy so that we can compete, protect our troops in Iraq, and lead the world in almost every area.

But as you can see where this gas goes, primarily to the Northeast—and the only other place it comes from is Alaska. So I am going to ask the Governors—because we are happy to shut these pipelines down about right there, and we may decide that that is what we want to do until the Northeast figures out what they can contribute to this grid. And if you want to put windmills in every place offshore, that is fine; build more nuclear power plants, that is great; make sure that no cars can run on the streets unless they

are electric cars or whatever, but every part of this country has to do something, and we are going to do better conserving. And we recognize that we are not doing what we need to do in Louisiana and the Gulf Coast to conserve. We do not have very efficient plants. We want to tighten that up.

We have wind also on the Gulf that we can contribute. We believe we have options for more solar power. We have a lot of sunlight in the South and a lot of heat, and if we can figure out how to get that going to the grid—but, Mr. Chairman, I think it is about time that every Governor in every region answer the call to energy independence, because the goal will not be met until every Governor and every legislature figure out their plan. Maybe Louisiana's plan, Mr. Chairman, is different than others, but everybody should have a plan, and I would like to get that discussion started in the country.

Thank you.

The CHAIRMAN. Thank you very much.

Let me just advise any staff for members that if they have additional statements or questions they want to put in the record, please do that by the close of business tomorrow.

Again, thank you all for being here. Thank you very much for your testimony.

[Whereupon, at 11:39 a.m., the hearing was adjourned.]

APPENDIX
RESPONSES TO ADDITIONAL QUESTIONS

RESPONSE OF J. LARRY NICHOLS TO QUESTION FROM SENATOR WYDEN

Question 1. You stated at the hearing that your company was not involved in *Santa Fe Snyder v. Norton*, the 5th U.S. Circuit Court of Appeals decision against the Interior Department on the subject of price thresholds by lease as compared to field. However, Devon Energy announced in May 2000 that it was acquiring Santa Fe Snyder Corp. Santa Fe Snyder sued the Interior Department later that year. Subsequent court records listed Devon Energy and Santa Fe Snyder as plaintiffs when the district court ruled in 2003 and the circuit court ruled in 2004. Please explain how Devon Energy was not involved in the lawsuit.

Answer. The *Santa Fe Snyder v. Norton* case was filed by Santa Fe Snyder prior to the merger of that company into Devon Energy Corporation. It is true that Devon became a named party in that case as a result of the merger.

The *Santa Fe Snyder* case did involve an issue concerning the interpretation of the Deepwater Royalty Relief Act, but the issue in that case was whether the Department of the Interior could put a restriction on a qualifying lease that royalty relief would only be available if the production from that lease was from a field designated after the date of the lease issue. It did not address the issue of price thresholds.

Although Devon by merger was a party to the *Santa Fe Snyder* case, Devon is not a party in the *Kerr McGee v. Burton* case that is currently pending in the Western District Court of Louisiana. That case is addressing the issue of price thresholds.

RESPONSES OF J. LARRY NICHOLS TO QUESTIONS FROM SENATOR BINGAMAN

Question 1. Jack Field—When do you expect the resources in the Jack Field to be produced? Is additional infrastructure needed?

Answer. First production from the Jack Field could be seen between 2011 and 2013 depending on current development evaluation work and potential future schedules being met. Significant new infrastructure will be required.

With discovery in 2004, we and our partners are currently evaluating development scenarios. As is explained more fully under Question 5 and its attachment, significant time between now and potential full development will be required for geoscience, engineering, development and complex infrastructure construction operations for both Jack and other discoveries (such as St. Malo) in the area. While no specific development plan decision has yet been made, a stand-alone project could result in total costs including infrastructure exceeding several billion dollars.

Question 2. Deep Water Royalties—Both of your companies hold 1998 and 1999 OCS leases that do not contain price thresholds for royalty relief. Do you anticipate entering into a settlement with the Interior Department to make these price thresholds applicable to production under these leases? Why or why not?

Answer. The price threshold issue can and should be resolved. We have been actively pursuing an acceptable agreement with the Interior Department's Minerals Management Service since mid-2006.

The January 25 hearing provided a valuable opportunity for senators to perhaps better understand the contract sanctity and complexity elements of this matter. As I pointed out, Devon Energy acquired its 1998-9 leases as a result of corporate mergers, with no reason to believe at the time that these leases would be questioned or that we would be asked to "renegotiate" them. So, the challenge has been to find a way of putting the threshold matter behind us in a way that does not totally violate contracts or disrupt the very successful US offshore leasing program.

We will continue to work toward an agreement.

Question 3. Infrastructure—What additional infrastructure is needed to use the Gulf of Mexico resources that will be made available under the Gulf of Mexico Energy Security Act? What is the time frame for constructing it?

Answer. Of course we and other companies must first obtain leases and then explore for the resources we believe may be available in areas designated under the Gulf of Mexico Energy Security Act. The results of that work over several years will allow us to better answer this question, including whether any early discoveries will be close enough to, and there is ability to put initial production through, the existing Independence Hub that will collect natural gas from leases in the original Sale 181 area.

If we assume significant exploration success, we may be able to use the Independence Hub (a collecting point for 10 fields of some 15 wells each over an area with a radius of 30 miles and a 130-mile pipeline connection to shore) as a model. We might also assume similar discovery rates, with another 2-to-3 such hubs.

The design, approval, permitting and construction for each hub could take 3 years once enough discoveries were made to justify development. The amount of time from leasing to hydrocarbon production could be 5-7 years, depending availability of rigs capable of drilling in water depths greater than 8,000 feet. Some of the discoveries currently dedicated to the Independence Hub were made on leases acquired in 2001—6 years before initial production that is expected later this year. Since the economics of these discoveries did not justify “stand alone” development, pooling of them was necessary to create a commercial venture.

Question 4. Resources—How long will it take for the new resources made available under the Gulf of Mexico Energy Security Act to come online?

Answer. The answer to this question depends in large measure on the leasing schedule and the exploration success that follows.

First production could be seen somewhere in the 2011-2018 time period, perhaps earlier if leasing occurs quickly and significant discoveries are made close to, and are able to have production put through, the Independence Hub.

Depending on the specific location and size of the new resource, first production may be brought on line between three and ten years from the time leases are awarded. On the low end of the range would be new, smaller-size, resources discovered in close proximity to existing infrastructure (subsea tie-backs). Larger resource discoveries not close to existing infrastructure could be producing in five to ten years from the time leases are awarded.

Question 5. Diligent Development—Can you help us understand why there are 33 million acres of the Federal OCS that are under lease but that are not producing?

Answer. Successful oil and gas exploration, development and production must include significant inventories of leased-but-not- (or not yet) producing acreage at any given time. (This is both normal and necessary as the attached paper more fully details.)

In summary, when companies purchase leases at an OCS lease sale, those leases are in various stages of technical maturity. In some cases enough technical work has been done to define a “drillable” prospect. If such a lease is awarded, it may be drilled within a year of acquisition if a drilling rig is available.

Most leases, however, need additional technical work (seismic, geologic interpretation, engineering, etc.) to refine drillable prospects. Many times a lease is “condemned” by additional work.

Very deep drilling targets combined with sub-salt objectives create very high capital exposures. Shelf wells now exceed \$50-million and deepwater wells commonly exceed \$100-million. Seismic image refinement to lower the risk of drilling these expensive wells can cost millions of dollars and take up to two years to complete. Since this technology investment is made once the lease is acquired, it adds considerable time to the process of creating a drill-ready prospect. In addition, the process also requires that several blocks be leased to refine a prospect; six-to-ten blocks may be secured to refine a drilling location on a single lease. Non-prospective leases would be turned back to the Minerals Management Service or allowed to expire and put up for lease in a future lease sale. Historically we see about 25 percent of leases bought in lease sales drilled in their primary term.

Some acreage is acquired “on trend” with other discoveries. This purchase of trend acreage is highly speculative and considerable uncertainty exists on perhaps ½-to-⅔ of the blocks leased. If this uncertainty cannot be overcome with new seismic, geologic or engineering data, the block may not be drilled. Industry therefore is risking considerable money competing for leases that may not be drillable when all the data is in and interpreted. Lease terms allow companies to generate a portfolio of opportunities out of which the best prospects are chosen for drilling. In addition, the other factors described in previous question responses and the attachment (includ-

ing permitting time, rig availability, facility design and engineering, etc.) add to the years, or perhaps a decade or more, that leases may not have production from them.

Question 6. Royalty Rates—What royalty rates do you pay under state oil and gas leases? What rates do you pay for oil and gas produced on private lands?

Answer. There is significant variation among royalty rates paid on oil and gas production from state and private lands due to many factors. The average for state royalty rates is the standard $\frac{1}{8}$ (12.5%) royalty with a few instances of higher rates. Similarly, the average rate for fee owners is 12.5%. However, due to varying terms of specific leases, there are some rates that are slightly higher for owners of private lands. We also do have cases of specific leases with lower rates.

RESPONSES OF PAUL SIEGELE TO QUESTIONS FROM SENATOR BINGAMAN

Question 1. Jack Field—When do you expect the resources in the Jack Field to be produced? Is additional infrastructure needed?

Answer. We cannot at this time state when the resources in the Jack Field will be produced. Additional infrastructure is needed before production can occur. Most significantly, a new 90-mile deepwater pipeline will likely need to be constructed.

Question 2. Deep Water Royalties—Both of your companies hold 1998 and 1999 OCS leases that do not contain price thresholds for royalty relief. Do you anticipate entering into a settlement with the Interior Department to make these price thresholds applicable to production under these leases? Why or why not?

Answer. We remain committed to negotiated settlement of the price threshold issue and are looking for a mutually satisfactory solution for all parties. We have had a series of discussions with Department of the Interior (“DOI”) officials covering a range of options, and we have submitted a proposal for resolution of the issue. There are many details to work out, but we remain hopefully that we will reach agreement with our lessor the DOI.

Question 3. Infrastructure—What additional infrastructure is needed to use the Gulf of Mexico resources that will be made available under the Gulf of Mexico Energy Security Act? What is the time frame for constructing it?

Answer. New pipelines and production systems will likely be needed to produce the resources that may be found in the new areas made available for leasing by the GOM Energy Security Act. Based on our experience from other GOM locations, exploratory drilling could begin within a year or two after the next lease sale occurs. If oil or gas is discovered in commercial quantities, construction of the infrastructure necessary for production would take six or seven or more years beyond that.

Question 4. Resources—How long will it take for the new resources made available under the Gulf of Mexico Energy Security Act to come online?

Answer. Based on our experience from other GOM locations, it can take a decade or more to bring new resources online in previously unexplored areas of the Gulf of Mexico.

Question 5. Diligent Development—Can you help us understand why there are 33 million acres of the Federal OCS that are under lease but that are not producing?

Answer. A successful exploration program in a geologically risky area like the deepwater Gulf of Mexico requires a large inventory of prospects from which to high-grade the best drilling opportunities. The leases are small, and it typically takes several leases to secure a prospect. If a company is unsuccessful in securing an entire prospect in the lease-bid process, the company must enter into a partnership with the other companies that acquired leases in the prospect before drilling can occur. Prospects are often secured with immature seismic imaging, and it can take years to technically mature the prospect through additional seismic work. Negative drilling results can decrease the attractiveness of a prospect over time, and many leases are returned to the DOI undrilled if the prospects are too commercially risky to justify the costs of proceeding.

Question 6. Royalty Rates—What royalty rates do you pay under state oil and gas leases? What rates do you pay for oil and gas produced on private lands?

Answer. For the major portion of its state and private oil and gas leases, Chevron’s royalty rates are $\frac{1}{8}$, $\frac{3}{16}$, or $\frac{1}{6}$. In some anomalous cases, Chevron’s royalty rates are lower than $\frac{1}{8}$ or higher than $\frac{1}{6}$. Generally, the variances occur because of circumstances particular to each lease, such as the era in which a lease was issued, the location of the lands leased, or other factors affecting the valuation of the oil and gas rights provided by the lease.

[Responses to the following questions were not received at the time the hearing went to press.]

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC, February 1, 2007.

Hon. C. STEPHEN ALLRED,
*Assistant Secretary for Land and Minerals Management, Department of the Interior,
Washington, DC.*

DEAR SECRETARY ALLRED: I would like to take this opportunity to thank you for appearing before the Senate Committee on Energy and Natural Resources on Thursday, January 25, 2007 to give testimony on issues relating to oil and gas resources on the Outer Continental Shelf and areas available for leasing in the Gulf or Mexico.

I am enclosing a list of questions which have been submitted for the record. If possible, please respond to these questions by Thursday, February 15, 2007.

Sincerely,

JEFF BINGAMAN,
Chairman.

[Enclosure.]

QUESTIONS FROM SENATOR BINGAMAN

Question 1. Royalty Rate—Earlier this month, the Administration announced that the royalty rate for certain offshore oil and gas leases would be increased to 16 $\frac{2}{3}$ percent.

- Exactly which leases does this apply to?
- If 16 $\frac{2}{3}$ percent is the appropriate level of royalty, shouldn't it be the operative royalty rate for existing leases as well?
 - Is there any opportunity to make this applicable to existing leases?
 - Does the Secretary have discretion to increase the rate for existing leases? Are they subject to renewal and revision of lease terms?
- I understand that the State of Louisiana gets a royalty rate of over 21 percent for oil and gas produced in State waters. As a matter of policy, do you think 16 $\frac{2}{3}$ percent is the correct royalty rate to charge in adjacent federal waters?

Question 2. Bidding Systems—The Outer Continental Shelf Lands Act authorizes the Secretary to use several different bidding systems including a variable royalty bidding system for OCS lease sales. Please describe how such a variable royalty system would work. Has the Secretary considered using such a system? Has the Department done any analysis of the revenue impacts of the use of such a system? If so, please provide.

Question 3. Diligent Development—Do you think we need to change federal law or policy to require more diligent development of the 33 million acres of the Federal OCS that are under lease but not being produced?

Question 4. Deep Water Negotiations—The Department has entered into six settlement agreements with respect to these 1998 and 1999 leases, that I understand cover approximately 20 percent of the expected production under the 1998 and 1999 leases. How many additional settlement agreements do you think you will be able to negotiate? How much production will be covered?

Question 5. Deep Water Royalty Relief—An additional directive to provide deep water royalty relief was included in the Energy Policy Act of 2005. Given the anticipated increase in production from deep water, do you have estimates of impacts royalty collections resulting from these provisions?

- Given the level of industry interest in this area, is deep water relief still warranted as an incentive to drill?
- Am I correct in my recollection that the Administration did not support inclusion of this provision in EPOA?

Question 6. Deep Gas Royalty Relief—The Energy Policy Act also included royalty relief for deep gas in shallow water. What are the estimated revenue impacts from this provisions? Do you think royalty relief is warranted as an incentive to drill this resource? Am I correct in my recollection that the Administration also did not support this provision's inclusion in EPOA?

QUESTIONS FROM SENATOR WYDEN

Bobby Maxwell, a former audit manager at the Minerals Management Service, on Jan. 23 won his False Claims Act lawsuit against the Ken-McGee Oil and Gas Corp. before a federal district court jury in Denver. The jury concluded, as had Maxwell,

that Kerr-McGee underpaid the government more than \$7.5 million in royalties. Maxwell's superiors at MMS told him not to pursue the case on the job; and when he pursued it privately through his suit, his job was eliminated. During today's hearing, MMS issued a press release regarding this jury decision (the release is now posted on the MMS Web site) in which it continued to side with Ken-McGee against its former auditor. "The Minerals Management Service maintains its original position that Kerr-McGee paid the royalties it owed to the U.S. government," the release stated.

Question 1. Why did the Interior Department choose not to join Maxwell's suit?

Question 2. Specifically who at the Interior Department decided not to join the suit, and when was that decision made?

Question 3. Did the Justice Department make a recommendation regarding the suit, and if so, specifically who at Justice and Interior communicated on the subject?

Question 4. At any time did the Interior Department advise the Justice Department against joining the suit, and if so, specifically who at Interior made that recommendation and to whom at Justice was it made?

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