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OFFSHORE DRILLING: ENVIRONMENTAL AND COMMERCIAL PERSPECTIVES

OVERSIGHT HEARING

BEFORE THE

COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

Wednesday, February 11, 2009

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OVERSIGHT HEARING ON "OFFSHORE DRILLING: ENVIRONMENTAL AND COMMERCIAL PERSPECTIVES"

Wednesday, February 11, 2009
U.S. House of Representatives
Committee on Natural Resources
Washington, D.C.

The Committee met, pursuant to call, at 10:05 a.m., in Room 1324, Longworth House Office Building, Hon. Nick J. Rahall, II, [Chairman of the Committee] presiding.

Present: Representatives Rahall, Faleomavaega, Abercrombie, Pallone, Napolitano, Holt, Grijalva, Bordallo, Costa, Boren, Sablan, Heinrich, Kind, Capps, Inslee, Sarbanes, Shea-Porter, Tsongas, Kratovil, Young, Gallegly, Duncan, Flake, Brown, Gohmert, Bishop, Lamborn, Smith, Broun, Fleming, Chaffetz, Lummis, McClintock and Cassidy.

STATEMENT OF THE HON. NICK J. RAHALL, II, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WEST VIRGINIA

The CHAIRMAN. The Committee on Natural Resources will come to order.

The Committee is meeting today in the first of a three-part series of oversight hearings designed to look at our current offshore drilling policy and determine where we may need to go next.

Today we will hear from representatives of the environmental, tourism and fishing industries. On February 24, we will hear from State officials; and on February 25, we will have the oil and gas industry present their viewpoint.

The purpose of these hearings is to allow all sides to air their views so that we can begin to determine the best way to move forward and how to ensure that our offshore resources are managed in an environmentally and physically responsible manner.

I believe we all remember last year when oil prices neared $150 a barrel, gas was over $4 a gallon, and, "Drill, Baby, Drill" was chanted repeatedly as a solution to high energy prices. While undoubtedly a catchy slogan, good for the 30-second sound bites, it drowned out a number of key facts that are essential to this debate.

First, the United States does drill, and we drill a lot. We are the third largest producer of oil and the second largest producer of

natural gas in the world, with roughly a third of that production coming from public lands.

There were more drilling rigs operating in the United States last year than in the rest of the world combined. Let me repeat that. There were more drilling rigs operating in the United States of America last year than in the rest of the world combined. Anyone who implies that we are not currently going after our own resources is being misleading, and perhaps a little disingenuous.

Second, the vast majority of oil and natural gas in our Outer Continental Shelf is in those areas that are already being leased. According to the Minerals Management Service, 82 percent of the oil and 84 percent of the natural gas in the Outer Continental Shelf are in those areas that were already available for drilling before the congressional moratoria expired last year.

Talking about the percentage of the OCS that is not being leased is far less important than whether or not we are leasing the right acreage.

Third, no reputable economist believes that increasing the amount of drilling we do in the OCS will have any real impact on energy prices. The Energy Information Administration looked at what would happen if we started leasing every single acre of the OCS, and they found that the impact on prices would be quite insignificant. Oil prices, as we all know, are set on the world market, and the United States does not have the reserves required to make a big dent in that market.

Fourth, we cannot drill our way to energy independence. The Energy Information Administration found that drilling everywhere on the OCS would produce roughly 200,000 barrels in additional oil per day in 2030, only 1 percent of what we currently consume. Even the oil and gas industry agrees. A study contracted by the American Petroleum Institute found that unlimited OCS drilling would generate less than 300,000 barrels a day.

And finally, to be clear, I am not opposed to drilling. I understand the benefits that we get from domestic oil and gas production, the jobs, the royalties, the money that we keep here at home instead of sending overseas; but I am also very well aware of the risk. Last week was the 40th anniversary of the Santa Barbara oil spill—an environmental disaster that showed us, in no uncertain terms, what the dangers are.

If we are going to start drilling in new areas offshore, we have to be aware what the tradeoffs are, we have to ensure that it can be done safely and carefully, and we have to ensure that it is being done in the best interests of the American people, the true owners of these lands.

These three hearings are just the start of this discussion. Under the leadership of our Subcommittee Chairman, Representative Jim Costa, the Subcommittee on Energy and Mineral Resources will be looking at these issues in even more depth in the coming months. With oil prices down to multi-year lows, no leasing moratoria on the Atlantic and Pacific Coast in place, and a new administration in the White House, this is the time to look at these issues anew.

I want to thank our distinguished witnesses, who I will be introducing in a moment, for being with us, but before that I will

recognize our Ranking Member, the gentleman from Washington, Mr. Hastings.

[The prepared statement of Mr. Rahall follows:]

Statement of The Honorable Nick J. Rahall, II, Chairman, Committee on Natural Resources

The committee is meeting today in the first of a three-part series of oversight hearings designed to look at our current offshore drilling policy, and determine where we may need to go next.

Today we will hear from representatives of the environmental, tourism, and fishing industries. On February 24th we will hear from state officials, and on February 25th we will have the oil and gas industry present their viewpoint.

The purpose of these hearings is to allow all sides to air their views so that we can begin to determine the best way to move forward, and how to ensure that our offshore resources are managed in an environmentally and fiscally responsible manner.

I believe we all remember last year when oil prices neared $150 a barrel, gas was over $4 a gallon, and "Drill, Baby, Drill" was chanted repeatedly as the solution to high energy prices. While undoubtedly a catchy slogan, it drowned out a number of key facts that are essential to this debate.

First, the United States does drill, and we drill a lot. We are the third largest producer of oil and second largest producer of natural gas in the world, with roughly a third of that production coming from public lands.

There were more drilling rigs operating in the United States last year than in the rest of the world combined. Anyone who implies that we are not currently going after our own resources is being misleading.

Second, the vast majority of oil and natural gas in our Outer Continental Shelf is in those areas that are already being leased.

According to the Minerals Management Service, 82% of the oil and 84% of the natural gas in the outer continental shelf are in those areas that were already available for drilling before the congressional moratorium expired last year.

Talking about the percentage of the OCS that is not being leased is far less important than whether or not we are leasing the right acreage.

Third, no reputable economist believes that increasing the amount of drilling we do in the OCS will have any real impact on energy prices.

The Energy Information Administration looked at what would happen if we started leasing every single acre of the OCS, and they found that the impact on prices would be, quote, "insignificant."

Oil prices are set on the world market, and the United States does not have the reserves required to make a big dent in that market.

Fourth, we cannot drill our way to energy independence. The Energy Information Administration found that drilling everywhere on the OCS would produce roughly 200,000 barrels in additional oil per day in 2030, only 1% of what we currently consume.

Even the oil and gas industry agrees: a study contracted by the American Petroleum Institute found that unlimited OCS drilling would generate less than 300,000 barrels per day.

Finally, to be clear, I am not opposed to drilling. I understand the benefits that we get from domestic oil and gas production: the jobs, the royalties, the money that we keep here at home instead of sending overseas.

But I am also very aware of the risks. Last week was the 40th anniversary of the Santa Barbara Oil Spill, an environmental disaster that showed us in no uncertain terms what the dangers are.

If we are going to start drilling in new areas offshore, we have to be aware what the trade-offs are, we have to ensure that it can be done safely and carefully, and we have to ensure that it is being done in the best interests of the American people.

These three hearings are just the start of this discussion. Under the leadership of Representative Costa, the Subcommittee on Energy and Mineral Resources will be looking at these issues in even more depth in the coming months.

With oil prices down to multi-year lows, no leasing moratorium on the Atlantic and Pacific coasts, and a new administration in the White House, this is the time to look at these issues anew.

I thank the witnesses for coming today, and I now recognize our Ranking Member, Mr. Hastings, for his opening remarks.

STATEMENT OF THE HON. DOC HASTINGS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Mr. HASTINGS. Thank you very much, Mr. Chairman. And I want to thank you for calling today's hearing. And I hope that this hearing and the others that are scheduled that we will have will be focusing on the important issue that clearly will lay out the value of the resources in America and that American taxpayers have in those resources, and specifically in the Outer Continental Shelf areas.

Mr. Chairman, few areas are more important to the American economy than energy. At a time when our country is facing economic turmoil, it is more important than ever that we are taking the steps to create more American jobs, not taking them away.

There are recent reports that OPEC leaders are planning to meet in March to raise prices on American families and businesses. The belief is that OPEC will announce production cuts in order to double the current price of oil. We must send a message to the world that America will produce its own energy and no longer allow ourselves to be held hostage by foreign governments to high energy prices.

This Committee has previously heard testimony that during the first half of this decade, America lost more than 3 million manufacturing jobs due to high energy costs. Yet the energy crisis of last year which hurt our economy can also provide the solutions to bring our economy back.

Expanded domestic energy production will create good, high-paying jobs and free America from our dependence on foreign energy. This renaissance is possible because for the first time since 1982, the moratoria restricting development of our Nation's Outer Continental Shelf was not included in this year's appropriation bills. Lifting the moratoria finally opened one of the richest resources in the entire world to potential development.

The Minerals Management Service estimates that our Outer Continental Shelf holds more than 86 billion barrels of oil and 420 trillion cubic feet of natural gas. Of these amounts, an estimated 18 billion barrels of oil and 76 trillion cubic feet of natural gas had been left undiscovered in areas previously off limits. It is entirely possible that America could multiply our undiscovered resources in the Atlantic many times over. Without further exploration it is impossible to tell exactly what amount of oil and gas reserves the United States is neglecting in the OCS.

The development of the OCS isn't just about energy, though, Mr. Chairman, it is also about creating good American manufacturing jobs and building the infrastructure to harness that energy. The oil and gas industry is one of the highest-paying industries in America. In addition, this capital-intensive industry means that the development of a single platform can cost between $2- and $5 billion, depending on the platform. Now that really is economic stimulus, in my mind.

Each productive new offshore lease will bring hundreds of jobs. When multiplied by the thousands of productive new leases, we could create millions of new jobs and have a renaissance of American domestic manufacturing.

Exploration and development in the OCS doesn't mean destruction of our environment, contrary to some thoughts. In fact, modern technology has made OCS development cleaner and safer than ever. In 1999, the Clinton administration report stated, and I want to quote this entirely, "In the past three decades, the petroleum business has transformed itself into a high-technology industry. Dramatic advances in technology for exploration, drilling and completion, production and site restoration have enabled the industry to keep up with the ever-increasing demand for reliable supplies of oil and gas at reasonable prices. The productivity gains and cost reductions attributable to these advances have been widely described and broadly recognized." But I want to emphasize this: "But public awareness of the significant and impressive environmental benefits from new exploration and production advances remain limited." In other words, all this is going on, but the public doesn't know about it.

More recently, Hurricanes Ivan, Katrina and Rita impacted the oil and gas infrastructure in the Gulf of Mexico, including refineries, causing many producing oil and gas wells to be shut down. It is worth noting that no oil field workers were killed, and no oil blowouts occurred, even though many platforms were destroyed during these catastrophic storms. The safety and environmental protection technology built into the platforms worked.

Finally, new production also brings financial benefits to taxpayers. In Fiscal Year 2008, the Minerals Management Service generated over $23 billion in revenue for State, Federal and tribal treasuries. Since the majority of these resources sit on Federally held lands, new expanded development will result in bonus bids, royalties and rents. In addition, expanded development will mean increased payroll and income taxes, increased business development, and a stronger U.S. dollar. A recent ICS study said that there is $1.7 trillion in revenue awaiting development in the OCS, a figure I believe anyone in this time would call a stimulus.

This issue is of major national significance. Developing our resources will create desperately needed jobs across much of America. In addition, as our economy starts to rebound, energy prices will rise; and if they rise, it could stunt future growth. The longer we leave ourselves dependent on foreign oil, the more fragile our economy will be.

As I stated at the outset, reports are that OPEC will be meeting in March to purposely manipulate oil production to raise prices on American families and businesses. The OPEC cartel may raise the price of a barrel of oil by 75 to 100 percent, from $40 a barrel to $75 or $80 a barrel. America simply can't afford to leave the fate of our economy in the hands of this foreign cartel that controls 35 percent of the world's oil production. America can't afford to continue giving away $700 billion a year in thousands of high-paying energy-production jobs to foreign countries who willfully manipulate prices to harm our economy and cost us even more jobs.

The American people have spoken strongly in support of utilizing our resources on the OCS, and in these tough economic times, Congress and the President can't afford to sit by and not develop the tens of thousands of high-paying energy-production jobs in America.

Mr. Chairman, I believe that we can free America from our dependence on foreign oil, free America from imported foreign natural gas, and invigorate America's economy by harnessing the resources of America's OCS to create more energy with the skill and knowledge of the American worker.

I look forward to hearing from the witnesses today and in subsequent hearings.

[The prepared statement of Mr. Hastings follows:]

Statement of The Honorable Doc Hastings, Ranking Member, Committee on Natural Resources

Mr. Chairman, I want to thank you for calling today's hearing. I hope that this hearing and the others that we have focusing on this important issue will clearly lay out the value of the resources America and American taxpayers have in the OCS areas.

Few issues are more important to the American economy than energy. At a time when our country is facing economic turmoil, it is more important than ever that we are taking steps to create more American jobs—not taking them away.

It is important that we hold these hearings now to set the record in support of increased American development. There are reports that OPEC leaders are planning to meet in March to raise prices on American families and businesses. The belief is that OPEC will announce productions cuts in order to double the current price of oil.

We must send a message to the world that America will produce its own energy and no longer allow ourselves to be held hostage by foreign governments to high energy prices.

This committee previously heard testimony that during the first half of this decade America lost more than 3 million manufacturing jobs due to high energy costs. Yet the energy crisis of last year which hurt our economy, can also provide the solutions to bring our economy back.

Expanded domestic energy production will create good high paying jobs and free America from our dependence on foreign energy. This "renaissance" is possible because, for the first time since 1982, the moratoria restricting development of our nation's Outer Continental Shelf (OCS) was not included in this year's appropriations bills.

RESOURCES

Lifting the moratoria finally opened one of the richest resources in the entire world to potential development.

The Minerals Management Service estimates that our Outer Continental Shelf (OCS) holds more than 86 billion barrels of oil and 420 trillion cubic feet of natural gas. Of these amounts, an estimated 18 billion barrels of oil and 76 trillion cubic feet of natural gas have been left undiscovered in areas previously off-limits.

While those numbers may seem large in their own right, they are actually small when compared to what really may be recoverable in that part of the OCS. Much of the data we have on the Atlantic is more than 30 years old, from a time when most Americans were still using rotary phones.

The technology of that era was not nearly as sophisticated as we have today. Advances in seismic exploration and drilling technology mean that we can both find and develop resources that we didn't know existed in the 1970's.

It is entirely possible that America could multiply our undiscovered resources in the Atlantic many times over. Without further exploration it is impossible to tell exactly what amount of oil and gas reserves the United States is neglecting in the OCS.

JOBS

The development of the OCS isn't just about energy, it is also about creating good American manufacturing jobs and building the infrastructure to harness this energy. The oil and gas industry is one of the highest paying industries in America. *The average oil field worker makes nearly twice the national average.*

In addition, this capital intensive industry means that the development of a single platform can cost 2, 3, or 5 billion dollars depending on the platform.

Each productive new offshore lease will bring hundreds of jobs. When multiplied by the thousands of productive new leases, we could create millions of new jobs and have a renaissance of American domestic manufacturing.

ENVIRONMENT

Exploration and development in the OCS doesn't mean the destruction of our environment. In fact, modern technology has made OCS development cleaner and safer than ever.

A 1999 Clinton Administration Report stated:

"In the past three decades, the petroleum business has transformed itself into a high-technology industry. Dramatic advances in technology for exploration, drilling and completion, production, and site restoration have enabled the industry to keep up with the ever-increasing demand for reliable supplies of oil and natural gas at reasonable prices. The productivity gains and cost reductions attributable to these advances have been widely described and broadly recognized. **But public awareness of the significant and impressive environmental benefits from new exploration and production (E&P) technology advances remains limited."**

More recently, Hurricanes Ivan, Katrina and Rita impacted the oil and gas infrastructure in the Gulf of Mexico, including refineries, causing many producing oil and gas wells to be shut in. It is worth nothing that no oil-field workers were killed and no oil blowouts occurred even though many platforms were destroyed during these catastrophic storms. The safety and environmental protection technology built into the platforms worked.

It is a testament to the coordination between the Minerals Management Service (MMS), the Coast Guard, and industry that everyone was safely evacuated and modern technology protected our environment.

REVENUE

Finally, new production also brings financial rewards to the taxpayers. In Fiscal Year 2008, the Minerals Management Service generated $23.4 Billion in revenue for Federal, state and tribal treasuries.

Since a majority of these resources sit on federally held lands, new expanded development will result in bonus bids, royalties and rents. In addition, expanded development will mean increased payroll and income taxes, increased business development, and a stronger U.S. dollar. A recent ICF study said that there is $1.7 trillion in revenue awaiting development in the OCS, a figure I believe anyone would call stimulus.

CLOSING

This issue is of major national significance. Developing our resources will create desperately needed jobs across much of America. In addition, as our economy starts to rebound, energy prices will rise, which could stunt or cut off growth. The longer we leave ourselves dependent on foreign oil the more fragile our economy will be.

As I stated at the outset, reports are that OPEC will be meeting in March to purposefully manipulate oil production to raise prices on American families and businesses. The OPEC cartel may raise the price of a barrel of oil by 75 to 100 percent—from $40 a barrel to $75 or $80.

America simply can't afford to leave the fate of our economy in the hands of this foreign cartel that controls 35% of the world's oil production.

America can't afford to continue giving away $700 billion a year and thousands of high-paying energy production jobs to foreign countries who willfully manipulate prices to harm our economy and cost us even more jobs.

The American people have spoken strongly in support of utilizing our resources on the Outer Continental Shelf. And in these tough economic times, Congress and the President can't afford to sit by and not develop the tens of thousands of high-paying energy production jobs here in America.

Mr. Chairman, I believe that we can free America from our dependence on foreign oil, free America from imported foreign natural gas, and invigorate America's economy, by harnessing the resources of America's OCS to create more energy with the skill and knowledge of the American worker.

I look forward to hearing from our witnesses.

The CHAIRMAN. We are going to move now to the two witnesses that are with us this morning, Ted Danson and Philippe Cousteau. Both are strong ocean advocates with a long history of defending and protecting our irreplaceable ocean resources. They understand the importance of our oceans as a valuable national resource for all Americans to enjoy, Ted, through his work with Oceana, and

Philippe, through his lasting family legacy, and they both know that ocean conservation is a worthy cause.

I think the background of Ted Danson is known to all of us as an award-winning film and television actor. Along with his many accomplishments as an actor, he continues to receive much acclaim for his work as a longtime advocate for the sustainability of the world's oceans.

Philippe is the son of Jan and Philippe Cousteau—his mother is with us today, and we appreciate that—and the grandson of Captain Jacques Yves Cousteau. He is the CEO of EarthEcho and an Ocean Conservancy Board member.

So, gentlemen, we are very honored to have you as our lead-off witnesses for our hearings today and for the series of hearings over the next several months. We want to welcome you.

Ted, you may proceed first. As I tell all witnesses, we do have your prepared testimony, which will be made a part of the record as if it was actually read. You may proceed in any manner you desire, both of you. We usually try to enforce a 5-minute rule, but if you run over, that is fine. How is that for enforcement?

STATEMENT OF TED DANSON, OCEANA

Mr. DANSON. Thank you very much. Good morning. My name is Ted Danson. I am a longtime ocean activist and a member of the Board of Directors of Oceana. We are a global ocean conservation organization based here in Washington, D.C. And I would like to thank you, Mr. Chairman, and members of the Committee for giving me the opportunity to speak to you today.

In the late 1980s, Occidental Petroleum proposed slant drilling off the coast of Santa Monica. I was very concerned about the impact this would have on the ocean environment, so I teamed up with an environmental lawyer to fight it. I am happy to report that we won. After that, to make sure our oceans would continue to be protected, we co-founded American Oceans Campaign, which worked for 15 years to protect the oceans from oil drilling and other threats. We later decided to expand the capacity of the American Oceans Campaign by joining with Oceana, which is now the largest international organization focused solely on protecting the oceans. And so today I am here to testify against the opening up of the Outer Continental Shelf of our oceans to oil and gas development.

The same reasons that made more offshore drilling a bad idea when I founded the American Oceans Campaign are still valid today. I am encouraged by the administration's announcement yesterday that they will be taking additional time to examine the offshore drilling issue.

Oil and water don't mix. Our oceans give essential protein to nearly half the world's population. In the U.S., recreational and commercial fisheries combined supply over 2 million jobs. On top of that, coastal tourism provides 28.3 million jobs, and annually generates $54 billion in goods and services.

Ecosystems are disrupted, top to bottom, by the short- and long-term effects of oil. More oil spills mean less abundant oceans; more oil spills mean fewer wonderful, pristine beaches; more oil spills mean fewer jobs.

While not intentional, spills do happen. And according to the National Academy of Sciences, no current cleanup methods remove more than a small fraction of oil spilled in the marine waters, especially in the presence of broken ice.

Approximately 120 million gallons of oil end up in the world's oceans every year from oil platforms, marine transportation, vessel discharges, and accidents. The impacts of oil on fish and other wildlife are numerous and well own. Ingesting oil is usually lethal, and long-term exposures can result in serious problems, such as reduced reproduction and organ damage.

Each offshore oil platform generates approximately 214,000 pounds of air pollutants a year. These pollutants include precursors to smog, acid rain, and contribute to global warming. Pollution released from rigs can affect people and animals living within 180 miles of that platform.

For all these reasons, offshore oil drilling is such a bad idea that for more than 25 years our leaders put an end to it. Today it is still a terrible idea. In fact, with today's science, we have even more reason to keep the oil companies out of our oceans. That is because we now know that burning fossil fuels contributes to climate change.

Climate change is potentially catastrophic for the oceans due to something scientists call acidification. As our oceans absorb carbon dioxide from the air, they become more acidic. Coral reefs, essential to ocean life, are already in trouble. If emissions continue to increase, there is likely to be mass extinctions of coral by the middle of the end of the century.

Acidification also threatens the very base of the entire ocean food chain. Scientists estimate that the southern ocean could reach the tipping point as early as 2030. This means that in only 20 years, it is likely that creatures at the base of the food web, such as krill and sea snails, will be unable to create their shells. If the base of the ocean food web collapses, it would be catastrophic for the oceans, especially for our fisheries and everyone that depends on them for food and for jobs.

Despite all of these problems, oil companies still want to invest billions of dollars in continuing our dependence on oil instead of creating a sustainable plan for the future. The argument for increased offshore drilling is essentially that it will get gas prices to come way down. That is simply not true. The oil companies are making us a sucker's offer. They are asking Americans to take 100 percent of the risk of ocean drilling for just a fraction of any potential benefits. In fact, even at peak production, increased drilling offshore would account for less than 1 percent of current energy demand in the U.S., and that is if in this global market the oil would stay in the U.S., which is unlikely. It would only amount to mere pennies in savings at the pump.

The high gas prices from this summer were not due to a lack of oil drilling in American oceans, they were a result of high demand in a worldwide oil market. As we have seen, prices came way down in just a few months, which is a clear demonstration of that fact.

The bottom line is this: Offshore oil drilling may be a good deal from the perspective of an oil executive's office, but it is a bad deal for a citizen looking at it from a California or a New Jersey beach.

And so today I ask you to take three important steps that would steer our country in the right direction toward affordable energy and healthy oceans.

First, I believe Congress should quickly reinstate the moratorium on new oil leasing in the Outer Continental Shelf and Bristol Bay.

Second, the threats to the Arctic demand a separate and distinct planning process. Ongoing oil development activities must be suspended until that is completed.

Finally, clean, carbon-free ocean energy, such as wind, tidal, wave and current power, must be a piece of our sustainable energy future. The Natural Resources Committee should hold hearings on the renewable resources that our oceans offer. Stimulating these energy sources creates jobs.

Let's work with the oceans, not against them. Let's use their abundant wind and water energy to do things that will be good for the planet and good for America. Let's give future generations oil-free beaches and oceans that are an abundant source of food, wildlife and clean energy.

Thank you for this opportunity.

The CHAIRMAN. Thank you, Ted.

[The prepared statement of Mr. Danson follows:]

Statement of Ted Danson, Member, Board of Directors, Oceana

Introduction

My name is Ted Danson and I am a member of the Board of Directors of Oceana, a global ocean conservation organization based here in Washington, D.C. that works to restore and protect the world's oceans. Besides our headquarters in Washington DC, Oceana also has staff located in Alaska, California, Florida, Oregon, and Massachusetts, as well as international offices in Brussels, Belgium; Madrid, Spain; and Santiago, Chile. We have 300,000 members and supporters from all 50 states and from countries around the globe. Our mission is to protect our oceans and the fish and wildlife that depend on them.

Today, I will present testimony regarding the need to protect our oceans from the threats posed by oil and gas development on the outer continental shelf of the United States.

In the late 1980s, Occidental Petroleum proposed slant drilling off the coast of Santa Monica. I was very concerned about the impact this would have on the ocean environment so I teamed up with an environmental expert to fight it. I'm happy to report that we won. After that, to make sure our oceans would continue to be protected, we co-founded American Oceans Campaign, which worked for fifteen years to protect the oceans from oil drilling and other threats.

We later decided to expand the capacity of the American Oceans Campaign, by joining with Oceana, which is now the largest international organization focused solely on protecting the oceans.

And so today, I am here to testify against the opening up of the outer continental shelf of our oceans to oil and gas development. The same reasons that made more offshore oil drilling a bad idea when I founded the American Oceans Campaign are still valid today.

Oil and water don't mix. Our oceans give essential protein to nearly half the world's population. In the U.S., recreational and commercial fisheries combined supply over 2 million jobs. On top of that, coastal tourism provides 28.3 million jobs and annually generates $54 billion in goods and services. Ecosystems are disrupted top to bottom by the short and long term effects of oil. More oil spills mean less abundant oceans. More oil spills mean fewer wonderful, pristine beaches. More oil spills mean fewer jobs.

While not intentional, spills happen. These spills range from small, steady leaks to large accidents and they occur at every stage in oil production from the oil platform to the oil tanker to the pipeline and storage tanks. Approximately 120 millions gallons of oil are discharged into the world's oceans every year from oil platforms, marine transportation, vessel discharges and accidents. The impacts to fish and wildlife are numerous and well documented, often resulting in death.

In addition, more offshore drilling contributes to climate change by continuing our reliance on fossil fuels without creating a sustainable plan for the future. Additionally, as our oceans absorb carbon dioxide from the air, our oceans become more acidic. This ocean acidification could drastically change life as we know it. Our corals are already at risk. Additionally, the base of the food web may collapse due to the inability to create their shells in a more acidic ocean. Scientists estimate that the Southern Oceans could reach the tipping point as early as 2030. The collapse of the food web would be catastrophic for our oceans, our fisheries and everyone that depends on them for food and jobs.

Despite these risks to the oceans, it is hard to imagine why the perceived demand for expanded offshore drilling is so strong. The oil companies are asking Americans to take 100% of the risk for just a fraction of any benefits. In fact, even at peak production, the U.S. Energy Information Administration admits that increased offshore drilling would account for less than 1% of the current energy demand in the U.S. It would amount to merely pennies in savings at the gas pump.

We should be thinking of our oceans as part of the solution to our nation's energy problems. Instead of offshore drilling, America needs science-based, precautionary management for our oceans. Our energy policies should fit within a consistent blueprint in which expanded conservation and improved energy efficiency are paired with facilitating renewable energy production to reduce our reliance on fossil fuels.

And so, today, I ask you to take three important steps that will steer our country in the right direction toward energy independence based on renewable and carbon-free energy sources.

First, it is critical that Congress quickly reinstate its moratoria on drilling in the Outer Continental Shelf (OCS) areas and Bristol Bay. Congress put the OCS moratorium in place in a bipartisan fashion every single year since 1982. Protection for Bristol Bay lapsed in 2004, and last year, due to the combined pressures of rising gas prices and an important election, the OCS moratorium was allowed to lapse.

Secondly, the threats to the Arctic demand a separate and distinct planning process. The OCS moratoria do not include any of the offshore areas in Alaska except Bristol Bay, and there has been a significant expansion of oil and gas activities in the Arctic during the last eight years. The ongoing activities must be stopped, until a comprehensive conservation and energy plan for the Arctic is put in place that is based on assessment of the unique Arctic ecosystem and a precautionary, science-based approach.

Finally, clean, carbon-free ocean energy such as wind, tidal, wave and current power must be a piece of our sustainable energy future. The Natural Resources committee should hold hearings on the renewable resources that our oceans offer. Stimulating these energy sources creates jobs. Let's work with the oceans, not against them. Let's use their abundant wind and water energy to do things that will be good for the planet, and good for America. Let's give future generations oil free beaches and oceans that are an abundant source of food, wildlife and clean energy.

These points are further discussed in the testimony below:

I. Moratoria in the OCS areas and Bristol Bay are Needed to Protect our Oceans

Our oceans and coasts are now at greater risk than at any time since the early 1980's. Since 1982, Congress has protected Outer Continental Shelf water in the "Lower-48" with a moratorium on oil and gas activities. Congress also has enacted a moratorium to protect the sensitive areas of Bristol Bay, Alaska. In addition, Executive moratoria have been issued by two Presidents. In 1990, responding to the 11 million gallon Exxon Valdez oil spill, President George H. W. Bush used his executive authority to place a moratorium on any leasing or pre-leasing activity in Lower-48 offshore areas, including a small portion of the Eastern Gulf of Mexico. In a separate action President Clinton limited new drilling in the rich Bristol Bay fishing grounds in Alaska until 2012. Unfortunately, Congressional protections for Bristol Bay lapsed in 2004 and President George W. Bush lifted the Executive moratorium in 2007. The broader Congressional moratorium for the Lower-48 offshore areas was allowed to expire in 2008, and the Executive moratorium was lifted by President George W. Bush that same year. Reinstating both of the Congressional moratoria, including valuable habitat areas that were previously removed, such as Bristol Bay, must be a top priority. The Executive moratoria also should be reinstated to provide an added layer of protection for our marine life and coasts.

Offshore oil and gas activities create a myriad of threats to marine life including accidents, routine spills, disposal of wastes such as drilling muds and produced water, and noise pollution. The dramatic increase in shipping activity associated with platform maintenance, and increased risks of marine mammal collisions, also imperil marine species, many of which are already threatened or endangered.

Accidents inevitably accompany all stages of offshore production. The most typical causes of accidents include equipment failure, personnel mistakes, and extreme natural impacts from seismic activity, ice movements, hurricanes, and so on.

According to the National Academy of Sciences, "No current cleanup methods remove more than a small fraction of oil spilled in marine waters, especially in the presence of broken ice." Discharges associated with oil platforms, marine transportation, vessel discharges and accidents add around 120 million gallons of oil to the world's ocean every year, about a third of all inputs combined, including natural oil seeps.

The impacts of oil on wildlife are numerous. Wildlife can become coated in or ingest oil, which will often lead to a quick death. However, oil in the environment can also result in non-lethal impacts, such as reduced reproduction and liver damage. These impacts are a death sentence for most animals in the wild, crippling their ability to avoid predators, find food and shelter and reproduce, all of which are essential to healthy functioning populations.

Toxic compounds in oil have a similarly varied set of effects. These can include reduced reproductive success due to interruption in breeding behaviors and damage to the reproductive and immune systems. Oil's toxic constituents can also damage a long list of organs in marine animals including the eyes, mouths, skin, nasal cavities, nervous system, red blood cells, liver, lungs and stomach. It can also cause damage to turtle and fish eggs, larvae and young, all leading to varied impacts on survival and reproductive success.

Oil can also affect the habitat of marine species, for example, by contaminating breeding beaches, estuaries, coral reefs, and seagrass and mangrove communities that are important feeding, breeding and resting grounds for a variety of species.

Finally, these impacts can linger for extremely long time periods creating continuous low-level exposure to oil in the form of tarballs, slicks, or elevated levels of chemicals that can cause cancer, developmental and reproductive impairments.

Besides accidents, daily offshore drilling operations also create other forms of pollution that affect marine and other wildlife. Offshore rigs can dump tons of drilling fluids, metal cuttings, including toxic metals (lead, chromium and mercury) and carcinogens (such as benzene, xylene and toluene and especially polycyclic aromatic hydrocarbons) into the ocean. Drilling muds are used to lubricate and cool the drill bit and pipe. One drilling platform normally drills between seventy and one-hundred wells and discharges more than 90,000 metric tons of drilling fluids and metal cuttings into the ocean. One well can potentially affect an area of 1000 meters when it comes to the discharge of these materials. Some studies suggest that drilling-related chemicals can stunt fish growth and affect breeding patterns. For example, cod exposed to this waste water had smaller eggs and delayed spawning time.

Produced water, fluid trapped underground and brought up with the oil and gas is another type of pollution that comes from drilling. Produced waters have high salinity and oil content, so discharges sink to the seafloor where they poison the rich communities of plants and animals that often reside there.

Factors other than pollutants can affect marine wildlife as well. For example, the firing of air guns during oil exploration sends such a strong shock across the seabed that it is believed to be capable of causing marine mammal strandings and increased whale mortality, decreased fish catch and damage to the hearing capacity of various marine species. For example, endangered grey whales were scared away from their only feeding grounds by unusually high noise levels at an oil and gas construction site near Sakhalin Island. Offshore oil rigs may also attract seabirds at night due to their lighting, flaring and aggregation of fish species, all of which can result in bird mortality.

Air pollution from offshore oil rigs also poses a health threat to people who live in proximity to offshore oil platforms. The Living Oceans Society reports that a single offshore operation emits as much air pollution as 7,000 cars driving fifty miles per day. Various types of toxic air pollutants are emitted in the process of flaring. This process releases more than 250 different contaminants into the atmosphere, many of which are known to cause health problems such as lung and heart disorders, cancers, asthma, and reproductive problems. These pollutants can affect people and animals living within 300 kilometers from the drilling platform.

The harm posed by oil and gas activities in the Outer Continental Shelf is too large to ignore. As a result, it is incumbent upon the Congress to reinstate the OCS moratoria as soon as possible.

A. Oil Production will worsen Climate Change.

As described in detail above, the harm posed by oil and gas activities in the Outer Continental Shelf provides as good a reason to place a moratorium on such activities today as it has provided everyday since 1982. However, the worsening threat of cli-

mate change imposes a new urgency. We now realize that the release of carbon dioxide and other greenhouse gases that results from the use of oil is creating even more harm to society than was previously understood. Indeed, the need to curtail releases of greenhouse gasses adds another layer to the already strong argument for preventing the expansion of oil and gas production on the Outer Continental Shelf by renewing the moratorium.

If left unchecked, human-caused emissions of greenhouse gases will have dramatic effects on the oceans and the planet as a whole. These impacts are already being felt in the Arctic, which is warming twice as fast as the rest of the planet. The loss and thinning of sea ice has made hunting and travel increasingly dangerous for indigenous peoples, and threatens the long-term survival of walrus, polar bears, ice seals and other ice-dependent animals as their essential habitat melts away. As these changes affect the Arctic, they will begin to affect all of us. Loss of sea ice and other changes in the Arctic may, in fact, amplify climate change on a worldwide scale and lead us closer to a tipping point, or a point of no return.

Climate change is also causing our oceans to acidify. Since the industrial revolution, the oceans have absorbed almost 450 billion metric tons of carbon dioxide from the atmosphere, or about one-third of all anthropogenic carbon emissions. The oceans continue to absorb approximately 30 million metric tons of carbon dioxide every day. At the same time, 80% of the heat that is added to the atmosphere is absorbed by the oceans. Without the oceans, global warming would be far worse than it already is. But this service is, at the same time, making our oceans sick. The increased acidity is expected to take its toll on corals and other species that make their shells and skeletons from calcium carbonate. In fact, the Intergovernmental Panel on Climate Change (IPCC) predicts that, under a business-as-usual scenario, we will likely have a mass extinction of corals by the middle of this century. Impacts on marine life may be much more imminent in waters with lower carbonate availability such as those of the Arctic.

These changes are a direct result of our dependence on fossil fuels for energy. Thus, we must reduce our emissions of greenhouse gases and, to do so, we must move away from fossil fuels, such as oil, and instead toward conservation, energy efficiency and alternative energy. As evidenced by the effects already occurring in the Arctic and elsewhere, there is an urgent need for action now.

While we must begin this process now, reducing emissions of greenhouse gases will take time. The concentration of greenhouse gases in the atmosphere is increasing steadily as our emissions increase. We must first slow emissions of greenhouse gases and then take action to reduce their concentration in the atmosphere.

Expanding oil and gas production on the Outer Continental Shelf will only exacerbate the already damaging effects of climate change on our oceans.

B. Offshore Drilling Provides No Real Relief from High Gasoline Prices and Will Not Create Energy Independence.

The U.S. Energy Information Agency has found that at peak production in 2025 increased drilling offshore would produce 220,000 barrels a day, which would account for less than 1 percent of current energy demand in the United States. As the recent drop in oil prices demonstrates, global demand for oil drives the global price and since the market for oil is truly global—oil from the United States is sold all over the world and increased demand from countries like China and India will have a greater effect on the price of oil than the availability of oil from the OCS.

II. A Separate Planning Process is Necessary for the Arctic, Which is Particularly at Risk from Industrialization.

The Arctic is among the most beautiful and forbidding places on Earth. Life there swings between twenty-four hour daylight in the summer, and the long, dark, and cold months of the winter. The U.S. Arctic is home to tens of thousands of people and some of the world's most iconic wildlife species. Protected by sea ice, an unforgiving climate, and geographic remoteness, the ecosystems of the Arctic Ocean have been, until recently, among the Earth's least-disturbed. However, climate change is affecting the Arctic, which is warming nearly twice as fast as the rest of the world. This is forcing pronounced alterations of the Arctic environment that affect Arctic ecosystems and have worldwide implications.

Climate changes and, in particular, the decline of sea ice, in the Arctic are creating the potential for industrial activities, including oil and gas development. While historically, there has been little oil and gas activity in the U.S. Arctic waters, the situation has begun to change. Until recently, there were no leases owned in the Chukchi Sea, and the limited activities in the Beaufort Sea have been focused on the nearshore areas close to existing infrastructure. We are now seeing a dramatic

expansion of activities in the U.S. Arctic waters, and nearly 80 million acres of ocean are currently available for oil and gas leasing.

These areas are not covered by the Congressional or Executive moratoria discussed above, and leasing or exploration activities have begun in some places. These activities pose particular threats to Arctic marine ecosystems and the people who use and depend on them. Wells, pipelines and vessels create a substantial risk of an oil spill. No reliable method exists to clean up an oil spill in icy Arctic conditions, and such a spill would have catastrophic effects on important habitat for polar bears, other marine mammals, fish and recreational, spiritual and subsistence uses. In addition, the drill rigs, icebreakers, and seismic vessels necessary for oil and gas activities create substantial noise, which can cause marine mammals, such as bowhead whales, to stray far from their normal migration routes and feeding grounds, impact the animals' hearing and potentially cause other problems such as increased collisions with oil platform support vessels. The negative effects incurred by the bowhead whales from these activities are acutely felt by the Native communities that depend upon them.

Many of the adverse effects of oil development described above may cause particular harm in Arctic ecosystems already stressed by climate change. For example, the toxic muds and fluids that are often discharged into the oceans from rigs threaten already stressed populations of Arctic marine species and the greenhouse gases, black carbon soot and other pollutants released from rigs and vessels into the air, accelerate Arctic warming and ice loss compounding ecological stresses on these species.

In addition, decisions have been made in the absence of adequate scientific information. Particularly in light of the rapidly changing climate, much more information is needed about the sensitive Arctic ecosystems before prudent development should be allowed to proceed.

Because the previous moratoria did not include most of the offshore areas in Alaska, a separate and distinct planning process must be undertaken, ongoing activities stopped, and a comprehensive conservation and energy plan developed. The development of this plan would begin with a comprehensive scientific assessment of the health, biodiversity, and functioning of Arctic ecosystems, including the benefits and consequences of carrying out specific industrial activities. A science-based precautionary approach should be used to determine if those activities should be conducted and, if so, when, where and how.

III. We Must Shift Toward a Future in which We Rely Upon Affordable, Carbon-Free, Renewable Energy and End Our Dependence on Oil—Entirely!

We must shift toward a future in which we rely upon affordable, carbon-free, renewable energy; one in which our oceans and the environment are healthy, and one that ensures our freedom from oil dependency. Part of this effort must include an emphasis on development of carbon-free technologies, including wind and solar power in conjunction with improved energy efficiency.

Halting the expansion of offshore drilling on the Outer Continental Shelf, and developing a comprehensive plan for all activities in the Arctic are important first steps in developing a comprehensive conservation and clean energy plan. In order to address a rapidly changing climate we must reduce our dependence on fossil fuels and shift to a future with affordable, renewable energy, a healthy environment, and freedom from the control of oil companies. Thus, we must begin to build a more sustainable foundation for the future based on renewable energy enabled by improved conservation and energy efficiency.

While we will not be able to stop oil use all at once, there are many conservation measures that could be put in place immediately to reduce our energy needs. For example, raising fuel efficiency standards just for light-duty vehicles could save 18.4 billion barrels of oil by 2030. Relatively small efforts such as properly maintaining vehicles and commuting one day less each week could result in substantial savings for families and reduce our oil consumption dramatically. If just 10% of U.S. passenger car travel were shifted to mass transit, 75 million tons less carbon dioxide would be emitted each year. Similarly, minor adjustments in our thermostats could reduce our greenhouse gas emissions by 35 million tons each year. Numerous other conservation measures, from improving the energy efficiency of newly constructed homes and other buildings to avoiding unnecessary short-distance travel could reduce U.S. emissions of greenhouse gases by 20% or more.

The United States Department of Energy has projected that we can generate 20% of electricity demand from renewables by 2030. Offshore wind could provide 20% of this amount. Supplying even 5 percent of the country's electricity with wind power by 2020 would add $60 billion in capital investment in rural America, provide $1.2

billion in new income for farmers and rural landowners, and create 80,000 new jobs. This effort has started, as the United States added enough wind power in 2007 alone to provide electricity to more than a million homes.

IV. Oceana urges Congress to reinstate the moratorium on offshore drilling, begin the development of a comprehensive conservation and energy plan for the Arctic, and move us towards a clean, carbon-free, renewable energy future.

These issues—oil, climate change, energy, and the ocean environment—are inextricably linked and must be addressed together. For example, reducing greenhouse gas emissions is necessary to protect our oceans; moving toward renewable energy sources is necessary to reduce greenhouse gas emissions; and we have an opportunity right now to make an unprecedented investment in the solution: renewable energy.

On behalf of Oceana, I urge the United States Congress to act swiftly to set up a rational policy to protect our oceans, coasts—and planet—from the impacts of offshore oil and gas drilling. Specifically, in the first 100 days Congress should take the following essential steps to set America on course toward a new energy economy:

- Reinstate the moratorium on offshore drilling in U.S. waters on the Outer Continental Shelf including sensitive ecosystems such as Bristol Bay, Alaska.
- Begin the development of a comprehensive conservation and energy plan for the Arctic that provides a bridge from oil to renewable energy and conservation. The plan should include a comprehensive scientific assessment of the health, biodiversity and functioning of Arctic ecosystems, as well as the benefits and consequences of specific industrial activities. Ongoing activities must be stopped, and a precautionary, science-based approach must be applied to all oil and gas leasing, exploration and development activities in Arctic waters to determine if those activities should be conducted and if so, when, where and how.
- Adopt legislation that provides for clean, carbon-free, renewable sources of energy, including ocean energy such as wind, tidal, wave and current power must be a piece of our sustainable energy future. The Natural Resources committee should hold hearings on the renewable resources that our oceans offer. Stimulating these energy sources creates jobs.

The challenge to provide affordable energy and a healthy environment is monumental, but there still is time for leadership and personal responsibility to turn the tide. We can and must think comprehensively and creatively about our oceans, energy, climate change, and the broader environment. U.S. leadership in this area will not only help stem the changes in our climate, it will help create a new energy economy that will benefit Americans and that can be exported to other nations, making the United States a leader and exporter of clean energy technology.

The CHAIRMAN. Philippe.

STATEMENT OF PHILIPPE COUSTEAU, OCEAN CONSERVANCY

Mr. COUSTEAU. Thank you, Chairman Rahall, Ranking Member Hastings and the Committee, both for holding this series of hearings and for inviting me to speak here today. It is certainly an honor to speak on behalf of the oceans.

I am CEO of EarthEcho International, as the Chairman said earlier, where we work to empower individuals to take action to restore and protect our oceans. And I also serve on the board of trustees of the Ocean Conservancy, the country's oldest and largest ocean nonprofit, harnessing over 35 years of policy and scientific expertise to anticipate ecological threats to the ocean.

As many of you know, I have grown up around the ocean, and marine conservation has been part of my family's legacy for decades. Indeed, I remember hearing tales about my grandfather and his adventures, diving for the first time off the southern coast of France. But I also remember stories about how devastated he was by the changes that he saw over his lifetime, over a relatively short period of time, on those very reefs which are more or less a dead zone today. And I think that it is an irony that in the last 50 years

we have seen not only the greatest amount of exploration of the oceans, but also the greatest amount of exploitation and destruction of them at the same time.

Now, what is so critical about the Outer Continental Shelf is that almost all of the nonfisheries-based, not to mention much of the fisheries-based, exploitation occurs there.

We face great hardship in this country at this time, and the ocean and coastal communities are a critical part of our economy. Over 50 percent of our GDP is generated in coastal counties where approximately 50 percent of our population resides, with blue jobs and marine industries contributing greatly.

I am not advocating that we do not develop the Outer Continental Shelf, but if we are to realize the full benefit of our oceans, if they are to continue to provide us with the opportunities for economic development, it must be done in a way that is planned and that takes into consideration the health of the environment, or we will merely reap short-term gains at the expense of future generations.

Specifically, speaking on behalf of Ocean Conservancy, we seek three things. First, Congress must act where it failed last fall. As Ted said, we must fully reinstate the moratorium on new oil leasing in the Outer Continental Shelf. Now, I strongly maintain that the reinstatement of that moratorium is absolutely critical to the health of the ocean. But if there is to be new drilling, at the very least—and again, I am against it—but at the very least, if there is to be new drilling, we must make sure and legislate that the process of new drilling siting and the conditions applied to exploration and production minimize their impacts. Science should guide any activity that occurs in the OCS, and where science is not adequate, it is absolutely crucial that studies should be conducted before any leasing occurs for any uses.

And contrary to popular belief, not all ocean floors are created equal. There are a myriad of different types of habitat, from deep coral reefs to rich rocky habitats, to some relatively barren terrain, but the current process does not sufficiently consider these variables.

Similarly, some regions are especially vulnerable, and Congress must ensure they are protected. In the Arctic, for example, as Ted said, we lack the baseline scientific information necessary to make informed decisions, and there is no capacity to handle accidents and oil spills in its ice-filled seas.

Rather than oil, I believe we must vigorously enhance our efforts to develop ocean renewable energy. That is the future. From wind, solar, wave, tidal, and even ocean thermal energy conversion, there is an endless potential to responsibly develop new and clean sources of energy and provide new jobs and economic development for this country.

The second specific recommendation is for a comprehensive plan to put order in the ocean and stop the anarchy of fractionalized development. In late 20th century America, urban sprawl saw suburbs creep across the landscape in ever-widening mazes of highways and strip malls. In the ocean, the situation is similar, only worse. We need comprehensive planning, with conservation as a central deciding factor, so that the multiple competing industrial

uses work together in a way that is sustainable for our shared ocean future. Indeed, it is not only critical for the environment that we plan, but also for industry, so that they can anticipate more accurately the outcome of permitting and development.

And the third specific recommendation is the creation of an ocean investment fund. This would set aside a small portion of the revenue generated off these uses to pay for activities and projects that maintain and restore marine ecosystem health, such as comprehensive environmental-based spatial planning of the Outer Continental Shelf.

Now, just as I said earlier that the last 50 years have seen the greatest amount of change and damage to our oceans, I believe it is the next 50 years that are the most crucial, the next 50 years that are our years, years that we will decide the fate of the world, and we have no time to lose. We must have the courage and conviction and foresight to make the decisions now that will set the course for our future forever.

Let me close my time with you by sharing some final words from my grandfather, one of my favorite quotes: "We can find happiness in protecting the world around us not only because we cherish it for its awesome beauty, power and mystery, but because we cherish our fellow humans, those who live today, and those who will live tomorrow, living beings who, like ourselves, will increasingly depend on the environment for happiness, and even for life itself."

Thank you for giving me this opportunity, and on behalf of EarthEcho International, as well as the half-million members in support of Ocean Conservancy, thank you for allowing their voices to be heard as well.

The CHAIRMAN. Thank you, Philippe. Very powerful quote. Beautiful.

[The prepared statement of Mr. Cousteau follows:]

Statement of Philippe Cousteau, President and CEO, EarthEcho International, and Board Member, Ocean Conservancy

Thank you Chairman Rahall, Ranking Member Hastings and the Committee both for holding this series of hearings and for inviting me to be here today.

It is a great pleasure and honor to be here to testify about the critical importance of responsibly managing our fragile and increasingly important marine resources. As many of you know I have grown up around the ocean and marine conservation has been part of my family's legacy for generations. I am the CEO of EarthEcho International, where we work to empower individuals to take action to restore and protect our oceans and also serve on the Board of Trustees of Ocean Conservancy, the country's oldest and largest ocean non-profit harnessing over 35 years of policy and scientific expertise to anticipate ecological threats to the ocean.

Ever since the invention of the aqualung, or scuba tank as it is referred to today, by my grandfather, there has been an explosion of ocean exploration. Indeed, I remember growing up with tales about my grandfather's adventures; about when he took his first breath underwater and descended onto the reefs in the South of France. I also was told of how devastated the changes he saw in his lifetime on those very reefs which are all but dead today.

I spent many hours of my own youth there, as well, diving off the coast of France as a young boy. I can no longer stand to go back. I find the barren and desolate underwater landscape so terrible. It can break your heart when you see the beauty that was once there—that was captured by my grandfather on film—and know that it's all gone now.

I think that there is an irony that the last 50 years have seen not only the greatest amount of exploration of the oceans, but also the greatest amount of exploitation and destruction of them and it continues apace. What is so critical about the Outer Continental Shelf is that almost all of the non-fisheries based, not to mention much

of the fisheries exploitation occurs there. From oil and gas drilling, to renewable ocean energy development and even aquaculture and traditional fishing, the OCS is under increasing pressure every year.

We face great hardship in the country at this time and the ocean and coastal communities are a critical part of our economy "Over 50% of our GDP is generated in coastal counties where approximately 50% of our population resides, with "blue jobs" and marine industries contributing greatly. I am not advocating that we do not develop the ocean. But if we are to realize the full benefit of our oceans, if they are to continue to provide us with opportunities for economic development, it must be done in a way that is planned and that takes into consideration the health of the environment or we will merely reap short term gains at the expense of our children.

Specifically, speaking on behalf of Ocean Conservancy, we seek three things:

First, Congress must act where it failed to act last fall: most preferably by fully reinstating the moratorium on new oil leasing in the OCS. While I strongly maintain that the reinstatement of the moratorium is critical to the health of the ocean, if there is to be new drilling we must at the very least legislate to ensure the process of new drill siting and the conditions applied to exploration and production minimize their impacts. Science should guide OCS oil and gas development, and where the science is not adequate, it is absolutely crucial that studies should be conducted before leasing occurs. Contrary to popular belief, not all ocean floors are created equal. There are myriad different types of habitat from deep coral reefs to rich rocky terrain to relatively barren mud but the current process doesn't sufficiently consider these variables. Similarly, some regions are especially vulnerable and Congress must ensure they are protected. In the Arctic, for example, we lack the baseline scientific information necessary to make informed decisions, and there is no capacity to handle accidents and oil spills in its ice-filled seas. There are cheaper, faster, safer alternatives to new offshore oil drilling to meet our energy needs and end our dependency on foreign oil. We must vigorously enhance our efforts to develop ocean renewable energy. From wind...solar...wave...tidal and even Ocean Thermal Energy Conversion there is an endless potential to responsibly develop new clean sources of energy. To give you an idea of the power of the oceans, on an annual basis, the amount of solar energy absorbed by the oceans is equivalent to at least 4000 times the amount presently consumed by humans.

The second specific recommendation is for a comprehensive plan to put order in the ocean and stop the anarchy of fractionalized development. In late 20th century America, suburbs crept across the landscape in ever-widening maze of highways and strip malls. The term "urban sprawl" entered the vernacular as a way to describe our penchant for building our cities outward with little forethought as to what we built where, and why. In the ocean the situation is similar, only worse. As we gaze out over the great blue expanse of the ocean, the peace and tranquility that we often witness is deceiving. Wind farms compete with recreation. Recreation competes with shipping. Shipping competes with conservation and so on down the line until the pattern reflects a tangle of uses that are neither economically efficient nor sustainable. It's clear that we need order in the ocean just as surely as we need it on land. We need comprehensive ocean planning—with conservation as a central deciding factor—so that the many competing uses work together in a way that is sustainable for our shared ocean future.

I am sure that everyone can agree that having no laws, no zoning and no plan for the development of a city would lead to chaos and economic disaster, so too with the ocean. Indeed, it is not only critical for the environment that we plan, but also for industry so that they can anticipate more accurately the outcome of permitting and development.

And the third specific recommendation is the creation of an ocean investment fund. This would set aside a small portion of the revenue generated off these uses to pay for activities and projects that maintain and restore marine ecosystem health, such as this comprehensive environmentally based spatial planning of the outer continental shelf. It is ironic that OCS mineral receipts have been devoted towards many causes, but never the preservation of our oceans. There is an appallingly low amount of investment in ocean exploration and conservation. In fact, we spend 1000 times more on space exploration than ocean exploration. This fund would be vital in the effort to push forward the veil of mystery that obscures much of the ocean and help enormously in further refinement of both management and conservation of our dwindling ocean resources.

Just as I said earlier that the last 50 yrs have seen the greatest amount of damage to our oceans it is the next 50 that will be the most critical. The next 50, these are our years, these are the years where we will decide the fate of the world and we have no time to lose. We must have the courage and conviction and foresight to make the decisions now that will set our course forever.

Let me close my time with you by sharing some final words my grandfather once wrote, and I'm quoting:

"We can find happiness in protecting the world around us not only because we cherish it for its awesome beauty, power, and mystery, but because we cherish our fellow humans, those who live today and those who will live tomorrow, living beings who, like ourselves, will increasingly depend on the environment for happiness and even for life itself."

Thank you for giving me this opportunity. And on behalf of EarthEcho International as well as the half a million members and supporters of Ocean Conservancy, thank you for allowing their voices to be heard today as well.

The CHAIRMAN. Gentlemen, I thank you both for your testimony; it has been superb. And I appreciate what you said and understand your desire to see the moratoria reinstated. However, we may be in a situation where the ship has already sailed, and the political reality may be that the moratoria, as we knew it, will not be reimposed. You both have alluded to that.

If that is the case—and I know, Philippe, you have said that science should be our guide—but if that is the case, what environmental safeguards would you both suggest be incorporated into any leasing program beyond what is in current law? For instance, do we need buffer areas? Or do we need certain areas with unique resources and features set-off limits? Do we need environmental and safety safeguards imposed before we allow drilling to continue?

Mr. COUSTEAU. Well, I think we do indeed need as much protection as possible and as much research and knowledge as possible. We know so little about our oceans. I think people look at space and think "the final frontier," when, in fact, we have explored less than 10 percent of our oceans.

One of the challenges with the idea of a buffer zone, I would say 50 miles off the shore, is that ecosystems don't respect a straight, direct line around the continental United States. They vary in size and space where they are. So, I think a buffer zone, while a good idea, is probably not the best way to proceed.

I think we need as much to understand and explore as much about the various ecosystems that exist in the ocean and then site appropriately. There are some places that are just not appropriate for any kind of development, very fragile marine ecosystems, deep sea coral reefs, et cetera, and I think all of that needs to be taken into consideration. Siting is the first and foremost, and knowledge, science. We need to know what exists before we exploit it. You would not put a coal-fired power plant in the middle of a pristine national forest. It is the same in the oceans. We must at least, at the very first, know what exists there before we exploit it.

The CHAIRMAN. Ted.

Mr. DANSON. My hope would be that you would sail the ship back into port, because I think we are flirting with disaster by drilling and opening up the Outer Continental Shelf, period.

We don't talk a great deal about what is happening to the fisheries of the world, and a lot of times when we talk, it sounds like we are talking about an environmental sweet, thoughtful, let's take care of the fishes and the beauty, but we are talking about economy and jobs and food.

Our fisheries around the world are an $80-billion-a-year landed industry. One-third of the world's fisheries have totally collapsed, which means that they are below the 10 percent level, which

means they may not come back. The U.N. says that 75 percent of our fisheries are either fully or overfished.

If we continue to harvest our fisheries the way we are by destroying habitat with bottom-trawling and wasteful bycatch being thrown overboard, science tells us we could literally fish out our oceans commercially in the next 40 to 50 years if the trends continue.

So, you have an incredibly delicate balance in our fisheries already. Now you add acidification to the ocean, which would destroy, literally make it impossible for the bottom of the food chain to create shells that allow them to survive. The animals and creatures that eat the bottom of the food chain would also disappear.

So, you have insults to the ocean from all different sides, besides the pollution of oil spills in areas—the Outer Continental Shelf, which is the nurseries for most of our fisheries, so that all of the added insults could literally have an impact on our oceans in our children's lifetime or our grandchildren's lifetime where we could fish out or destroy our fisheries completely. That is $80 billion a year, that is a billion people a year around the world that depend on that food. That is, you know, 200 million people who have jobs that they depend on to go out and be able to fish. So, this is about the economy, and it is about jobs.

So, my answer is, absolutely do not open it up. You are pulling your finger out of the dike, and all sorts of bad things, I do believe, will happen. And we take the risks for very little benefit.

The CHAIRMAN. Let me observe that the money from the oceans appears to go to everything but the ocean.

Philippe, you have called for the creation of the Ocean Investment Fund, and I appreciate that. Do you have any recommendation on what percentage of OCS receipts should be dedicated to such a fund? And would you like to elaborate on what type of activities should be financed by that fund?

Mr. COUSTEAU. Well, Chairman, that is a great point, that there is a fund that already exists that is subject to appropriations, the Land and Sea Conservation Fund, where revenue from current offshore drilling is placed—a percentage of revenue is placed, but none of it goes to ocean conservation, which is ironic.

We certainly advocate an investment fund, new investment fund, for any new revenue that would be generated—or percentage. I think that it is up to policymakers to decide what that percentage is, but needless to say, it is a small percentage that would still generate potentially hundreds of millions of dollars—a fraction of the billions of dollars generated. A few hundred million dollars would go very, very far toward helping us to understand and having the investment necessary to research and understand what exists in the Outer Continental Shelf.

We know so little about the oceans, and any additional research and planning and conservation would go very, very far.

The CHAIRMAN. Ted.

Mr. DANSON. Unfortunately, I am not in the discussion from that point of view.

The CHAIRMAN. Mr. Hastings.

Mr. HASTINGS. Thank you very much, Mr. Chairman. And thank both of you for your testimony.

Just to kind of put an exclamation point on what you were discussing regarding the moratoria, both of you are in favor, yes or no, of reinstating the moratoria that has been in place since 1982?

Mr. DANSON. Yes.

Mr. HASTINGS. Mr. Cousteau.

Mr. COUSTEAU. I am absolutely fully in support of reinstating a moratorium.

Mr. HASTINGS. Both of you represent organizations that are obviously pretty broad dealing with oceans. And you also said, both in your oral and written testimony, that you are in favor of wind power. Do you or your organizations support the placement of wind turbines on the coastline and/or in coastal areas and in ocean waters?

Mr. DANSON. With as much research and care going into what is the best place as far as it impacts fisheries and shipping and everything, if the studies were complete, yes, I would. I would be right up there probably muttering, "Not in my back yard," but I would rather have that by far than oil rigs.

Mr. HASTINGS. Mr. Cousteau.

Mr. COUSTEAU. Absolutely. I think that oil is not the future, renewable energy is the future. And we can grasp that future. Wind power has a tremendous potential, especially offshore; it is much more reliable and much more powerful offshore. And as Ted said, I think all development of the OCS should be subject to a comprehensive plan that takes in spatial planning, takes in ecosystems. We would not advocate planning an offshore wind farm in a deep-sea coral reef either or a seagrass bed or anything like that. So, we need to know as much as possible, and it should be subject to the same kind of siting and responsible management as the OCS.

Mr. HASTINGS. What about specifically of the potential siting off Nantucket Sound off the north Atlantic coast?

Mr. DANSON. That is sounding very much like my back yard, Congressman.

Mr. HASTINGS. And your response?

Mr. DANSON. My response would be, I would be sad to change my view. I would be thrilled to have it be in that direction as opposed to oil. And I would also note, if I could slip in this, that for every million dollars that was invested into green, into the wind, it would be creating 17 jobs as opposed to 5.5 jobs for every million invested into oil. So, I would be happy for the economy as well.

Mr. COUSTEAU. I think that any development of offshore wind, if it is an appropriate place, is a good thing, certainly off of Nantucket. I think, again, as I said, I think they are quite elegant. I think it represents the future. I think it is a great example that every time we don't build an offshore wind farm or renewable energy, and we build, say, a coal-fired power plant—and one out of four children in New York City have asthma—there are other prices that we pay for the further development of oil and coal and gas in the health care of this Nation, in the health of our children. It is not just the direct impact of jobs, though, as Ted said, green jobs are potentially a much greater source of jobs than the traditional oil. So, I am fully supportive of any wind anywhere if it is an appropriate place.

Mr. HASTINGS. Well, we focused a bit on Mr. Danson's back yard. I assume that your answer to that question would be the same off the east or west coast; is that correct?

Mr. COUSTEAU. Absolutely.

Mr. DANSON. Yes.

Mr. HASTINGS. One last question I have. You are talking about alternative power and so forth. Has your organizations, or have you, taken a position on nuclear power, which, of course, is emission free?

Mr. DANSON. That is not part of our campaign. Just as a civilian saying—first off, I don't know enough about it. Second off, it seems to me that the disposal of the waste is still a problem that we need to fix. But it is not something that I am by any means an expert on.

Mr. HASTINGS. Mr. Cousteau.

Mr. COUSTEAU. We have not taken a position either way on nuclear power.

Mr. HASTINGS. I might say that, since you brought up the waste issue, it is worth noting that if we recycled the spent waste, we could drastically reduce the footprint. If that could be satisfied, at least you would be open to looking at that; is that correct?

Mr. DANSON. Ted would. I can't speak for Oceana. Sorry, it is way above me.

Mr. HASTINGS. Thank you very much, Mr. Chairman.

The CHAIRMAN. I am going to recognize Members according to their presence here this morning, and I believe on our side the next would be Mr. Kind of Wisconsin.

Mr. KIND. Thank you, Mr. Chairman. I, too, want to thank Mr. Danson and Mr. Cousteau for their testimony here today. And obviously it is a big area that we are going to have to come to grips with, given the expiration of the moratorium last year and the debate that will undoubtedly ensue.

And one of my big problems with the idea of drilling on the OCS is the illusion that this can be the answer to our energy challenge in the 21st century. When, as the Chairman indicated in his opening statement, we can't drill our way out, we have to be smarter than that, which means enhanced investment in clean technology, clean energy sources, but by offering this illusion that offshore drilling is going to solve all our problems, it may take our eye off the ball, and that is the future and where we have to go with the investments that we have to make.

But there are a couple of arguments that I was hoping you guys could quickly touch upon that we constantly hear. One is the enhanced technology and the reduction of spills or mistakes or accidents occurring. And the second one is the States rights argument, and that is, if a State where drilling will occur offshore has done the calculation and the cost/benefit or the analysis, and they think, fine, let's take that risk, what is wrong with that? Why not leave it up to the States to determine if they are going to allow offshore drilling off of their shores since the risk and the impact is going to be much greater on them than anyone else?

Mr. COUSTEAU. Well, I think that oceans do not respect geographic boundaries. I mean, oil spreads in the ocean, as I pointed our earlier. I mean, currents carry oil everywhere. And while tech-

nology has advanced—mind you, the U.S. Coast Guard reported that over 9 million gallons of oil were released into both land and water from six major spills and five medium spills during Rita and Katrina. So, there is still a tremendous amount of oil that can be spilled during natural disasters. The technology has not advanced that far, it is still a great problem. And that can be felt for 20 or 30 miles away from the site where the oil spill occurred, if not further. So, there is currently no technology to clean up, especially in the Arctic, such a fragile place, with ice floating. We have absolutely no idea how to clean that oil up.

So, I think that still the technology is not far enough for that kind of an argument, for the argument that it is safe to drill now. It is not.

Mr. KIND. Mr. Danson.

Mr. DANSON. I would just reiterate what Philippe said, that the technology of actual drilling may be better, I don't know. But the whole package is transporting it, pipelines, platforms cutting loose. Our figures are 120 million gallons of oil end up in the water every year. And I think you have to, when you think about drilling for oil, you have to think about the entire package, which means you are also going to burn it.

We have denied climate change for so long, the rest of the world is so far ahead of us in making and producing a technology to deal with that. So, why would we be the last in line to create a technology and jobs that would be lasting forever, that would also not spew carbon dioxide into the oceans and risk destroying the bottom of the food chain in the oceans? I mean, it is just a whole package you have to think of, not just one argument.

Mr. KIND. And I think both of you are correct that the great potential that exists with alternative renewable energy sources, we are just scratching the surface on that right now. And the technology is leaping forward, and it is going to make it much more viable in capacity building, too.

But, Mr. Danson, what is wrong with the argument that if the people in the State of California, that benefits greatly from the ocean, the tourism, the economy there, decides that they are willing to take the risk of setting up some platforms offshore, what is wrong with leaving it up to the State of California to make that determination as opposed to us?

Mr. DANSON. I don't know the legality or the legislative way to deal with that, but the fact is that Oregon and Mexico and Washington and Nevada and Utah may have a strong feeling about that because of air and wind and currents. You are not acting alone anymore. We are all in this together, and we need to find a solution together. States, I don't think, can just, you know, go it alone and say, I don't care if I mess up my back yard because you are messing up someone else's.

Mr. KIND. Thank you, both.

Thank you, Mr. Chairman.

The CHAIRMAN. After consultation with the Ranking Member, we have decided we are going to recognize Members as much as I can follow the order in which they came to the hearing, physically present, this morning.

So, on the Minority side, I recognize the gentleman from South Carolina Mr. Brown.

Mr. BROWN. Thank you, gentlemen, for coming.

To give me a little bit broader perspective of the area that you are involved in, Ted, is this an American organization, or is it an international organization?

Mr. DANSON. It is international. We have offices in Santiago, Chile; and Madrid and Brussels; small presence in Geneva; Juno, Alaska; Washington.

Mr. BROWN. So, you are not just concerned with just the United States as far as the energy policy or the environmental policies?

Mr. DANSON. You know something, we are in the process of coming up with, as an organization, our stand on energy and oil. This Committee hearing, I think, came before Oceana has had a chance to formulate a policy that is worldwide. So, I am here really dealing with this specific moment in time.

Mr. BROWN. And I guess that is always my concern is exactly, you know, how does the United States fit into the world? We are such a small portion of it, about 5 percent of the population, and yet I think we all want to become bullish in trying to find a new resolve to the petroleum base that we find our economy, but it is a slow transition. And I know we are trying to move into some other energy source, but we are still dependent upon natural gas and petroleum. It is going to be difficult for us to keep our economy at the pace that we find today without having another reliable energy source.

Are you as opposed to natural gas development as you are petroleum?

Mr. DANSON. My understanding is that most of the time you find natural gas by drilling for oil. So, my fear in saying, yes, go drill for natural gas, is it would be a back-door way for oil companies to drill for oil.

Mr. BROWN. But isn't the scientific evidence now that you actually can determine at the source what you are going to be finding underneath the surface?

Mr. DANSON. I am sorry, I don't know. That may be so. I am sorry.

Mr. BROWN. As we look at the United States in perspective with the rest of the world, you know, I have traveled to many countries in this great universe, and we find a good number of those countries aren't as sensitive to the environment as we are. In fact, we have some countries that are just filling in the ocean. And you would think that the environmental community would be in an outrage over doing that. What comment could you give me on that?

Mr. DANSON. And we are, we are absolutely outraged wherever this takes place. We deal with these issues all around the world. And this country has, in many ways, some of the best environmental laws and regulations. Some of the most thoughtful people on both sides of the aisle are involved with making this an environmentally sound Nation. So, we have a record we should be proud of. But this would not be one of those things we should be proud of, opening up the Outer Continental Shelf.

Mr. BROWN. And I think we must maintain some level of the economy that we can all have a good quality of life. You know, I

am not willing to give up my automobile. You know, I mean, I like riding bicycles and this sort of stuff, but I think it is going to be a long time coming.

I am just really kind of appalled that the national community—like cutting down the rain forest. We were in Brazil the other day, and it is amazing how that is going to impact climate change. We want to do our part, but I know the Chairman mentioned the fact that we drill more than any other country, but the fact remains that we still are 70 percent dependent on foreign countries for our energy sources. We have to resolve that problem not only for our economy, for our security, too. And I would hope somehow that the environmental community and the oil-developing companies could all come together with some sense of operation.

Mr. DANSON. Can I just say one more thing? I so agree with you. I think people are suffering. I think our energy crisis is real. What upsets me is it feels cynical and shortsighted, and not creating more jobs, and not doing the right thing for our economy in the long term, and not doing the right thing for the environment. So, when you look at just the jobs, you end up doubling the jobs if you go with investing in green energy. Those jobs also—well, anyway——

Mr. BROWN. Well, I feel the same way about the 70 percent of energy that is being developed in these other countries. If they could be developed in the United States, look at all the jobs that could be created, maybe not in the same portion as the green, but we have to do both. I just feel that that is important.

Mr. Chairman, I know my time is expired. Thank you very much.

Thank you all very much for coming.

Mr. COUSTEAU. May I add something to that? I agree that there needs to be collaboration in finding solutions. I just want to say that I think that this is such an outstanding country. The United States has an opportunity to take a real leadership role in our management of resources. And since the moratorium was not reinstated, there is virtually no protection for the Outer Continental Shelf. And I think that if we want to maintain our leadership role and enhance our leadership role from an environmental perspective, that you refer to, Congressman, that we must have an integrated management plan, which ideally would not include oil and gas, but nonetheless would be a plan that we can be proud of and that can provide leadership for ocean management for rest of the world.

Mr. BROWN. You wouldn't be in favor of closing the ones we have down now, would you?

Mr. COUSTEAU. No. I think we are supportive on reinstating the moratorium on any new oil and gas drilling.

Mr. BROWN. But keep the current ones.

Mr. COUSTEAU. I think if they are there, I think it is unrealistic to expect that they would be shut down.

Mr. DANSON. I would say in the Arctic Ocean, we need to look at that very carefully because oil spills of any kind there, even with existing wells, we are not advocating shutting down pumping, but it is very tricky in the Arctic Ocean. An oil spill would be disastrous and uncleanable—

Mr. BROWN. Thank you very much.

The CHAIRMAN. The gentlelady from Massachusetts, Ms. Tsongas.

Ms. TSONGAS. Thank you very much for your testimony and your great passion around protecting the oceans. And also, Mr. Cousteau, I was moved and reminded again by your grandfather's quote how we have only one Earth, and how it is our obligation to protect it.

As you have both testified, our oceans contain unique ecosystems that support diverse species and many of our national treasures. One of these national treasures is the Georges Bank off the coast of Massachusetts, a mass of sand and gravel underwater plateau. Nearly the entire bank is less than 200 feet deep, in some places only 10 feet deep. And as you can imagine, it plays an important role in the Gulf of Maine by accelerating the tidal waves as they race across the bank toward and away from New England. This cycle distributes nutrients which support an abundance of marine life, including 259 different species of animals. Congressman Ed Markey from Massachusetts has introduced legislation, which I support, that would protect this area, and I hope that we are successful in passing this important bill.

But as you know, and as you both mentioned, waters and ecosystems are not contained within State or national boundaries. How would you suggest we work with our neighbor, Canada, here on the east coast, and our neighbor, Mexico, on the west coast as we begin to address the importance of protecting these natural resources? Have you given it any thought? Have you worked with partners there? I am curious to hear your comments.

Mr. DANSON. For Oceana, do you mind if I get back? Because I know there is a great answer, I am not aware of it. But I know we do work and think about that a great deal. So, do you mind if we get back to you with that answer?

Ms. TSONGAS. Absolutely.

Ms. TSONGAS. Mr. Cousteau.

Mr. COUSTEAU. I think certainly, as well, that any specific work that Ocean Conservancy has done with Mexico and Canada I would have to get back to you, and we certainly can do that.

Mr. COUSTEAU. But I think, again, that this is such an outstanding country, and we have such an opportunity for leadership, we must focus on our own back yard first and provide the protections and the responsible management of those systems first to then be able to walk the walk and not just talk the talk. And I think that is absolutely critical, and it is going to be a difficult process, but since when has the United States, this great country, turned its back on a difficult challenge? We have always embraced them and overcome them. And I think we must start now, because it will be difficult to map and to understand the Outer Continental Shelf as much as we need to, and we must start now.

Ms. TSONGAS. Well, I don't see it as an excuse for not acting, failure to engage or somehow finding a way to work with our neighboring countries. It is really more of the challenge we have, as we do our part here, how we prevent actions from beyond our borders from having a negative impact on all our good work. So, thank you for that.

Mr. COUSTEAU. That is a very good point.

Mr. DANSON. May I just say, one of the places is the World Trade Organization, and the chance of reducing subsidies for the first time, fishing subsidies. That is one way for all the nations to work together, because Canada and New England have all the same problems, they are dealing with the same fishing issues. So, I know we have been working very hard at the World Trade Organization.

Ms. TSONGAS. Well, I would welcome your further thoughts as you have a chance to go back to your organizations.

The other question I have is that proponents of offshore drilling often point to new technologies and equipment that you have mentioned that minimize impacts on aquatic ecosystems. I am just curious if you think these are effective, if people are underestimating the impacts in spite of these new technologies, if there is truthfulness in all of these statements around these new technologies.

Mr. DANSON. You know, I assume there is some truthfulness to that statement. And then there is truthfulness to the statement that 120 million gallons of oil end up in the ocean waters every year. So, maybe the drilling technique is better, but you still have to get the oil from there to our cars, and in the process you have a lot of spillage, obviously, 120 million gallons in the ocean. So, the problem still exists.

Ms. TSONGAS. Mr. Cousteau.

Mr. COUSTEAU. I agree. You know, the spills that are still occurring from, as I said a little earlier, 9 million gallons of oil from Hurricane Rita and Katrina alone. Just recently Hurricane Gustav, there were 33 oil spills of up to 8,000 gallons each off Louisiana. Just off of Santa Barbara a few months ago there were 10,000 gallons or so that were spilled.

So, oil spills still occur, and I think that the public doesn't realize that really. I think a lot of people think the days of Exxon Valdez are over. I must say that many of the oil tankers in the world still are not double-hulled, they are still not reinforced as they should be. And we lack any real technology to clean up an oil spill.

And to give you an idea, 16,000 gallons of oil still remain in the sound where the Exxon Valdez spilled, Prince William Sound, 20 years later. So, the impacts of oil spills are lasting and myriad, and I think that is very important.

And Ted mentioned earlier, he made a great point, that the footprint of oil drilling is not just the oil rigs themselves, it is the entire infrastructure that is designed—the pipelines, the receiving stations that is necessary to support those rigs. And if you look at a lot of the development on the coast of Louisiana, it is from servicing platforms for oil rigs that destroyed many of the wetlands and the natural resources there that would have helped to mitigate Hurricane Katrina and would have saved potentially billions, if not tens of billions, if not more billions of dollars, out of our economy that was spent to mitigate Katrina, to repair after Katrina, and to potentially save lives, and certainly save people and culture and this country a lot of heartache.

So, oil has many compound effects, negative effects. And I think, again, that we can do a lot better.

Ms. TSONGAS. Thank you.

The CHAIRMAN. The gentleman from Texas Mr. Gohmert.

Mr. GOHMERT. Thank you, Mr. Chairman.

And as we discuss oil spills, I would like to urge that we not get into "word spills" over disagreements, different opinions. The Chairman said that anyone who represents we are not going after our own resources is being disingenuous, or worse. It seemed like we were tiptoeing up, to our words being taken down, when we just have a disagreement.

Some of us believe that since 85 percent of the Outer Continental Shelf is off limits, I think we are not going after all of our resources, where as apparently the Chairman and others think 15 percent is going after all our resources. But I applaud our witnesses for your efforts in doing what many believe was the original job for man, and that was tending this garden that we have been given, because we should be good stewards.

Mr. GOHMERT. But I also have concerns just trying to make sense of some of these things. We are provided figures that indicate that 63 percent of the oil in the ocean is coming from natural seepage and that 32 percent is coming from boats, ships, tankers and—I am sorry, 4 percent from tankers but 32 percent from sources. And also that after Katrina there were spills, but according to this—we had a statement from the Coast Guard—it didn't come from platforms; it came from industrial plants, storage depots and other facilities, because the information that I have been able to get said that the platforms, even though it was a level 5 when it hit the platforms, 3 when it hit the coast of Louisiana, it destroyed about 100 of the platforms, but there was no leakage from the platforms themselves. They were able to—let's see, this report says shut in with the subsurface safety valves. They were closed as the personnel abandoned before the storm. Some platforms were equipped with control systems that allowed them to be monitored remotely and shut in.

And as I look at the advances and I have to tell you Mr. Cousteau, your grandfather was entertaining and so educating and was really inspirational to so many of us. But when you look at products he used and designed and engineered and all the incredible finds that he was able to do to make this a better place to live—natural gas was a feedstock for so many of the products. As I recall watching, I watched every Jacques Cousteau special there was and thoroughly enjoyed them. But I was thinking that the Calypso was not a sailboat, right? I mean it used oil-based products, correct?

Mr. COUSTEAU. The Calypso was an old World War II mine sweeper, diesel-powered, yes.

Mr. GOHMERT. So, we do have to balance these things.

And, Mr. Danson, we may disagree on some things but I have to tell you, you provided pleasure and laughter and entertainment and enjoyment at a time when around my house it was much needed, and I will always be grateful to you for the pleasure that you brought my family.

But Ralph Regula was on this Committee back in the 1981 area and he said that the big complaint they got from people that were begging for the moratorium, first from California, was they just did not want platforms on the horizon seeing the sunset, and also there had been in 1969 the big oil spill at Santa Barbara; but to my understanding we haven't an oil spill since '69 from a platform, and

I think it is largely because of efforts by people like you demanding better accountability. But then he said, then Florida came in and said we don't want oil rigs or platforms in our sunrise. And then once California and Florida got the moratorium, then the rest of the Nation said, well, we don't want it either for the most part.

But on the fishing, growing up in Texas we heard this complaint, that if we allow these platforms off the coast then it is going to destroy fishing. And, Mr. Danson, you made such a great point about how many people were allowing fishing, but since the platforms have been out there if you want to go fishing, they take you to the oil platforms. And in fact the data that I have been provided here from some friends that are involved in this effort say that 100 platforms each year are removed and most taken to the shore for recycling and some are taken, towed and installed as approved artificial reef sites. That is 10 percent that are done with that. And that increases fishing and helps folks.

And I realize I have used my 5 minutes but, again, thank you for your effort. I think it does make people more accountable, but I hate to put people out of work or make things too expensive that hurt us as we move toward things like wind power. I think solar power could be tremendous, and I would encourage what basically it sounds like you were alluding to: if we get some resources, allow OCS to be open for drilling, then take those proceeds and dedicate it to further research and development for these other sources that really are our future. But thank you very much.

Mr. DANSON. Thank you.

The CHAIRMAN. I am not sure I heard a question but you can go ahead and comment.

Mr. COUSTEAU. If I could just add something, thank you for your comments. I agree that we must tend this garden, that we must protect this planet, Congressman. I appreciate that. I will say, though, in my grandfather's defense——

Mr. GOHMERT. He doesn't need a defense. I have nothing but praise for your grandfather.

Mr. COUSTEAU. The second ship he built, the Alcyone, was designed to be a sail-powered, wind-powered vessel. But I will also say that while oil spills from rigs were perhaps rare, if they occurred at all, during the hurricanes, the impact on the infrastructure still resulted in 9 million gallons. So, it is still part of the drilling of the oil and gas, 9 million gallons spilled on both land and sea, in total, through the infrastructure and pipelines and through the receiving stations, et cetera.

And I also agree with you that the ocean energy, renewable energy, is of tremendous potential. Every year the ocean absorbs 4,000 times more energy than is used by the entire planet. It is pretty remarkable, the ocean—the potential that exists in ocean energy. So, I thank you for that comment.

Mr. DANSON. I think blighting the sunset and creating more fishing around platforms is a very kind of small part of the whole picture. It is not—I don't think you can just look at the drilling of oil and say that—and just talk about that. You have to talk about burning it. You have to talk about the entire picture.

So, on every level we create more jobs with green energy, and jobs are so important now. So, to imply that we are losing jobs by

not drilling in the offshore feels to me disingenuous. The benefits at the pump, people are scared at high prices coming our way. And to make people think that it is going to be solved by drilling seems to me also not a good thing to put out in the world when we are all so scared.

The big picture of oil, not just the sunsets and the fishing around them is that—the result of burning carbon fuels is disastrous to our planet right now. In just my area, oceans, we literally could be destroying the bottom of the food chain at the same time we are fishing out the top of it. But we could literally destroy—and I am told not to use percentages because it is not scientific; but you know, 20, 30 percent of our oceans could be wiped out like that because of acidification, which comes from carbon dioxide coming into our waters and changing the pH balance, which comes from burning carbon fuels.

So, it just seems to me we are on this incredible path of destruction and we are using this one little thing. This Outer Continental Shelf could help us create jobs and turn around our energy problem when the big picture is we are going so far in the wrong direction with continuing this addiction to oil. Sorry.

Mr. GOHMERT. But it sounds like fishing problems, as you pointed out, was from overfishing and not from platforms that have created fishing jobs off the coast——

Mr. DANSON. Carbon dioxide getting in at the levels we are putting in there from burning oil will absolutely wipe out the bottom of the food chain, which would devastate fishing. There would be very few fishermen around our oil platforms.

Mr. GOHMERT. Do you still drive a car?

Mr. DANSON. Yes. And I drive hybrids, which can—yes. Sorry. I do drive a car and I used plastic and——

Mr. GOHMERT. But the hybrids plug in, don't they?

Mr. DANSON. I use all of those things. Sorry. I shouldn't be interrupting.

The CHAIRMAN. I think we will have more time to discuss this. The gentleman's time from Texas has been extended by 5-1/2 minutes.

The gentleman from New Jersey, Mr. Pallone, is recognized.

Mr. PALLONE. Thank you, Mr. Chairman. I want to thank both of our panelists for all you have done not only today but historically to protect the oceans. And I wanted to say that I join with you in wanting to reinstate the moratorium and, frankly, making it permanent. And I also would be willing to have wind farms off the coast of my district. In fact, some have actually been proposed.

But I wanted to really kind of zero in on—and I thought that Ted Danson—I actually wrote this down, Ted, when you said, "This is about the economy and this is about jobs," because that is so true. My district is along the coast. We depend on tourism more than ever, particularly with the recession. And the bottom line is that when I think about the small amount of oil or natural gas that might be drilled for off the coast of New Jersey versus the damage to the economy, which is, you know, the second largest industry, and people unfortunately don't think of New Jersey as a tourism mecca all of the time, but the fact is it is the second largest industry in the State.

So, I wanted to ask Ted Danson, has your organization or either of your organizations really done a cost analysis of the potential costs of drilling on coastal economies versus the potential energy savings? Because it seems to me that if you do that, it is weighted in favor of coastal economies in not having this drilling. Have either of you any statistics in that regard.

Mr. DANSON. Can you vamp while I look?

Mr. COUSTEAU. I thank you, Congressman, for that insightful question. We do not have any statistics, but I will say there are far cheaper and more efficient ways to deal with our oil consumption in this country, including boosting oil efficiency in our homes, gas efficiency. Let us not continue to feed our gluttonous need for this product. Let's find other ways. And I think efficiency is a big way to do that. That will mean we don't need to continue new drilling and we can develop, as you said so well, though, the kind of renewable energies that have so much promise.

Mr. PALLONE. I mean I have seen figures that say when you talk about the mid-Atlantic coast, you are talking about—or actually the entire eastern coast of the United States, you are only talking about a few weeks' U.S. consumption. And I know that you are talking about billions of dollars annually just from my district that is directly related to tourism.

And the other thing I wanted to say, because I know I don't have a lot of time, is that this whole idea of people being willing to swim and have active tourism near these oil rigs, that is just a lot of nonsense. I mean you start putting these oil rigs off the coast of New Jersey, people aren't going to come whether they spill or not. But the reality is there have been spills.

I know that in the next panel I guess it is Mr. Minich's testimony, I have a little quote here I will read. It says that in 2005 Hurricanes Katrina and Rita destroyed 113 oil platforms and damaged 457 pipelines near Louisiana. This is according to Minerals Management Service. The agency reported 124 spoils totaling 741,000 gallons of petroleum from offshore rigs, platforms, and pipelines.

You know, there is this notion out there that, you know, that no rigs caused spills and there was no damage per Katrina and Rita; and that if there was any, it was all localized and it didn't have any impact.

Would you want to comment on that, either of you, because my understanding is that there were a lot of spills.

Mr. COUSTEAU. Congressman, absolutely there were several spills; dozens, in fact. And satellite images clearly show oil slicks covering hundreds of miles, hundreds of square miles in the Gulf of Mexico. So, any idea that there is localization to the oil spills is untrue. You are absolutely correct.

Mr. DANSON. I have the same figures in front of me that you do: 183 oil platforms were affected, 113 completely destroyed.

Also, green investments, this was the University of Massachusetts study, 17 jobs created for 1 million invested into green as opposed to 5.5 jobs from 1 million into oil. So, the jobs—the economy argument seems to go in the favor of not opening up and continuing offshore oil drilling in my mind. Total economic activity

from offshore wind alone could reach a cumulative 950 billion by 2030 and create 250,000 jobs. Another little tidbit. A good one, too.

Mr. PALLONE. Thank you both. Really I appreciate it.

Thank you, Mr. Chairman.

The CHAIRMAN. The gentleman from Louisiana, Mr. Fleming.

Mr. FLEMING. Thank you, Mr. Chairman.

First let me say, Mr. Danson, I appreciate your movie career, your TV career. As a physician of 32 years I identify with your cranky doctor character, think about it a lot.

And, Mr. Cousteau, your grandfather, of course I have seen every one of his TV segments and some of them many times over.

There are a couple of things, Mr. Cousteau, that you said that I certainly agree with. You said this needs to be driven by science. Oftentimes in this debate, politics drive the science rather than the other way around. And I think it is really important that we let science determine where we are going to go with things, within a certain moral and ethical standard. You also said that we should have minimal impact or reduced impact, and I certainly agree with that.

One of the problems that we are seeing today with this discussion about wind turbines and solar energy is the technology is really not as advanced in those areas as in the safety that we have in the petroleum industry to protect our environment. I would love to heat and cool my home with solar. I would love to have a windmill in my backyard that would drive everything. But to a great extent those are inefficient and noncompetitive forms of energy with what we have today with petroleum. So, while those are lofty goals, I am not sure that we are quite there yet, and we certainly need to bridge that gap.

Jobs in Louisiana, which I represent and which is perhaps the most impacted among States, with whatever decisions are made here, good or bad, we have 21,000 producing company jobs that are related to oil and gas just to the Continental Shelf itself. Estimated payroll of 1.2 billion, with an average annual salary of around $60,000 per employee.

Recently we had in our area, northwest Louisiana, finding of the Haynesville shale, which we didn't even know—didn't have the technology to exploit even several years ago because it is natural gas, it is in a shale. We don't know what all we can do out there in the ocean today because we have new and emerging technologies that are advancing.

Also, with respect to the issue of 120 million gallons of oil that were spilled, I guess, last year and years before that, my question is what percentage of that was actually related to platforms themselves? Our statistics show that since 1980 the estimates are less than .001 percent of oil has spilled from the U.S. production percentage out of a total of 4.7 billion barrels of oil production.

So, that is a question and then certainly I welcome any comments. Thank you, Mr. Chairman.

Mr. DANSON. I love Louisiana and I can imagine it would be hit hard if magically we switched to wind and solar and moved off of oil. So, I am not in a position to refute anything you are saying about jobs in Louisiana. Wind and solar has progressed more than I think you depicted it. For 17 years, Europe has had ocean wind

farms and they have been very successful. Clearly you need to invest money into these areas to make them come up to the level of oil exploration and investments. But it seems to me that we were looking at this—two things. I agree that science should lead the way, but I am not sure that science in fact has led us to the point where it is OK to open up the Outer Continental Shelf. I think you said once we open it up—what I heard was once we open it up, we need to let science and facts lead the way. But I don't think science and facts are leading the way to even have the conversation about opening up, because the science and the facts say don't. For the economy, don't; for the environment, for the long-term health of the planet and health of people's everyday health, don't. So, I would disagree on that point.

Oil, it is not just the oil platforms that are perhaps behaving wonderfully well, but it is how do you get it to the cars? So, it is pipelines, it is barges, it is whatever. That is where some of the spills happen. So, I agree with you, platforms probably have gotten better and drilling technology perhaps has gotten better, but that is just one part of the entire picture and the entire picture to me is the wrong direction.

Mr. COUSTEAU. If I may add to that, Chairman.

Congressman, thank you for your comments. I agree with Ted. Wind power, certainly one facility can provide 4 to 5 megawatts or more of wind power. We are at least 10 years, if not more, behind Europe; and I think that is appalling when we think about the opportunities that we have missed over the last decade to develop our renewable energy economy here in this country.

Certainly, as I have stated before, the infrastructure for the platforms affected the coastal habitats of Katrina—of Louisiana, which certainly had—allowed Katrina to have a greater impact on the State. And so I wonder what kind of offset there is with respect to the jobs and the money that is earned from the oil and gas industry in Louisiana compared to the damage and the cost that was required to mitigate that damage and rebuild after Katrina.

I wonder, I don't know, but I wonder if that wouldn't offset at least a little bit some of that gain that you mentioned. And I think it is deceiving to think that overall, a small percentage of oil has been spilled, because we cannot forget that even a minor amount of oil has a devastating impact on environments. And certainly I think 9 million gallons is pretty substantial with respect to Katrina and Rita, and that is both land and water.

And I think from a scientific perspective, I absolutely agree with you that science is critical to what we are doing and to understanding. And when I talk about science for the Outer Continental Shelf, it is because we know so little about it and we must start now in our understanding what our alternatives are in fighting in the Outer Continental Shelf for any development—renewable, aquaculture fishery, anything. We just don't know enough. And I think it is critical to start now to develop that science and to learn. And honestly, we will receive no gains from any further oil and gas drilling for a decade or more. It is not going to help us today.

And I think it is a false promise to those people who are hurting at the pumps, who were hurting at the pumps this fall, to promise them that drilling is—while polluting the environment further,

while hurting the oceans further, while continuing to pollute the air and our children, is going to help you at the gas pump, because it won't. And I think we need to vigorously engage in renewable energy and really get off the oil and gas as a primary focus. It should be last resort, if any at all.

The CHAIRMAN. The gentleman's time has expired.

Mr. FLEMING. Could I just have two quick comments?

The CHAIRMAN. Very quickly.

Mr. FLEMING. With respect to utilization of solar and wind, I know there are a lot of tax subsidies that go on with that. So, it is very hard to measure the success on that. And I think that if you look at the oil spills in a global way, the increased production and as a percent of production and flow, we have seen the instance of that in the numbers of gallons steadily decrease over time. So, it is not perfect and we need it better, of course, but it is getting better.

Thank you, Mr. Chairman.

The CHAIRMAN. The gentleman from Maryland, Mr. Kratovil.

Mr. KRATOVIL. Gentlemen, thank you for being here. My name is Frank Kratovil. I am a freshman Congressman representing the First District of Maryland, which includes the entire eastern shore of Maryland, and I am particularly concerned about this issue as a result of one of the proposals off the coast of Assateague, which is very close to me.

As we have this debate I pride myself on trying to recognize the other sides of issues. I was a prosecutor and did my best to balance both sides of the issues. And I have to tell you on this issue, Ted, that you have raised, I am 100 percent in agreement with you. I just do not get the argument on this. And during the election I was amazed that the entire focus of the debate was whether or not we should be opening up additional places to drill. In my view, that is question number two. And we are having a debate here today on question number two, which is: Should we be opening up new places to drill?

We haven't answered question number one. And question number one, during all of the debate in the Presidential election and still going on, question number one is: Why are we not drilling in the areas where they are able to drill?

So, my question to you is—and I intend to ask this to the other panel when they come here—but before we move to question two, which is getting back to the cost and benefits of doing this, which is an appropriate argument to have, I am not sure the benefits are worth it. But before we get to that question, the first question is: Why are we not drilling in the areas that are currently leased?

And my question to you folks as you have been looking at this, do you have a view—what is your perspective on that issue, even if it is one that is perhaps cynical? Why in your view are they not drilling in those areas that are available right now?

Mr. DANSON. It probably would be cynical and not factual; so I don't know the answer, but I would definitely say that I don't want them to drill in areas that they have permission to drill in on the Outer Continental Shelf. The argument for me is still the same, although it is a great question. Why are we talking about opening up new leases when there are existing leases? And I will say in the

Arctic Ocean, do not drill in the existing leases that you own until you have done an environmental impact report that is genuine, because a spill there would be devastating.

Mr. COUSTEAU. I agree. I don't know the specific reason. I know that some places that have been leased are under development currently. But I don't know why all of them have not been developed. Certainly I cannot speculate on that. But I must agree with Ted that in the Arctic it is very fragile.

Mr. KRATOVIL. But my point is as that debate went on during the Presidential election, I was constantly amazed at how we were—the folks that were opposing the drilling were losing the argument. And my point to you guys is, it seems to me that should be the thrust, at least one of the thrusts of your arguments, which is asking that question and getting answers to that question. That question was never answered. So, we are moving to issue two when the folks that want to drill more haven't answered question one. So, I think in moving forward, that is a question we need to ask and we need to get the answers to that.

Mr. DANSON. In all honesty, I am a little afraid of their answer, which might be a "good idea." So, for me, it is a mixed——

Mr. KRATOVIL. Well, it isn't in terms of moving to additional——

Mr. DANSON. Absolutely. I agree.

Mr. KRATOVIL. To getting the boat back in the port.

I yield the rest of my time.

The CHAIRMAN. The gentleman from Colorado, Mr. Lamborn.

Mr. LAMBORN. Thank you, Mr. Chairman. Could I have my opening statement submitted to the record?

The CHAIRMAN. Sure.

[The prepared statement of Mr. Lamborn follows:]

Statement of The Honorable Doug Lamborn, Ranking Member, Subcommittee on Energy and Mineral Resources

Mr. Chairman, development of America's Outer Continental Shelf (OCS) will create jobs, reduce our dependence on foreign oil, and generate substantial revenue for the federal government. The Congressional Research Service said there is nearly $800 billion in revenue available from the OCS areas that were under moratoria. This estimate is nearly the same amount proposed by the current majority in the pending stimulus package.

The choice between a clean environment and OCS development is a false premise. We can have both energy development and a clean environment. In 1999 the Department of Energy, then run by Secretary Bill Richardson, produced a report which found that advanced technology means that oil exploration and development can be clean, create jobs, and produce the energy needed for America.

We will need this energy. The Energy Information Administration says that we will continue importing massive volumes of oil from now through 2030. The United States currently imports more than 12 million barrels of oil per day, more than 60 percent of all the oil it consumes. Over the past 35 years, as America's demand for energy has grown, U.S. production of its own domestic resources has fallen steadily. We don't have to continue that trend. We can and must develop our domestic resources and reduce our reliance on foreign energy.

While I am an advocate of increasing access to energy resources in the OCS I believe that we need more than just oil and gas development. We need to use all the resources available to us. This means we must expand areas for capturing wind and solar energy. Breaking down the barriers which stop those developments on federal lands is paramount. We should open more areas to tidal and wave energy harnessing the energy of the oceans and tides to help power America. We must open the Nation's vast oil shale resources in my home state of Colorado, as well as those in Utah and Wyoming. Unleashing these resources can help secure our energy future. We should expand our use of nuclear energy, and cut permitting times to make

replacement structures a reality. We need an "all of the above" energy strategy to free America and spur our economy.

Mr. LAMBORN. I would like to ask you, Mr. Danson, about tradeoffs because there are so many tradeoffs in life. To the extent that we reduce the energy available from domestic sources, including from offshore drilling, we become more dependent, I believe, from foreign sources. Have your organizations analyzed the risk of a catastrophic oil spill coming from a tanker coming in from a foreign source, especially that we know there are terrorism risks to tankers, there are piracy risks, compared to that that could be incurred from a spill from a platform? Have you done that kind of risk analysis?

Mr. DANSON. No. No, we haven't. But I imagine it would be horrendous. Your example would be horrendous.

Mr. LAMBORN. Because I was just trying to compare the two, because to the extent we don't do one, we are going to have to do more of the other.

Mr. DANSON. But we will never stop having those foreign oil freighters coming into our waters if we think by drilling in the Outer Continental Shelf, which will produce 1 percent of our daily needs, we will never not have those foreign freighters in our waters. So, the argument of trying to get away from under foreign influence won't happen.

Mr. LAMBORN. Let us look at it a little differently. We have the most environmentally rigorous protections for offshore drilling in the U.S. than there are for any other country.

Mr. DANSON. Yes.

Mr. LAMBORN. So, to the degree that we shut down and don't have offshore drilling in the U.S., we will have more offshore drilling in Third World countries. Now, it doesn't—and I know you think globally, which is good. Won't we have more risks from a Third World offshore operation than we have from the rigorous and advanced types of operations we have here in the U.S.?

Mr. DANSON. If we just sat in that oil universe, yes, that is probably true. But I don't think the goal is to remain in this carbon universe. It is to develop and not—truly develop and have alternative sources of energy, relieve the burden of having to drill for oil and burn oil all over the world.

Mr. LAMBORN. Mr. Cousteau, would you——

Mr. COUSTEAU. I agree. I think we need to get off the debate from the spectrum of oil and embrace a vigorous approach to renewable energy that is worthy of this country's ingenuity and power and gifts. The Outer Continental Shelf drilling in 2007 accounted for 27 percent of total U.S. oil production. Any new drilling in the Outer Continental Shelf will not result in new oil for at least a decade. Any new drilling in the OCS is not going to mitigate drilling environmental effects elsewhere. It is not drastically going to reduce our continued importation through tankers of oil into this country. And so it is just not going to help that situation. Because I think you make a good point that tankers are very dangerous. They continue to be—as I mentioned earlier, many of them are still single-hulled like the Exxon Valdez. But continued drilling in the OCS is not going to significantly increase any of our domestic oil

production and is not going to decrease our importation of oil significantly either.

Mr. LAMBORN. Well, we will have to continue to agree to disagree on some of those points. Thank you.

Mr. COUSTEAU. Thank you.

The CHAIRMAN. The gentlewoman from Guam, Ms. Bordallo.

Ms. BORDALLO. Thank you very much, Mr. Chairman. And my first question is for Mr. Danson. I thank you for your testimony this morning and I know you have been personally committed to ocean conservation issues for more than two decades and I do appreciate your efforts.

I represent a district that is in the middle of the ocean, so I am extremely interested in this topic. And I am sure you don't remember, but a few years ago at the Ocean Summit in Monterey you were seated right next to me. I remember you, but I know you don't remember me.

Mr. DANSON. Give me a chance. Wait.

Ms. BORDALLO. As you know, Mr. Danson, scientists are telling us that climate change is having considerable impacts on our oceans and the resulting ocean acidification is likely to cause a mass extension of corals by the middle to the end of this century. In fact, the Great Barrier Reef has been projected to stop growing around 2050. In your opinion, what are some of the critical steps that Congress can take to address ocean acidification in that regard?

Mr. DANSON. I think you are looking at it right now. I think if you were to say we are not going to drill on the Outer Continental Shelf because it would be—first of all, the benefits would not be—the risks way out—sorry, I am babbling here.

I think by sending a signal that we are not going to continue drilling for oil and burning oil, that we are going to look for alternative sources of energy. We are serious. We are not going to do token drilling that makes no sense scientifically or factually; that we are actually going to focus all of our energy in renewable sources of energy would be a huge signal for that.

I don't know that people realize the seriousness of the fact that our oceans are not able to absorb any more carbon dioxide without the oceans changing their pH balance. Global climate change sounds like this kind of liberal airy-fairy thought, and it is not. It has a huge impact on our industries, on our health, on the future of our oceans. Without coral reefs you don't have nurseries for our fisheries to expand. It is a huge problem. So, to answer your question I would say send a signal.

Ms. BORDALLO. Mr. Cousteau?

Mr. COUSTEAU. Thank you Congressman. "Airy-fairy," I like that, Ted.

Mr. DANSON. Sorry.

Mr. COUSTEAU. No. I think it is true. You know, 25 percent of our coral reefs are already dead around the world, and scientists estimate another 25 percent by the middle of this century. That is shocking when you think that they hold at least a third of the biodiversity in our oceans. Ocean acidification is one of the greatest threats that we are facing today, I believe. And it is directly not

from climate change but directly resultant of the output of carbon into the atmosphere and the absorption by the ocean.

So, I think that is an interesting distinction to make. And the science can be done in the laboratory. I mean it is not controversial and cannot be debated. We know, however, from research, that if corals are to be resilient and are to withstand the additional stresses of ocean acidification that they cannot withstand further impacts—that they need to be healthy otherwise. So, if they are withstanding multiple impacts, be it impacts from oil, be it runoff, nutrification, nutrient overload in the water, whatever it may be, development, it is like having cancer, meningitis, tuberculosis, all those things at the same time. You are not going to survive. So, if there is any hope for our coral reefs to survive ocean acidification and the other threats that are facing them, we must do what we can to minimize our impacts on their health and certainly minimize immediately our output of carbon into the atmosphere, period.

Ms. BORDALLO. Thank you very much. And I have one more question, Mr. Chairman, for Mr. Cousteau.

You spoke very eloquently about the need for better planning before we embark upon more development, even renewable energy development in the oceans. Can you elaborate more on that need for not just better planning but more comprehensive management that looks at all activities and their cumulative impacts?

Mr. COUSTEAU. Thank you, Congresswoman. You know, as I said in my testimony, urban sprawl is something that has come to be seen as a negative thing on the land and a lack of planning and understanding of what sites in the ocean are appropriate—for what is bad for the environment is bad for industry as well.

And I think first and foremost, we need the science to understand what exists, and then to be able to cite what uses are appropriate where—similar to the way we plan on the land. As I said, we wouldn't put a coal-fired power plant or a toxic waste dump in the middle of a national park, and this is with respect to any kind of development, wind, aquaculture, anything. There needs to be a comprehensive plan.

I think it is incumbent upon Congress to manage this national resource that belongs to all of us as citizens of this country, and we must protect it in the best way that we can. And the best way we can do that is to have as much knowledge as we can.

Ms. BORDALLO. Thank you very much. Thank you, Mr. Chairman.

The CHAIRMAN. The gentleman from Tennessee, Mr. Duncan.

Mr. DUNCAN. Thank you very much, Mr. Chairman.

The problem that I see is we have—I think it is over 1,400 conservancy groups in the country now. We have hundreds of other local environmental groups. You have all of these government agencies that oppose or throw up roadblocks and are mostly successful anytime anybody wants to drill for any oil or dig for any coal or cut any trees or produce any natural gas. And certainly they don't want any nuclear power. And so they just shut down so much natural resource or energy production in this country. And what that does, as the Ranking Member pointed out in his opening statement, that destroys jobs, it drives up prices and we can't—and

who that hurts the most are the poor and the lower income and the working people of this country.

For instance, you are putting the final nail in the coffin of some of these small towns and rural areas if you drive gas prices up and utility bills up, because they have to drive further distances mostly, most of their people, to go to jobs, and they work mostly at lower-wage type jobs. And all of these places where these groups oppose these projects, they always say that it is just 1 percent or it is just some tiny percentage of the overall energy production in this country. But when you put them all together, it adds up to a very great percentage. And we can't base the entire economy of our country on tourism, especially in tough economic times.

Michael Barone, who is a columnist for U.S. News and World Report and who writes the Almanac of American Politics—and he is considered a very middle-of-the-road columnist, he is not considered a conservative at all. But he wrote a few months ago, he said: "Lobbyists and litigators for environmental restriction groups have produced energy policies that I suspect future generations will regard as lunatic. We haven't built a new nuclear plant for 30 years since the Jane Fonda movie exaggerated their dangers. We have allowed States to ban oil drilling on the Outer Continental Shelf, prompted by a failure of 40- or 50-year-old technology in Santa Barbara, California, in 1969, though current technology is much better, as shown by a lack of oil spills in waters off Louisiana and Mississippi during Hurricane Katrina.

We have banned oil drilling on a very small portion of the Arctic National Wildlife Refuge that is god-forsaken tundra for fear of disturbing a herd of caribou, a species of hoofed animals in no way endangered or scarce. The ANWR ban is the work of environmental restriction groups that depend on direct mail fundraising to pay their bills and keep their jobs. That means they must always say the sky is falling. ANWR is a precious cause for them because it can be portrayed dishonestly as a national treasure."

So, I think what we need in this area is a little balance and common sense. I have noticed over the years that almost all of our environmental radicals and extremists come from very wealthy or very upper-income families, and perhaps they are not hurt when we drive the utility bills way up or we drive the gas prices way up, but a lot of the people that I represent are hurt by it. And those are my concerns.

I don't really have any questions, Mr. Chairman, so I will yield back the balance of my time. Thank you.

The CHAIRMAN. Would anybody like to respond?

Mr. DANSON. I think I probably have said it all, and I think we have different points of view.

The CHAIRMAN. The gentlewoman from California is recognized, Mrs. Capps.

Mrs. CAPPS. Thank you, Mr. Chairman.

I want to continue just with one sentence, the conversation begun by our new colleague from Maryland, Mr. Kratovil, when he talked about the use-it-or-lose-it idea, and that currently there are, I believe, 6,000 leases already sited in the Gulf of Mexico to be drilled upon. And I also say that in part because I represent a coastal district in California, on the central coast with 23 oil plat-

forms offshore, and my constituents and I deal with environmental and public health impacts from this every single day.

I want to welcome our two witnesses and thank you for your excellent testimony, both of you; and thank the Chairman for getting this series of hearings on offshore drilling off to such a good start.

We definitely have heard a lot from the industry about how things have changed, and technology is better, and we have heard that from some of our colleagues here today. My response is that oil spills and gas leaks still happen. No matter how careful you are, there is a huge risk of a spill and spills do happen.

In fact our colleague from Tennessee just stepped out, but Mr. Duncan referred to the big blowout on platform A off the Santa Barbara coastline that I know and you all know very well too. Just this past December, a small hole the size of a quarter developed in a rusted pipe that sends oil to shore from that very platform A and 1,400 gallons of oil seeped into the ocean immediately. This was just last year.

And I am going to pick on you, Mr. Danson, even though you said you have said it all. I agree with you as a longtime—in fact, we are neighbors. I unfortunately don't get to be your congressional representative, but we share a big concern about our region off the shore. As a longtime advocate that you are, I respect that. You have said that you really can't safely drill in the oceans. But I want to underscore what that really means. It is not just the drilling. It is not just the platform. It is the pipelines. It is the barges. It is the onshore infrastructure that has to be there and is there. All of this puts our environment at risk. The industry has come to our oceans.

And my question is: Would you like to expand upon that?

Mr. DANSON. I think I understand your question. I was just sitting here agreeing with everything you were saying, so forgive me. I wasn't formulating any kind of rebuttal or anything. I was enjoying it.

Mrs. CAPPS. Well, I think it is a simplistic notion from some, and some in the industry too, that we just want to get rid of those platforms, that we just want to get rid of offshore drilling, but it is whole bigger picture than that. And either of you can respond.

Mr. DANSON. I probably should back up. I probably should have said something when I had the chance, but I don't think you can dismiss tourism as something that doesn't have anything to do with the economy, as if only oil and oil energy is truly about our economy; that that is the real source of energy for real Americans. New Jersey makes a huge sum of money from its tourism, so to dismiss it I think is wrong.

And I think that what this Committee should do is to have facts and figures. There must be somebody that you can all agree on that will tell you this amount of jobs would be produced by wind power and solar and green energy, this amount would be produced by drilling offshore, this amount of money would be made, the price would go down, so that people could have a real chance at saying, oh, I get it, this is not good for the environment. And it is also a fib that it will give me a better chance at lower gas prices and a job.

Mrs. CAPPS. I want to get to another topic, so I am going to change. But I think you sound a lot like our new Secretary of the Interior, who also wants to base our energy policies now on sound science and particularly our renewable energy, because they are so new that we haven't amassed this body. But we are going to hear more about this from the next panel, but I want to give either of you a chance to respond now about many who are saying—and some from my district—how the largest source of oil in the ocean is actually natural seeps, not industrial activity. And playing devil's advocate, if that is the case, why do we have to be concerned about man-made spills at all?

Mr. DANSON. I didn't understand that question. I am sorry.

Mrs. CAPPS. That natural seeps are the cause of oil damage to our coastline.

Mr. DANSON. Are you saying, or is that fact saying that is part of the 120——

Mrs. CAPPS. There are some who argue that it helps to drill because it relieves the pressure off the natural seeps.

Mr. DANSON. I don't know the facts and figures. I can't believe that. I know that 120 million gallons that gets in there from spills and seeps, I know about that—I mean from the pipelines.

Are you aware of——

Mr. COUSTEAU. Yes. First of all——

Mrs. CAPPS. That is why there are two of you. You play off each other.

Mr. COUSTEAU. First of all, thank you for your insightful and outstanding comments very much. I was sitting here as well with Ted, just agreeing. So, thank you for that.

You know, I think just because there are natural seeps and they do occur, we should be no less concerned about man-made spills, because natural oil and gas does seep out of fissures in the ocean. But human caused oil spills occur very differently. Their seepage is a very slow process that happens in distinct areas and oftentimes over a long period of time and habitats have adapted to that. Human-based spills have been in a concentrated fashion in a specific area that can oftentimes be very fragile and not at all adapted to natural oil and gas.

I have a great point here about Prince William Sound, the spill that happened there over 20 years ago or 20 years ago this March, and 20 years later there are still species that are struggling to recover from that oil spill from the Exxon Valdez because of the concentrated nature of the spill in a specific geographic location. So, seeps do occur. It is a natural process and there is nothing we can do about that, but what we can control is our own behavior and our own actions, and we can do better.

Mrs. CAPPS. Thank you both.

Mr. COUSTEAU. Thank you.

The CHAIRMAN. The gentleman from Louisiana, Mr. Cassidy.

Mr. CASSIDY. Thank you. I have had to step out a couple of times. I apologize if someone addressed something that I mention.

There is a little bit, I will say, a little bit of a disconnect between the reality of what I have experienced in Louisiana and what you have been describing. In Louisiana we probably have more offshore drilling than any other State, or at least as much as almost any

other. We have the most productive fisheries outside of Alaska. So, actually this problem, Mr. Danson—and I also enjoy your acting, by the way—this problem of fisheries isn't in Louisiana.

In fact, when I read your testimony that if there is pollution at the base of the platform that is so toxic to fish, the favorite place for folks to fish is next to the platform. Now the other issue—so let's just correct the record.

Second, regarding the spill of Katrina that was actually from the Murphy Oil Refinery where tankers floated and oil got out, but from the platforms themselves there was actually very little.

Another thing I want to correct is that, although I may have put it down, petroleum in American waters is very interesting here. Frank talked about how he is concerned about this issue and polluting his streams. You know, the Maryland crab cake we will have at lunch today is actually crab meat from Louisiana that they fly up here and they make Maryland crab cakes with Louisiana crab meat. One of the great things about the job, you learn those facts. And the reason is that the Chesapeake Bay doesn't produce as much crab meat anymore, and that is because of runoff from petroleum products on the land into the Chesapeake Bay, among other reasons I am sure.

And here we see that—and this is from the Minerals Management Service and Representative Capps talked about seepage. According to this government agency, 63 percent of the oil in American waters is from natural seepage, 31 percent from cars, boats, and other sources in the Chesapeake Bay, 1 percent is from drilling, or less than 1 percent.

So, in Louisiana we have the most productive fisheries than anyone else, and we have the most drilling. In fact, we have so much fisheries, you will be eating Louisiana crabmeat for lunch. So, I think there has been a little bit of a disconnect.

The other thing, I think we are focusing upon oil, but natural gas is a major production and natural gas, of course, has a lower carbon footprint than does oil. And if you look at the projected natural gas stores off the eastern coast of Florida, which, by the way, already had OCS drilling grandfathered in before the moratorium, and the pipelines run underneath back through Louisiana, so it doesn't spoil the beach. But that is tremendous natural gas reserves which does have the potential to not only give us the lower carbon footprint but also cheaper fertilizer for farmers, cheaper plastics, other things that make life good. Natural gas fuels so much of our economy.

So, one, I just want to correct the record. Some of the things said do not pertain to offshore drilling. Indeed, offshore drilling is much safer than, say, the cars we are driving around and dropping oil on the street which then runs off into the bay.

The Katrina disaster was from the Murphy Oil Refinery. I imagine you might say, well, we just need to get away from a petroleum-based economy. That is true. But even your testimony, Mr. Danson, said that 20 percent of electricity could be provided by wind power by 2030. Well, that is electricity, but it is not what powers our vehicles. And most folks don't think that we can completely get away from a carbon-based economy for at least some time, however good that goal. And I agree the goal is good. I am

not arguing that point. So, just to correct the record, I think there are some issues here.

Last, tourism, again to correct that record, we have so much tourism off the coast of Louisiana, we have so much recreational fishing, we have scuba diving at the rigs because it has become this kind of man-made reef and everybody goes down and scuba dives. And it is just—when I hear that tourism is hurt, I am thinking, wow, man, wow; think about where we have so much drilling, we have so much tourism. Brownsville, Texas, lots of offshore drilling. Corpus Christie, a great place for the snowbirds to come down during the winter.

And last, Mrs. Capps, you are rightly concerned about the effects of rusted infrastructure causing leakage, but the nice thing about new OCS is that it is new infrastructure. That if you look at the leakage that does happen from pipelines, it is old pipelines, it is not new pipelines. Those typically have newer techniques and newer stuff and so therefore they don't leak as much. So, I think the environmental hazard with the new stuff is less than the old stuff.

The Santa Barbara spill, which was terribly egregious, was not reproduced in Katrina because of, as I think Louie mentioned, the valves they put at the base of the ocean.

Last, I want to say, Mr. Cousteau, I agree with you. I agree with you positively that science should guide what we do. And one thing in your testimony, that you said let science guide where we go further. I applaud that. And if we do an OCS bill, I would agree to an amendment that would devote a certain amount of that to restoring oceans.

Again, I live in an ocean State. We are affected by rising sea levels, so we have a dog in this hunt.

Last, how come you don't have a French accent? I have to admit I kept thinking about that the whole time.

Mr. COUSTEAU. Congressman, my mother, who is actually right behind me, she is American and I spent most of my life growing up here in the United States. I have a dual citizenship of American and French. So, that is probably why. I do speak French and some Spanish, but no French accent, though I can fake a pretty cheesy one, but I will spare you that.

And thank you for comments. Certainly I think that the bottom line is that if we continue to drill and we continue to rely on oil, then we won't get off our dependence off of oil, and I think that——

Mr. CASSIDY. But isn't that a different point? Because really we are going to rely on oil. It is just going to come from something else until we can transition out of a carbon-based economy if only for fertilizer and plastics.

Mr. COUSTEAU. Well, I think we need a paradigm shift mentality from continuing to say at some point we will get off of oil. I think we have better ways to do that than continue to drill for oil in the Outer Continental Shelf. As I said earlier, efficiency, energy efficiency, is a big way to do that. And if we could actually reduce our need for oil, that could help balance in the short term our need to drill for more oil and instead to be able to develop renewable energy.

And I think that it is deceiving to talk about the seepage issue again, as I said earlier, because while about 60 percent of oil seeps into the United States waters, again that is a very slow process. It is a natural process. It is nothing like the catastrophic and exponentially greater impact of the relative to the 60 percent the small percentage of oil from drilling from——

Mr. CASSIDY. Good point. I agree with that. On the other hand, the major spills you are referring to, except for Santa Barbara, which we now have different technology, the major spills have come from tankers. So, the one off of France a few years ago was from a tanker; the Prince William Sound, a tanker. So, it is actually the transportation. Any degree that we can decrease tankers would probably be safer for the environment, because if you look at this, tankers provide more than do offshore drilling.

The CHAIRMAN. The gentleman's time has expired.

The gentlewoman from California, Mrs. Napolitano, is recognized.

Mrs. NAPOLITANO. Thank you, Mr. Chairman, and it is good to see you again, Mr. Danson. We met in California a while back.

But before I start, I would like to recognize Ms. Lois Capps, Lois's daughter, who is in the audience, and I know she is going to be embarrassed but we wanted you to know there is an activist out there and we hope that you will be working with us more. Thank you.

It is very interesting to hear the testimony that you have given. And yes, like my colleague, I saw all your grandfather's series. I would marvel at what was out there and I am sure if he were to do a lot of those again, he would find a lot of the shortages in a lot of the marine life not only because of the impact nature has had but human beings have imposed upon our oceans.

Having sat upon the sanitation district in California, going out into the outflow where there was DDT spilled that created a problem for marine life off of Point—not Mugu, I can't remember the Point out there that mutated a lot of the sea life. Well, if we only rely on the decreasing of the tankers, we also need to rely on what we put into the ocean, whether it is the pipelines or whether it is the outflow of effluent from the sanitation districts. That is why one of the things that would be perfect would be an ocean investment fund that would take a look at all of it and put their arms around being able to determine we need funding to be able to do this, so that this is the outcome. But in that same vein, we ought to start looking at what impact—and, Mr. Danson, I was marveling at, well, I would rather have a windmill out in my backyard rather than an oil pipeline. Well, maybe hydrokinetics would be important, the ocean current.

We have countries in New Zealand and Australia—I am sorry, in Scotland and Norway that are really ahead of the curve. Those are the things that need this ocean investment fund could begin to look at and how do we apply them and be able to have more power and less reliance on imported oil and drilling in our ocean.

I would like to hear what you would want us to consider, looking at the future, for putting all of it together, so that we don't say, well, you are wrong because you are saying this. Everybody's areas are a little different. Louisiana versus New York versus California,

how do we put it all together to improve the quality and maintain the marine life for future generations?

I have a greatgrandson I want him to enjoy going out into the ocean, maybe scuba diving someday, and watching the beauty of the ocean. How do we do that?

Mr. COUSTEAU. Well, thank you, Congresswoman. I think that part of the—well, first I would comment that growing up, as I said in my testimony, I saw great change myself with my own eyes in the Mediterranean and in other places, so indeed I think my grandfather would be appalled at many of the changes that continue to occur around the world and very saddened by them. I just finished a series of Discovery, and we visited many of the places that he had been in—Red Sea, the Baja, et cetera—all over the world, and even I saw changes from looking back at the films from the fifties and sixties to today. It is very, very serious.

I think that the interplay here, you know, the OCS recommendation is that we have an integrated planning for Federal waters. And I think it is going to be very important at how that interplays with State waters, because within the 3-mile mark I think there are some great examples from the Massachusetts Ocean Act, Rhode Island is doing a lot of outstanding work, California has done a lot of work on fisheries management. I think there is a great deal that we can learn from the various different practices some of the States have engaged in. I think that needs to be a big part of the dialogue about how any Federal regulations would interplay with State regulations. But that is for much wiser and smarter minds.

Mrs. NAPOLITANO. But some of the authorities tell us that if you start putting fisheries and growing them—in other words, fisher nurseries—is different than wild, and that we are reducing the endangered species by not allowing it to grow naturally.

Mr. COUSTEAU. In terms of aquaculture?

Mrs. NAPOLITANO. Yes.

Mr. COUSTEAU. Yes. Well, there is great concern with aquaculture and how to responsibly develop that. Unfortunately, farming of the oceans is a future that is here. I mean, it is already happening and it will continue to happen. I know at Ocean Conservancy we are doing a lot of work on——

Mrs. NAPOLITANO. But not as a replacement for.

Mr. COUSTEAU. Well, unfortunately, I think in some cases we will look at—in terms of protein, potentially, but not as a replacement of species. But already over 2 billion people rely on fish as a primary source of protein on the oceans. And a great deal of aquaculture. In fact, a great percentage of the protein that comes from seafood today comes from aquaculture globally, especially in countries like China, et cetera. So, it is not a replacement of species, but it will increasingly be a replacement of protein.

Mr. DANSON. I think that there are, as you said, huge problems, especially with fish that are carnivorous, because the salmon that we eat, the farmed salmon we eat comes perhaps from Chile. And to make 1 pound of farmed salmon, you need to catch and feed 3 pounds of wild fish with that salmon. So, it is 3 to 4 pounds of wild fish to create 1 pound. So, it is great for us here or in Europe to be able to continue eating salmon, but fish in the markets in Santiago are getting smaller and smaller because their wild fish

are being fed to farm salmon. And then there is all of the problems with biotics.

Mr. COUSTEAU. And disease.

Mrs. NAPOLITANO. And rise in the temperature of the ocean, too.

Mr. DANSON. Complicated.

Mrs. NAPOLITANO. Thank you, Mr. Chairman.

The CHAIRMAN. The gentleman from Utah, Mr. Chaffetz.

Mr. CHAFFETZ. Listen, I appreciate it. I am a freshman. It is an honor to be here and to ask you some questions and talk about the serious dialogue. I appreciate the passion and commitment that you have to this. You could both be doing something else, and you are sitting here about lunchtime, and so I appreciate it.

I also want you to know that I have a passion for our environment. I have a passion for the outdoors. Part of that came from watching Jacques Cousteau. Part of it came from watching Mutual of Omaha. Most of it came from being in the outdoors and enjoying that, sharing it with my wife and my three kids. And so I am passionate about that and I care about it.

My time is short, so rapid fire here, if I could. You are in favor of wind technologies, correct? You are in favor of tidal technology to capture energy. You are in favor of wave and current power. In order to capture that power and then transmit that power, explain to me the difference between your concerns—take the word oil out of it—a rig that is placed in a waterway, that is placed out in the ocean, and the difference between that rig and what you might see if, for instance, you were going to create a wind tower; what does that effect have on the ocean? What is the difference?

Mr. COUSTEAU. Well, again, it comes down to a siting issue. I would not place a wind farm that you would drill into the ground, the post in a fragile seagrass bed or fragile deep sea coral reef or shallow coral reef. So, it is a siting issue. So, the siting issues aside, if there is an appropriate place that would have minimum impact on the environment, that is the main thing.

Mr. CHAFFETZ. Well, it is drilling, too. It is not the fact that there is actually a rig or an actual structure there.

Mr. COUSTEAU. Well, the thing about wind that is different than oil is that it is not producing a caustic toxic substance.

Mr. CHAFFETZ. And I think I understand and appreciate the concern that there are inevitably spills. No one is in favor of spills; no one has ever advocated that they are pro-spill. But the question is: the structure itself, is that problematic to being in the ocean? Does that harm whales or fish or anything else like that?

Mr. COUSTEAU. It is a siting issue. Again, it depends on where it is placed.

Mr. CHAFFETZ. If it is actually placed in the right spot, in your professional opinion it is not going to cause a problem long term to the health and ability of the ocean to thrive, correct?

Mr. COUSTEAU. Everything will have an impact. It is just a balancing of——

Mr. CHAFFETZ. But there is nothing worse about an oil rig as opposed to a wind tower.

And then let me ask you about the transmission——

Mr. DANSON. Are you saying the rig itself——

Mr. CHAFFETZ. Yes.

Mr. DANSON.—or the fact that it is extracting oil? Probably not. If the oil rig were placed correctly and is not pumping oil, it would probably be the same as the wind tower.

Mr. CHAFFETZ. OK, I appreciate that.

Now, once that energy is captured, there has to be a way to transmit it, right? I mean, we run into this with the windmills that are actually within the Continental United States to actually transmit that power. What challenges and problems do you see with that?

Mr. COUSTEAU. Transmitting power from wind?

Mr. CHAFFETZ. Again, wind, tidal, wave, current.

Mr. COUSTEAU. Again, it is a siting issue. You must take into consideration the entire habitat from the shoreline to the facility. But typically it is a DC power cable that is buried underground and that remains there. As long as it is not impacting a fragile environment in between the shore, it has very minimal impact.

Mr. CHAFFETZ. So, the actual installation, the long-term effect of once it is actually placed upon the floor of the sea bed, that is not a problem.

Mr. COUSTEAU. Of wind power——

Mr. CHAFFETZ. I mean, I understand you have a nice coral reef, you don't want to tear it out and have something drill. I think I understand and appreciate that. But the fact that once that power line or once that transmission line is actually laid down, it is not going to create a problem. In fact, the sea life might actually thrive on that; is that correct?

Mr. COUSTEAU. Ideally, any kind of a power line that is connecting the shore to any kind of wind power would be submerged underground. Sea life wouldn't thrive. Ideally, it wouldn't impact them at all if you find a place that is appropriately sited that doesn't have a lot of vibrancy left to begin with.

Mr. CHAFFETZ. And would you support the acceleration of the permitting process to go through this? I mean, if this is such urgency, one of the challenges out there is the NEPA process and going through the permitting process to actually accelerate the inevitable challenges. We see this in our wind farms now. We have them in Utah, we have them in Wyoming, we have them across the country. You get these nice big structures out there, and then they have a permitting problem to actually transmit the energy, so you can't take advantage of that. We have that with geothermal as well.

Would you support the acceleration of the permitting process and rapidly accelerating the appeals process that is so cumbersome to the development of alternative energies and traditional forms of energy as well?

Mr. DANSON. Can I get back to you from Oceana's point of view? I don't know the answer to that.

Mr. CHAFFETZ. Sure.

Mr. COUSTEAU. Well, no matter what, the NEPA process, we will go through the NEPA process, and that is important to go through. But I think that our advocacy for a comprehensive plan will greatly accelerate the NEPA process in and of itself because siting is a major issue, as I said a few times. If you can appropriately site and plan, spatial planning of the oceans, then you can provide a better

certainty that the permitting process will be approved and that NEPA will move, thus, faster just through planning.

Mr. CHAFFETZ. Any other comments to what we were talking about with the siting?

Mr. DANSON. I will get back to you from Oceana's point of view.

The CHAIRMAN. The gentleman from the Commonwealth of the Northern Mariana Islands, Mr. Sablan, is recognized.

Mr. SABLAN. Thank you, Mr. Chairman. Thank you, Mr. Danson and Mr. Cousteau.

I understand Mrs. Bordallo has brought specific questions that relate to the Mariana Islands. As you are aware, I come from an area that is as large as the Continental United States, but 99 percent of it is water. And the Cousteau family has been out in Micronesia before, particularly in Palau, I understand. So, thank you for your testimony today. This is important to us.

As I understand, Mr. Cousteau is aware of the recent declaration of a monument in the Northern Mariana Islands. It was an issue that actually was very divisive, not because of the monument, but because of the approach that was taken. Some people preferred that it be a sanctuary approach, and some people thought the exercise of the antiquity site was the only way to go.

But the ocean is very important to us; it is our livelihood for many people. Tourism is the only industry we have in the Northern Marianas at this time. And so I will read into your testimony, and thank you for your time.

Mr. DANSON. Thank you.

Mr. COUSTEAU. Thank you.

The CHAIRMAN. The gentlelady from Wyoming, Ms. Lummis.

Mrs. LUMMIS. Thank you, Mr. Chairman.

And I would like to thank you as well for spending some time with us today.

I am as devoted to the land as you are to the oceans. Being from Wyoming, it is one of the most beautiful States in the United States. So, I understand your passion for your particular natural resource.

The question is, the "not in my back yard" issue, and I want to pursue that line of thinking because we need assistance from organizations such as yours who are devoted to protecting a natural resource in finding other ways, better ways, to do what we need to produce energy for this country and for this world. And not just here, not in my back yard.

So, in pursuit of that line of thinking, I want you to know that we have a world-class wind resource in Wyoming, and the other world-class wind resource is in the oceans. I am facing in my area, within my view, 20,000 acres' worth of wind turbines. And the ranchers in my area are very concerned about the effects that it will have on rafters, on livestock raising, on wildlife migration corridors. So, these same issues appear on land. But we are willing to allow for that kind of resource to be exploited on that land because of its importance to the world at large.

The problem I am having is I don't hear that same commitment to solving problems from organizations such as yours. I am hearing we don't want energy production in the resource that we love, which is the oceans. But it has to be produced somewhere. We

could blanket the entire State of Ohio with wind turbines and it would only produce as much energy as one square mile of Wyoming coal. Yet groups are protesting building new coal-fired power plants and not supporting carbon sequestration research or clean coal technology because they say there is no such thing. The only way to get such a thing is to fund the research.

So, I want to make a plea to you that, while you are passionate about your resource and I am passionate about my resource, we need to work together to find answers and not just throw up roadblocks.

The gentleman earlier said, I would like an answer to the question about why those leases are not being produced on the Outer Continental Shelf now. Well, the answer is because they can't get a drilling permit. Once you have a lease to drill, you don't have a permit to drill; all you have is the opportunity to go through the greater roadblocks, the greater processes that we throw up in order to produce those resources. And it is that we will allow nothing to be produced, and yet you want the gal in my home district, in my State, who is trying to raise three children while working at a fast food joint, to find a way to get her children to day care and then to work.

I am expressing my frustrations only because I am as devoted to my resource as you are to yours, the land. I love the land and I love the Rocky Mountain West. But we have to find answers, we can't just establish roadblocks. And I simply make a plea to you, in your passion for your resource, to also bring about positive alternatives to the consequences to your resource that you are so passionate about.

Thank you, Mr. Chairman. I deeply appreciate the opportunity to be here today and to have you here today.

The CHAIRMAN. The gentleman from Oregon, Mr. Inslee.

Mr. INSLEE. A little better than Oregon. It is actually Washington, but just a little better. We do have some coastline in Washington.

Mr. ABERCROMBIE. Mr. Chairman, the people of Oregon have enough trouble already.

Mr. INSLEE. We do have coastline in my State. I just want to assure Ms. Lummis, given enough time and burning enough fossil fuel, you will have a shoreline, too, in Wyoming. That is what we are trying to prevent here.

I want to refer to a famous philosopher who before almost every revelation said, "It is a little known fact" and that was philosopher Cliff Claven. And I want to tell you that I really appreciate our two witnesses bringing out this issue of a little known fact of ocean acidification. It really is the sleeping time bomb in public perception that has not arrived in public perception yet. So, I appreciate you talking about it.

And I want to make a suggestion that we change how we talk about this issue about what the percentages are of oil spills from offshore oil drilling.

I think that the fact is, in offshore oil drilling, a fact of life we have to live with is that, despite the improvements of technology—and there have been improvements in oil drilling technology from safety perspectives—100 percent of that oil spills because the car-

bon that goes up in carbon dioxide eventually comes back down and lands where we live. Seventy percent of it spills in the ocean, and 30 percent of it spills on the land. And that 70 percent of the ocean is now making the oceans 30 percent more acidic than in preindustrial ages, and will clearly cause the mortality of coral species in probably my grandson's lifetime—who is now 9 weeks old.

So, I think that as we talk about this, we need to talk about the inevitability of oil spills from every single offshore—and onshore, frankly—drilling rig that we have. And that is a reality we have to build into this policy. I just suggest it is a way of thinking about this; 100 percent oil spills from offshore drilling if we continue on this course. So, I want to thank you for talking about this issue.

Second, I want to focus on the Arctic. I have been a sponsor of a bill to essentially call a time-out on Arctic oil drilling, both in the Bering Sea and in the Polar Sea from the polar bear perspective. And we now have seen virtually the disappearance of the Arctic during the summers due to global warming; that is a scientific fact. And it has accelerated a lot faster, just like acidification, much faster than the models predicted.

Now, as it has happened, every time I hear a story that the Arctic has disappeared, I read another story about how the oil industry is absolutely salivating at the prospect of going out there and drilling oil in the places where we used to have the Arctic ice sheet until the oil drilling destroyed it.

I think we should consider an international moratorium on oil extraction in the areas of the planet that our use of fossil fuels has destroyed. And the reason I say that is that I think that there is generally in all of our guts something that would seem wrong about doing something—which is burning oil, which destroys the Arctic, which is the heat shield for the whole planet—and then responding to that by going up and drilling for more oil in the Arctic, which will cause more Arctic melting, which will allow more Arctic drilling, et cetera, et cetera. I think there is something in the human psyche that would reject that kind of idea.

And I would suggest this is something—I haven't talked to anyone but my wife about this, she thought it was an OK idea. I am just going to throw that idea for you guys' consideration. And I think it is one way for us to focus the world on what is happening and why we ought to pay particular concern about marine extraction policies. I will just throw this idea out for you. What do you think?

Mr. COUSTEAU. Bravo, Congressman. I will restrain from applause, but I am tempted. I think that is a great way of looking at the challenge that we face.

You are right; 100 percent of our exploitation of not only oil, but coal, comes back into our own backyards. And I think it is a great way of looking at the challenge. And ocean acidification is one of those things that few people are talking about. And it is just chilling when you really understand the potential devastation that it will cause to our oceans.

I think your wife clearly has great judgment because you make an outstanding point, I will say that. And I appreciate you bringing

that up because I had not looked at it that way, and I think it is a great way to look at it.

I think specifically the Arctic. I was there in June filming. We were up just a few miles south of the North Pole, and, look as we may, we could not find multi-year ice, which is of great concern. All the ice is melting. We did some research up there as part of the film for NASA on drilling in the ice.

Mr. INSLEE. What do you think of this moratorium idea in the Arctic?

Mr. COUSTEAU. I think it is an outstanding idea. If there is anywhere that is the most fragile for drilling it is the Arctic. Because not only do we not have the technology to sufficiently clean up oil spills in the Gulf or in places without floating ice, the Arctic is especially fragile. And we know so little about it. In places where the ice has retreated, we have no scientific data. We cannot conscientiously and morally and responsibly exploit those areas because we know nothing about them. And we don't know what kind of tremendous impact we will have on these amazing resources that provide the basis of food chains for the entire northern Pacific oceans. I mean, the gray whale travels to the Bering Sea, 6,000 miles from the Gulf of Mexico, in the longest migration of a mammal in the world to feed in these rich, rich waters. And they provide the basis of a food chain that goes all the way down through the Pacific.

The Arctic is such a critical habitat. It is the smallest ocean, if not one of the most critical oceans in the world. And we know so little. I think your idea for a moratorium certainly in the Arctic is absolutely appropriate.

Mr. DANSON. It is interesting that fishermen who don't always like to be told what to do have come to the same conclusion. And they are going to not fish, period, until they have done the science to know what is the environmentally correct, sustainable, responsible way to go about it. And I think the same applies to oil.

Mr. INSLEE. Thank you.

The CHAIRMAN. The gentleman from California, Mr. McClintock.

Mr. MCCLINTOCK. Thank you, Mr. Chairman. I would respectfully withhold my support of the gentleman from Washington's idea, although I am sure that the Saudis would certainly applaud such an approach.

I wanted to weigh in on the colloquy with Mrs. Capps earlier concerning national seepage. I grew up in Ventura County in Thousand Oaks just a few miles from the coast, spent a great deal of time at the beach as a young person. I was a NAWI- and PADI-certified scuba diver in my younger days. And I can tell you from personal experience that in the 1960s, whenever you visited a friend near the beach, there was a ubiquitous tin pan of turpentine in the garage. And the reason for that was the beaches throughout that region were so spotted with natural seepage that you couldn't walk across a beach without ending up with big globs of tar on your feet. And every family had a big tin pan by the garage door so that you could get the tar off your feet before you went inside. You won't find those tin pans today. There has been a great relief in the natural seepage in the 45 years of my experience in that region. In fact, I represented the coastline from the LA County line

all the way up to Ventura in the Assembly; and then for the past 8 years in the State Senate, all the way up to Santa Maria.

So, again, I can tell you from personal experience, dramatic change over those 45 years for the better. And in fact, if one opens a history book, you will find Juan Cabrillo's notes on the coast of California as he sailed up the coast in the 16th century. When he anchored off the coast of what is now Carpendria, he made extensive notations in his log books over a massive, massive oil slick that covered the water as far as he could see. And it was, to my recollection, before the offshore rigs went in.

Mr. DANSON. Thank you.

The CHAIRMAN. The gentleman from Oklahoma, Mr. Boren.

Mr. BOREN. I really appreciate both of you being here, Mr. Danson and Mr. Cousteau. And I knew when we had this hearing that we would have a lot of Cheers references, so I have to add mine.

I know we have France and the United States. And of course my favorite episode is where Sammy beat the French gigolo. And USA did win, by the way. "USA, USA" as Carla said. But, anyway, I had to throw that in.

Mr. COUSTEAU. I had not seen that episode. I don't know why. I will take your word for it though.

Mr. BOREN. Anyway, I am kind of an outlier. I know we have Republicans and Democrats here, and a lot of times this becomes kind of a regional argument. I am a Democrat from Oklahoma. It is an oil and gas producing State. It is a big industry in our State. And, you know, I want to say to you all, it is a large producer of income for our Federal Government. It is actually the second largest contributor to the Treasury next to income taxes.

And in Oklahoma, the oil and gas industry buys a lot of textbooks for education. We also have a check-off program in Oklahoma called the Oklahoma Energy Resources Board where we go back and clean up well sites.

So, when you think about the oil and gas industry, I know a lot of folks on our side sometimes disparage them as these kind of greedy JR Ewing types. Most of the folks in the oil and gas industry want to protect the environment, they want to give back, and they want us all to coexist.

I am the incoming chairman of the Congressional Sportsmen's Caucus, and I support responsible energy development. I don't think we should just drill for the sake of drilling, but I do think it is a big part of our economy.

One thing that we heard today was about spills and everything else—and I wanted to go back to Katrina and Rita where we had 3,050 offshore platforms in the Gulf—and according to the MMS and the U.S. Coast Guard, that there weren't any significant spills. Now, this is just from the platforms. The industry that produces about 1.4 billion barrels of oil per day, which since 1980 less than .001 percent of that has spilled, how do you all reconcile that? I mean, you are saying, well, it is a problem. Is it just this oil that is running around there? Is it from fishing boats? Are you saying it is mainly from rigs? Because from my estimation, .001 percent is a very small percentage. That is my first question.

And again I just want to reiterate there are a lot of responsible people in the oil and gas industry, patriotic people that want to do what is right by our country.

Mr. DANSON. I have a huge amount of respect. When I first started doing this 20 years ago, we were invited up to Prudhoe Bay by the oil companies. We got to know them, we enjoyed them. We disagreed, but we came together and decided how can we work together. We are never going to agree on the wildlife refuge, but let's find something we can do together. And we started to reuse the motor oil, a recycling used motor oil program in Southern California that kept more oil out of our oceans, our coastal waters, almost than Exxon Valdez. You dump that much down, do-it-yourselfers every year. So, I have a huge amount of respect for you all—not "you all," I am sorry.

Mr. BOREN. I am part of the oil and gas industry, absolutely. Sure, sure, my family has been in the business.

Mr. DANSON. And it makes absolute sense I think from your perspective, an oilman's perspective, to drill. But I just think the risks far outweigh. But it is not out of a lack of respect.

Mr. BOREN. And I want to make one comment, too. I think that, as Boone Pickens and a lot of other folks who have been involved in the oil and gas industry for a long time, I think we all want alternatives. I think we all want to move in that direction. And natural gas is really a bridge to the future there. And we have a ton of domestic natural gas that is not even produced offshore. A lot of it actually is produced in my congressional district in eastern Oklahoma in the Woodford shale. And if we use that natural gas—which is actually less than what it would be for oil—and use that as a transportation fuel, the carbon footprint will be smaller and we won't be relying on Saudi Arabia and these other places. And we will employ a lot of Oklahomans and Californians and a lot of Americans. So, I appreciate your candor there, that comment.

Thank you.

The CHAIRMAN. As it has all been said to my right, but not everybody has said it, I am going to recognize the gentleman from Utah, Mr. Bishop.

Mr. BISHOP. Did you put me in here between these two microphones so it would be uncomfortable to talk? Is this the subtle version?

Hey, I appreciate the kind words of the Chairman. I am assuming they will get better as the day goes on. And I apologize for being late. My solar-powered airplane was late arriving.

I have not had the opportunity of hearing a lot of the questions that have been asked so far. I will try not to be redundant. I did have the opportunity of looking at some of the testimony that was added, and so let me start off with a couple of things because, to be honest, my math is confusing here.

The number of 120 million barrels that are spilled into the oceans that has been floating around, how many gallons are in a barrel?

Mr. DANSON. Oh, you got me.

Mr. INSLEE. Forty-two.

Mr. BISHOP. If it is 42, then that means the number is somewhere around 3 million barrels that we are talking about is existing.

Mr. INSLEE. 2.9.

Mr. BISHOP. 2.9? If the actual leakage from an area is .001 percent, and 63 percent we have been told of actually the oil spillage comes from that, for some reason those numbers don't seem to add up in some way. The .001 percent of 4.7 that is produced is actually more than 3 million barrels that is supposed to be in there. So, I am making the assumption that we are throwing around numbers here pretty fast and loose, looking at different years, different atoms, different concepts, in coming up with some of these figures that are there, with the only constant being that seepage is really one of the narrower of problems that has to be there, or in some way that it just doesn't fit in some particular way.

I am concerned. And I would like to ask either of you to respond to a couple of implications that were made, one in which it was stated that decisions over offshore drilling have been made in the absence of adequate scientific information. And I would like to know if you wanted to amplify that, especially because any kind of offshore drilling activity would first of all go through, by law and regulation, a study before a lease program is established, a study before the lease sale is given, another study before the exploration would take place, another study before production. A minimum of three separate environmental impact statements would be made. And if we are talking also—let me see if I can list—that there are no laws, at the very least, legislature is to ensure the process of new drilling sites and conditions applied to exploration minimize their impact. We already have the Outer Continental Shelf Lands Act, the Coastal Zone Management Act, Marine Mammals Protection Act, the Endangered Species Act, the Clean Water Act, the Clean Air Act, the National Environmental Protection Agency Act, and all sorts of other protections.

Are you really serious when you say that you firmly believe decisions have been made without adequate scientific input?

Mr. DANSON. Yes, I do. I don't know if that is necessarily accurate; but yes, I do believe that. The reason why I got into this conversation to begin with was the scientific information that was coming our way about the acidification of the oceans.

Mr. BISHOP. But if indeed we are having—they just gave me a list of the laws that are applicable, and they are not numbered, it goes from A to ii. Is there not some room maybe to vary some of that approach and saying, yes, there is a significant amount of research impact, at least environmental statements that have to be made before any of this stuff progresses?

Mr. DANSON. You know well more than I do. I will defer to you. But if you are not taking into consideration that by burning fossil fuels you are dumping so much carbon dioxide into our oceans that a vast percentage of that could die as a result of acidification, then no, we haven't done enough science.

Mr. BISHOP. All right. I mean, if you want to work with me, I am told I have a great deal of ability for having rhetorical excess around here, at least the Chairman does. You don't have to verify that.

The CHAIRMAN. That is why you were given two microphones.

Mr. BISHOP. OK. We can work on those. Now I can't reach this one. You noticed I moved to the left to talk here, though. We can try and move on that particular approach.

There is another thing. We are in a State that is currently trying to balance the budget. I am an old classroom teacher. This is not my native area of expertise. They are desperately trying to fund education in the State of Utah and make sure that my retirement checks keep coming through, and yet the Secretary recently withdrew 77 leases of potential gas, which took $3 million off the table that the legislature is now trying to bundle with. Now, that has got to be made up in a particular way.

So, in your position as maybe an expert—I am running out of time—an expert on these issues, if we had traditionally had since the 1950s about $200 billion in royalties that have gone to the State and local government, the expectation is somewhere in the name of $1 trillion billion that have gone to State government so they can fund themselves, what tax would you suggest should be used to replicate that funding source?

Mr. DANSON. You outdid me, sir. I know the staff heard the question, and we will get back an answer to that.

Mr. BISHOP. Is that my rhetorical excess again one more time?

Mr. DANSON. No. I honor the question, I just don't have an answer.

Mr. BISHOP. If I could ask the indulgence of Chairman Rahall, this is the last question. I don't want to abuse my privilege yet.

The CHAIRMAN. Will you leave after this set of questions?

Mr. BISHOP. If the Chairman would be satisfied, I would be happy to do that. The things I do to make you happy around here.

We import about $700 billion worth of petroleum from the Middle East, and every barrel of gas, of product—oil, I was just told, 19 percent of that equates to fuel that is pulled off, which any kind of green alternative could kind of handle that. The other 42 percent is the stuff that is left over, which is reserve, that goes into making plastics and chemicals.

And, in fact, they just told me you went into an operating room, something with which you are familiar—and you go in there—everything except for the steel comes from some source that is oil-based product. Jobs are oil-based product. I am not sitting on leather up here, these are all oil-based products. If indeed we do not come up with an American source to supply those types of needs in the chemical and the medical and the plastics area, what product are we going to—how are we going to replace that? What is the process that goes through that? We are not just talking about fueling automobiles when we talk about oil production, we are talking about a whole series of issues: jobs, input, things that have made life better.

Mr. COUSTEAU. Well, if I may, Congressman, I think in answer to your first question, there are several acts that govern management of the oceans. However, since the moratorium was not reinstated, there is no comprehensive management legislation for the Outer Continental Shelf. And the research is inadequate. We know for sure that the research that exists right now—and I am not making a comment on what has happened in the past, it has hap-

pened—but going forward, the research of the Outer Continental Shelf, the knowledge of the ecosystems there and spatial planning is inadequate today in many, many places.

I will also say that in answer to your second question, to replace some of the tax revenue from that, I think renewable energy will certainly—there will be taxes on renewable energy in the development of that, certainly in offshore and domestic on the land. And I think that we forget, too, that there are negative costs to developing and our reliance on oil.

As I said earlier, 1 out of 4 children in New York City have asthma. I think that we must balance the negative impacts to our health, to our health care industry—we have some of the highest costs in the health care industry in the world. I believe there are multiple estimates that I have seen, various different research studies, but certainly numbering in the thousands of deaths that occur from air pollution in this country. So, if you want to fully factor the costs in, you need to factor those in as well to the costs on taxpayer dollars for health care and for other things that are negatively impacted by oil.

And to the third point. I agree with you, I think it is not going to be realistic for a very long time to fully eliminate oil from our economy. I think that the critical—and what we must embark upon now is a drastic reduction with the goal of eventually eliminating it. But we can't wait any longer, we have to start now. And continuing to drill and continuing to focus on this issue of drilling is not, I think, the way to do it.

Mr. BISHOP. I think there are some serial things where we can actually work together on this.

I appreciate the very eloquent answer that is there. And I realize that Pampers come from oil, and that they do cause problems in landfills. But as somebody who had three kids under 3 in the cloth diaper era, I like Pampers. And I may like them in the future a lot more; who knows?

The CHAIRMAN. The gentleman's time has expired.

The gentleman from California, Mr. Costa.

Mr. COSTA. Thank you very much, Mr. Chairman.

Mr. Cousteau and Mr. Danson, are either of you familiar with the last evaluation of research that was done by the National Academy of Sciences in 2002 that talked about the impacts of pollution in the seas throughout the world?

Mr. DANSON. Probably not.

Mr. COSTA. Well, it is my understanding one of the last comprehensive compilations of all the different information that is put out there, some of the information has already been discussed this morning. I guess you put me somewhere out in the middle. I mean, you talked about, earlier this morning, about a comprehensive approach. And if there is going to be some additional expansion of offshore oil and gas resources, that the revenues from that ought to be used to get us off of fossil fuels. We had such a bill last year, Congressman Abercrombie and myself, on a bipartisan basis, I would suggest you look at it.

But basically what the National Academy of Sciences concluded in this report was that today accidental spills from platforms represent about 1 percent of the petroleum inputs in North America

waters and about 3 percent worldwide. And it goes on to stipulate that when you look at the impacts around the world, that over 85 percent of the contributions of decline of fisheries that we have talked a lot about today is a result of nonpoint sources. And I want to use all the energy tools in our energy toolbox to get us off of fossil fuels. But what you haven't talked about today is how we get there, how you develop an orderly process. Because there is a near-term, there is an intermediate-term, and there is a long-term strategy. And just wishing or saying that offshore drilling or oil and gas exploration in this country is bad, when we have the highest standards—and I would take issue with you, Mr. Cousteau, because the moratorium has been lifted, that in fact there are not the protections that Mr. Bishop—you prefer a moratorium, I understand that, and we may agree to disagree on that, but all the protections are still in place in terms of all the requirement and permits that have to be done.

Do you agree that nonpoint source, both of you, is the primary source of decline of fisheries and degradation of the oceans of the world?

Mr. DANSON. I would say, you know, I don't know the facts and figures exactly, but absolutely it plays a huge part of it.

Mr. COSTA. It is 85 percent.

Mr. DANSON. Huge part of it. But then when you add what happens——

Mr. COSTA. Do you agree, Mr. Cousteau? We had 1.5 billion people living on the planet 200 years ago, we have 6 billion people living on the planet today. Do you know where a lot of them live? Around the world, around the coast. And they have all of that nonpoint source pollution going into the oceans.

Mr. COUSTEAU. Correct.

Mr. COSTA. And what my point is, I think that your efforts are misplaced. I mean, if I want to correct an ecological nightmare that is taking place, I would be focusing on the nonpoint source pollutions that we do in this country, that we require cities and counties with tertiary treatment facilities and with waste disposal and all of the like, and every time it rains—I am one of those that does sail the coast of California and sails the Caribbean. I am a passionate sailor. And my Portuguese compatriot, Juan Rodriguez Cabrillo's notes I have read when he sailed the coast of California 400 years ago. And obviously we can't go back 400 years. But I think trying to see where our differences lie is an acknowledgement, as you made a point of with ANWR, that it just seems to me you want to get us off of fossil fuel. I want to get us off of fossil fuel, but no one is talking here about an orderly process on how we do that.

Mr. DANSON. It feels to me that the reason why we are not at this particular moment is because I feel, from my point of view, we are putting out the fire of opening up the Outer Continental Shelf to oil drilling. I mean, that is the conservation that—I agree with you wholeheartedly; to sit back and say no, no, no is not responsible. I agree.

Mr. COSTA. We are going to have to continue, for the near term, I believe, extraction of oil and natural gas not only along our coasts, but around the world. And we do it better—I mean, do you

spend the same focus on the impacts of this offshore activity in Nigeria and along the Arabian coasts as we are talking about here——

Mr. DANSON. I respect the fact that we do it really well. I am not denying that.

Mr. COUSTEAU. If I may add——

Mr. COSTA. Your grandfather spent a lot of time around the world, Mr. Cousteau, and talked about that pollution occurring in other places where they didn't have very good management practices, whether it be from oil or nonpoint sources. And I haven't heard you comment about the nonpoint sources.

Mr. COUSTEAU. Well, because—I mean our discussion today is for management of the Outer Continental Shelf. I agree the nonpoint source pollution is a challenge, but——

Mr. COSTA. And what percentage of the challenge do you believe it to be on the Outer Continental Shelf in North America, where we have some of the best management practices, so that we stay focused on this morning's topic.

Mr. COUSTEAU. Can you repeat the question?

Mr. COSTA. What percentage of the problems of degradation of the oceans on the Outer Continental Shelf in North America is contributing to the decline versus nonpoint sources versus activity of offshore oil and gas?

Mr. COUSTEAU. I don't have any of those figures in front of me.

Mr. COSTA. Well, don't you think a good comparative analysis would be appropriate if we are talking about concerns about good science, best management practices?

Mr. COUSTEAU. I am sure if they don't exist——

Mr. COSTA. We have limited dollars, and it just seems to me that we ought to put our dollars for the best bang for the best buck. And so we should do a quantitative analysis on how much the nonpoint source pollutions are contributing to the decline of the Outer Continental Shelf off North America versus the impacts of oil and gas. That is all I am asking.

Mr. COUSTEAU. I don't disagree that we don't know enough about the oceans, and I think I have been saying that all day. But——

Mr. COSTA. But we know that the overwhelming majority comes from nonpoint source to the decline of the fisheries.

Mr. COUSTEAU. Well, today what we are advocating is the management of the Outer Continental Shelf, not to the exclusion of focusing——

Mr. COSTA. I understand. But I just want to know, you as a very high-minded citizen, and you, Mr. Danson, I mean, you live off—Mr. Danson, did we, for the record, substantiate—by the way, they say you and I look a lot alike. I love your Arctic blonde hair.

Mr. DANSON. That is very kind of you.

Mr. COSTA. I think it is very becoming. Mine is actually naturally black, but I do this to get more gravitas for people——

The CHAIRMAN. On that point, I think we ought to tell the gentleman his time has expired.

Mr. COSTA. Well, it has expired. But just for the record, I think that it would be helpful in terms of ocean management studies—of which I have read some—that we do the kind of comparative analysis on this, because we have 27 platforms off the California

coast. And I know tourism is a big thing in California, because I live there. And I don't think those 27 platforms have turned anyone away from wanting to visit California.

Mr. COUSTEAU. I agree that more research is needed on all fronts, Congressman.

Mr. DANSON. And I hope that today's conservation is giving the impression that we are not just looking at oil rigs per se, we are looking at the whole process of oil; what happens when you drill it, what happens when it gets spilled in transportation, what happens when we burn it in our cars and it gets washed off in nonpoint into the coastal zone, and what happens when it falls back down into our oceans. So, we are trying to look at it from a complete point of view of what are the risks and costs of drilling and continuing our addiction to oil.

The CHAIRMAN. The Chair will recognize the gentleman from South Carolina just quickly for a UC. I believe you want to submit a statement.

Mr. BROWN. Yes, thank you, Mr. Chairman. If it is in order, I would like to submit an opening statement.

The CHAIRMAN. Without objection, so ordered.

[The prepared statement of Mr. Brown follows:]

Statement of The Honorable Henry E. Brown, Jr., a Representative in Congress from the State of South Carolina

Mr. Chairman, I am pleased that you have scheduled this oversight hearing on the Federal Outer Continental Shelf oil and gas leasing program.

It is not only the first hearing of the Natural Resources Committee this year but it is the first time we have reexamined the benefits of the OCS program since the 110th Congress wisely ended the 27-year old leasing moratorium.

The U.S. Mineral Management Service has estimated that the Federal OCS contains as much as 86 billion barrels of oil and 420 trillion cubic feet of natural gas.

As a representative of the 1st Congressional District of South Carolina, I proudly represent 75 percent of the coastline of my State and some 140 miles that includes some of the finest beaches in the world.

Every year, millions of Americans, Canadians and other visitors travel to my District to enjoy these beaches and I would never support any Federal action that would put our pristine beaches in peril.

Yet, the real facts of the OCS Program are frequently ignored and blatantly misrepresented. Despite the heated rhetoric, the OCS Program has an outstanding environmental record. It is our Nation's safest energy extraction program. In fact, urban runoff dumps more oil into the ocean than offshore rigs.

We will also hear from a witness today who will testify that 70,000 barrels of oil and 3 billion cubic feet of methane are seeping into California coastal waters each and every year. These annual seeps are equal to the volume created by the 1969 Santa Barbara oil spill.

Furthermore, let's be clear. The greatest threat to my beaches and those in California, Florida and New Jersey is not the Federal OCS Program but oil spills from leaking foreign tankers. Of the 50 largest oil spills, not a single one was the result of the Federal OCS leasing program.

In the Gulf of Mexico, which is the site of the greatest amount of OCS activity, commercial energy production and fishing activities have co-existed for decades. In 2006, commercial fishermen landed 1.3 billion pounds of fish and eight of the top 25 ports for commercial landings were in the Gulf of Mexico. We know that offshore rigs provide habitat for millions of fish and the potential of using rigs for offshore aquaculture is a huge untapped source of protein for this nation.

In the final analysis, the choice is clear. We can continue to obtain our vital energy resources from foreign governments that hate the United States and are more than willing to strangle our economy or we can develop our resources in a safe and responsible way. We can continue to have our imported energy resources transported on foreign tankers which sometimes foul our beaches or we can increase the amount of production on the Federal OCS which is our safest energy extraction program.

I choose to support the Federal OCS program and would remind my colleagues that in a recent Rasmussen nationwide survey, 68 percent of Americans indicated they support offshore oil drilling. Since our witnesses did not walk from their homes to this hearing and visitors to my State need gasoline to drive their cars to the Grand Strand, it is essential that we move forward with the OCS Program and not reinstate the short-sighted and ill conceived leasing moratoriums.

Thank you, Mr. Chairman.

The CHAIRMAN. By way of housekeeping, the Chair intends to recognize the remaining members on the majority side, including the gentlelady from New Hampshire next, who was here early on in the hearings for some time and did not get recognized. And then, with the forbearance of the panel, there are some that still would like to go through a second round of questions, but if the panelists—yes, I will leave it up to your discretion after we go through our Democrats.

Mr. DANSON. I would love to stay here all day. Next time I will learn not to be nervous and drink a lot of water.

Is it possible to——

The CHAIRMAN. We shall have a 5-minute break.

Mr. DANSON. That is so kind of you.

The CHAIRMAN. OK. The Committee will be in recess.

[Recess.]

The CHAIRMAN. The Committee will resume. And the Chair and all members of the Committee certainly want to extend our appreciation to Ted and Philippe for their patience and willingness to share so much time with us today. We deeply appreciate it.

The Chair will now recognize the gentlelady from New Hampshire, Ms. Carol Shea-Porter.

Ms. SHEA-PORTER. Thank you very much for being here.

I grew up along the oceans of New York and New Hampshire. And there can be no doubt that the oceans are degraded and that they are greatly stressed. So, I am concerned that there is not universal consensus about the conditions of the oceans right now.

And I am particularly concerned by the statistic that you used, Mr. Danson, when you were saying that half the people in the world depend on the ocean for their protein as a major source of food. And it occurred to me that the argument that we are having here and other places would just be wiped off the map if we started to argue about the food and the loss of food if our oceans continue being degraded.

The question that I wanted to ask, I first wanted to talk about Georges Bank, and that obviously is in New England. If they did develop it, it could only give maybe 3 percent of the recoverable oil for the Nation's preserves, 3 percent. And I have concerns because it is such a rich fishing area. Would you comment on the possible damage that could be done to Georges Bank?

Mr. DANSON. I think you just said it. I just keep going back—sorry, I don't know the specifics of Georges Bank, so it is hard to for me to sound intelligent about that.

Ms. SHEA-PORTER. In the Gulf of Maine, Massachusetts, New England area.

Mr. DANSON. But spills do happen, oil spills do happen. And the fact that we keep burning fossil fuels and contributing to climate change and that carbon dioxide is falling into the oceans and cre-

ating something that we haven't talked about a lot, which is acidification, so that your fishing areas are getting stress from overfishing, they are getting stress from pollution, and now if they start getting stressed from the bottom of the food chain being eradicated by carbon dioxide getting in and acidification, then you could seriously lose your fisheries completely.

Ms. SHEA-PORTER. Right. In New Hampshire we have a great deal of concern. We call ourselves—and, indeed, all of New England—the tailpipe of America. We don't feel good about that, and I know you know what that means. And we do see the effects of acid rain from coal and others. And we are seeing the impact, if you go up to the top of some of our mountains and you can see the damage to the leaves, and you see damage in the environment just in general because of the climate change and because of our addiction to fossil fuels.

Now, I think it is interesting also that we are having this discussion, but we haven't brought up the fact that at some point we are probably going to run out of this. So, I want to talk to you about what T. Boone Pickens had to say when he came and spoke to the Democrat Caucus, and I know you have seen his ads on television. And he has a lot of faith in our ability to harness the wind and solar and use other renewables. And what I am hearing from a certain segment of the population is a kind of scorn that we actually could change our use of fuels and we could use the alternatives.

I am sure that you have looked at what our predicted energy needs will be. And we all agree that for the short term we have to continue in oil. But having looked at all of this, do you think that, along with T. Boone Pickens and so many of us, do you think that we are capable and that there will be enough energy that we could harness to meet our needs, not this generation, but next generation maybe?

Would you like to take a crack at that?

Mr. COUSTEAU. Well, thank you, Congresswoman, for your question and insight.

I think that we have the capability to overcome any challenge in this country. And I have great faith in the ingenuity and the ability of the workers in this country, of our economy, the resiliency of us to be able to do so.

We have put people on the Moon. I think we can solve our energy crisis if we dedicate ourselves and start now with a really vigorous approach to do so and a vigorous commitment to doing so.

The technology exists. It may take some hardship as well. Maybe we don't need to have two SUVs in our garages, or three. Maybe we don't need to have 50,000 square foot homes. Maybe we don't need to be flying around just a few people on massive private jets. Maybe we don't need some of these things; I would argue that we don't.

I think that there are multiple factors that will be required for us to continue to live sustainably on this planet. And I think that the answers to that is myriad. And I think we can do it. I have great faith that we can do it, because I am not a big fan of the alternative. Because the alternative, I do believe, is for us to literally wipe ourselves off the face of this Earth.

Ms. SHEA-PORTER. Well, I have always told my children, little house, big world. And I think that is a safe philosophy for all of us, because conservation is not being talked about and it is not being respected yet, so we are not really addressing it.

I also wanted to talk a moment about what happened with Valdez. For many, many years the fishermen and those who relied on that industry tried to get the oil company to settle up and pay their bills. And it finally went to the Supreme Court and the fishermen lost. Is there some kind of warning here for people who live along the coastline who are thinking, well, maybe that would be the answer, maybe that would help us if we did get more oil? Is there some kind of lesson for them as small business and people who rely on tourism, et cetera, to take a look? What are the lessons there?

Mr. COUSTEAU. I think that is a great quote. I am actually a student of history. And I believe it was Churchill who said, "Those who do not learn from the past are doomed to repeat it." And I think that all we need to do is look back at the past. Have our reliance and continued exploitation of oil led us to anywhere positive? I would say no.

I think that it is incumbent upon us to develop renewable energy and to get off of oil or we will continue to repeat the mistakes of the past. And I think we only need to look at oil spills of the past and how we still have 16,000 gallons, I believe, of oil in Prince William Sound from Exxon Valdez. I mean, these legacies live for a long time.

Mr. DANSON. It is probably not just that the oil companies are stingy about giving their money to the fishermen, it is probably that it is so overwhelmingly expensive that it is probably impossible to clean up the damage, that you do not have enough money to make it right. It is not just that they don't want to part with their money, it is probably an impossibility to make it right with money, which I think is a lesson. If you have a disastrous spill, there is nothing that can mitigate that; it is forever.

Mr. COUSTEAU. And immediately, if you begin to hold oil companies accountable for the entire cost of their actions and the entire cost of the oil and what they do, then you start to get into the question of do you start to account for all of the health care costs that come from air pollution from exploitation of these resources? I mean, do you start to charge them for the full life cycle? That would drive up oil costs tremendously. I mean, we pay for everything. It is just where we end up paying for it. So, they probably don't want to open Pandora's box and set a precedent.

Ms. SHEA-PORTER. OK. And so for those that are looking at that as maybe a temporary relief, there is definitely a lesson to be learned, what the actual experience was, that people lost their livelihood. And it takes us right back to the beginning of the hearing when we were talking about we need this for jobs, we need this for a food source, and we can use it for an energy source as well.

And on that note, I will say thank you and yield back.

The CHAIRMAN. The gentleman from Hawaii is recognized, Mr. Abercrombie.

Mr. ABERCROMBIE. Thank you, Mr. Chairman. And gentlemen, thank you for being here.

Mr. Costa indicated that we had a bill—when I say "we," this was a broad consensus of Republicans and Democrats. We didn't call it even bipartisan, we called it nonpartisan. We developed a bill; it is H.R. 6709 from last year. We are going to reintroduce it again this year, the National Conservation Environment and Energy Independence Act. It came out of an effort that Mr. Peterson of Pennsylvania—since retired I am very, very sorry to say—and myself put together originally, H.R. 2784, which had to do with the development offshore of natural gas absent oil production. And it might be useful to you just to read what we originally wrote some years ago, it took us years to put this together, "to enhance the Nation's environmental energy, economic and national security by terminating longstanding Federal prohibitions on the domestic production of abundant offshore supplies of natural gas."

This is where we started. I was converted to this, by the way. I supported the moratorium that you speak of for many years. I didn't think much about it. Offshore oil, OK, I am against that, and I didn't think about it. But I listened to Mr. Peterson at the time about the crisis that we faced in terms of being able to go from a carbon-based fuel economy now to an alternative energy, and how would we get there, what kind of alternative energy bridge could we use? And I concluded that we had to have exploration and extraction of carbon-based fuels now to fund and make the transition period. So, we started with natural gas. "To dedicate fixed percentages of the resultant royalties for environmental restoration projects, renewable energy and carbon sequestration research, weatherization and energy assistance for those in need, and to share a portion of such royalties with the producing States, and for other purposes."

That is how we started out with this. We tried to figure out, how do we get to restoration of various areas? And some of the things that we did were to take the revenues from—this was just from natural gas leases before we got to oil—energy efficiency and renewable reserves, $32 billion; carbon capture and sequestration reserve, $32 billion; Chesapeake Bay restoration reserve, $20 billion; Great Lakes restoration reserve—the Great Lakes get forgotten all the time in all the discussion that takes place. I was born in Buffalo, and I watched Lake Erie become inert liquid, not H20. It didn't qualify as a lake anymore, it was inert liquid. I watched rivers catch on fire in Buffalo.

Great Lakes restoration. Everglades restoration reserve, $12 billion; Colorado River Basin restoration, $12 billion; San Francisco Bay restoration reserve, $12 billion. LIHEAP and Weatherization Service.

We put all this in because we tried to say, well, what can we do to get the transition period from gas. And then we moved to 6709—I give you these numbers because I am going to ask you to refer to them because this hearing—and I want to say parenthetically about the Chairman and Mr. Bishop, there could not be better legislators in terms of fairness and openness and dialogue that we have with one another about how to get to the solution. We will get new numbers for what was 6709 before, but I want to refer to you because if we are going to get to where you want to go, you are going to have to work through the Congress and work through

this Committee, in particular, and the members on it and the members associated with it who came in.

We went into a room, no lobbyists—including yourselves, no offense—no lobbyists, no leadership from either party, members, no staff—and we worked this out among ourselves to try and get this transition.

So, what I am going to ask you to do, you needn't comment further on it, the bill itself, 6709, essentially says the same thing: to dedicate fixed percentages of royalties received for conservation programs, environmental restoration projects, renewable energy research development, clean energy technology research and development, increased development of existing energy sources, energy assistance to those in need, and to share a portion with the States and with the Federal Treasury to enable us to do these renewable energy and alternative energy products, including giving money for hybrid electric cars and energy stations and so on. In other words, a complete spectrum out there.

And if you just give me one more minute, Mr. Chairman, what we did is we took ANWR off the table because we knew that those of us who have been against the ANWR and those who supported the ANWR drilling knew that that was such a volatile political issue that it would get in the way of us trying to move forward.

I then, and people like myself who were for raising the CAFE standards, we took that off the table because that caused so much political difficulty. So, we tried to zero in on those things where we could get agreement that it had to be faced up to, like carbon sequestration and carbon capture, and put money behind it, real money. Because out where I am from in Hawaii, we are trying to do wind right now, we are trying to do geothermal, we are trying to do biofuels. I am a strong supporter of all that. But we have to get the money for all that. We have to be able to invest it. Where are we going to get the money? We wanted to use the carbon-based energy culture that we have now to finance the alternative energy future that we want to get to.

The final thing was that we wanted to stop the hemorrhaging of money leaving this country to supply the energy that we have right now by developing these domestic resources offshore and on land here, so that whatever arguments we were having and whatever conclusions we would make would at least be over domestic supply that we control so the money stayed here. And the money that we were generating from the extraction of domestic oil and natural gas would be invested in alternative energy here in this Nation rather than seeing those dollars flow out to the Saudis or Venezuelans, or whomever; and also because we felt the Chinese were going to try to corner every possible energy resource that they could get to fund their own domestic concerns, so that it would cause the price of carbon-based fuel—particularly oil—to, on the whole, rise regardless of fluctuations such as we see now.

Mr. ABERCROMBIE. So, I am going to ask you to kindly take a look at what we started out with, which was called the NEED Act. That was 2784, which evolved into the National Conservation and Energy Independence Act, 6709, because we are going to try to introduce it again because I think there is common ground here that if we can figure out a way to do domestic production in as safe a

way as possible, and I am not going to argue with anything you have put forward here as to what the difficulties are, that we will actually be able to have a path for investment for alternative energy, and that is essentially what I am asking, 6709 and 2784.

And I just want to conclude because everybody says it personally, I want to say to you, Mr. Danson, that there are two national media resources that we have in terms of entertainment. One was "The Wire," which is, I thought I was the only person watching it in the country, and it turns out, I think it is Shakespearean. It was wonderful. But the other is "Damages." And I want to tell you, I fail to completely understand why it doesn't get the recognition it deserves, and right now if there is any contribution being made on a mass media basis—you know, C-SPAN or something covers us. We are just politicians and all the rest. But in terms of credibility, "Damages," that series, is doing more to create environmental awareness right now with the present story structure that is going on now and with the premises that were established there, I think, than anything else that is being done in the Nation right now.

So, I, for one, am not one who dismisses the idea that people who have a national cultural resource to explore are somehow disenabled from being able to comment or to participate in the national discussion. On the contrary, I think it is the quality of the presentation that counts; and the quality of the presentation with which you are associated, I believe, enhances your capacity to speak authoritatively and to comment as a citizen. I welcome that and, on the basis of goodwill and good intentions, hope that you, in turn, with the Ocean Conservancy will take a look at 6709 and our intentions and purposes and perhaps we can begin a dialogue.

Thank you, Mr. Chairman, for your indulgence.

The CHAIRMAN. Thank you.

The gentleman from American Samoa, Mr. Faleomavaega.

Mr. FALEOMAVAEGA. Thank you, Mr. Chairman.

And I personally welcome our two distinguished witnesses this morning, Mr. Danson and Mr. Cousteau.

If my numbers are correct, and please correct me if I am wrong, I think between 4 to 5 percent of the world's population is from the United States, and in doing so, I think we consume about 25 to 30 percent of the world's energy. From that, I am told that we import approximately $700 billion worth of fossil fuel every year to meet the demands of our country's need, and I say with tremendous pride that our country also contributes tremendously to the world's needs. And as Mr. Costa has said earlier, Mr. Danson, that while I respect your efforts in seeing that we continue the moratorium in doing any offshore drilling, I think it raises the same question about what we can do to make up for the $700 billion worth of oil that we have to purchase from foreign countries and foreign companies in order to meet our own consumer demands? Have you given—we talked about wind, solar energy, and all the others, but do you think that will make up substantially the $700 billion worth of fossil fuel that we need, Mr. Danson?

Mr. DANSON. I am not an expert on how to and I hope that is—and clearly that is what this Committee will be looking into. But I feel fairly confident that the figures that say 1 percent, that if we do open up the Outer Continental Shelf, we will get 1 percent of

our daily need. So, it is not going to come from us drilling on our Continental Shelf. That won't happen.

So, the hope would be that over time you do find ways to supplement your energy needs with alternative sources of energy. But you will not drill your way out of it, and you certainly won't in the Continental Shelf.

Mr. FALEOMAVAEGA. Mr. Cousteau?

Mr. COUSTEAU. I agree with Ted.

Thank you, Congressman.

I certainly think we won't be drilling ourselves out of that problem. It certainly won't come from the Outer Continental Shelf. Only 27 percent of U.S. Oil production currently comes from the Outer Continental Shelf, and any new drilling will not bring new oil production into the country for at least a decade. So, I think we need to vigorously and aggressively now say, well, we have 10 to 15 years, even if we drill in the Outer Continental Shelf, before we get any oil from there. How much oil can we get? I think we can challenge ourselves. I know we can challenge ourselves to develop alternatives in that same period of time that I think we should challenge ourselves that will equal more than any of the production that would come from the Outer Continental Shelf. And I have great faith that we could do that. All we do is lack the will to do so.

Mr. FALEOMAVAEGA. So, do you suggest that we ought to continue importing fossil fuel to meet our own consumer demands?

Mr. COUSTEAU. I think that we will never not import fossil fuels. I mean, we cannot—at least, currently, we don't produce. We import 70 percent of that oil from other countries. That is not going to change by drilling in the Outer Continental Shelf. We have to find other ways to get off our addiction, period, to oil and develop other energies and energy efficiency for us to be able to reduce our dependence on foreign oil.

Mr. FALEOMAVAEGA. Are both of you supportive of nuclear energy?

Mr. DANSON. I don't know enough about it. I hesitate because of the problems that we all talk about. What do you do with the waste? How do you deal with that? If we found a safe way to do that, but I certainly have nothing intelligent to contribute on that.

Mr. COUSTEAU. I hesitate as well with nuclear energy, but we do not have a formal position currently on the development of nuclear energy.

Mr. FALEOMAVAEGA. Mr. Cousteau, I, too, am a great admirer of your grandfather.

Mr. COUSTEAU. Thank you, Congressman:

Mr. FALEOMAVAEGA. I have here a photo that looks like a beautiful flower. It happens to be a nuclear explosion that took place on the island of Moruroa in French Polynesia on which I was able to visit. And the question that comes to mind was that the French government conducted some 200 nuclear explosions of this island and made a cheese hole, literally, out of this island of Moruroa. Your grandfather was commissioned by the French government to go under the island to see if there had been any nuclear leakages coming out of this because what the French government did was drill 3,000 feet below the islands and then conducted their nuclear

testing. Supposedly the nuclear blast fuses, whatever, nuclear radiation, whatever the thing that comes out of it, and there was a real serious question about the danger of leakages coming out of it from what the French did for some 20 years.

And what I wanted to ask you is that your grandfather did the research, but, unfortunately, I am told, according to scientific reports, he only went halfway down the atoll; so he never was really able to find out exactly the leakages that have come out of the contamination that the French did on this island. And I would like to ask you, sir, if you could do this by following your grandfather's legacy, go to Moruroa Island to find out if, in fact, that we have some real dangers here from the fact of what the French government did some years ago? Would you might be able to conduct a survey by going down there and finding out if this nuclear—you know, some 10,000 Tahitians were subjected to nuclear radiation because of what the French did. Some 1.5 million Kazakhs in Kazakhstan were exposed to nuclear radiation because of what the Russians did in conducting some 500 nuclear explosions during its testing period. We conducted about 67 nuclear tests in the Marshall Islands. I am probably one of the few Members who has ever visited all of these islands, and I can say to you gentlemen, it is not a very pretty sight to see.

But I just wanted to offer that challenge to you, Mr. Cousteau, since you have such a famous name to go with it, if you could follow your grandfather's legacy, find out what happened, because to my understanding, the French government does not allow people to go down there to see. It is still nuclear, if you want to put it in those terms. This island is still prohibited for visits. I know this has nothing to do with offshore drilling, but since I come from an island, I have a real sense of appreciation of what it means to live in an island community. And I sincerely hope you two gentlemen may want to go visit this island called Moruroa. It is about 500 miles south of Tahiti.

Again, I want to thank you, Chairman, and thank you gentlemen for making the effort to come and testify.

Mr. COUSTEAU. Thank you, Congressman.

I think that underlines the concerns about nuclear and why both Ted and I are reticent about it as a technology, and it certainly has left a terrible legacy and a lasting legacy there that I appreciate, that I think you have a great point, we don't know enough about, like so many things in the ocean.

So, thank you.

The CHAIRMAN. The gentleman from Utah, Mr. Chaffetz.

Mr. CHAFFETZ. Thank you, Mr. Chairman.

You will find that I am a bit more conservative than Mr. Bishop, and I will be using just one microphone, but thank you.

I am a fired-up freshman. I didn't create this problem, but I want to help solve it. We may disagree on some points, but the commitment to our long-term future, our kids, our grandkids, I am there with you on that. And again, I appreciate your passion.

I believe we have established several times that your testimony is that because we can get, again plus or minus a little bit, 1 percent, only 1 percent is the number I keep hearing, 1 percent of our national energy needs out by drilling off the Continental Shelf, that

that is insufficient. It is not going to make a difference. It is not going to be impactful and whatnot. Clearly that has been the position that you have taken along the way. And yet when I also look at the situation, and according to the National Academy of Sciences and whatnot, it is roughly less than 1 percent of the challenges and problems that we have with oil being dumped into our oceans; less than 1 percent of the problem is caused by offshore drilling. So, why is the 1 percent number important when it is, well, it is not going to do anything, just ignore it; and on the other hand, when we talk about 1 percent, well, that is so critical, that is so important? Why the discrepancy between the importance of the 1 percent on both sides of this argument?

Mr. DANSON. I don't know. I mean, it seems like almost a trick question if I don't——

Mr. CHAFFETZ. It probably is. But you see, from the hypocrisy that I see, and I use that word a little strongly. I mean it as softly as possible.

Mr. DANSON. It just feels to me that this is coming in a climate of, we need to be independent of foreign oil. We need to create jobs. People are hurting. So, that has been offered as the reason to drill on the Outer Continental Shelf. And none of those things, to my mind, which is why I bring up the 1 percent or I bring up that you create more jobs per million investment doing green investments, that you will not see a significant lessening at the pump as a result 10, 11 years from now of this coming online, 10 or 11 years from now. It seems like we are not telling the American people what they really need to know right now. Drilling is not going to make a difference. If drilling were to make a difference to you, it wouldn't make a difference in the next 10 to 20 years. It would make pennies at the pump difference if that oil actually made it to us in this global market. And the cost of—continuing to make all of our energy effort, this is what this feels to me. It is like, if you open up the Outer Continental Shelf, you are really saying we are going to work on clean energy. We are. We will. It is important. But not as important as getting that last drop of oil. So, you are sending the wrong signal to people who are desperate. So, that is why I bring up 1 percent.

Mr. CHAFFETZ. Again but——

Mr. DANSON. Because it is not just the spills. Sorry. It is not just the spills. It is the burning of—it is our whole addiction to it. It is the whole cycle, our whole use of it.

Mr. CHAFFETZ. So, if we know that the problem of the oceans is 99 percent other than drilling off the Outer Continental Shelf—boating, it is interesting. If we look at the history of the world, transportation and shipping, it was all very eco-friendly, right? We would have ships, and they put up sails. It was later that we developed a quicker, more efficient way, and you could argue all the positive things of turning our boats into diesel-oriented vehicles. Are you advocating or would you support—are you saying we should abolish diesel or fossil fuel propelled shipping in this country? Because we have an alternative that is totally eco-friendly.

Mr. DANSON. But—no, of course not. I am not saying that. But I will say that that shipping fleet actually puts off as much carbon dioxide as Great Britain does or something like that.

Mr. CHAFFETZ. It is huge.

Mr. DANSON. Huge. So, find the technology to scrub it, to clean it, to make sure that, like you do with coal-burning plants, when you do it, that you find ways to clean up that pollution. You are not going——

Mr. CHAFFETZ. So, even though it is a bigger, I mean, by a multitude, it is exponentially bigger than the 1 percent, you are fine with that. You are comfortable with that, our shipping, and you wouldn't advocate a change there?

Mr. DANSON. My mind is a little confused.

Mr. CHAFFETZ. It is late, I know.

Mr. COUSTEAU. I think that one of the points—I think that percentages can be deceiving, certainly, and I know a lot of them have been discussed today. And 1 percent can equal a lot of damage. Maybe 1 percent sounds like, in the abyss, in space, in air, as we talk about it, not a lot. But when you talk about an oil spill in the Arctic or critical habitats that have impacts on the entire ecosystems, that 1 percent or fraction of the 1 percent can be very, very serious. So, I think 1 percent is deceiving in that it sounds small, but it can have a tremendous impact, even for multiple years, as we have seen with Exxon Valdez.

And I think it comes down to the point of why we are here. The specific recommendations that any kind of development on the Outer Continental Shelf must be subject to planning, process, a special planning that is not currently in existence and must be subject to science and research that we don't have enough investment in, we invest a thousand times more money in space exploration than we do in ocean conservation exploration. That is mind boggling to me. I love the idea of knowing whether there was ever water on Mars, but we don't need to know that to live on this planet. We do need healthy oceans and safe oceans to live on this planet.

Mr. CHAFFETZ. I buy that.

Mr. COUSTEAU. So we don't have enough investment in the oceans, and we don't know enough to make many decisions about how to use that. So, I think it comes back to the idea that fundamentally what we need is good planning, good science, and I think that it is deceiving to throw small numbers around like 1 percent because that 1 percent can have a massive impact on very critical areas but then have a compound impact. I mean, if we destroy the Arctic ocean, that has consequences for fisheries and ecosystems throughout the entire Pacific ocean and fisheries that support economics for many, many, many people. And I think that that is important to remember.

Mr. CHAFFETZ. Thank you, Mr. Chairman.

Thank you.

Mr. COUSTEAU. Thank you.

The CHAIRMAN. That concludes episode one.

The Chair wishes to certainly express his deepest appreciation to both of you, Ted and Philippe, for the tremendous amount of time you have given us today, of patience, of facts, of knowledge, intelligence, and passion. And I certainly commend you for being true champions of our oceans and the manner in which you fight for the sustainability of our oceans and the irreplaceable resources therein.

I commend you in every stretch of the imagination, and thank you so much for being with us today.

Mr. DANSON. Thank you, Mr. Chairman.

Mr. COUSTEAU. Mr. Chairman, thank you.

The CHAIRMAN. Safe travels.

Mr. DANSON. Thank you. Thank you all.

The CHAIRMAN. Thank you.

The CHAIRMAN. Episode two. Our panel number two is composed of the following individuals: Ms. Carolyn Esther McCormick, Managing Director of the Outer Banks Visitors Bureau in North Carolina; Mr. D.T. Minich, Executive Director, St. Petersburg/Clearwater Area Convention and Visitors Bureau; Mr. W. F. "Zeke" Grader, Jr., Executive Director of the Pacific Coast Federation of Fishermen's Associations; Mr. Bruce Allen, Co-Founder of SOS California; and Mr. Jefferson M. Angers, President of the Center for Coastal Conservation.

Lady and gentlemen, we do have your prepared testimony and it will be made part of the record as if actually read, and you are given 5 minutes to proceed as you desire. And I assume we will go in the order in which I introduced you if that is your desire, starting with you Ms. McCormick.

STATEMENT OF CAROLYN ESTHER McCORMICK, MANAGING DIRECTOR, OUTER BANKS VISITORS BUREAU, NORTH CAROLINA

Ms. MCCORMICK. Good afternoon and thank you for being here.

Mr. Chairman and members of the Committee, again, thank you for this opportunity to be here today. My name is Carolyn McCormick, and I have been serving the public as a tourism and travel director since 1987, beginning in Gary, Indiana, to the State of Indiana, to West Texas, and now to Nags Head, North Carolina, for the last 11 years.

We are here today to help preserve and protect one of America's National treasures, our beaches. We must encourage thoughtful and responsible discourse that recognizes the importance of our coastal tourism centers and our Nation's economic needs.

The tourism industry generates trillions of dollars in income and provides memorable experiences to individuals and families worldwide. Tourism brings people and families together outdoors. Working families use the beaches of North Carolina's Outer Banks for vacations with children and their grandchildren and their great grandchildren. Half of all leisure travelers emphasize the importance of natural settings in deciding their family vacations.

In North Carolina, tourism is a $15.4 billion industry with employment at 184,000 people. The Outer Banks accounts for expenditures of over $1 billion last year and 20,000 jobs. Dare County's Outer Banks hosts over 5 million visitors from all over the world annually.

The Outer Banks Visitors Bureau's staff and I speak with thousands of visitors and their families every year. In overwhelming numbers, they tell us that the natural, cultural and historic resources, primarily the 130-mile stretch of barrier islands along the Outer Banks, are the main reason they visit us. The Outer Banks

are truly America's beach, a free and open-access chain of barrier islands off the northeastern coast of North Carolina.

Oil and gas development threatens coastlines, harms ecosystems, and directly impacts our tourism, fishing, and real estate economies. The people of Dare County have a long and strong history of opposing drilling along the Outer Continental Shelf. The towns of Duck, Nags Head, Kill Devil Hills, Kitty Hawk, Southern Shores, Manteo, the County of Dare, and the Dare County Tourism Board have all filed resolutions opposing drilling off the Outer Continental Shelf. The well-documented socioeconomic and environmental risks outweigh the rewards. We need policies that help us cope with climate change on the Nation's coastline.

On January 29, Winston Salem Journal editorial staff put in an op-ed piece. I am going to read a couple of excerpts: "The Interior Department has issued a detailed proposal for oil and gas drilling off both the Pacific and Atlantic Coasts, including the fragile, already-threatened North Carolina coast. Efforts and human ingenuity should concentrate on making the country more energy independent thus seeking alternative fuels that do not, in fact, increase levels of greenhouse gas emissions."

"There's been talk for years about drilling off the North Carolina coast. Many of the State's top leaders have resisted such proposals, fearing that drilling could hurt the tourism this State increasingly depends upon. But when gas prices shot up to record highs last year, some of our elected leaders, like their counterparts nationwide, relaxed their resistance."

"The Interior Department issued its proposal in the last days of the Bush administration, which had pushed for more drilling off America's coasts. The draft plan would allow drilling from New England to Florida and off the California coast...these areas were recently declared off-limits by Congress. Ken Salazar, the new Interior Secretary, indicated to the Associated Press that he likely would be receptive to scaling back his department's proposal for more oil drilling."

"Drilling rigs would require nearby refineries and storage facilities and create increased traffic between the rigs and refineries. The rigs would threaten the environment especially, if one was knocked over in a hurricane. With the Outer Banks jutting right out into the path of so many storms, that danger would be very, very real."

In January of 2009, the State of North Carolina legislative body appointed a group to examine economic and environmental impacts of gas and oil exploration off the coast of North Carolina. That review is expected to be completed in 6 to 8 months.

Again, the industrial character of offshore oil and gas development is often at odds with the existing economic base of the effective coastal communities, many of which rely on tourism, coastal recreation, and fishing. In Dare County, North Carolina, the Outer Banks Visitors Bureau has been fighting efforts to lift the ban on coastal drilling precisely because we realize what a crushing effect coastal drilling could have on our Great Barrier Islands, a $1 billion tourist and fishing economy. If there is one spill, one disaster, the Outer Banks can be impacted for a long time. The powerful hurricanes that battered the Gulf Coast have destroyed drilling

platforms, underwater pipelines, and coastal storage tanks, dumping millions of gallons of oil. Drilling in hurricane and storm-plagued waters has proven to be disastrous.

In addition to potentially catastrophic effects on the tourism industry, drilling for gas and oil off our coast could have significant negative impacts on commercial and recreational fishing, our fisheries, marsh lands, and marine habitat. Jobs and the environment are not mutually exclusive. A balanced economy is based on a clean, healthy marine environment, and efforts need to be focused on restoring our marine environment and sustaining our fisheries.

According to the U.S. Travel Association, tourism in America is a $1.7 trillion industry, with coastal communities representing over $700 billion annually. Last year, travel and tourism generated over $100 billion in tax revenues for State, local, and Federal Governments. The world tourism industry has identified climate change as key to future strategic planning. United Nation's World Tourism Organization Secretary General Frangialli, addressing climate change, said, "We," the tourism industry, "are part of the problem," global warming, "and we will be part of the solution."

Social scientists recognize the need to create innovative responses to projected impacts of climate change on tourism. It is incumbent upon all industries, governments, nongovernmental organizations to work together to find solutions to our current energy needs and place a higher emphasis on seeking alternative fuels, wind, reintroducing efficient railway systems, encouraging smarter, more fuel-efficient transport vehicles, while reducing greenhouse gas emissions. We must create real incentives that motivate and drive the ingenuity of all of us to find a cure, not just a treatment, that will keep America working, traveling, and living.

Again, gentlemen, thank you and the staff for giving me this opportunity today, and I respect each of your efforts to help to identify solutions to our energy needs during these very, very challenging times.

[The prepared statement of Ms. McCormick follows:]

Statement of Carolyn Esther McCormick, Managing Director, Outer Banks Visitors Bureau, Travel and Tourism Industry

INTRODUCTION:

Mr. Chairman and members of the committee, thank you for this opportunity to testify at the Committee on Natural Resources oversight hearing; "Perspectives on the Outer Continental Shelf".

My name is Carolyn Esther McCormick, and I have been serving the public as a tourism and travel professional since 1987. My public service experience began in Lake County: Gary, Indiana then to The State of Indiana as Deputy Director of Tourism in Indianapolis; to Lubbock, Texas, (1993) as Director of Culture, Leisure and Recreational Services and now serve as the Managing Director (since late 1997), of the Outer Banks Visitors Bureau, Dare County Tourism Board. a North Carolina Public Authority. I am a resident of Nags Head, North Carolina; which is located along the Outer Banks and a mother of two girls.

You and I are here today to help preserve and protect one of America's national treasures, our pristine beaches. We must encourage thoughtful and responsible discourse that recognizes the importance of our coastal tourism centers and our nation's economic needs.

The tourism industry generates trillions of dollars in income and provides memorable experiences to individuals and families worldwide. Tourism brings people and families together outdoors. Working families use the beaches of North Carolina's Outer Banks for vacations with children and grandchildren. Half of all leisure trav-

elers emphasize the importance of natural settings in deciding their family vacations.

In North Carolina tourism is a $15.4 billion industry with employment at 184,000, and North Carolina's Outer Banks accounts for expenditures of over 1 billion dollars and 20,000 jobs. Dare County's Outer Banks host over 5 million visitors to our National Seashore, and National parks. The Outer Banks Visitor's bureau staff and I speak with thousands of visitors and their families every year. In overwhelming numbers they tell us that the natural, cultural and historic resources; primarily the 130 mile stretch of beaches of the Outer Banks are the main reason they visit us.

The Outer Banks are truly America's Beach; a free and open access chain of barrier islands off the northeastern coast of North Carolina. The birth place of English speaking America in 1587—Ft. Raleigh National Historic Site; home of man's first powered flight in 1903—Wright Brothers National Memorial; Cape Hatteras National Seashore Recreation Area, the Nation's first national seashore established in 1953; Pea Island National Wildlife Refuge, and Alligator River National Wildlife Refuge. Seventy percent, (70%) of our dynamic barrier islands are owned by the people of the United States and managed by the United States Department of the Interior.

Oil and gas development threatens coastlines, harms ecosystems, and directly impacts our tourism, fishing and real estate economies. The people of Dare County have a history of strongly opposing drilling along the Outer Continental Shelf. The Towns of Nags Head, Kill Devil Hills, Kitty Hawk, Southern Shores, Duck, Manteo, the County of Dare and the Dare County Tourism Board have filed resolutions opposing drilling. The well-documented socio-economic and environmental risks outweigh the rewards.

The Outer Banks is particularly vulnerable to storms, beach erosion near our homes, and loss of our fish habitat. It is clear to us that a changing climate and a rising sea level could have a tremendous impact on tourism in all coastal communities. Researchers, businesses, and government agencies in the Outer Banks and throughout North Carolina are cooperating to develop solutions to the effects of climate change including storm severity. We need policies that help us cope with climate change on the nation's coastline.

On January 29, 2009 the Winston Salem Journal, editorial staff printed an op-ed on the issue of drilling along the coast of North Carolina, The paper stated:

"The Interior Department has issued a detailed proposal for oil and gas drilling off both the Pacific and Atlantic coasts—including the fragile, already-threatened North Carolina coast. Efforts and human ingenuity should concentrate on making the country more energy independent thus seeking alternative fuels that do not in fact increase levels of green house gas emissions."

"There's been talk for years about drilling off the North Carolina coast. Most of the state's top leaders have resisted such proposals, fearing that drilling could hurt the tourism this state increasingly depends upon. But when gas prices shot up to record highs last year, some of our elected leaders, like their counterparts nationwide, relaxed their resistance."

"The Interior Department issued its proposal in the last days of the Bush administration, which had pushed for more drilling off America's coasts. The draft plan would allow drilling from New England to Florida and off the California coast, The Associated Press reported last week. These areas were recently declared off limits by Congress. Ken Salazar, the new Interior Secretary, indicated to The Associated Press that he likely would be receptive to scaling back his department's proposal for more oil drilling.

"The N.C. legislature announced last week the formation of a committee to study the effects of drilling off our coast. One can't imagine a scenario in which the economic benefits of such a plan could outweigh the damage to the environment and scenery—and, consequently, tourism."

"Drilling rigs would require nearby refineries and storage facilities, and create increased traffic between the rigs and refineries. The rigs would threaten the environment, especially if one was knocked over in a hurricane. With our Outer Banks jutting right out into the path of so many storms, that danger would be very real." Winston Salem Journal, North Carolina

In January 2009 the State of North Carolina legislative body appointed a group to examine economic and environmental impacts of gas and oil exploration off the coast of North Carolina. "The Offshore Energy Exploration Study Committee will be co-chaired by Dr. James Leutze, former University of North Carolina at Wilmington chancellor, and Dr. Doug Rader, chief oceans scientist for the Environmental Defense Fund. The committee—comprised of university researchers, industry and environmental representatives, coastal residents and other members of the public. North Carolina Senate President Pro Tempore Marc Basnight and Speaker of the House

Joe Hackney will name a legislative panel that will review the study committee's findings and develop any legislation that might be needed as a result of the committee's work "In our nation's effort to move toward energy independence, we must take a long, careful look at how energy exploration off our shores could affect our coastal economy as well as our environment," Basnight said. "This study will be thorough and balanced reviews that will help us better understand all possible risks and benefits that might be associated with drilling off our coast."

"People on both sides of this issue have already declared what they believe the right thing to do is, but there has been only a limited scientific examination of what the true benefits and dangers would be," Speaker Hackney said. "We cannot head down this path halfway. Drilling along the coast is irreversible and we must fully appreciate what we're doing before we take such a step."

The North Carolina Committee shall study the following and the review is expected to be completed in 6 to 8 months:

The implications of leasing federal waters off North Carolina's coast in the Atlantic Outer Continental Shelf to energy companies for oil and natural gas exploration.

- Relevant federal law and the legal authority of the State of North Carolina with regard to offshore drilling.
- The potential impacts on the nation's energy supply, including documenting the best-unbiased estimates available for what oil and natural gas might exist.
- The potential financial impact of proposed exploration on the State of North Carolina, including effects on the economy, tourism, the commercial fishing industry, the impacts of a more industrial coastline, and ensuring a share of state profits.
- The environmental impacts of exploration on North Carolina's coastline, including possibilities of spills, effects on water quality, air quality, marine life, and contributions to global climate change.
- The environmental impacts of the infrastructure that would be associated with exploration and drilling for oil and natural gas.

The industrial character of offshore oil and gas development is often at odds with the existing economic base of the affected coastal communities, many of which rely on tourism, coastal recreation and fishing. In Dare Country, NC, the Outer Banks Visitors Bureau has been fighting efforts to lift the ban on coastal drilling precisely because it realizes what a crushing effect coastal drilling could have on the Outer Banks' 1 billion dollar tourist and fishing economy. If there's one spill or one disaster, the Outer Banks could be devastated for a long time. The powerful hurricanes that battered the gulf coast have destroyed drilling platforms, underwater pipelines and coastal storage tanks, dumping millions of gallons of oil. Drilling in hurricane and storm-plagued waters has proven to be disastrous.

In addition to potentially catastrophic effects on the tourism industry, drilling for gas and oil off our coasts could have significant negative impacts on commercial and recreational fishing, our fisheries, marshlands, and marine habitat. Jobs and the environment are not mutually exclusive. A balanced economy is based on a clean healthy marine environment and efforts need to be focused on restoring our marine environment and sustaining our fisheries.

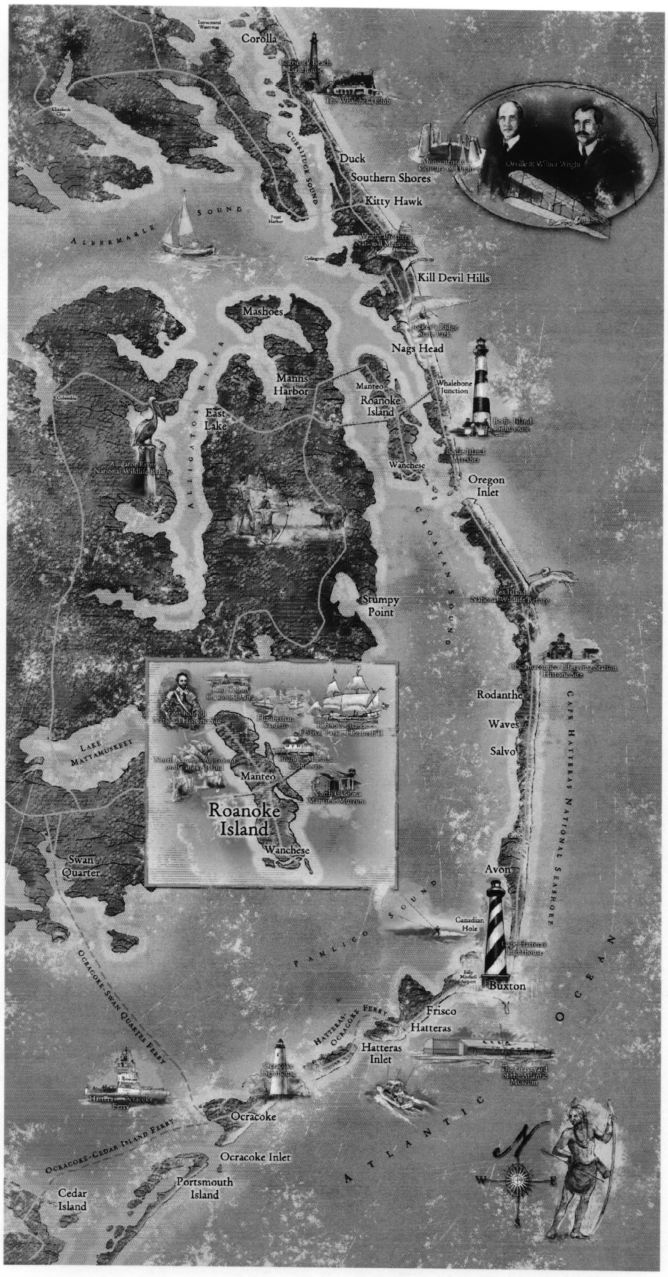
The U.S. tourism industry is one of America's major retail industries employing 7.7 million people. Tourism creates jobs, adds to income, spurs economic development, promotes economic diversification, introduces additional products, spawns new businesses, increases tax revenue, and contributes to economic integration. Global tourism, $7.1 trillion industry, is a large fast growing industry that employs more than 232 million people. According to the U.S. Travel Association, tourism in America is a 1.7 trillion dollar industry with coastal communities representing over 700 billion dollars annually. Last year travel and tourism generated over 100 billion dollars in tax revenues for state, local and federal governments.

The world tourism industry has identified climate change as key to future strategic planning. United Nations World Tourism Organization's Secretary General, Francesco Frangialli, addressing climate change said: "We (tourism industry) are part of the problem (global warming) and we will be part of the solution". Social scientists recognize the need to create innovative responses to projected impacts of climate change on tourism. Climate change presents a special challenge to the Atlantic Ocean coastline of the Outer Banks of North Carolina. Stakeholders along this dynamic chain of barrier islands are planning strategies now to mitigate future negative climate change impact. The beautiful environmental coastline is a major reason why five million visitors from more than 50 countries visit the Outer Banks each year.

It is incumbent upon all industries, governments and non-governmental organizations to work together to find solutions to our current energy needs and place a higher emphasis on seeking alternative fuels, reintroducing efficient railway sys-

tems throughout the entire United States, encouraging smarter more fuel efficient transport vehicles while reducing green house gas emissions. We must create real incentives that motivate and drive the ingenuity of all to find a cure not just a treatment that will keep America working, traveling and living.

Thank you for this opportunity today and I respect each of the committee's efforts to identify solutions to our energy needs during these very challenging times.



The CHAIRMAN. Thank you.

Mr. Minich.

STATEMENT OF D.T. MINICH, EXECUTIVE DIRECTOR, ST. PETERSBURG/CLEARWATER AREA CONVENTION & VISITORS BUREAU

Mr. MINICH. Good afternoon.

Being from the great State of Florida, I don't think I need to tell you that we rely on tourism very heavily. It is our number one industry. It has been since day one when the Spanish Conquistadors

visited our State, we have been welcoming visitors. It is a $3.9 billion industry for the State. It represents 18 percent of our total tax revenues.

I come from a place called St. Petersburg/Clearwater, which is on the west coast of Florida, about halfway down, and we are known for our beaches. In fact, last year, Dr. Beach, the national expert on beaches, named Caladesi Island the number one beach in the world. And Fort DeSoto was ranked by visitors to tripadviser.com as—Fort DeSoto is in the southern part of our county—as the number one beach in North America. So, beaches are our backbone. That is what brings in the tourism for our area, and for our area, it is a $7 billion industry, with 84,000 jobs related to tourism. So, you can see how important it is.

We are very opposed to offshore drilling off of our coast because of these beaches and the importance of the beaches. And I think what is important is there are a lot of States represented here, and every one of you—we welcomed guests from all 50 States and from over 100 different countries last year. So, your constituents are coming to our beaches and they are experiencing those kinds of experiences that they want in a beach vacation. So, it is very important to point that out, I think. And 180 million Americans made 2 billion visits to the ocean last year, so it is very, very important.

We cannot afford a risk of some sort of a spill like you heard of earlier this morning. We can't afford any of those kinds of things for our tourism industry. But, in fact, in 1993, we did experience a spill. Two tankers collided right off of our coast, and I am going to read to you what happened.

The incident resulted in oiling of birds, sea turtles, mangroves, salt marches, sea grasses, mud flats, oyster beds, seawalls, and finger canals within Boca Ciega Bay, and miles of shoreline, including sandy recreational beaches. Some of the fuel oil sank, forming mats on submerged sediments in offshore depressions, in the Passes and in Boca Ciega Bay. This spill was very small in number. It sounds big, but it was really only about 360,000 gallons of jet oil and other oils. What it did, though, was 366 birds were injured or killed. More importantly, on the endangered and threatened list, 2,177 loggerhead sea turtle hatchlings and eggs were injured by oiling, and this resulted in death. And hatchling success was just completely obliterated for the year on our beaches.

The resulting cleanup—we had to remove 39,000 cubic yards of sand from our public beaches. Out of our 35 miles of beaches, 18 miles of our beaches were closed for months to get this cleaned up. We were fortunate, and I say fortunate, but this happened in August and September, when it is starting to slow down. September is our slowest tourism month. If this would have happened in February, or March or April, our high season, it would have been devastating to the industry. We saw a lot of people stay away from the beaches for months after that. We had huge occupancy decreases for months. And just the perception alone, the media, it was detrimental to our industry for quite some time.

The other thing that you heard this morning that I would like to address is, why the need for these additional leases; why the need for this exploration? Out of the 43 million leased acres, there is only 8 million in 2006 that the oil companies were using. They

were using 8 million of the 43 million leased. Big Oil has not drilled three-quarters of the territory that Congress has made available for exploration. And so we say, when we rely on tourism, why now? Why do we need to do this? There should be no reason for this. We can't take the risk.

The other argument that I have heard is that this will be a quick fix. And it will not. And I think you heard plenty of that this morning, but I just want to reiterate that this would not be a quick fix. Why open this up when we don't have the rigs? A $700 million oil rig being built today is going to be taken away to other countries. You heard 10 years. I have heard up to 30 years before this would even slightly make an impact by opening up these waters. It is just not worth—it is just not worth it. We are very opposed to this exploration or from opening this up. It just—everything that we have seen, all of the information that we have and from our past experience with just a small, small spill, it makes us very frightened for our number one industry in Pinellas County and the number one industry in Florida.

And you also heard—just to finish up here—about what happened with Katrina and the rigs and all of the things that washed off of those rigs during these storms. We do get hurricanes in Florida, as you know. We don't like to talk about those in the tourism business, but that is another factor in here that is very worrisome. We have enough worries with hurricanes that we don't need a component on top of that, of what is going to happen to our beaches with these rigs off of our coast.

Thank you very much.

[The prepared statement of Mr. Minich follows:]

Statement of D.T. Minich, CDME, Executive Director, St. Petersburg/Clearwater Area Convention & Visitors Bureau

Travel and tourism is big business. The numbers speak for themselves.

The tourism industry is the world's largest, with the broad measure of economic activity—Travel and Tourism Economy (TTE)—contributing $5.4 trillion in 2007 to the world's Gross Domestic Product (GDP), according to the World Travel and Tourism Council. It exceeds the GDP of all countries other than the United States. Similarly, TTE contributes $1.4 trillion to America's GDP, or 10.2% of U.S. output and the largest contribution to GDP just ahead of durable goods manufacturing. Travel and tourism also is the world's largest employer, with 231 million people working in the industry worldwide.

In the U.S., travel generated $739 billion in domestic and international expenditures in 2007; and $116 billion of that figure went to federal, state and local governments as tax revenue. Moreover, the tourism industry is America's largest employer, with 7.7 million direct travel generated jobs and $186 billion direct travel generated payroll. One of every eight U.S. non-farm jobs is created directly or indirectly or is induced by tourism.

In Florida, 82.4 million travelers visited the state in 2007. That's more than the combined populations of New York, California and Texas. They generated more than $65 billion in taxable sales. To put that into perspective, 65 billion dollar bills end-to-end would circle the world 247 times!

Tax-related revenue to the state was $3.9 billion, which is 18% of the state's annual sales tax revenue for schools, transportation, museums and more. With an annual payroll of $16.4 billion, nearly one million Floridians are employed by the tourism industry. That's seven jobs for every 2006 Florida high school graduate. Just think, a 1% increase in visitors to Florida generates an additional $39 million a year—more than $1 a second!

In St. Petersburg/Clearwater on the Gulf Coast of Florida, tourism is the engine that drives the local economy. Total direct and indirect visitor expenditures are approximately $7 billion. That is more than $19 million per day, about $800,000 per hour, more than $13,000 per minute and about $220 per second. For perspective,

a line of 7 billion dollar bills laid end to end would wrap around the Earth at the equator 26 times.

The impact of the tourism industry on the local job market is just as dramatic. With a 25% drop in tourism, Pinellas County would lose about 21,000 jobs; at 50%, it would lose about 42,000 jobs; at 100%, about 84,000 jobs would be lost. And with lost jobs would come closed businesses. When a local business closes, hundreds are affected not just its employees. This trickle-down effect can devastate a community. Suppliers rely on small local business for their income. So when a business closes, its suppliers feel the pinch as well.

For instance, just a 25% drop in tourism would cause 300 local restaurants to close. Tourist dollars are vital to their success, not only to keep the doors open, but also to give these restaurants the revenue necessary to provide everything residents enjoy most. From sitting on the deck, listening to a live steel-drum band, to enjoying social event nights and parties, tourist dollars make it all happen.

Not to mention the tax revenues. Tourism contributes almost $300 million in taxes annually to Pinellas County. Fuel taxes alone equal roughly $15 million. That means visitors to the county save the average household more than $600 per year in taxes.

So tourist revenue is vital to the success of the county's businesses and the community. It keeps restaurants and retail locations open, taxes down, and gives residents conveniences such as low-cost flights and world-class entertainment. It supports beach nourishment programs and helps fund transportation, public safety programs and more.

Quality of Life Benefits

But tourism revenues are only part of the story. Not only do people benefit from the economic impact of the travel industry in dollars and cents, but they also benefit from the quality of life to which it contributes. So, the industry's impact is actually measured in two ways.

The "value in exchange" measurement considers expenditures, jobs, taxes and the like; AND the industry's "value in use" takes into account the quality of life that tourism gives not only to visitors but also to residents who reap the rewards of tourism expenditures on local infrastructure. This latter measurement of tourism's impact reframes the industry's purpose from an ends—meaning the dollars spent—to a means—meaning what is done with those dollars locally. In essence, tourism is a tool for enhancing what residents love about their region.

From performing arts to low cost travel, tourism affords a better quality of life. It also impacts parts of the community that are far beyond the obvious. The Penny for Pinellas program in Pinellas County would suffer without tourism. Visitors contribute approximately 35% of Penny for Pinellas revenues, which equals roughly $40 million annually. This program adds value to the county by funding roads, bridges, parks, drainage and other capital improvement projects.

And because of tourism, Ruth Eckerd Hall performing arts center has record-breaking ticket sales. The Palladium Theater in St. Petersburg offers year-round musical performances. And the Salvador Dalí Museum continues to provide world-class exhibits due to its tourist revenue. Plus, its visitor dollars do more than enhance the museum. The museum's profits fund educational programs for local youth.

All of this paints a clear picture of the contributions that tourism makes to every community around the world that it impacts and the trickle down benefits of visitor expenditures. Yet another relevant part of the picture is the economic value of beaches.

Leading Tourist Destination

Beaches are the key element of U.S. travel and tourism, since they are the leading tourist destination. Coastal states receive about 85% of tourist-related revenues in the U.S. largely because beaches are tremendously popular. It is estimated that each year approximately 180 million Americans make 2 billion visits to ocean, gulf, and inland beaches. This is almost twice as many visits as the combined 1.06 billion visits made to properties of the National Park Service (272 million), Bureau of Land Management (55 million), and all state parks and recreation areas (735 million). The 2 billion beach visits also dwarf the 138 million visitors to all theme parks in the U.S.

Given these facts, it is not surprising that beaches make a large contribution to America's economy. Beach tourism in Florida made a $52 billion contribution to the economy in 2007 dollars, and U.S. beaches currently contribute $322 billion annually to the economy in 2007 dollars. This is more than 25 times the $12 billion contribution of the National Park Service system to the national economy.

In order to protect the lucrative tourism industry and the beaches that are a cornerstone of that industry, we must not risk the potential damages of off-shore drilling in Florida. Despite the impressive technological advances the oil industry has made, there still are too many potential risks. Two of the major hazards are pollution from every day operations and oil spills from platforms, pipelines and tankers.

When oil is brought up from beneath the ocean floor, other things are too. Chemicals and toxic substances such as mercury and lead can be discharged back into the ocean. The water pumped up along with the oil may contain benzene, arsenic and other pollutants. Even the exploration that precedes drilling, which depends on seismic air guns, can harm sea mammals.

And while large spills are rare, smaller spills are still too common. The biggest pollution risk involved is in transporting the oil back to shore—by pipeline, barge or tanker. A 2002 National Research Council report found that marine transportation was responsible for one-third of worldwide petroleum spillage, about eight times the amount caused by drilling platforms and pipelines.

First-Hand Experience

Pinellas County has first-hand experience with this fact. In 1992, the local convention and visitors bureau hired a Tampa firm, Research Data Services, to study how a major oil spill would affect Pinellas County. Although the figures are dated, at the time the company's founder, economist Walter Klages, estimated a major spill could cause a 45% decrease in visitors over two years. It also could result in the loss of 7,392 tourism-related jobs in the county, Klages estimated.

His predictions seemed prophetic a year later, when in August 1993, the beaches of southern Pinellas County suffered a minor oil spill that nonetheless caused beach hoteliers major headaches. The spill occurred after two barges and a freighter collided in the shipping channel west of the Sunshine Skyway Bridge south of Mullet Key in Tampa Bay, Florida. After the accident, a few large resorts reported that their occupancy rates fell by double digits when compared with the previous year.

Furthermore, the environmental impact not to mention the clean-up efforts for what would be considered a "minor spill" were significant. Systematic shoreline surveys were conducted and oil was found buried by two to eight inches of clean sand deposited during high tide. Cleanup crews focused on manually removing the band of surface oil high on the beach. A plan was developed to remove the subsurface oil without generating large volumes of sediment for handling, disposal, and replacement. The plan called for mechanical removal of the heavy buried layers, manual removal of moderately oiled sediments, and mechanically pushing stained sand onto the lower part of the beach for surf washing.

Meanwhile, cleanup crews were contending with very thick oil that had been deposited around some mangrove islands. Tarmats formed when sediment was mixed with oil along the shallow flats surrounding the islands. Large thick mats coated mangrove roots, oyster and seagrass beds, and tidal mud flats.

Roughly 14.5 miles of fine-grained sand beach from St. Petersburg Beach north to Redington Shores Beach were affected by this spill. Sand beaches on Egmont Key at the entrance to Tampa Bay were also oiled. Additionally, four mangrove islands inside the entrance to Boca Ciega Bay at Johns Pass and two small areas of Spartina Marsh were oiled. Jetties, seawalls, and riprap within the bay and at Johns Pass and Blind Pass were also oiled to varying degrees. It is estimated that more than 30 miles of residential seawalls were oiled within Boca Ciega Bay. Some impact also occurred on the northern side of Mullet Key at Bonne Fortune Key in fringing mangroves.

Oil Spills

And that's just one spill. The U.S. Coast Guard estimates that more than 200,000 small spills occurred in the Gulf of Mexico from 1973 to 2001. The Minerals Management Service, the federal agency that regulates offshore oil production, thinks spills will continue and projects about one oil spill per year of at least 1,000 barrels in the Gulf of Mexico over the next 40 years. Every three to four years, it says, a spill of at least 10,000 barrels can be expected. Having seen what happened in Pinellas County, one can only imagine the extensive impact on this grander scale!

How badly the Tampa Bay area would suffer would depend on where a spill took place, according to Robert Weisberg, a physical oceanography professor at the University of South Florida-St. Petersburg. If a spill occurred in the deep water of the Gulf, the currents likely would sweep it south to the Florida Keys and carry it to the east coast of Florida. It might not affect the Bay area much, he contends. However, if the spill occurred over the West Florida Continental Shelf—an area of relatively shallow water that extends as much as 100 miles out from Florida's coast—he thinks the currents could sweep it to the Bay area and rest of the West Coast.

When determining the impact of a spill, he believes the distance offshore is much less important than whether the drilling is on the continental shelf.

The potential risks are magnified by the Gulf's well-known propensity for annual hurricane activity. In 2005, hurricanes Katrina and Rita destroyed 113 oil platforms and damaged 457 pipelines near Louisiana, according to the Minerals Management Service. The agency reported 124 spills totaling 741,000 gallons of petroleum from offshore rigs, platforms and pipelines.

Damages from those two storms are a prime example why the moratorium on new offshore drilling should not be lifted. That moratorium can trace its roots to the industry opposition ignited by the Santa Barbara oil spill of 1969. Roughly 3.4 million gallons of oil were spilled, spreading across 800 square miles of ocean and spoiling 35 miles of shoreline. It was our nation's worst oil spill until 20 years later, when the Exxon Valdez struck a reef and lost almost 11 million gallons. Let's not let time erase the sting of those two catastrophic environmental and economic disasters.

And, closer to my home, let's remember the oil spill in the Gulf of Mexico in 1979 that caused tar balls to wash up on Texas beaches and resulted in a 60 percent decline in the state's tourism business. It is a clear historical precedent of how detrimental and catastrophic an oil spill could be to Florida's tourism industry.

Central Debate

Beyond environmental and economic impact concerns, the central debate regarding offshore drilling focuses on where to drill for more oil. Democrats in Congress, led by House Speaker Nancy Pelosi of California, say areas where drilling already is permitted should remain the bull's eye. Only about 8 million of 43 million leased acres were producing oil in 2006. Big Oil has not drilled three-quarters of the territory that Congress has made available for exploration. Why endanger our beautiful, economically lucrative beaches if the oil industry refuses to explore the areas already open for drilling?

And why open up the 574 million acres now off limits along the outer continental shelf, when tight supplies of equipment and labor will severely constrain exploration in the next decade. Only a limited number of shipyards are capable of building the necessary $700 million drilling rig, and many of the rigs being built today are going to other countries where the oil business is also booming. Even then, it usually takes at least seven to 10 years for the oil to start flowing, with some estimates placing the economic impact of exploration around 2030. Not to mention the Department of Energy estimates that, even if Congress removed all restrictions on offshore drilling, the impact on global oil prices would be "insignificant." Witness that domestic drilling permits have increased 361 percent since 1999, yet the price of gas continues to climb to record-breaking plateaus.

One final point. Finding oil has become more costly. The oil boom has led to a surge in exploration and drilling activity, which has pushed up the price for skilled workers and equipment. Furthermore, new supplies of oil are increasingly difficult to find and generally tend to be located in harder to reach—and hence more expensive—places. Yet surely the oil companies can find ways to utilize their existing leases, no matter the costs.

Exxon Mobil, the world's largest publicly traded oil company, made history on January 30, 2009, by reporting the highest quarterly and annual profits ever for a U.S. company, boosted in large part by soaring crude prices. Exxon said fourth-quarter net income rose 14% to $11.66 billion, or $2.13 per share. The company earned $10.25 billion, or $1.76 per share, in the year-ago period. The profit topped Exxon's previous quarterly record of $10.7 billion, set in the fourth quarter of 2005, which also was an all-time high for a U.S. corporation. Exxon also set an annual profit record by earning $40.61 billion last year—or nearly $1,300 per second in 2007. That exceeded its previous record of $39.5 billion in 2006.

Similarly, America's second largest oil company Chevron Corp. has reported soaring annual profits of $23.9 billion for 2008, a whopping 28% jump from its 2007 annual profits of $18.7 billion that were lifted by sky-rocketing oil prices.

Exxon and Chevron aren't the only two oil giants to report impressive earnings recently. Conoco, the nation's third-largest oil company, trounced profit estimates by nearly 25% when it reported in late January. And Royal Dutch Shell PLC, Europe's largest oil company, reported a 60% increase in profits on January 29 of this year.

National Treasure

Florida's beaches are a national treasure, and their preservation should be a top priority. Yet, because the tourism industry is so interwoven into the fabric of the community, the state, the country and the world, it is sometimes taken for granted, especially the beaches. We cannot afford to do that.

Travel and tourism is America's leading industry, employer, and earner of foreign exchange; and beaches are America's leading tourist destination. Few Americans realize that beaches are a key driver of America's economy and support U.S. competitiveness in a world economy.

One reason why Americans do not appreciate the importance of tourism to the national economy may be because 98% of the 1.4-million tourism-related businesses in the United States are classified as small businesses. That makes the industry extremely fragmented and not well represented. Hence, the importance of the tourism industry to the national economy has not been communicated to the American people.

Until there's a fundamental shift in awareness of the economic and quality of life contributions of travel and tourism to the world, our beaches will not be adequately protected and the infrastructure that sustains them will not be effectively managed. And ultimately, the U.S. will risk relinquishing its dominant worldwide lead in its most important industry.

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The CHAIRMAN. Thank you.

Mr. Grader.

STATEMENT OF W.F. "ZEKE" GRADER, JR., EXECUTIVE DIRECTOR, PACIFIC COAST FEDERATION OF FISHERMEN'S ASSOCIATIONS

Mr. GRADER. Thank you, Chairman Rahall and Mr. Hastings, and thank you very much for the opportunity to provide testimony here today regarding potential impacts to the commercial fishing industry from opening up new lease sales off of our coast.

As I mentioned in my written testimony, among our members along the West Coast are fishermen in Santa Barbara who not only experienced the major spill in 1969 but have, for 40 to 50 years now, experienced offshore drilling right in their waters. They know firsthand what the impacts are. And it is largely based on what their experiences have been, not mere speculation on our part that has given rise to many of our concerns here today. We have heard it here this morning being said that at best that the most optimistic projections are that any of the oil developed from new leases off of our shores will probably get to market in about 10 years. So, the effect to the consumer is about 10 years out. However, for the fishing industry, the impacts are going to be almost immediate. And that is primarily from the seismic testing that goes on. And this isn't spoken about. I don't think I heard it mentioned here once this morning, but it is a very real impact on fishery resources. I served on a committee in the 1980s looking at the impact of seismic testing on anchovy and it did. It had a mortality in those stocks of up to 30 to 40 percent of a particular population. So, we know that seismic surveys do kill fish. Moreover, they also scare fish. They make it impossible for fishing operations to be held. So,

while everybody talks about, well, we put these rigs out there and, gosh, what great fishing sites they are, nobody discusses the fact that since we had these seismic boats operating, it is impossible to fish. And that was certainly true in the 1980s, when the California Coastal Commission actually had to set up areas where the seismic boats could operate, so they would not interfere with fishing activities. So, this is an almost immediate impact, and if you look at what just recently happened in Norway where, if you listened to Speaker Gingrich, you would think everything was hunky dory there, as far as oil and fishing, well, in fact, it wasn't. Fishermen were offering civil disobedience because of the problems specifically with seismic testing in some new areas that were being developed offshore there.

The second problem of course is, what happens when the development occurs? Now, again here, fishermen are going to be the first to feel the impacts. First, it is going to be in their ports as the materials are brought in to begin setting up to build the offshore structures. But then there is also the building of the pipeline. So, there is that spatial interference that directly has an impact. But probably the other thing is, again, what people don't discuss is these rigs particularly as you are drilling in deeper water, the anchors and cables extending out for them extend out a great deal of distance. There are precautionary zones that are placed around these rigs. So, if you are trolling for salmon, or you are trolling for sole, you cannot operate in these areas. That is a large area that becomes a no-fishing zone for you. And if you put enough of them out there, pretty soon it becomes impossible to operate. This is really something else that has to be looked at.

Now, we have heard a lot this morning about the contamination, the problem with pollution spills. Frankly, the spill issue is not a big one for us because we recognize that most of the spills have come from tankers. They do, in fact, come from runoff offshore. And that is one of the reasons why we ask that they have better cleanup of our municipal runoffs and deal with other nonpoint source pollutions. But there is contamination that comes about, again, which wasn't discussed here this morning, is the problem with the toxic drill muds that are oftentimes dumped right nearby those sources. Fishermen may go fish near those rigs. But what nobody is telling them is often those fish are very toxic, particularly heavy laden with mercury, more so than in background areas, and that has to be considered. Now, if a moratorium is not going to be reinstated, and we think it should be, we think certainly certain areas of the coast need to be taken off limits, made permanently off limits. And the big three we think are, first of all, going to be Bristol Bay, and I would agree with Mr. Hastings that all of the Arctic should be taken off limits. We just heard that the North Pacific Council last week said we are not going to fish there. That was a unanimous vote. The fishing industry people called for no fishing there. So, that should be taken off limits.

The second place is Northern California. The area there, it is one of the greatest upwelling areas in the world. It is just too rich for fisheries. It has the Nation's only roadless area in the "Lower 48." It is just not an area to be drilling.

And finally, Georges Bank, which we heard talked about this morning. Those three areas need to be taken off the—off limits being made permanently.

If you are going to go ahead and do some planning, you also have to develop some mitigations and better protections. The existing system does not work well, and so we need to have that.

And finally, I think in looking at this whole issue, because we are looking at our oceans, and I will be quick here, is it really call for a national oceans policy. If we are moving—even if we are moving to nonrenewables, we need to know how to space wave and wind energy out there. It is incumbent upon the administration and the Congress—administration through an executive order—that we put in place a national ocean policy that is the policy of the country to protect our oceans. Then we need to call for the Federal agencies to better coordinate so that we can protect those oceans, and then finally put in place a trust fund.

Thank you, and I apologize for going over.

[The prepared statement of Mr. Grader follows:]

Statement of W.F. "Zeke" Grader, Jr., Executive Director, Pacific Coast Federation of Fishermen's Associations

Chairman Rahall, members of the Natural Resources Committee, thank you for the opportunity to testify before you here today on the perspectives of my organization and many in the commercial fishing industry on new offshore oil and gas development on the Outer Continental Shelf,

By way of introduction, the Pacific Coast Federation of Fishermen's Associations (PCFFA) represents working men and women in the U.S. West Coast commercial fishing fleet. Its offices are in San Francisco with a Northwest branch office in Eugene, Oregon. PCFFA is a member of the Marine Fish Conservation Network and the newly-formed Commercial Fishermen of America.

PCFFA was founded in 1976 bringing together mostly port-based fishermen's marketing associations to address with a single voice common issues facing mostly the small to mid-sized family fishing operations. PCFFA is currently comprised of 16 fishing associations, mostly in California. The fishing men and women in PCFFA member organizations are engaged in a number of different fisheries, including salmon, crab, herring, rockfish, halibut, sablefish and swordfish, utilizing a variety of different gears including, troll, trawl, trap, longline, hook-and-line, seine and gillnets. Among PCFFA's members are the Commercial Fishermen of Santa Barbara, Inc., and the Southern California Trawlers Association. Both those organizations have had first hand experience with offshore oil development in the Santa Barbara Channel.

My background is in the commercial fisheries, having worked part-time in fish buying and processing plants while in high school and college and managing a fish processing plant while in law school. I joined the PCFFA at the time of its founding in 1976, shortly after graduation from law school and passing the California Bar. In addition to my role for the past 33 years as PCFFA's executive director, I was the first chair of the Pacific Council's Salmon Advisory Subpanel, served on the board of the West Coast Fisheries Development Foundation (President—1985) for nearly a decade, was a member of the Secretary of Commerce's Marine Fisheries Advisory Committee (MAFAC) during the Reagan and first Bush Administration, and currently serve on the executive committee for the Marine Fish Conservation Network. Since 1993, I have served as executive director for the Institute for Fisheries Resources, in addition to my work with PCFFA, and am a member of the California Bar's Environmental Law Section.

A few years after PCFFA's founding, California fishermen were confronted with an issue none, at least north of Santa Barbara, had ever dealt with before—the prospect of oil and gas drilling offshore along California's narrow shelf. Lease Sale 53 was initially proposed to extend from the Santa Maria Basin—just north of Santa Barbara to the Oregon Border. There was a strong temptation by PCFFA's member groups to support offshore drilling.

The oil embargo had affected commercial fishing as it had the rest of the nation, with shortages and price increases. Oil industry jobs, we were told, could help our coastal communities already beginning to reel from the downturn in the timber in-

dustry. Oil industry representatives assured our members there would be no conflicts—even promising the rigs would be good habitat for fish. Our members were told there were no conflicts between commercial fishing and oil drilling in the Gulf of Mexico.

PCFFA's Board, however, wanted to hear what California fishermen who had lived with offshore oil in the Santa Barbara Channel had to say. The Santa Barbara Channel fishermen they called on had experienced the major spill from a Union Oil platform a decade before, as well as day-to-day offshore oil and gas activities

Surprisingly, that major oil spill was not the problem for Santa Barbara fishermen. It was rather, the small, unreported spills they said would foul their gear and contaminate catches. There were even instances where fishermen were cited for pollution when they sought to clean their gear that had been in oily waters near the rigs.

There was a problem with fishing gear becoming snagged on debris left by oil companies in their operations ranging from old washing machines disposed overboard from the rigs to tractor tires. While the rigs may act as fish attraction devices, this did most fishermen little good due to the precautionary zones established around many of the rigs where fishermen could not operate. Trawlers, in particular, were affected losing much of their fishing grounds, over sandy and soft bottoms, for the catch of halibut, sole and flounder. Although California banned bottom trawling in state waters for decades, it did open some state waters in sandy and soft bottom areas off Santa Barbara for halibut and flounder to partially mitigate losses of fishing area in federal waters to oil and gas development.

Considering California's narrow shelf—considerably different than the wide shelf in the Gulf of Mexico—the PCFFA Board felt the potentials for conflict with offshore drilling operations were just too great. That, and the fact that the oil reserves off central and northern California, along with Oregon and Washington, were not expected to be that large, made it seem the prudent course to oppose drilling off central and northern California.

Then-Secretary of Interior Cecil Andrus subsequently reduced the scope of Lease Sale 53 to the Santa Maria Basin. PCFFA, along with other West Coast commercial fishing groups, supported Congressional appropriations language thereafter prohibiting oil and gas development off central and northern California—Lease Sale 73 for example, and later for Oregon and Washington. New England fishermen fought plans for oil drilling off Georges Bank and Alaska fishermen sought to stop drilling from going ahead in Bristol Bay where a lease sale had already been held (the leases were later bought back at a cost of $100 million to the federal government).

Offshore drilling has taken a back seat in recent years among the issues fishermen have to contend with. The 27-year old congressional moratorium and the Presidential offshore oil moratorium established by the first President Bush took away the threat. All that changed when the last President Bush lifted the executive order against drilling this past July 14th and the Congressional moratorium was allowed to lapse.

Times change and certainly the cost of diesel fuel the past two years was cutting deeply into fishermen's meager profits and made it just too costly to untie the boats where a great deal of running for fish was necessary or the anticipated catches too small to offset the cost of fuel. So, thirty years after first voting to oppose new drilling along the coast, the issue was brought back to the PCFFA Board this past year. After a full discussion of the issue, the vote was unanimous to stay the course, to oppose new drilling. We know of no other fishing groups along the West Coast that have changed their positions in opposition.

Problems for Fishing from Offshore Drilling

The conflicts between commercial fishing and offshore oil and gas operations can be summed up as 1) seismic surveys; 2) spatial and gear losses; and 3) pollution/contamination. Before I detail the nature of the conflicts, let me state that much of this is a repeat from testimony I gave the Congress in the 1980's and from various correspondence to members at that time.

Seismic Surveys. While the American public may not see any of the oil developed from new offshore leases for a decade or more, the impact on commercial fishing will be almost immediate, as soon as the companies decide to go ahead with drilling they will be wanting to update information to give them information on where the most likely deposits of oil and gas are likely to be under the seabed. To find this out they will deploy seismic vessels to explore areas both before and after any lease sale.

The powerful sound waves generated by seismic surveys can have a variety of harmful effects on fish. Within close range, seismic surveys have been found to kill adult fish as well as larvae and fish eggs. More than 20 years ago research in the

Santa Barbara Channel found seismic surveys were lethal to anchovy populations. Scientific studies have also shown that air gun blasts can cause a variety of sublethal impacts on fish such as damaging orientation systems and reducing their ability to find food. Researchers have noted disturbances in the migration routes of salmon and other anadromous species as a result of seismic operations.

Seismic surveys can cause physical damage to fish ears and other tissues and organs such as swim bladders. Although such effects may not kill fish immediately, they may lead to reduced fitness, which increases their susceptibility to predation and decreases their ability to carry out important life processes. Furthermore, if important prey species in the food web such as squid and zooplankton are harmed by seismic testing, the fish dependent on these creatures may also be negatively affected.

Seismic surveys not only threaten commercial and subsistence fishing by harming fish resources, but also by interfering with fishing operations and dramatically affecting catch rates. Seismic ships tow streamers that can be miles long. These can get tangled up with crab pots, set nets and trawl nets causing damage and decreasing crucial fishing time. The best time to conduct seismic surveys in Arctic and subarctic environment is during the summer, which is also prime season for many Alaskan fisheries. As a result, seismic survey operations can end up competing with fishing for time and space on the water.

In California, the state's Coastal Commission was forced to utilize its CZMA authority to end a conflict between the hook-and-line fleet in the Santa Barbara Channel by prohibiting seismic surveys during key fishing seasons. There seismic surveys were making it impossible for fishermen to operate. Even then the one of the companies, Exxon, sued to try to keep operating with full knowledge of what their seismic surveys were doing to fishing.

Even if these kinds of conflicts can be avoided, several studies have shown that seismic operations have greatly reduced catches of fish around areas where air guns were being fired. These studies have demonstrated reduced catches over 20 miles away from the source with catch reductions continuing five days after the testing was complete (see table below). Researchers believe these catch reductions are a result of altered fish behavior due to seismic operations which cause them to be less likely to take hooks and/or to move down and away from the seismic firing.

Reductions in fish catch rates as a result of seismic survey activity

Species	Gear type	Noise level of seismic testing	Catch reduction	Source
Atlantic cod (*Gadus morhua*)	Trawl	250 decibels (dB)	46-69% lasting at least 5 days	Engas et al. 1993
Atlantic cod (*Gadus morhua*)	Longline	250 dB	17-45% lasting at least 5 days	Engas et al. 1993
Atlantic cod (*Gadus morhua*)	Longline	Undetermined, 9.32 miles from source	55-79 % lasting at least 24 hours	Lokkeborg and Soldal, 1993
Haddock (*Melanogrammus aeglefinus*)	Trawl	250 dB	70-72% lasting at least 5 days	Engas et al. 1993
Haddock (*Melanogrammus aeglefinus*)	Longline	250 dB	49-73% lasting at least 5 days	Engas et al. 1993
Rockfish (*Sebastes* spp.)	Longline	223 dB	52%- effect period not determined	Skalski et al., 1992

The conflicts with seismic surveys are not unique to the U.S. fishing industry. This past year, the Norwegian Association of Fishing Boat Owners threatened to initiate civil disobedience action around oil installations in the Barents Sea, where they said increased oil and gas related activities in the area scare the fish away from their fishing fields. In 2006 and 2007, 800 tons of Atlantic pollock were caught off the Vesteralen and Lofoten Islands. By comparison, in 2008 just 83 tons of the fish have been caught. The fishermen say that drop off in catch was primarily due to oil and gas operations. Unfortunately, former Speaker Gingrich, it seems, didn't talk to any fishermen before returning from his trip last year to Norway proclaiming how well offshore oil was working for that nation.

Spatial Conflicts (Including Gear Loss and Construction and Presence of OCS Infrastructure). The second problem for commercial fishing with offshore oil and gas is the displacement of fishing by oil on either the fishing grounds, in the ports, or both. While looking at a chart, it may seem that the ocean is large enough

to accommodate a myriad of uses. However when looking at where fishing takes place, mostly on the shelf, and where oil and gas development occurs, they tend to be in the same places and the footprint of the rigs is not limited to the area covered by a platform.

The rigs have precautionary zones around them, precluding most fishing. Thus, the area taken from fishing tends to be quiet a bit larger than the platform. Cables and anchors can extend out making fishing, particularly trawling impossible.

The spacing of the rigs can also hinder fishing operations where the fishing is mobile, such as a trawler working a tow, or trollers on a tack. The rigs may not present a spatial conflict, as I mentioned, where there is a wide shelf, but along the West Coast the shelf is narrow and most fishing occurs along that shelf, thus there is a real potential for displacement of fishing.

In the Final Environmental Impact Statement (FEIS) for the 5-Year (2007-2012) Offshore Oil and Gas Leasing Program for Alaska, the Minerals Management Service found:

> "Some exploration, development, and production activities have a potential to result in space-use conflicts with commercial fishing activities. Commercial fishing vessels could be excluded from normal fishing grounds to avoid the potential for gear loss." (IV-256)
>
> "Offshore construction of platforms could infringe on commercial fishing activities by excluding commercial fishing from adjacent areas due to safety considerations." (IV-257)
>
> "Fishing activities could be temporarily excluded from some areas during construction of offshore pipelines. Once pipelines are put into place, they could result in entanglement hazards for some types of fishing gear..." (IV-257)

Pipelines, during construction and once in place, can act as snags for fishing gear—thereby displacing fishing. Making matters worse, as fishermen experienced in the Santa Barbara Channel, is the fact some oil and gas operators treated the ocean as if it were there own personal landfill where they could dump old machinery, tires used for bumpering and other materials that then snagged fishing gear—from trawl nets to troll lines. That has been the experience in the Santa Barbara Channel. Of course, pipelines and their construction affect not just fishing, but fish. For the Bristol Bay area, MMS concedes in its FEIS for the 5-year leasing plan:

> "Pipeline installation would include trench excavation through intertidal and shallow subtidal areas." (IV-204)
>
> "Trenching and excavation for pipeline installation could directly disturb tidal and mud flats, eelgrass beds, marshes, or other coastal habitats (depending on the location of the pipeline route) resulting in direct habitat losses." (IV-204)
>
> "Pipeline crossings (onshore) of streams could affect EFH for several life stages of managed anadromous salmon, including eggs, larvae, juveniles, and adults." (IV-184)
>
> "Onshore facility construction (e.g. pipelines, processing facilities, service bases, etc.) causes definite short-term and long-term changes, with localized long-term effects on coastal habitats along onshore pipeline corridors." (IV-522)

The spatial problem is not limited to fishing grounds. Fishing activities in ports—ranging from areas for berthing, processing fish, mending fish gear and other space required to support commercial fishing have been displaced by offshore oil and gas support operations and vessels. This is not a problem where there is adequate space, space not used to support fisheries, but it becomes a real problem in smaller ports where space may be at a premium.

Some of the areas where drilling is planned are relatively remote with little infrastructure in place, thus the impacts will be far greater. The area of northern Mendocino, southern Humboldt Counties in California—known as the Lost Coast, for example, is the one area in the lower continental U.S. where there is no coastal road, yet the area (around Shelter Cove) is under consideration for development. Much of Alaska is equally as remote.

Pollution/Contamination. As mentioned earlier, the concern voiced by commercial fishermen from the Santa Barbara Channel has been with the small, but chronic, unreported spills and leaks that caused the oiling of fishing gear or catch. That, however, was before the Exxon Valdez spill in 1989 or a number of other spills that have occurred subsequent where there is a greater understanding now of the impacts of a major spill on certain key species.

The Prince William Sound herring fishery has still not recovered from the Exxon Valdez spill and even the small herring fishery in San Francisco Bay seems to have

been affected by the November 2007 spill of bunker fuel by the Cosco Busan, judging from the size of the biomass now in the Bay. While both the Exxon Valdez and Cosco Busan were spills from ships, not rigs, it does point out to the danger posed by oil to the marine environment. Again, quoting from the MMS' 5-Year FEIS:

> "...localized areas of shellfish essential fish habitat (EFH) could be affected by leaks from offshore pipelines." (IV-186)
>
> "...contact with some EFH [Essential Fish Habitat] resources from an oil spill would probably be unavoidable." (IV-188)
>
> "Valuable shellfish species, including various crabs and weathervane scallops, could be affected by oil spills that occur when planktonic life stages are present in surface waters." (IV-186)

Oil spills, however, are not the only pollution source from offshore oil and gas. Santa Barbara fishermen complained of the disposal of drill muds on the seafloor containing diesel fuel. The State of California has banned the disposal of drill muds in state waters and requires them to disposed of safely onshore. The problem identified by the Santa Barbara fishermen with diesel fuel in the drill muds may be far greater with findings in the Gulf of Mexico of mercury and heavy metals in the drill muds and fish sampled from the nearby rigs. In its FEIS, MMS stated:

> "Depositions of sediments could smother more sedentary invertebrates (e.g. clams or scallops) located within a given radius of discharge points." (IV-182)
>
> "Settling of discharge cuttings on the seafloor could smother some prey species, displace some managed groundfish species, and change substrate composition in the area where the cuttings settle." (IV-184)
>
> "Eggs, fry, and small prey occurring or entering the mixing zone during the discharge of muds and cuttings could experience lethal and sublethal effects if they are within 1-2 m of the discharge point and if the volumes of muds and cuttings are released at the rates permitted by the U.S. EPA (500-1,000 bbl/hour)." (IV-182)
>
> "...approximately 522 tons of drill cuttings would be released into the environment for each exploration well constructed. Up to 20 exploration wells are anticipated, which could result in the release of up to 10,440 tons of cuttings." (IV-181)

Major Fishing Grounds Threatened

As we are discussing offshore oil drilling here today, the clock is already ticking under the previous 5-year plan for Lease Sale 214, the North Aleutian Basin, which includes Bristol Bay—with the largest salmon fishery in the world. After the lifting of the moratorium, under the revised plan, the clock is also ticking for lease sales of the Northern and Central Coast of California, Georges Bank and the Virginia coast.

Some of the nation's most productive fishing grounds are now threatened. They include:

Bristol Bay. In its October 16, 2008 letter to the Minerals Management Service regarding the EIS for Lease Sale 214 in the North Aleutian Basin, which affects Bristol Bay, the United Fishermen of Alaska described the area as "the most important economic driver of the region, the commercial fishing industry has impacts extending throughout Alaska and the Pacific Northwest. As shown by National Marine Fisheries Service statistics, over 40% of the commercial U.S. fisheries catch including the nation's richest crab, Pollock, cod, halibut, and salmon fisheries come from the Bering Sea region with annual harvests worth more than a half a billion dollars.

> "Both groundfish and shellfish fisheries completely overlap the proposed lease sale area 214. Shellfish harvested in significant numbers include Bristol Bay red king crab, Bering Sea tanner crab, and Bering Sea snow crab. Commercially harvested groundfish species include Pacific cod, Alaska Pollock, Pacific halibut, flatfish species, rockfish species, Atka mackerel and sablefish. The Bristol Bay and north Alaska Peninsula salmon fisheries depend on the large numbers of all five species of Pacific salmon that utilize the area for feeding and migration. Subsistence fisheries, while not economically comparable to the region's commercial fisheries, are vital to local communities."

An earlier letter sent to President Bush by six Alaskan organizations (Bristol Bay Native Association, Bering Sea Fishermen's Association, Bristol Bay Economic Development Corporation, Alaska Independent Fishermen's Marketing Association, and Bristol Bay Reserve) stated, "[t]he economics of the fisheries that depend on the North Aleutian Basin have sustained an annual average wholesale value of about $450 million dollars; we estimate the retail value to be nearly $2 billion annually.

The snapshot of oil and gas development for this area does not compare to the longevity of these fisheries or to the future value. The Bristol Bay salmon fishery alone maintained an average annual catch value of $105 million from 1980-2003. This represents a 20-40% total value of Alaska's salmon fisheries. Jobs in Bristol Bay that depend on fisheries and wildlife provide an annual payroll of about $175 million. The economic benefits and impacts of Alaska's fishing industry extend far beyond the region in which they are located as the Commercial Fisheries Entry Commission reports 41% of the Bristol Bay Drift and Set Gillnet permit holders to be residents of states other than Alaska.

> "Even though the North Aleutian Basin does not directly overlap with the Bristol Bay salmon fisheries, it provides significant habitat for salmon. Salmon smolt outmigrate through the area and adult salmon migrate through the area on their way to spawn in Bristol Bay Rivers. Juvenile salmon also feed and grow to maturity within and surrounding the area. Clearly, leasing in the North Aleutian Basin poses serious risks to salmon. Even a small spill or contamination event could damage the ability to market Bristol Bay salmon and could harm new efforts to increase their value."

Northern California. Although much of the Central California coast enjoys protection in one of four national marine sanctuaries, the area from Sonoma Coast to the Oregon border remains vulnerable. North of San Francisco the coast is increasingly remote, to the roadless area of the Lost Coast. The shelf is narrow and the area is frequented by treacherous winter storms with few ports of refuge. The fishing and tourism industries that support this region of the coast would be devastated by offshore oil and gas development.

In his recent letter to you, Mr. Chairman, Representative Mike Thompson stated the coastal part of his district, "is remote, pristine, and rocky. It is also host to one of four major upwelling regions in the world. Upwelling regions are coastal areas that support extremely abundant and productive marine life. This is because upwelling brings cold, nutrient-rich waters up from the ocean depths that, when combined with sunlight, enhance seaweed and phytoplankton growth. The seaweed and phytoplankton provide energy for some of the most productive ecosystems in the world, including many of the world's most important fisheries, such as the North Coast fisheries. According to the National Oceanic and Atmospheric Administration, while upwelling regions make up only one percent of the world's oceans, they contribute to approximately half of the world's fish catch.

> "Northern California's coast brings biological and economic benefits to the entire country as a result of the incredibly productive and diverse ecosystem found within its waters. Drilling activity off the Northern Coast of California could cause serious harm to the unique ecosystem and abundant marine life found off my district. The impact this would have on the California fishing industry and the coastal communities that depend on it could far exceed any benefits we would hope to gain by drilling.
>
> "Even if the price of oil were to skyrocket again, the Minerals Management Service's own estimates show that the amount of oil we could expect to recover would only be enough to satisfy about 100 days of national demand."

Georges Bank. Part of MMS' proposed North Atlantic lease sale, includes the fishing rich ground of Georges Bank. Representative Ed Markey reflects the feelings of most fishermen in New England, when he says Georges Bank is vital to New England's economy. New Bedford, Massachusetts is the most productive fishing port in the United States, raking in $268 million in catch value. The collective catch of New Bedford, Gloucester, and Provincetown-Chatham-all of which rely on Georges Bank-is worth nearly $350 million annually.

> "From the boats and wharfs to the markets and restaurants of New England, the unique habitat of Georges Bank is a key economic engine for Massachusetts and the region and an important part of our cultural heritage," said Congressman Markey. "In this economic crisis, the preservation of Georges Bank is vital to not just the environmental integrity of New England but also the stability of its economy."

In the case of all three areas identified above, if the fishing is well-managed these areas will continue to provide economic benefit to the nation well into the future. But these areas are now at risk in order to pursue finite oil and gas reserves, whose extraction will affect fish and fisheries for, at best, a short supply of carbon-based fuel.

If Drilling Were to Go Ahead

It is PCFFA's position supporting reinstatement by Congress and the Administration of the offshore oil and gas moratorium. However, if a moratorium is not reinstated, PCFFA recommends at minimum the following actions are taken:

1. Remove Bristol Bay, Northern California and Georges Bank immediately from any lease sales. We would also ask for consideration of much of the rest, if not all, of the lease sales planned for offshore Alaska, as well as Oregon and Washington, any unprotected areas of Central and Southern California, the remainder of the North Atlantic and the Mid-Atlantic be protected from oil and gas exploration. We cannot comment on the South Atlantic and Straits of Florida, but those areas, too, may be worthy of protection from offshore oil.
2. Consolidate oil and lease sales around areas where existing oil and gas development is taking place to minimize disruption to fishing and coastal communities.
3. Establish mitigation measures to protect fishing where new drilling is to occur. To this end, we support the recommendations made by the United Fishermen of Alaska for fishery protection and mitigation including:
   - Creation of Regional Citizens Advisory Councils for states, following approved OCS lease sales, to be funded by the approved leaseholders
   - Zero discharges from drilling installations.
   - Establishment of oil and gas spill response and mitigation plans, to be developed in consort with a regional citizens advisory councils.
   - Establishment of an adequate fisheries disaster fund to provide compensation to the fishing industry and coastal communities in the event of disruption of fisheries.
   - A commitment from the oil and gas industry and the federal government to develop and implement a long term scientific monitoring program to assess potential impacts to the marine environment and the fisheries.
   - A prohibition of any use of offshore energy facilities for open ocean aquaculture.
   - Inclusion of commercial fishing organizations in the planning process as stakeholders on par with the status of other cooperating municipal, state and federal agencies.
   - Restrict lease-related use will to prevent conflicts with local commercial, subsistence, and sport harvest activities. All OCS operations, both onshore and offshore, must be designed, sited and operated to ensure that:
     (a) adverse changes to the distribution or abundance of fish resources do not occur;
     (b) fish or shellfish catches are not adversely impacted by OCS activities;
     (c) all exploration, construction and operation activities is coordinated with the fishing community to maximize communication, ensure public participation, and avoid conflicts;
     (d) ballast water treatment is required to remove or eliminate non-indigenous species.
     (e) fishermen are not displaced or precluded from access to fishing areas, unless they are adequately compensated for the displacement;
     (f) fishermen are not precluded from participating in designated fishing seasons, unless they are adequately compensated for the lost season(s); and
     (g) fishermen are compensated for damage to fishing equipment, vessels, gear and decreased harvest value from OCS operations in a timely manner.

Why Offshore Drilling is Not a Good Move

When PCFFA formulated it policy 30 years ago to oppose new offshore drilling, it did so unaware of climate change or its implications, including the acidification of ocean waters. We felt there was a compelling case to be made then for not expanding offshore drilling beyond the high yield basins where it was then taking place.

From what we have learned in the past decade, certainly the past year and even month, it is evident that we need to phase out carbon-based fuels as quickly as possible. We say that knowing our fishing boats currently rely on diesel fuel for power. But if we don't stop putting carbon into the atmosphere from burning coal and oil there won't be any fish in the ocean for our members to harvest. This is a problem that needs fixing now.

This past summer was particularly disturbing for those of us who remember the summers of the late 1960's, when many of the nation's cities were burning. We heard then the chants of "Burn, Baby, Burn." Most of us understood the frustration of those rioting, torching buildings. The years of Jim Crow, inequality, lack of opportunity, and brutality at the hands of police and vigilante groups set off a powder keg. Understandable as it was for many of us, looting and burning was no answer.

When the President lifted the executive order on the offshore moratorium, when Congress allowed the moratorium to lapse, when we heard people shouting "Drill,

Baby, Drill," we felt for our fisheries the way a shop owner must have felt in those hot summers of the late 1960's as the mob converged. We understood the frustration with the prices at the pump. The cost of diesel had taken the profit out of fishing, keeping many tied to the dock. And, we understood the frustration with paying for fuel imported from nations that are openly hostile to our interests.

But drilling for a small amount of oil and gas, putting at risk America's oldest industry, to further exacerbate global warming—which may not be reversible for a century, is no solution. It is no more an answer to our energy needs than burning the cities was in the 1960's in response in discrimination and inequality. Are we now prepared to loot and burn the planet, chanting "Drill, Baby, Drill?"

There is no doubt that immediate action is needed on the energy front, but in so acting we should not threaten our food supplies, nor life on Earth. Prompt and thoughtful action, based on good science, is what's needed. It's time to "Think, Baby, Think."

Mr. Chairman we urge you and committee members to rethink our offshore drilling policies, both in terms of damage to the environment and industries such as fisheries that rely on a clean environment, as well as damage to the planet from continued reliance on carbon based fuels.

A better course I would suggest is to focus on the development of renewable energy sources—continue to push solar and wind and development of alternative fuels that can safely power everything from fishing vessels to jet aircraft. We do not expect any of the oil from development of new offshore leases to be available for a decade. Wouldn't we be better off spending this next decade working to be free of not just foreign oil, but oil as a fuel altogether?

Thank you Mr. Chairman for this opportunity to testify and I'll be happy to answer any questions you or members of the Natural Resources Committee may have.

The CHAIRMAN. Thank you.

Mr. Allen.

STATEMENT OF BRUCE ALLEN, CO-FOUNDER, SOS CALIFORNIA

Mr. ALLEN. I would like to thank Chairman Rahall and the Committee for the invitation to speak here today. I am Bruce Allen, a co-founder of SOS California, a nonprofit dedicated to educating the public about how offshore oil and gas production can actually improve the marine environment and provide a bridge to our renewable energy future.

Due to advances in subsea wellhead, platform and pipeline technology, according to the National Academy of Sciences, less than 1 percent of hydrocarbon pollution in all U.S. waters now comes from drilling and extraction, while natural oil seeps contribute 63 percent.

Published studies document that, in the Gulf of Mexico, natural hydrocarbon seepage may far exceed the environmental significance of production and transportation of oil and gas. Surprising to many is the fact that California offshore oil and gas production has been drying up seepage pollution. Similar seepage productions also appear to be occurring in other oil and gas resource basins.

Natural oil and gas seeps off the California coast are the second most active in the world, seeping 70,000 barrels of oil into coastal waters and 3 billion cubic feet of methane into the air every year. This annual oil seepage volume equals the entire 1969 oil spill and equals the Exxon Valdez oil spill amount every 4 years. Local beaches are washed with oil seepage from State and OCS waters for 100 miles of Central California coastline.

These seeps pollute the ocean and beaches, sicken surfers, and are a significant source of air pollution in Santa Barbara County.

For example, in January 2005, an increase in this seepage killed or oiled as many as 5,000 seabirds that washed ashore from Santa Barbara to Huntington Beach, creating a 25-square-mile oil slick, which went largely unreported.

These seeps are being reduced by offshore oil and gas production. It is well known to longtime Santa Barbara residents that over the last 40 years, the amount of oil washing up on their beaches has been declining and is commonly assumed that offshore oil production is the reason. These observations are supported by research documenting a 50 percent reduction in the seepage near an offshore oil platform that was studied for 20—over 20 years. If after the 1969 spill all California offshore oil production had been stopped, these long-term seepage reductions would never have occurred.

In the last 40 years, there have been only 872 barrels of oil spilled offshore California due to offshore oil production, with no lasting long-term environmental impact, compared to the 2 million barrels of oil seepage into the same coastal waters. A 2008 opinion poll shows that, by 62 percent to 29 percent, Santa Barbara County residents support more offshore production in California, a population that follows this subject more closely than any other. The Gulf of Mexico offshore production also has an excellent safety and environmental record even in the face of Hurricanes Katrina and Rita.

Modern technology and 3-D seismic allows reserves to be accurately targeted, including seep zones and resources at risk from earthquakes. For example, the 1925 Santa Barbara earthquake caused a massive flood of crude oil from seabed fissures to pour into coastal waters and onto California beaches.

Pacific OCS resources are estimated by MMS to be at least 13 billion barrels of oil equivalent. Discovered resources in the California OCS and State waters—which are not allowed to be produced—amount to about 1.8 billion barrels, are near existing infrastructure, and are producible within 18 months—given permitting approvals. Eleven of 13 reservoirs are overlaid by active seeps in State and OCS waters, seepage which could be permanently reduced by offshore extraction. Royalties from these resources could fund conversion to electricity use by 20 million Americans for solar electricity and cut California oil imports in half.

This would reduce the risk of a large spill in coastal waters since studies show the risks from large oil tanker spills are greater than from offshore platforms or pipeline spills. Total 2006 MMS estimated OCS resources are 160 billion barrels of oil equivalent. Royalties from these resources exceed $3 trillion, which in terms of renewable energy, could buy 1,000 gigawatts of solar electric-generating power—an amount equal to all U.S. electric-generating capacity.

Assertions that new offshore oil production will slow conversion to renewable energy are not correct. More OCS production will actually accelerate the conversion. SOS California believes new offshore production royalties should be tied directly to funding renewable energy infrastructure to accelerate the transition to solar electric vehicles and other renewables. The U.S. will not be able to borrow overseas money for 30 years to pay for building a renewable

energy infrastructure while running a $600 billion a year trade deficit due to primarily imported oil moratorium.

I urge Congress not to reimpose an OCS moratorium. New OCS production will allow Americans to benefit from safe extraction of domestic energy resources with royalty revenues accelerating the transition to renewable energy. For coastal Californians, intelligently expanded production in the OCS and State waters would further reduce coastal seepage pollution for future generations.

Thank you.

[The prepared statement of Mr. Allen follows:]

Statement of Bruce Allen, Co-Founder, SOS California

I would like to thank Chairman Rahall and the Committee for the invitation to speak here today. I am Bruce Allen, a co-founder of SOS California, a non-profit dedicated to educating the public how offshore oil and gas production can actually improve the marine environment and provide a bridge to our renewable energy future. Due to advances in subsea wellhead, platform and pipeline technology, according to the National Academy of Sciences less than 1% of hydrocarbon pollution in all U.S. waters now comes from drilling and extraction, while natural oil seeps contribute 63%.

Published studies document that in the Gulf of Mexico natural hydrocarbon seepage may far exceed the environmental significance of the production and transportation of oil and natural gas.

Surprising to many is the fact that California offshore oil and gas production has been drying up seepage pollution. Similar seepage reductions also appear to be occurring in other oil and gas resource basins.

Natural oil and gas seeps off the California coast are the second most active in the world, seeping 70,000 barrels of oil into coastal waters and 3 billion cubic feet of methane into the air every year. This annual oil seepage volume equals the entire 1969 oil spill and equals the Exxon Valdez oil spill amount every 4 years. Local beaches are washed with oil seepage from state and OCS waters for 100 miles of central California coastline. These seeps pollute the ocean and beaches, sicken surfers, and are a significant source of air pollution in Santa Barbara County.

For example, in January 2005 an increase in this seepage killed or oiled as many as 5000 seabirds that washed ashore from Santa Barbara to Huntington Beach, creating a 25 square mile oil slick, which went largely unreported.

These seeps are being reduced by offshore oil and gas production. It is well known to long time Santa Barbara residents that over the last 40 years the amount of oil washing up on their beaches has been declining, and it is commonly assumed offshore oil production is the reason. These observations are supported by research documenting a 50% reduction in seepage near an offshore platform studied for over 20 years.

If, after the 1969 spill, all California offshore oil production had been stopped, these long term seepage reductions would never have occurred.

In the last 40 years there have only been 872 barrels of oil spilled offshore California due to offshore production with no lasting long term environmental impact compared to the 2 million barrels of oil seepage into the same coastal waters. A 2008 opinion poll shows by 62% to 29% Santa Barbara County residents support more offshore production in California, a population that follows this subject more closely then any other.

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Pacific OCS resources estimated by MMS are at least 13 billion barrels of oil equivalent. Discovered, but not allowed to be produced resources in California OCS and state waters are about 1.8 billion barrels, near existing infrastructure producible within 18 months given permitting approvals. 11 of 13 reservoirs are overlaid by active seeps in state and OCS waters, seepage which could be permanently reduced by offshore extraction. Royalties from these resources could fund conversion of electricity usage by 20 million Americans to solar electricity and cut California oil imports in half. This would reduce the risk of a large spill in coastal waters,

since studies show risks from large oil tanker spills are greater then from offshore platform or pipeline spills.

Total 2006 MMS estimated OCS resources are 160 billion barrels of oil equivalent. Royalties from these resources could exceed 3 trillion dollars, which in terms of renewable energy, could buy one thousand gigawatts of solar electric generating power, an amount equal to all U.S. electric generating capacity.

Assertions that new offshore oil production will slow conversion to renewable energy are not correct; more OCS production can actually accelerate the conversion. SOS California believes new offshore production royalties should be tied directly to funding renewable energy infrastructure to accelerate the transition to solar, electric vehicles and other renewables.

The U.S. will not be able to borrow overseas money for 30 years to pay for building a renewable energy infrastructure while running a 600 billion dollar a year trade deficit due primarily to imported oil.

I urge Congress not to re-impose an OCS moratorium. New OCS production will allow Americans to benefit from safe extraction of domestic energy resources with royalty revenues accelerating the transition to renewable energy. For central coast Californians, intelligently expanded production in OCS and state waters would further reduce coastal seepage pollution for future generations. I would be pleased to answer questions. Thank you.

Response to questions submitted for the record by Bruce Allen, Co-Founder, SOS California

I submit this memo to the House Committee on Natural Resources Chief Clerk to be forwarded to all House Natural Resource Committee Members and request its inclusion and the attachments in the Congressional Record in response to questions to me at the February 11, 2009 Natural Resources hearing and the request for citation for the Record by Rep. Capps regarding my comments on the source of California Monterey County beach seepage tar and the chemical typing of this seepage tar.

I also would like to request a copy of the letter by Bruce Luyendyk regarding SOS California that Rep. Capps indicated she would submit to the Record, and request that I be given the opportunity to include my comments on the letter in the Congressional Record. I was not offered an opportunity to see the letter to which Rep. Capps referred before or after the hearing.

I would note for the Committee that Bruce Luyendyk did submit a letter to the Santa Barbara County Board of Supervisors in August 2008 (a copy of which I have attached), in which the letter points to "clarifications" in regard to SOS's position on offshore oil. In his letter, Luyendyk stated,

"Their premise is based on interpretation of two 1999 UCSB studies on oil seeps offshore Coal Oil Point in Goleta, the location of Venoco's platform Holly. As a member of that UCSB research team I want to point to several qualifications in this SOS argument. The relationship between ongoing production and decreasing seepage remains a hypothesis that is not fully tested. The relationship is well established for the Coal Oil Point field under current production methods but not tested by scientific studies elsewhere in the Channel."

SOS California's "premise" is NOT solely based on the two 1999 studies, and is not restricted to the Santa Barbara "channel". Our analysis includes other published research which includes seep zones in California, reservoir engineering opinions, analysis of the advances in offshore drilling technology and discussions with many petroleum geologists and researchers that did not include Luyendyk and he was not been privy to any of those discussions. That the "hypothesis has not been fully tested" merely states the obvious fact that to be "fully tested", the offshore oil fields in seep zone areas that are currently off limits would need to be produced and seepage reductions measured. Petroleum geologists with current offshore oil production technology experience have consistently given opinions that if extraction of hydrocarbon resources from many reservoirs in undeveloped active seep zone areas offshore California occurred, it is highly likely that extraction with modern technology would reduce this existing seepage pollution.

In his letter Luyendyk states, "It is true that natural oil seepage may be the major source of oil in the ocean: to what degree is uncertain. However, labeling this natural floating oil to be pollution is not so simple."

I believe it is clear that natural seepage emissions, including oil, tar and ROG (reactive organic gases) emissions off the coast of southern and central California are considered pollution sources per definitions by the EPA, California Air Re-

sources Board, and other agencies. I believe it is clear these seepage emissions harm the environment, and are responsible for wildlife deaths.

Bruce Luyendyk also stated in the August 2008 letter, "Even if drilling were to go forward as a means of decreasing seepage, some seeps are located where oil drilling would not occur either because of non-economic deposits or legal restrictions."

SOS California believes that drilling and extraction are clearly a means of decreasing seepage. If the resources are not economic to produce, they will likely not be produced and SOS has never said otherwise, and SOS California believes many of the seep fields off the coast of California are economic, based on existing known resource estimates and many detailed seep field studies. With respect to legal restrictions, this is the very policy issue SOS California is addressing through public education and hearings.

SOS California has not changed its position since Luyendyk's letter was sent to the Santa Barbara County Board of Supervisors, dated August 18, 2008. I believe the conclusions of the 1999 UCSB studies speak for themselves, and I encourage the committee to read their conclusions, including the conclusion "...oil production here has resulted in an unexpected benefit to the atmosphere and marine environment." The 1999 studies are a notable set of studies, but implying that our policy position is solely based on those findings is incorrect.

SOS California does not consider the other studies we have reviewed and analyzed to constitute "evidence" as was asked by Rep. Capps at the hearing, but rather these other studies and geologists opinions to be significant factors in our assessment of the potential for seepage reductions along the California coast due to oil reservoir extraction.

With respect to the request by Rep. Capps to provide for the record a source for my reference to the fact that tar from Santa Barbara area seepage washes up on Monterey County beaches, and the issue of their chemical typing, I include below a USGS (United States Geological Survey) April 2008 Sound Waves article citing chemical analysis of tar ball samples by the California Department of Fish and Game, Oil Spill Prevention and Response (OSPR) and titled:

"Tar Balls from Southern California Seeps Appear on Central California Beaches" By Helen Gibbons, Bob Rosenbauer, Tom Lorenson, and Randy Imai (CDFG Office of Spill Prevention and Response) April 2008:

Excerpt: "Tar balls that appear on central California shores during the winter months mostly originate in southern California seeps, as evidenced by their chemical fingerprints. These tar balls are believed to be carried northward by the Davidson Current, which periodically flows northward along the California coast, often aided by winter storms that bring southwesterly winds to the region."

http://soundwaves.usgs.gov/2008/04/fieldwork2.html

Attached also to this memo is a published news article dated March 6th, 2007 that gives some additional context regarding the question of natural oil and tar seepage flowing up the coast of California and deposition on Monterey and San Francisco area beaches.

I would note for the Committee that Santa Barbara and California residents over the last 40 years have clearly observed the major improvement of their coastal environment due to less natural oil and tar on their beaches that has always been present even before offshore oil production began in California. The best scientific evidence points to offshore oil and gas production as the cause of this benefit. I believe the potential to even further reduce natural offshore seepage pollution through expanded offshore oil and gas production is a significant potential benefit that the Committee should seriously consider as a factor in evaluating the benefits of offshore oil and gas resource development.

Attachment 2

August 18, 2008

TO: Board of Supervisors, Santa Barbara County

RE: Statement on oil seeps and drilling for August 26 meeting, "State and National Energy Crisis—Discussion"

The local group Stop Oil Seeps (SOS) has gained a lot of traction lately as alarmed southern Californians react to sharply increasing gasoline prices. Part of the SOS agenda is to promote offshore drilling and oil production as a means of reducing natural oil and gas seepage and their effects in the Santa Barbara Channel. Their premise is based on interpretation of two 1999 UCSB studies[1 2] on oil seeps offshore Coal Oil Point in Goleta, the location of Venoco's platform Holly. As a member of that UCSB research team, I want to point to several qualifications in this SOS argument.

The relationship between ongoing production and decreasing seepage remains a hypothesis that is not fully tested. The relationship is well established for the Coal Oil Point field under current production methods but not tested by scientific studies elsewhere in the Channel. Many oil reservoirs offshore in fact are not seeping so drilling them would have no effect. Those reservoirs that are seeping, to my knowledge, are discharging far less that the Coal Oil Point field, minimizing any effect of drilling on seepage. Even if drilling were to go forward as a means of decreasing seepage, some seeps are located where oil drilling would not occur either because of non-economic deposits or legal restrictions. Further, any relationship between ongoing production and decreasing seepage could only apply in the early history of an oil field during a phase known as primary production where natural subsurface conditions allow easy extraction of hydrocarbons. As oil fields age more elaborate Enhanced Oil Recovery measures are required, and these could have the opposite result of increasing seepage.

The argument is also made by SOS that most of the oil floating on the surface of the ocean today is of natural origin, not industrial, and that therefore our enemy is really natural seepage. It is true that natural oil seepage may be the major source of oil in the ocean: to what degree is uncertain. However, labeling this natural floating oil to be pollution is not so simple. Ecosystems have adapted to ongoing hydrocarbon seepage as they have done at Coal Oil Point. On the other hand, a sudden accidental spill of even a small magnitude is something that natural systems experience as acute stress and could have far greater impact than continual natural sources.

The Coal Oil Point field emits gases that are classified as noxious air pollutants and precursors to ozone. These are likely of large magnitude offshore but are highly dispersed once they blow onshore to Goleta. That area is rarely beyond state or federal air quality (ozone) standards according to our county monitoring records.

Our 1999 UCSB studies were made on a special case of marine seeps; one of the world's most active. However, these seeps occur over a limited area. To extrapolate the findings of our studies beyond the Coal Oil Point area cannot yet be substantiated, and there are many reasons to caution against generalizing our study results to the greater Santa Barbara Channel, much less to the California continental shelf.

Sincerely,

Bruce P. Luyendyk
Professor of Marine Geophysics
UC Santa Barbara

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[1] Quigley, D. C., J. S. Hornafius, B. P. Luyendyk, R. D. Francis, J. F. Clark, and L. Washburn (1999), Decrease in Natural Marine Hydrocarbon Seepage near Coal Oil Point, California Associated with Offshore Oil Production, Geology, 27 (11), 1047-1050.

[2] Hornafius, J. S., D. C. Quigley, and B. P. Luyendyk (1999), The world's most spectacular marine hydrocarbons seeps (Coal Oil Point, Santa Barbara Channel, California): quantification of emissions, Journal Geophysical Research - Oceans, 104 (C9), 20703-20711.2

Attachment 3

http://www.mcpost.com/article.php?id=695

Winter Storms Wash Santa Barbara's Tar onto Central Coast Beaches Thick Tar Balls from Naturally Occurring Seepage

By Monica Woelfel March 6, 2007

On Feb. 23, the state Department of Fish & Game's Office of Spill Prevention and Response (OSPR) identified the source of the tar balls that have been washing up on local beaches. The tar, according to OSPR information officer Rob Hughes, is "Monterey formation crude" from a natural seep, and does not originate, as some had feared, from offshore drilling or from an oil tanker spill.

"There isn't much we can do about that except monitor it," Hughes said of the natural source. "We're waiting for nature to clean itself up."

Fortunately, according to Hughes, "There hasn't been any wildlife impact and there haven't been any [human] health concerns."

Petroleum and environmental geochemist Fran Hostettler has been working with the Monterey Bay National Marine Sanctuary Project for years.

"There are no known seeps in the Sanctuary," she said. "That's why people pay attention whenever tar shows up, because it could be from an oil spill."

The findings of the OSPR lab, however, are no surprise to Hostettler. For decades, she and other researchers have documented the presence of tar balls on Monterey Bay beaches that come from natural seeps as far south as Santa Barbara.

In the latest instance, the tar started washing up on the Central Coast from Asilomar at Pacific Grove to San Francisco's Ocean Beach on Feb. 10 and continued to come ashore for about a week.

Aside from the tar balls, no other evidence of a potential oil spill (such as oiled wildlife) was found.

"It was reported to our department from the public," said local Fish and Game warden Jess Mitchell, of the tar washing up. "I collected a few samples down at Asilomar State Beach. They were flat, like a pancake and pliable. They ranged from the size of a dime to about 4 inches by 8 inches."

According to Hostettler, past reports have documented flattened tar balls as large as three feet in diameter.

Tar Balls Date Back Thousands of Years

In addition to Mitchell's samples from Asilomar, OSPR, San Mateo County and State Parks staff collected recent tar balls in February from Fitzgerald Marine Reserve, and Manresa and Sunset State Beaches.

Fish and Game officers sent the samples to OSPR's Petroleum Chemistry Laboratory in Rancho Cordova for analysis. The lab was able to "fingerprint" the oil, using gas chromatography-mass spectrometry analysis.

Any sample of oil has a mix of specific chemicals within it, explained Hostettler.

"The ratio of the amounts of different chemicals within the sample," she said, "gives you that oil's fingerprint."

Two samples of oil from the same source, she said, even if they are collected from locations far apart, will give exactly the same fingerprint.

Scientists can pretty easily distinguish natural-seep tar from that which has been drilled out, according to Hostettler.

"The stuff that comes up from deep down is not as degraded," she said. "These seeps are very close to the surface."

As a result, microbial systems have degraded it.

For those who have known the Central Coast beaches well over the years, the appearance of tar balls is not all that surprising. Last year, Mitchell said, he saw a similar event happen.

Hostettler's historical re-search turned up interesting results.

"These tars have been showing up here for thousands of years," she said."

In fact, she found reports that some boats of the original Indian residents of the Monterey Bay area were sealed for waterproofing using tars from the same source.

"Essentially what happens," said UCSC earth sciences professor Gary Griggs, director of the Institute of Marine Sciences, "is those hydrocarbons seep out of the sea floor. The light stuff evaporates and the heavier tar balls form and move with the currents."

He said that currents bring the tar north in winter.

"During the summer and fall the coastal current is going south," Griggs said. "But in the winter months the Davidson Current, which is near shore, is going north. And that is a mechanism to move tar balls from the Santa Barbara Channel up to the Monterey, San Mateo, and Santa Cruz coast."

Weathered tar balls are not very sticky while they're in the ocean, therefore they pose a minimal threat to marine life, according to the Department of Fish and Game. Once on shore, however, the sun's warmth melts the tar some, making it sticky and potentially a hazard to marine life and pets.

Fish and Game officials remind the public that oil, even from natural sources, contains hazardous chemicals, and the public should avoid contact with the tar balls. The tar must be removed from beaches by people with personal protective equipment, and disposed of at a licensed hazardous waste facility.

If someone has reliable evidence that an oil spill may have taken place (in this or any other instance), they should contact the Department of Fish and Game's CalTIP (Californians Turn In Poachers and Polluters) toll-free at 888-DFG-CALTip (888-334-2258).

Attachment 4

February 20, 2009

The Honorable Nick J. Rahall II
Chairman
Committee on Natural Resources
1324 Longworth House Office Building
Washington, D.C. 20515

RE: Natural Resources Committee hearing Wednesday February 11, 2009

Dear Chairman Rahall,

Thank you for providing me the opportunity to testify before the Committee on Natural Resources on February 11. I hope that my testimony and answers were helpful to the Committee's work. I would also like to respond to several aspects of a letter sent to you by Bruce Luyendyk regarding me and the organization SOS California, and references to the letter by Rep. Lois Capps which were directed to me in the February 11 Committee hearing. I only have had an opportunity to view the contents of the letter after the hearing.

The statement in the letter from Dr. Luyendyk that I represent "the industry group Stop Oil Seeps (SOS)" may suggest that I and SOS represent an industry, which is not the case. The issues we are addressing as an independent non-profit are a confluence of offshore oil and gas, the marine and coastal environment, long term quality of life issues, renewable energy and responsible governance.

The statement in the letter that "The SOS premise is based on interpretation of two 1999 UCSB studies" is misleading for several reasons. It has been overwhelmingly obvious to long time Santa Barbara and "South Central Coast" residents, and members and supporters of SOS California that the amount of oil and tar on their beaches has been declining for decades and their belief is that offshore oil production has been the cause of this benefit. These very long term environmental benefits have previously received virtually no public acknowledgement and are even resisted by some organizations that apparently do not wish the public and policy makers to be aware of these benefits. I addressed SOS California's view of the economic benefits and safety aspects of California and U.S. offshore oil development in my written testimony.

The likely connection between the reduction in seepage pollution and offshore oil and gas production has been known to many geologists not associated with the UCSB 1999 study and they have expressed the opinion that the 1999 study findings of seepage reduction and net environmental benefit are "no surprise" and also the expected result of resource extraction in many other seep areas offshore south central California. SOS California would be pleased at your request to provide the Committee on Natural Resources a portfolio of information documenting the seepage oil and tar pollution reductions along California's south central coast beaches and ocean waters over the past 50 years independent of the above referenced 1999 studies.

We believe that the benefits of seepage pollution reductions through offshore oil and gas production should be a significant factor in the policy consideration for resource planning for future offshore oil production. I would note that the issue of long term seepage pollution reduction and the associated environmental benefits appears to have never been a federal or state policy consideration for offshore oil and gas production and SOS California believes this has been a policy deficiency that should be corrected.

The letter from Dr. Luyendyk further states, "To assume that natural marine seeps are a source of pollution that needs to be controlled ignores the fact that they have coexisted with the natural environment of the Santa Barbara Channel for

more than half a million years. Ecosystems have developed around them and are fully adapted." I would note that if the current seepage rates in the major seep zones off the coast of California which have not been explored with modern 3-D seismic were to continue in time for only an additional 20% longer, then there are offshore resources well beyond 7 billion barrels equivalent (BOE). These resources would be within close proximity to coastal infrastructure and extractable through safe slant drilling which would eliminate all California oil imports for 30 years (400,000 barrels per day) and provide an additional 260,000 barrel per day surplus. With respect to the ecosystem, there is no evidence that humans, other mammals, birds and many other species are "fully adapted" to oil and gas pollution. The suggestion that the seepage pollution is benign defies common sense and ignores standard environmental regulatory agency policies concerning pollution sources and hazardous substances.

I have attached a front page newspaper article, dated August 28, 2008, in which a surfer describes a typical experience surfing in ocean waters contaminated with natural seepage near Santa Barbara. The surfer states, "It's been pretty bad out there. When I go out surfing for an hour I can literally feel the tar and oil in the back of my throat. I actually get a sore throat if I go surfing too long," The EPA and CARB (California Air Resources Board) define geogenic (seepage) emissions to be pollution whether natural or man made. The California Department of Fish and Game treats oil and tar seepage collected on California beaches as a hazardous substance and requires its disposal at a hazardous waste facility. Bird death estimates off the south central coast of California from natural seepage pollution in the last 40 years significantly exceed bird death estimates due to all California offshore oil spills, including the 1969 oil spill. In January 2005 there were 1400 oil covered birds that were injured or dead collected on California beaches in one incident alone due to "natural" offshore oil seepage. Generally total bird casualties far exceed the number of birds actually collected.

Dr. Luyendyk's letter then states, "Fumes from seeps, although noxious up close, are barely detectable onshore." I find this statement to be surprising and contradicted by the facts in detailed peer reviewed published research, including studies sponsored by the U.S. Minerals and Management Service on California South Central Coast Air Quality. In a series of studies published in the Journal of Applied Meteorology, May 1991, the issue of geogenic (seepage) air pollution emission levels in the region was studied. In one of the papers, titled "Factor Analysis of Hydrocarbon Species in the South-Central Coast Air Basin", page 733, the paper identifies two major sources of hydrocarbon air pollution in the region, surface transportation vehicles and geogenic (seep) sources. The study summary states "The second major source is high in methane, ethane, and propane, but also contains reasonable amounts of butane and pentane. This type of composition suggests a geogenic source." I have attached the abstract and first page of the study.

I would encourage that the Committee staff read the full set of studies that detail the levels and sources of hydrocarbon air pollution that are estimated from the air sample data which is the basis for the estimates and air quality modeling over the regional population centers. It is clear that the seep emissions are a major source of the regions air pollution. I would also note as a Santa Barbara Air Pollution Control District Community Advisory Council Member that the 2007 Santa Barbara Air Pollution Control District (APCD) Air Quality Plan Inventory estimates total ROC (reactive organic compound) seep emissions to be 6,075 tons per year, compared to ROC's from all on-road vehicles of only 4,846 tons, and note that man-made ROC's are heavily regulated due to their environmentally damaging health effects.

I also believe the statement in Dr. Luyendyk's letter, "This natural phenomenon contrasts sharply with industrial oil spills, which are sudden acute events of obvious stress to the marine environment." may not be entirely representative for California south central coast oil pollution. I have attached a published, July 4th, 1925 eyewitness account of the 1925 earthquake offshore oil release in an area previously free of seepage which speaks for itself. Other eyewitness accounts corroborate the nature of the massive and sudden 1925 earthquake release of offshore oil.

In the last 40 years, there have been only approximately 872 barrels of oil spilled due to offshore production versus 2 million barrels from natural seepage in that 100 mile region. The offshore area near Coal Oil Point near Santa Barbara is estimated to contain approximately half of the south central coast oil and gas seeps, with most of the other half concentrated in the Santa Maria Basin state and OCS waters off the coast of northern Santa Barbara County. Many of the Santa Maria Basin seepage areas are also very active with high concentrations of oil, tar and gas seepage pollution in proximity to discovered but off limits oil and gas resources ("Geological Controls of Hydrocarbon Seeps in Santa Maria Basin, Offshore California", Dr. Peter J. Fischer, Joseph M. Saenz, AAPG 2003)

In response to the statement in Dr. Luyendyk's letter, "If it is successfully argued that seeps need to be controlled, then indiscriminate drilling offshore is not the clear solution. This is because not all oil reservoirs in the offshore are seeping. Therefore drilling them would have no impact on seepage." I would note that in my Committee testimony in reference to California offshore, I referred to "11 of 13 reservoirs are overlaid by active seeps in state and OCS waters". Most of these reservoirs are in the Santa Maria Basin and surrounding area, which has very active oil, tar and gas seeps, including areas near Point Conception that have very extended areas offshore encompassing seabed oil and tar seeps and tar mounds covering the ocean floor that are 12-15 feet thick. The beaches all along the coast in this region are also heavily impacted from oil and tar from natural seepage pollution.

In the same letter the statement that "It is also important to realize that the drilling-seepage relationship could be in question if aggressive artificial means to enhance subsurface production were employed, as is often the case for mature oil reservoirs. Seepage could in fact increase over time negating the expected positive effects." fails to note that the offshore platform (Holly) in the 1999 study has seen major reductions in surrounding seepage, even with the use of standard re-injection practices for aging fields.

This issue should be viewed in the context that reservoir pressures can indeed be managed by offshore field operators, and as part of the regulatory process, consideration for maximizing field production while maximizing seepage reductions can be included in the approval process. In this light, the seepage reductions due to reservoir extraction can be even greater then would otherwise be the case.

Most of the discovered, but off-limits California state and OCS hydrocarbon resources and seepage zones are within reach of land based slant drilling which would have no new risk of an offshore spill. In the case of offshore production, a single offshore platform now has the capability to drain a hydrocarbon resource basin and seep zone area covering 80 square miles.

In addition to offshore oil and gas resource potential, resource size, proximity to infrastructure, economic potential, potential adverse environmental impacts and safety, SOS California believes that the potential for seepage pollution reductions is a significant policy consideration that heretofore has not been recognized. We also strongly encourage that future royalties from any new offshore production be directed to funding solar electricity and electric vehicles and other renewable energy programs.

I would be pleased to provide any additional information on the issues of energy, natural resources and the environment that may be helpful for the Committee's work.

Sincerely,

Bruce Allen
Co-Founder
SOS California

[NOTE: Additional attachments have been retained in the Committee's official files.]

The CHAIRMAN. Mr. Angers.

STATEMENT OF JEFFERSON M. ANGERS, PRESIDENT, CENTER FOR COASTAL CONSERVATION

Mr. ANGERS. Mr. Chairman and members, my name is Jeff Angers. I am the President for the Center for Coastal Conservation. I am a native Louisianian.

We have talked a lot about Louisiana here this morning and this afternoon, and I am a recreational fisherman. The center is a coalition of the leading advocates for marine recreational fishing and boating. Our mission is to promote good stewardship of America's marine resources.

I was asked to discuss today the compatibility of recreational saltwater fishing with the oil and gas industry. Not only do the two industries coexist in Louisiana, but they both thrive. To start, I would like to quote from the *Accord for New Sustainability for America's Energy Coast,* which is an initiative sponsored by America's WETLAND: "Host to almost 90 percent of America's offshore

oil and gas supply and a third of all oil and gas consumed in this country, the region is connected to 50 percent of the Nation's refining capacity. It is home to the largest port system by tonnage in the world, moving the bulk of America's waterborne commerce. The region also provides habitat for dozens of endangered and threatened species and millions of migratory waterfowl and songbirds. The region produces more than a third of the fish caught in the Lower 48, and our coastal wetlands serve as a nursery ground for marine life throughout the entire Gulf of Mexico."

Mr. Chairman, one of the addendums to my testimony was this accord published by America's Wetlands, which was a collaborative effort brought together by government, industry, the national conservation community, academia, and all the major stakeholders. And as this Committee discusses a collaborative process to move forward, this would be a model that I would commend to the Members of the Committee.

Though I am not an energy expert, I can give you a couple of facts about the oil and gas business in Louisiana. Louisiana ranks first in crude oil and second in natural gas production. The total direct and indirect economic impact of the oil and gas industry in Louisiana is $65 billion. Clearly, it is a big business.

There is a companion big business in Louisiana about which I am here to testify today, and that is the recreational saltwater fishing industry. Just last month, NOAA reported that Louisiana was one of the top five States in economic impact of saltwater angling; $2.9 billion pumped into the Louisiana economy just from recreational saltwater fishing. The other States that were atop that list were: Florida, $16.7 billion from recreational saltwater fishing; Texas, $3.2 billion; California, $3 billion; Louisiana, as I said, $2.9 billion; and North Carolina with $2 billion. The overall $31.4 billion in total U.S. expenditures in 2006 contributed $82 billion in total sales; $39 billion to the gross national product; $24 billion in personal income; and supported nearly 534,000 jobs.

Commercial fishing is another big business in Louisiana that coexists and thrives with the recreational fishing industry and the oil and gas business. The commercial fishing industry generated $2.1 billion in sales in 2006, $1.1 billion in income, and supported 46,000 jobs.

Structure and infrastructure is something that we have talked a lot about today. Ninety percent of the more than 4,500 oil and gas-related structures in the Gulf of Mexico are in Louisiana waters or in our adjacent waters. Since the first offshore platform was built in the 1940s, these structures have been very important. First, they have, in recent years, provided the United States with a quarter of our oil and gas requirements. They have also served as hard structures in an otherwise soft bottom environment for reef fish to grow and prosper. Thanks in large part to the leadership of former Senator John Breaux, who sponsored the National Fishing Enhancement Act of 1994, coastal States began to establish artificial reef programs, converting many of these rigs into permanent artificial reefs. The "Rigs-to-Reefs Program" has been nothing but an overwhelming success in the entire Gulf of Mexico.

Beyond the structure offshore, which anglers target—because clearly you want to go to where the fish are—we like to tell every-

one, "Come to Louisiana because we have all the fish"—we target fish on the structure but also the infrastructure that we enjoy onshore really comes about in large part because of what the oil and gas industry has created for themselves, and we are somewhat of a secondary beneficiary. There would not be four-lane highways to many of the coastal fishing destinations in rural Louisiana were there not a bigger business, and that indeed is what the oil and gas industry has been.

There has been a lot of talk about wetlands loss in Louisiana and coastal erosion. Surely all of the industries that operate on Louisiana's coast have contributed to the wetlands loss, but thanks to the foresight of the Members of this Committee and of the Congress in 2006 passing the OCS revenue sharing bill, Louisiana is seeing some of the revenues that are going to be able to help us to restore our coast.

Going forward, one recommendation that I would like to recommend to the Committee would be the inclusion of a process similar to the permitting of offshore LNG terminals that was established years ago. The reliance on adjacent State Governors for input added a very positive dimension to the policy debate around LNG sighting and permitting in the Gulf of Mexico.

That concludes my testimony, and I will be happy to take any questions, Mr. Chairman.

[The prepared statement of Mr. Angers follows:]

Statement of Jefferson M. Angers, President, Center for Coastal Conservation

Good morning Mr. Chairman. My name is Jeff Angers, and I am the President of the Center for Coastal Conservation, a native Louisianian and a recreational fisherman. I would like to thank the Chairman for this opportunity to address the Committee as it begins its consideration of the measures to facilitate offshore energy development.

The Center is a coalition of the leading advocates for marine recreational fishing and boating. It is dedicated to promoting sound conservation and use of ocean resources. Our mission is to promote good stewardship of America's marine resources.

I was asked to discuss the compatibility of offshore energy development with recreational fishing in coastal areas. Not only do the two industries co-exist in Louisiana, but they both thrive.

Coastal Louisiana is the portal for 27 percent of America's oil and gas. It is home to the largest port complex in the country. Coastal Louisiana produces over half of America's shrimp and is the leading producer of oysters. It also supports a recreational fishing industry for 1.2 million American anglers which pump $2.9 billion into Louisiana's economy.

Oil and Gas: Big Business

Although I am not an energy expert, a couple facts and figures about oil and gas in the "Sportsmen's Paradise" should be set forth at the outset: Including current Outer Continental Shelf production, Louisiana ranks 1st in crude oil and 2nd in natural gas production. Excluding OCS production, Louisiana ranks 4th in crude oil and 5th in natural gas production.

According to Mid-Continent Oil and Gas, the total direct and indirect economic impact of the oil and gas industry on Louisiana is approximately $65 billion. The direct impact comes from the taxes, royalties, fees, salaries, and other money spent in Louisiana by the oil and gas industry. The indirect impact results from the salaries and wages earned by oil and gas employees being spent in the state as well as service companies.

The offshore industry operating in the Gulf of Mexico just outside the state's territorial boundaries has a huge impact on the state. A study conducted by Applied Technology Research Inc. shows that the offshore industry has a direct impact of $3 billion on the state. The offshore industry pays more than $500 million in salaries and wages to people working in the Gulf of Mexico. Another $2.5 billion is spent

with companies operating in Louisiana and doing business with the offshore industry. It is important to remember that everything used on an offshore platform has to come from somewhere onshore.

Recreational Fishing: A Companion Big Business

Just last month, the National Oceanic and Atmospheric Administration reported Louisiana was one of the top five states in economic impact of saltwater angling: $2.9 billion pumped into the state's economy. Nationally, saltwater anglers are estimated to have spent $5.8 billion on trip-based expenses, such as ice, bait, and fuel, and another $25.6 billion on fishing equipment and durable goods like fishing rods, fishing tackle, and boats.

The top five coastal recreational fishing states were Florida ($16.7 billion), Texas ($3.2 billion), California ($3.0 billion), Louisiana ($2.9 billion), and North Carolina ($2.0 billion). In addition to quantifying angler expenditures, this study examines how these expenditures circulated through each state's economy and the national economy using a regional assessment. The $31.4 billion in total U.S. expenditures in 2006 contributed $82.3 billion in total sales, $39.1 billion to gross national product, $24 billion in personal income, and supported nearly 534,000 jobs.)

Commercial Fishing: Another Big Business

Louisiana's commercial fishing industry generated $2.1 billion in sales (mostly menhaden, shrimp and oysters), $1.1 billion in income and supported 46,000 jobs.

The fishing and oil and gas industries in Louisiana are strong economic engines.

Structure and Infrastructure

Ninety percent of the more than 4,500 oil and gas-related structures in the Gulf of Mexico are in Louisiana waters or adjacent waters. Since the first offshore platform was built in the 1940s, these structures themselves have been very important to America:

1. They have in recent years supplied our nation with 25% of its oil and gas requirements, and
2. They have served as hard structures in an otherwise soft-bottom environment for reef species to grow (including barnacles, corals, and all sorts of other reef animals). This species growth, in conjunction with the cover provided, makes the structures an ideal habitat for all sorts of commercial and recreational fish, especially snapper, grouper, cobia, amberjack and various mackerels.

The presence of these fish gives them economic importance, since fishing is big business. When large numbers of scuba divers who frequent the rigs and nearby commercial fisheries are included, the result is the creation and maintenance of many jobs and a large tax base.

Thanks in large part to the leadership of former Senator John Breaux, who sponsored the National Fishing Enhancement Act of 1984, coastal states began to establish artificial reef programs converting many of these rigs into permanent artificial reefs. The rigs-to-reefs program has been nothing but an overwhelming success in the Gulf of Mexico.

Beyond the structure offshore which anglers target having the largest aggregations of fish, the onshore infrastructure provided mostly by the oil and gas industries provides access to coastal waters that anglers would otherwise not enjoy.

Wetlands Loss

Louisiana has lost 1,900 square miles of land since the 1930s (an area roughly the size of Delaware). Still the state has 30 percent of the total coastal marsh and accounts for 90 percent of the coastal marsh loss in the lower 48 states. Coastal Louisiana is losing about 10.3 square miles of vegetated wetlands per year (one football field every 90 minutes). The primary culprits:

- Levees have cut off sediment replenishment from the overflow of the river.
- Oil and gas exploration and pipeline canals have allowed salt water intrusion into freshwater areas.
- Navigation channels have also allowed the distribution of salt water into fresh areas.
- Natural sinking of the sediments and natural sea level rise.

Coastal restoration efforts are more important than ever to Louisiana and its estuarine environment. Thanks to OCS revenue sharing legislation championed by Sen. Mary Landrieu and former Rep. Bobby Jindal, Louisiana will see substantial federal revenues to help save its coast.

Compatibility

The fishing and oil and gas industries have co-existed in Louisiana for half a century. And they've worked well together.

Going forward, I would like to recommend to the Committee the inclusion of a process similar to the permitting of offshore Liquefied Natural Gas terminals. The reliance on adjacent state governors for input added a positive dimension to the policy debate around LNG citing and permitting.

TRCP's "CAST" Principles

Continued offshore energy exploration and development is an important augmentation to the nation's plan to become energy independent. Oil, gas, wind and wave power facilities are all technologically and economically feasible. We must be mindful in the development of any program that the citing and impact of these efforts could be crucial to existing uses of the ocean.

Recently the Theodore Roosevelt Conservation Partnership adopted a set of principles to guide in the development of offshore energy development. The coalition recognized that offshore energy development of all kinds is an important part of our energy security. It also recognized that marine recreational fishing is part of America's heritage and highly dependent on a healthy marine ecosystem. In addition to the fundamental environmental protections needed to protect that ecosystem, the coalition endorsed four concepts, called their "CAST Principles."

Conservation: Conservation concerns must top all others. A network of conservation areas important to recreational fishing and conservation must be established before offshore energy leasing and development should proceed. Those places crucial to the vitality of fish populations, recreational anglers and coastal economies should be restricted. Concurrently, the Minerals Management Service, the agency responsible for overseeing offshore development, should adopt and adhere to a new standard operating procedure that strives to balance the concerns of all ocean users.

Allocation: Allocations of the royalties paid to the federal government by industry for offshore energy development must be used primarily to benefit aquatic resources. A significant portion of any such royalties must be directed to marine research and recreational fisheries conservation. Several vehicles already exist to ably deliver these funds.

Science: Science-based, adaptive management strategies that respond continually to emerging information should be required for all offshore energy development projects. These strategies should begin with species inventory, include population monitoring and analysis, and carry through to any mitigation phase. Where gaps in data exist, they must not be used to justify development. Rather, they must serve to highlight areas where additional study is immediately necessary.

Transparency: Transparency must characterize the management of all public trust resources. Not only does this mean that the decisions affecting our shared aquatic species must be made in a manner that allows public oversight, it also means that public comment must be addressed and integrated during the decision-making process.

These principles represent a responsible way forward as the nation develops its offshore resources. Recreational anglers, like all sportsmen, have always been the first line of defense for coastal and marine environments, and their voice must be heard when considering the future for these special places.

The coalition believes that the development of these offshore resources can be done in an environmentally responsible manner that protects the traditions of recreational anglers. In that regard I would like to point out how oil and gas development have worked together with Louisiana recreational fishermen to provide a healthy resource and additional habitat.

OCS Revenue Sharing

In 2006 while still with the Coastal Conservation Association, I testified on H.R.4761, the Domestic Energy Production through Offshore Exploration and Equitable Treatment of State Holdings Act of 2006, a bill designed to increase offshore energy development while protecting important fisheries habitat. The principal elements of that bill facilitated the recovery of one of Louisiana's most important resources, its coast and coastal habitat.

Most of the fish species harvested in the Gulf of Mexico are estuarine dependant. And coastal habitat loss along the Gulf has a direct correlation to the health of fishery stocks. Louisiana is the Sportsman's Paradise because of the productivity of this habitat, which coexists with oil and gas industry. Improvement of habitat and reversing the degradation of our wetlands provides a multiplicity of benefits, one of which is better stewardship of these nursery grounds.

As we all know, the Gulf of Mexico has successfully been the site of oil and gas extraction for the last 50 years. One of the unintended benefits of that extraction has been the creation of fisheries habitat, particularly for reef fish. The most well-known reef fish in the Gulf is red snapper, a prized recreational fish and the pri-

mary target species for a number of charter boat fishermen in the upper Gulf. The members of this Committee are familiar with the ongoing efforts to restore and rebuild the red snapper fishery. What members may not realize is the importance of the habitat created by the offshore oil and gas industry to that rebuilding process.

Red snapper have been commercially harvested in the upper Gulf for over 100 years. As early as the 1880s, there were federal research efforts to find harvestable quantities of red snapper. Today the fishery is rebuilding from being overfished by the directed fishery and particularly by extensive bycatch from the shrimp fishery.

After World War II, three events occurred which impacted red snapper. The first: a dramatic expansion of the shrimp fleet resulting in an incredible bycatch of snapper. Secondly, an influx of people to coastal communities, many of whom were—or were to become—anglers. Both of these events increased the mortality of red snapper. The third event (more of a journey) has helped increase the abundance of red snapper. The structures facilitating extraction of the oil and gas from the Gulf have created habitat. And better and more habitats have created more fish.

Many of the rigs now in place are nearing either the end of their useful life or the end of their license period. When they were put in place, most companies and regulators thought well heads ought to be capped; structures removed; cleaned up, and disposed of on shore. For a number of years, recreational interests have supported the use of oil and gas rigs as artificial reefs. Gulf recreational fishermen continue to be beneficiaries of rigs converted to reefs much closer to shore.

Many scientists have studied the impact of this method of habitat enhancement to determine if it creates more fish or simply aggregates fish from surrounding habitat making them easier to catch. The debate for the most part seems to be endless, but the red snapper example seems to produce the most definitive long-term result. Yes, new habitat creates more fish. Sound fishery management is necessary to address the health of the entire stock, but more fish is still better than less. Artificial reefs are new habitat or continuing habitat, and we support their use inshore and off.

We would like to work with the Committee to ensure that the fishery management system now in place is included in determinations. State fish and game agencies, regional Fisheries Management Councils and the National Marine Fisheries Service all have responsibilities that will be impacted by the decisions made to allow offshore energy development. All of them have a positive role to play in these decisions.

Mr. Chairman, that concludes my testimony, and I would be happy to take questions.

The CHAIRMAN. Thank you. The Chair would advise the panel just by the way of House announcement that we are voting on the Floor now. So, in about 5 minutes, we will recess the Committee for approximately 15 minutes, more like 20, so we can go over and answer these votes, and then we will come back and resume the Committee hearing.

Let me begin.

Ms. McCormick and Mr. Minich, I certainly appreciate all that you had to say about the benefits of travel and tourism industry as it relates to your coastlines. Probably any summer or anytime during our miners' vacation in West Virginia, you will find as many license plates from my home State of West Virginia at your respective places as you will from your own home State. So, it is a very popular area.

And of course, Mr. Minich, as I grew up as a youngster my family had a chain of radio and TV stations. The corporate headquarters was in St. Petersburg—WLCY TV and radio—and I always went down with my father during the summers and spent summers as a kid at the old Don CeSar Hotel in St. Petersburg Beach. I don't know if it is still there or not. So, I certainly know of benefits of tourism to your area and how popular it is.

Mr. Grader, I was particularly struck by the comparisons you made between the current efforts to expand offshore oil drilling

with your experiences in the late 1970s, when oil companies promised that new production off the California coast would provide multiple benefits with virtually no risks or conflicts with the fishing industry. Clearly, your industry rejected that as a false promise then and continues to reject the cry of "drill, baby, drill" today, urging us instead to "think, baby, think."

With that in mind, can you elaborate on the actions that you think at a minimum must be taken to ensure that any new drilling that is allowed to occur does not undermine the economy of the fishing industry in California and elsewhere?

Mr. GRADER. As I said, I think there are some areas that if we do—if the moratorium remains lifted, that is, we proceed ahead with drilling, that there are some areas that permanently need to be taken off the table. And again, I say Bristol Bay and part of the Arctic, certainly Northern California area, and the Georges Bank. And then there are certainly some other areas that may be under consideration, for example, the Outer Banks. I don't know those areas as well. But I think certainly—and you have a copy of my testimony—some mitigation measures that were suggested by the United Fishermen of Alaska, which I think are very good. Now, this is no left-wing conservation group. They have year-in and year-out endorsed Senator Stevens, and all that. These are pretty rock ribbed—many of them rock-ribbed Republicans, so there are no leftists out there, and I think they came up with some very good suggestions on the measures that need to be taken—both as far as preplanning the type of standards we have to put in place for oil drilling that is going to occur where fishing is, and then the types of mitigation and compensation that have to be put in place. I think those are there at a minimum.

The other thing I should point out, and it came up this morning, is that there has been a lot of discussion—we are certainly very enthusiastic about developing offshore renewable power sources. I remember Mike Patching at the time about 30 years ago was first proposing wave energy to develop hydrogen to power fishing boats.

Mr. GRADER. Unfortunately, I think he came along 30 years too soon. But we do need to do some really good planning for that, because right now what we have is a very dysfunctional planning service. We are going through this right now in Northern California—and certainly in Oregon and Washington they are, too—about planning for these renewables, and it really is a mess. You have the Minerals Management Service doing one thing, the Federal Regulatory Commission doing something else. We really do need to consolidate the process and make it comprehensible and make it make sense, because right now that process doesn't—certainly, that is one of the alternatives that we need to come up with to offshore drilling.

The CHAIRMAN. Thank you very much.

I believe we will recess at this point for 15 minutes so we can go vote. The Committee stands in recess.

[Recess.]

The CHAIRMAN. The Committee will resume.

The Chair will recognize the gentleman from Washington Mr. Hastings.

Mr. HASTINGS. Thank you very much, Mr. Chairman.

Let me correct a statement that Mr. Grader made. He referenced a Mr. Hastings coming out with a statement on the Antarctic, and that was not Mr. Hastings, it was Mr. Inslee. But I just wanted to correct that for the record. We are both from Washington.

I just want to ask a question of all of you, and just a "yes" or "no" question, if you would. Do you support the reinstatement of the Outer Continental Shelf oil and gas moratoria that was put in place in 1982?

And I will start with Ms. McCormick.

Ms. MCCORMICK. Yes, we do support.

Mr. HASTINGS. Mr. Minich?

Mr. MINICH. Definitely, yes.

Mr. HASTINGS. Mr. Grader?

Mr. GRADER. Yes.

Mr. HASTINGS. Mr. Allen?

Mr. ALLEN. No.

Mr. HASTINGS. Mr. Angers?

Mr. ANGERS. No.

Mr. HASTINGS. Just for the record, Mr. Chairman, I note that we have had seven panelists on these two panels today. And I know this is the first of three meetings on OCS, and I know we will go into a lot more detail, but I just note for the record that five of the Majority witnesses were "no," and two of the Minority's were "yes" as far as the moratorium.

The CHAIRMAN. Would the gentleman yield quickly?

Mr. HASTINGS. I would be happy to yield.

The CHAIRMAN. As you mentioned, this is the first of our hearings, and we will have the other side amply represented before all is said and done.

Mr. HASTINGS. I may save that question even for them, too, but thank you, Mr. Chairman.

I would like to ask Mr. Minich and Ms. McCormick a question. When we had the high gas prices last summer, did that affect your industry in your respective areas? I know, Mr. Minich, yours is a different time of the year, but nevertheless, I am sure there are people who go to Florida in the summertime. Did it affect your industries?

Mr. MINICH. We targeted the instate market very heavily, a drive market. And even with the $4-a-gallon gas prices, people were not ready to give up their vacation because the tank of gas was going to be $70, versus $30 or $40. Where we were concerned was with the airline industry, because a good portion, 70 percent, of our folks come in by air, and we were concerned about the airline prices.

But overall, our summer business was stable, and we actually picked up or gained 25 to 35 percent over the summer each month with European visitation because of the weakness of the dollar. So, overall, our summer was good, despite the fact that there were $4-a-gallon prices.

Ms. MCCORMICK. Thank you. That is a very good question.

June, July and August represent 66 percent of the revenue of the Outer Banks, which includes three counties where revenues come from. And we were certainly blessed that we did see an increase in visitation, but due to the same things that my colleague here did, we refocused our advertising efforts and spoke to people within

a tank's drive. Now, it did have an impact on our camping industry and those that use recreational vehicles because the cost was so high.

There is another thing that we had put into place and continue to put in place, and that is advocating carpooling. Instead of bringing three cars to one of those big houses on the beachfront, we push and promote the fact that people need to actually leave a couple cars at home and come on vacation. Now, that is not to say that the current state of today's economy is not going to have an impact on our summer——

Mr. HASTINGS. I was talking specifically on gas prices. So, you didn't see much of one because of your advertising?

Ms. MCCORMICK. Yes, sir.

Mr. HASTINGS. And, Mr. Minich, you said that your increase came from overseas. Did I hear you correctly?

Mr. MINICH. The majority of our increase came from overseas, but then the instate made up for—we did see losses from our core markets in the Midwest and Northeast.

Mr. HASTINGS. How did the Europeans get there?

Mr. MINICH. All by air. And it is primarily through the gateway cities of Orlando and Miami, and then they rent cars.

Mr. HASTINGS. And just to make a point, how do the airplanes get from Europe to Orlando and Tampa?

Mr. MINICH. How did they get there?

Mr. HASTINGS. Yes.

Mr. MINICH. They flew.

Mr. HASTINGS. What powered them?

Mr. MINICH. Fuel.

Mr. HASTINGS. I just wanted to make that point.

I might also make another point on this, and that is, with the new generation of airplanes, specifically the 787, it is all carbon composites, which is a derivative of oil and gas. Now, we had a bit of a discussion earlier on here about the byproducts of oil and gas, and it is something that is going to be with us in our economy for a long time. And thank you for answering that way.

Mr. Allen, you mention in your testimony—and I will be very brief here, Mrs. Capps—you mentioned in your testimony about an oil spill here some—let us see, what year was that? I think it was—well, in your testimony you mention that. And you mention there were some 5,000 sea birds that were washed up, and it was quite a slick—25 miles, or something like that. But yet, I think in your testimony you also said that there was not a whole lot of discussion on that. Now, why do you think that was the case?

Mr. ALLEN. Yes. That was 2005, in January. There was an oil seep event off the coast of Santa Barbara. It is not well understood. They are not sure why it happened, but it did happen. It created an estimated—there are photos as well, which I brought—about a 25-square-mile oil slick. There were a few reports in the Los Angeles Times and the local paper, but that was about it. It was not reported nationally, at least that I saw. And that oil seep event caused birds to wash ashore from Santa Barbara, from Huntington Beach. They collected approximately 1,400 birds, and the estimates were as many as 5,000 birds or more may have been oiled or killed from that oil seep event. That was in 2005.

Now, that wasn't widely reported, and yet if the same event had occurred, but it had been tied to an oil spill, I believe it would have gotten national recognition and—a lot of national recognition—and been reported extensively in the newspapers. And yet from our perspective, our organization's perspective, it killed just as many birds as a spill would have done and was the same basic oil.

So, it is essentially a pollutant in the ocean, and we view that as a significant issue with respect to our marine environment off the Central California coast. And so, in that sense, because the word "seep" is attached to it or "natural," it gets no recognition within the media. But if a spill is attached to the word, then it gets a lot of attention.

And there are several mentions. In December, there was a 27-barrel spill from Platform A, the same one from the 1969 spill that was mentioned. That got a lot of media attention, both in California and nationally. And I would just point out that spill, which was rare, but that spill was the equivalent of 3 hours' worth of natural seepage along the central coast. So, today, during this hearing, there will be about 200 barrels of oil seepage, and that is, of course, not going to be reported, but that is almost 10 times as much oil in our environment as has occurred from that December spill.

Mr. HASTINGS. If I may continue on this line, how was that cleaned up? What is the response, I guess I should ask, when there is a substantial seepage like the one you cited in 2005? I mean, you are getting enormous seepage all the time, but how is that cleaned up, or does Mother Nature take care of it?

Mr. ALLEN. That is a good question. It is not. The December spill, for example, was immediately cleaned up. And there was a lot of attention, and in a matter of days, it was essentially cleaned up. But the oil seepage, in essence, is never cleaned up, except when it washes up on the beaches. Then it does need to be addressed. And California Fish and Game, for example—the seeps also wash up tar balls as far north as San Francisco and the Monterey Bay. And actually, there it is required to use protective suiting to clean up those tar balls, and it is required to be put in a hazardous waste dump. And yet that is natural seepage, but it is only cleaned up essentially when it washes up on California beaches.

Mr. HASTINGS. So, that spill that did not wash up on the beaches then, somehow Mother Nature took care of that?

Mr. ALLEN. In the 2005 event, because in the winter the currents generally flow north—and it takes the oil seepage and deposits, much of it, along the Monterey coast—that wasn't noticed as much by Santa Barbara County or Ventura and L.A. Counties because the currents were taking it north. If it would have happened during another time of year, and it would have flowed south, much of that would have washed up on Southern California beaches.

Mr. HASTINGS. And finally, how much washed up on the beach? Is there any way to estimate that?

Mr. ALLEN. No, that would be difficult to estimate. From the 2005 event, there were no published statistics on how much there was, but I would point out that there were 1,400 birds that were washed up on California beaches.

Mr. HASTINGS. So, what was washed up was taken care of, and what wasn't washed up was—Mother Nature took care of it-however Mother Nature takes care of those things.

Mr. ALLEN. Correct. It eroded over time.

Mr. HASTINGS. Right. Thank you very much for your indulgence for the time.

Mrs. CAPPS. [presiding.] And to my colleague from Washington, I am fine with the fact that you went over time because I intend to do the same. Since I am sitting in the chair, I was going to take the Chair's prerogative to do that.

And I appreciate the testimony of all of the witnesses here. And I do have questions for several of you, so I will go as quickly as I can, and perhaps we will have some succinct answers as well.

But I do want to start with Mr. Minich and Ms. McCormick. This question is addressed to both of you, but, Mr. Minich, like the coast of Florida, Santa Barbara, where I hail from on the Pacific Coast, is an international tourist destination. Many of my constituents are concerned by the amount of onshore infrastructure that is needed to support offshore drilling operations.

In Santa Barbara County, we have several treatment and processing plants—one right next to a luxury hotel—and dozens of storage tanks and public stations, miles and miles of pipelines. Even without an oil spill, much of this infrastructure is at odds with the nature and economy of our local community, and the tourist industry especially, but for all kinds of purposes. And my question to you both, would increasing the industrialization of the Florida coast affect your existing economic base which relies on tourism and coastal recreation? If you could each give a brief answer to that question.

Mr. MINICH. Absolutely. We actually don't have room for it. While we are home to some of the world's most famous beaches, we are also one of the smallest, geographically, counties in the State of Florida and the most highly densely populated, so we really don't have room. And all of our areas now that are protected, that would be the only place you could move into.

And I think especially on the Gulf Coast of Florida, you look at places like Sanibel Island and down in Naples and that area, and all the way up our coast, Sarasota, we are renowned for the natural beauty, ecotourism, all those kinds of activities. And this counteracts everything that we have been known for and promoting over the years.

Mrs. CAPPS. And Ms. McCormick?

Ms. MCCORMICK. Along the coast of the Outer Banks of North Carolina—as you know, that is a very thin strip of barrier islands, arcs into the Atlantic Ocean. The mainland is 50 miles away. So, when you take a look at land mass—also 7 percent of the land on the Outer Banks is owned by the Department of the Interior—we don't have the land available.

Now, Wilmington, North Carolina, which is a port town that doesn't have the problems that we face as barrier islands, could probably support that meshing of those land-based refineries with their tourism-based economy. But to succinctly answer your question—probably our biggest issue is the land-based.

Mrs. CAPPS. All right. I appreciate that information from each of you.

I want to turn now to my constituent. I welcome you here, Mr. Allen, and I am very familiar with your work, and also the work that your organization, Stop Oil Seeps—SOS, as you call it—has been doing in the community that we both hail from.

Much of your referencing points to work that has been done by Dr. Luyendyk and others at UCSB regarding how drilling can reduce oil seeps. In fact, the references are primarily made to one study, not to an additional study. And I am now referring to a study from Dr. Luyendyk in which he looked at natural seepage at Coal Oil Point, which is right off the shore, actually very near UCSB, from 1996 to 1999. And it is important to note that, despite drilling at Platform Holly right there during all that period of time, the seepage did not decrease during that time. It remained pretty much constant.

Yesterday, Dr. Luyendyk sent this Committee a letter refuting the conclusions that your group draws from his research. And I ask consent now to include that letter, which I have here, into the record of this hearing. And in it he says, and I am quoting now, "I feel that SOS, Stop Oil Seeps, has both overstated the adverse effects of this phenomenon and the overall applicability of the drilling seepage relationship to offshore oil development policy. The marine seeps issues that have been raised by SOS are, at best, not relevant, and at worst, a red herring in a much larger debate." And here is another quote from him. He notes that, "To attribute our findings to the broader offshore with the present state of knowledge is an extrapolation that is not justified either scientifically or as a matter of national energy policy."

And I have a question at this point. Given that Dr. Luyendyk emphatically claims that his research cannot be used to bolster these claims, do you have other scientific evidence that can be used to do so?

Mr. ALLEN. Well, first of all, I think it is a misperception that our work is based on the studies and set of studies that Professor Luyendyk was one of six professors they participated in.

First of all, as you may know, I have been in Santa Barbara since 1984 and have been visiting Santa Barbara since the 1960s. And as Representative McClintock said, it is very clear to long-time Santa Barbara residents that over the last 50 years, oil seepage pollution that washes up on Santa Barbara beaches has been declining, and has been declining significantly.

Mrs. CAPPS. Could I interrupt you to ask you, I listened to Mr. McClintock's testimony, and I have lived on the same coastline since 1964, and I know what it is like to get the vegetable oil out when you come back from a day's outing at the beach with your kids. But that is anecdotal evidence that he gave. And what you are citing to me is not a study either; it is anecdotal evidence.

Mr. ALLEN. What I am saying is that anecdotal evidence, taken with the set of studies from 1999 that were published that Professor Luyendyk was one of six professors of, he also said to me personally and has also said that he stands by the conclusions in those published studies. And if I may just quote from one of those studies, the conclusion in the study was, "The effect of the offshore

oil drilling there was an unexpected benefit to the environment." That was in the conclusion of the study.

He also said, at the Santa Barbara County Board of Supervisors hearing in August, when the County Supervisors voted to support more offshore drilling, he said he stood by the conclusions of that report.

Mrs. CAPPS. Of that particular study. OK. I am just going to make sure that we get this letter inserted.

[The letter submitted for the record by Bruce Luyendyk, Professor of Marine Geophysics, follows:]

February 9, 2009

The Honorable Nick J. Rahall II
Chairman
Committee on Natural Resources
1324 Longworth House Office Building
Washington, D.C. 20515

RE: Natural Resources Committee hearings Wednesday, February 11, 2009

Dear Congressman Rahall;

I recently learned that on Wednesday February 11, 2009, Bruce Allen, representing the industry group Stop Oil Seeps (SOS) will be testifying before your Natural Resources Committee. Because he will be speaking about research that I was part of, I want to be sure my comments are taken into account.

Part of the SOS agenda is to promote offshore drilling and oil production as a means of reducing natural oil and gas seepage and their effects in the Santa Barbara Channel and offshore generally. The SOS premise is based on interpretation of two 1999 UCSB studies [1],[2] on oil and gas seeps offshore Coal Oil Point in Goleta (California), the location of Venoco's oil platform Holly. We documented a decrease in gas seepage over a period of 23 years that we hypothesized was due to continuing oil and gas production from platform Holly (the drilling-seepage relationship). We further speculated that this relationship might be found elsewhere in similar geologic situations should further investigations take place.

The SOS group has been representing our research as a rationale for increased offshore oil drilling as a means of decreasing marine seepage and its effects. As a member of the UCSB seep research team I want to point to several qualifications in this SOS argument. I feel that SOS has both overstated the adverse effects of this phenomenon and the overall applicability of the drilling-seepage relationship to offshore oil development policy.

The marine seeps issues that have been raised by SOS are at best not relevant and at worst a red herring in the larger debate about offshore drilling and national energy policies.

To explain:

- To assume that natural marine seeps are a source of pollution that needs to be controlled ignores the fact that they have coexisted with the natural environment of the Santa Barbara Channel for more than half a million years. Ecosystems have developed around them and are fully adapted. Fumes from seeps, although noxious up close, are barely detectable onshore. This natural phenomenon contrasts sharply with industrial oil spills, which are sudden acute events of obvious stress to the marine environment.
- If it is successfully argued that seeps need to be controlled, then indiscriminate drilling offshore is not the clear solution. This is because not all oil reservoirs in the offshore are seeping. Therefore drilling them would have no impact on seepage.
- Other offshore reservoirs with seeps are being drilled now but these have small seeps in comparison to Coal Oil Point. Any drilling-seepage benefit is unknown but is likely small.
- Some seepages are located where oil production would not occur or be possible; e.g. the National Marine Sanctuary. Drilling elsewhere offshore would not affect these seeps.
- It is also important to realize that the drilling-seepage relationship could be in question if aggressive artificial means to enhance subsurface production were employed, as is often the case for mature oil reservoirs. Seepage could in fact increase over time negating the expected positive effects.

- Finally, the Coal Oil Point field is by far the largest seep source in the California offshore, if not the world, and it already is being drilled with a resulting decrease in seepage, so I consider this "seep problem" as being dealt with now. It is unnecessary and ineffective to drill elsewhere offshore if controlling seepage is the goal.

The Coal Oil Point field is the only California seep field where the drilling-discharge relationship has been proposed. To apply this more broadly to other potential offshore oil reservoirs would require additional investigations. To attribute our findings to the broader offshore with the present state of knowledge is an extrapolation that is not justified, either scientifically, or as a matter of national energy policy.

Our studies at Coal Oil Point are on a special case marine seep field, one of unusually large discharge from a limited area. I do not feel our findings at Coal Oil Point can be applied elsewhere in the offshore without increased levels of study.

Sincerely;

Bruce Luyendyk
Professor of Marine Geophysics

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[1] Quigley, D. C., J. S. Hornafius, B. P. Luyendyk, R. D. Francis, J. F. Clark, and L. Washburn (1999), Decrease in Natural Marine Hydrocarbon Seepage near Coal Oil Point, California Associated with Offshore Oil Production, Geology, 27 (11), 1047-1050.

[2] Hornafius, J. S., D. C. Quigley, and B. P. Luyendyk (1999), The world's most spectacular marine hydrocarbons seeps (Coal Oil Point, Santa Barbara Channel, California): quantification of emissions, Journal Geophysical Research - Oceans, 104 (C9), 20703-20711.

Mrs. CAPPS. I have another question to ask you. A portion of the tar on Santa Barbara beaches does come from seeps, but I am wondering how you conclude, particularly when you are talking about San Francisco Bay, that all of the beach tar is attributable to seepage? According to another UCSB-produced study and recently confirmed by the State Lands Commission, samples collected from natural seepage cannot be differentiated from Platform Holly. In other words, if you see the beach tar, you make the inference that it is seepage, but the tar itself is indistinguishable from that which Platform Holly, in this particular instance, produces.

To me, this implies that artificial sources of oil, such as leakage from platforms and ships, also can contribute to tar. And I am wondering again, do you have scientific evidence, not just anecdotal, but scientific studies that documents the fact that the tar that we see on the beaches or the tar that was collected in San Francisco and had to be specially disposed of is actually seepage tar and not some other kind of tar that comes from a platform or a pipeline?

Mr. ALLEN. On that point, the MMS has sponsored studies where they have done chemical typing of the oil emissions to be able to trace it back to the sources. And California Fish and Game, it was actually published March 6, 2007, at least that I recall, where they stated that, based on the chemical typing of sending those samples to a lab, they traced it back to Monterey formation oil that—at least California Fish and Game believed—came from Santa Barbara oil seepage.

Mrs. CAPPS. So, this is documented? Are you able to get that study for us and to include it with the record here?

Mr. ALLEN. I will do so.

Mrs. CAPPS. All right. We will make that a point in the recording of the hearing that this documentation will be added to it, but we don't have that at this time.

Mr. ALLEN. But if I may just say for the record, I have also spoken both with the MMS and the State Lands Commission, Paul Thayer, who is the Executive Officer of the State Lands Commission, requesting that studies be done to take the 1999 studies that UCSB did and actually extend them and try to determine to the extent how much—if more offshore oil production were done along the coast, how much more reduction in seepage would there be, and would there be benefits? I was told there is no money for such studies, so we have endeavored to have additional studies on this point.

Mrs. CAPPS. But, right now, there are no studies that we have documented, right here, for this hearing.

Mr. ALLEN. I would point out there was a letter published by Professor James Boles, who was the Chair of the Crustal Studies Institute of UC Santa Barbara, of which Professor Luyendyk is a member, and he published a letter in which he said——

Mrs. CAPPS. Was that a study or a letter?

Mr. ALLEN. He published a letter where he said there should be no surprise that oil production above seep zones would decrease the seepage. That is the same conclusion that was actually reached in the study you are referring to. The study concluded you would expect that production of offshore oil above seep zones, it should be no surprise that you would reduce seepage.

Mrs. CAPPS. OK. We will look for documentation of those studies, because I agree with our new Secretary of the Interior that we are going to try to base our energy policy on scientific knowledge, and we will hold for that.

I do have questions now for Mr. Grader, if I could.

I want to refer to the Cosco Busan spill in the San Francisco Bay. I believe it illustrates—and it is very pertinent to our discussion today—how close to impossible it is to control oil spills once they have occurred. And you were a firsthand observer, I understand. What consequences did you observe to the severe oiling of the shorelines and mortality to marine life of that spill from that barge?

Mr. GRADER. In spill terms, it was fairly small. It was bunker fuel from a container ship. We were totally unprepared to handle it, although California has in place its OSCA program to clean up oil, but they were ill prepared for it. We did finally get the fishing boats out there working it, doing the clean-up. And thank God they did, because they were the only ones who really knew what they were doing, as opposed to the professional responders.

Mrs. CAPPS. I guess we should add that that is your profession then.

Mr. GRADER. Yes. There was a little bit of anger that a Coast Guard committee, when they were out there in November, heard some of our wrath.

But the problem we have seen is that it looks like some of the other species of fish have recovered, but we have seen no recovery of our herring. There has been virtually no herring fishery this winter, which is supposed to be going on right now, in San Francisco Bay. And this pretty much follows up what happened in Prince William Sound after the oil spill there. The herring fishery to Prince William Sound has just not responded. So, it hits at the herring, which are important because they are critical to the—not

the exact base of the food chain, but they are important for such things as salmon.

Mrs. CAPPS. I hear you.

I want to ask you one more question. And to my colleague, Mr. Cassidy, I hope you realize that I have gone way over time, and that you are entitled to the same privileges——

Mr. CASSIDY. I am a freshman. I just show up when I am supposed to.

Mrs. CAPPS. Your questions are as credible as anybody else's. And if I could add, Mr. Hastings and I were both freshmen once, too.

Mr. Grader, one more question—by the way, I am so pleased that we do have a fisherman on the panel here.

Practically all stages and operations of offshore oil and gas production are accompanied by discharges of waste. These pollutants include drilling muds and mounds, which contain toxic metals like mercury. Our local fishers association, which belongs to the Pacific Coast Fishing Association, worked with you—I think you have been part of that consortia—to have the oil companies reduce the amount of these wastes.

Could you elaborate, if you would, just for a couple minutes on the impacts these wastes might have on water quality, or, more importantly, actually—well, equally importantly on the fish?

Mr. GRADER. Yes, exactly. And this is something that tends to get overlooked in these discussions on offshore oil.

A number of years ago the Santa Barbara fishermen, the Commercial Fishermen of Santa Barbara as well as the Southern California Trawlers Association, expressed to us their concern that in these drill muds, that they were using diesel fuel, and that they were saying, "Look, we are getting more and more hydrocarbons into the water column; some of the fish are picking up the contaminants." It wasn't necessarily killing them, but certainly it was making them so you couldn't market them.

Mr. GRADER. And so we did go, and fortunately we have a good Coastal Commission. We went to our Coastal Commission, and they demanded that at least in State waters that all drill muds had to be then taken and disposed of properly onshore. And that is a condition that we did get put in place, and I believe the Minerals Management Service then extended that to the area—to the west of that in the Federal waters.

I don't know if that occurs elsewhere. Certainly in my reading of, for example, the lease sale for Alaska for Bristol Bay—that is one of the issues that actually MMS concedes—is that what happens to those drill muds and cuttings—and this really came out of some news clippings that we began getting out of Alabama about what was going on in the Gulf of Mexico—was the fact that it wasn't just the diesel fuel and the hydrocarbons, but there were actually heavy metals, and that they were detecting much higher levels of mercury and other heavy metals in fish found around the platforms down there. And indeed, they did some samples of blood testing of people fishing around those and found it higher.

At the very least, if we are going to go ahead with more drilling, I would say one of the strict prohibitions that have to be put in place is you cannot dispose of drill muds on the seabed. It has got

to be brought back to shore and disposed of properly, because—forget the discussions about oil spills and seeps and how much gets in. We have to do something about those drill muds if they are contaminated.

Mrs. CAPPS. Thank you very much, and I beg the indulgence of my colleagues for going so far over the line.

And, Mr. Cassidy, you can have all the time you wish. Sorry. I am getting a little pushback from staff. A reasonable amount of time.

Mr. Chairman, I will never be asked to take the chair again. I can tell that.

Mr. CASSIDY. I missed your testimony, much of it, but I read it so I am familiar with it. And, Mr. Angers, you have to put an "L" in your name—"Angler." What a great guy for a fishing organization.

But what I hear from you is that tourism is fantastic around where they are doing offshore drilling. We are spending about $2.9 billion on fishing tackle.

Mr. ANGERS. The economic impact in 2006 of recreational saltwater fishing in Louisiana, $2.9 billion and, truly, people come to—Louisianians fish in Louisiana because that is where the fish are, and people come to Louisiana because that is where the fish are. We love to go to Florida because they have beautiful water, and they have plenty of fish there, too, but we know there is plenty of fish in Louisiana and doing good things for the economy.

Mr. CASSIDY. And I will vouch for it. I caught 100 speckled trout with my son and two other people. It is important to specify we were under the limit, but 100 speckled trout, and we did very well.

So, Mr. Minich, it comes to mind that there is already offshore drilling off of Florida, and as I remember—I don't have the map, and I can't remember precisely, but I think that offshore drilling is somewhere west of Tampa Bay, St. Pete. Is that currently negatively impacting your tourism industry?

Mr. MINICH. There is no drilling anywhere near our coast.

Mr. CASSIDY. But it is considered off the coast of Florida, and if you grandfathered it in before the moratorium—I just researched this when I was running for office, and it is out there.

Mr. MINICH. It is way out there. It is not what you are talking about. Where the protected area was went out, I believe, 150 miles.

Mr. CASSIDY. This is within 150 miles.

Mr. MINICH. It is way farther out.

Mr. CASSIDY. And it is considered to be in the eastern Gulf. So, the fact that you are unaware of it makes me think, my gosh, it is not even impacting your tourism. I know that because the pipelines go under the Gulf to Louisiana.

Mr. MINICH. Yes.

Mr. CASSIDY. They go up under Port Fushon.

Mr. MINICH. Yes.

Mr. CASSIDY. So, your concern is you don't have room for this industrial complex.

I think, ma'am, your observation was perfect. We will just take it not over the barrier islands, but rather through Wilmington. Let them have the economic bonanza of a pipeline company, but it would avoid bringing it onshore where you are. Similarly, I would

love for your oil and gas to come to Louisiana. It would be great as far, as I am concerned.

Mr. MINICH. We just don't want any drilling off of our coast, because if you look at the currents in the Gulf of Mexico——

Mr. CASSIDY. But you have drilling.

Mr. MUNICH. We do not——

Mr. CASSIDY. I promise you. I will——

Mr. MINICH. There is drilling in the Gulf, yes. There is absolutely drilling in the Gulf.

Mr. CASSIDY. It is in the eastern portion.

Mr. MINICH. But it is not in the currents—if you look at the way the currents flow in the Gulf of Mexico, the waters do not come from that area and come down.

Mr. CASSIDY. So, you don't mind if there is drilling as long as——

Mr. MINICH. There is no effect from those wells that are hundreds and hundreds of miles from our coast.

Mr. CASSIDY. So, whatever that distance is off the coast, you would be OK with drilling at that point, I presume, because it apparently has had no impact whatsoever upon your tourism.

Mr. MINICH. That drilling is there already. There is——

Mr. CASSIDY. But would you mind its expansion? Because apparently it has had no impact. I mean, the fact that we are having a debate whether it even exists tells me it hasn't had an impact.

Mr. MINICH. Because it is too far away.

Mr. CASSIDY. But it still is considered the eastern segment—it is still subject to the moratorium, just grandfathered in.

So, my question is if it is already there, and it is not bothering you, and pipelines go through Louisiana, could we have more of the same however far off that is?

Mr. MINICH. We don't want it off of our coast. If a hurricane moves off of our coast 300 miles, that is one thing. If it moves within 20 miles or 50 miles of our coast, that is a totally different thing. I think you are familiar with hurricanes. So, we don't want those—that kind of activity—within close proximity of our beaches.

Mr. CASSIDY. I see what you are saying, but I am not seeing a rationale now because it is already there, and so even if we didn't move it in further, but kept it at that distance from the coast where it is currently, and apparently it has had no impact—so I guess I am—you say, "We don't want it," but I don't understand why not, if it hadn't had a negative impact, but indeed would give cheaper gasoline for the people coming into your State.

Mr. MINICH. No. There is no—we don't want it close to our coast. There is nothing close to our coast right now and——

Mr. CASSIDY. Let me just stop you right there. But if it is no further in than it is currently, are you OK with that?

Mr. MINICH. Well, it is already there. We can't——

Mr. CASSIDY. And are you OK with expanding it, as long as it stays that far out?

Mr. MINICH. We can't change what is already there.

Mr. CASSIDY. OK. Then my next question is, are you OK with expanding it, as long as it remains that far from the coast?

Mr. MINICH. I am only—my information and what I have knowledge of is near my coast, so I can't address whether the expansion

is good or bad. But I think you heard this morning time and time again that opening up this area is not going to affect gas prices——

Mr. CASSIDY. It is going to affect natural gas prices. Natural gas prices are, of course, very important for many things, and they are also a source of BTU. You may have noticed that the buses that go through Washington, D.C., use natural gas because it has a lower carbon footprint. So, one of the things people argue to help with global warming is converting to natural gas, and much of what we produce in the Gulf is natural gas.

One more thing. I am a little curious that everybody is concerned about the negative impact on tourism. My wife is from Mobile. We go over to the Eastern Shore, go to the Orange Beach. Man, it is booming. The only thing that keeps that from being any bigger is that it is so small. And huge—you can see oil rigs off the Mobile Gulf Coast. You can see the platforms out there. You can see the boaters out there boating. That has had no negative impact, as far as I can tell. Hurricanes do, but not offshore drilling.

Any comment on that? I mean, there seems to be a real fear that it is going to keep people from the beach but, in Alabama, their beach is within eyesight of it, and they are having a great old time.

Mr. MINICH. I think that our customers are used—they have been coming for 100 years to the St. Pete beaches, and they are used to what we have to offer, and that is not what we have to offer.

Mr. CASSIDY. So, it is almost more a fear of change. I mean, I am not trying to minimize what you are saying, but it does seem as if we fear change.

Mr. MINICH. And I don't want our hotels to have to put as part of—you know, hotels have little bottles of shampoo and little bars of soap. You look at hotels in some of those areas, and along with the shampoo and along with the soap are little packets to remove tar from the bottom of your feet from the beach.

Mr. CASSIDY. It is interesting because when I was a kid, we used to go to Pensacola and Panama City, and there used to be tar balls all over the place. So, I read Mr. Allen's testimony, and it all of a sudden made sense. The physics make sense to me. The physics make sense that here you have a pressure-filled volume. Pressure is equal to flow times resistance. So, you have something set there. And you plug a hole in it, and you start to remove it on a graduated basis, and you would relieve that pressure.

There are fewer tar balls now in Panama City beach than there was when I was a kid, even though they are now doing offshore drilling, you know, 30 miles away, because obviously Pensacola is right next to Mobile.

Actually, Mr. Allen, I like the physics of what you are talking about. Intuitively it makes sense. So, I will just comment on that. I am not sure that you would have that. Actually, we used to have that on the Panhandle of Florida. Now we don't.

Mr. MINICH. Our beaches are pure white. There is no tar whatsoever on our beaches because we don't have natural seepage, and we don't want to open up anything that could——

Mr. CASSIDY. The panhandle does.

Mr. MINICH. I am not here speaking on behalf of the panhandle. I am speaking on behalf of Pinellas County beaches.

Mr. CASSIDY. Yes, ma'am.

Ms. MCCORMICK. Just one comment. You had made the comment that tourism is booming, sir. Tourism is not booming right now anywhere except here in Washington, D.C., over the last couple of weeks. I did—very quickly, went to Biloxi 6 months after Katrina and helped clean up, and I did visit some of those refineries, and was saddened to see the history that was destroyed and not put back.

And what you have in Biloxi is you have an emergence and a realignment of casinos that have gone from being water-based casinos to land-based casinos, and that is why Biloxi has been able to revive themselves. It is not because of the drilling.

But I do want to set the record straight. We have a problem in America today. Tourism is not booming. This is a challenge for all of us.

Mr. CASSIDY. Biloxi does not have offshore oil; so if you heard me say that that is the reason Biloxi is coming back, that is not true.

Ms. MCCORMICK. You said tourism was booming. I just wanted to make sure that you understood——

Mr. CASSIDY. Tourism is booming on Orange Beach. It is interesting because I look at the downfall in tourism as when gasoline went to $140 a barrel. Now, in Louisiana it was great for the coffers, but it was bad for the people taking trips outside of their hometown.

Ms. MCCORMICK. Absolutely.

Mr. CASSIDY. And so it is interesting, and I think you are agreeing with that. So, I think actually our energy crisis, which has persisted, has thrown us into this recession, which now has people staying at home. So, actually I would like to think that you are supporting my argument that we need to diversify, not just offshore drilling, do everything, but on the other hand, oil platforms make a nice place for a windmill.

Ms. MCCORMICK. They sure do, and I support a good portion of your argument, but I do not support drilling on the Outer Continental Shelf.

Mr. CASSIDY. I am not quite sure why not, because whenever I come up with a specific, it is just, "Well, we don't want it," as opposed to, "No, we have documentation," and such.

Ms. MCCORMICK. Well, the gentlemen this morning did a very good job, and one thing I stated in my paper, and I may not have stated that as clearly as I would like to, what I would like to encourage us to do is to find alternatives, find renewables, put those energies and those efforts—in 1933, man first flew in Kitty Hawk; 66 years later we landed on the moon. We can do so much, so much together, and I would hate to see that we feel, or you feel, that opening oil and drilling along the Outer Continental Shelf is going to fix the problems that we are facing today.

Mr. CASSIDY. There is no one fix. It is an amalgamation.

Mr. MINICH. And in terms of the expansion, they are only using 8 million of the 43 million acres that they have under lease; so there is your expansion. Go where you have already got these lands leased. There are 43 million acres of leased land with the Big Oil companies, and they are currently only using 8 million of those acres. So, that is where you go.

Mr. ALLEN. Can I make a comment on that? Santa Barbara has about almost 2 billion barrels. They know exactly where they are. It is close to infrastructure, and it is producible in the near term safely, and it is off limits. And that would be the quickest oil that could be produced in this country offshore, and it would make a significant impact at least with respect to the revenue that could be generated for the local economies, Santa Barbara and California. And that money taken as royalty revenue could actually, in the case of Santa Barbara County sharing that revenue, in 4 years pay for the build-out of an entire electric grid infrastructure based on solar energy, but it is not being done because it is off limits.

The CHAIRMAN. The gentleman from Colorado Mr. Lamborn.

Mr. LAMBORN. Thank you, Mr. Chairman.

And I apologize I didn't get to hear all of your testimony earlier because I was in another committee. So, I am going back and forth. But I do have your written statements here that I can look at later.

To follow up on what you were just saying, sir, could you talk to me about the litigation climate? Maybe you have already addressed this, but I see that sometimes there is talk about why aren't all the acres being used that are leasable, or why does it take so many years? And I am aware a little bit how litigation can really slow that down, snarl that up. Do you have any insights on that?

Mr. ALLEN. Yes, litigation is actually—in the case of offshore Central California—what stopped a number of leases from being produced. And then there was a moratorium imposed, and those leases to this day have not been produced. Exploratory drilling was done. There were resources discovered. But they have been off limits and remain off limits both in the OCS and in California State waters.

There was recently a PXP, a deal with Plains Petroleum from a platform in the California OCS to slant drill with no new infrastructure into State waters to produce those State resources, and that was voted down by the California State Lands Commission 2 to 1. And the primary reason—I was at the hearings given by the Lieutenant Governor—was that it would send the wrong signal that California was open to offshore drilling.

Mr. LAMBORN. As a follow-up, do the duration of time that these leases are available sometimes run out while litigation is being pursued?

Mr. ALLEN. Well, in the case of those leases, that is actually a subject—I believe ongoing litigation and potential resolution, and I haven't really followed in as much detail as I should have exactly the current legal status of those particular OCS leases that were subject to litigation. And I believe it is between the oil companies and the courts and the Federal Government now.

Mr. LAMBORN. Well, it just strikes me that if the litigation climate was a little easier to navigate, faster and so on, then we wouldn't have as many problems with needing to look for—because I do believe we need to look for more sources of domestic energy, and if we could somehow get on top of the litigation issues, whether to expedite the lawsuits or whatever it takes, then we would not have some of these problems that we are talking about, where existing current leasable land is not being used, and then some of us

want to look to expand that. So, maybe if you all could help me with suggestions on how we could—while protecting everyone's rights—but expedite the whole legal process.

Mr. ALLEN. Well, there is one note that perhaps you would be much more knowledgeable than I, but I believe there is a 1990 congressional action that was signed into law that where pollution sources are identified, there should be efforts made to mitigate them or reduce them. And we view, because of the coast of Central California, by far the largest source of hydrocarbon pollution are the natural oil seeps.

The best peer-reviewed science to date shows a strong connection that the seeps are being reduced by oil production in that seep zone in that study that Representative Capps referred to. So, the best science strongly suggests that is the case. So, we would ask or encourage that future studies be conducted, or funded, or supported by Congress to explore better whether or not that is indeed true for the whole central coast/OCS areas that are subject to the seeps that would reduce the offshore pollution and be in line with that legislation for reducing pollution sources.

And in Santa Barbara County, the offshore emissions are the single largest source of ROCs, reactive organic compounds, in the county. They exceed automobile and surface transportation air emissions by 50 percent, 6,000 tons per year. And in the research that Representative Capps cited, it clearly states there has been a reduction of those emissions, apparently due to the offshore oil production. So, it is a net benefit to the environment.

Mr. LAMBORN. Thank you.

In the short time remaining, anyone else would care to comment——

Mr. GRADER. I am a little bit disturbed that thinking that litigation somehow is slowing everything down. Everything I read, and in particular in preparing for this, is that in some of the most recent papers, it indicated that one of the biggest impediments right now, one of the reasons it would take 10 years or more before any of these, if we did lease some of these new areas, to come on is just the infrastructure, the physically—the shipyards, the building of the rigs and all that, the demand you have elsewhere.

So, I think if you are going to be doing further hearings on this issue, that is certainly something that should be posed to the oil companies is what is the nature right now? What are those impediments? Stop blaming the lease processes or claiming that it is litigation, but just that the technical or the physical aspects of getting these places into production. I think that really is the bigger issue. It is not litigation or States being intransigent. I think it is just the oil company itself—with its infrastructure—of how quickly it can put new oil into production.

Mr. MINICH. And I think I heard this earlier this morning that the third session of this will be with the oil companies, and I think what needs to be asked of the oil companies is that they should give you a cost comparison on some of these leased lands that they do not want to use, and are not using, versus a cost comparison if they drilled in the shallow Gulf of Mexico, because some of the information that we have is that it is cheaper in these waters that are currently out of bounds than on some of the leased lands that

they have to their liking. And if you look at the profit and loss statements, and the profits of the oil companies, I think they can afford to drill in some of these other areas.

And, yes, he is correct. I mean, you know, it would take somewhere between 10 to 30 years to get rigs built, a $700 million rig, and most of those rigs that are under construction right now at shipyards are being shipped off to other places in the world for use in other places.

Mr. LAMBORN. Thank you very much.

The CHAIRMAN. The gentleman from Washington, Mr. Hastings.

Mr. HASTINGS. Thank you, Mr. Chairman.

I just have one question. Mr. Minich, I just want to ask you one question here. How does your position, which you have very well enunciated, differ from that of the Florida Association of Convention and Visitors Bureaus?

Mr. MINICH. The Florida Association of Convention and Visitors Bureau did last fall release a report, and they are saying that they are supportive of offshore drilling. I do not agree with the Florida Association. I have adamantly not agreed with them, and I do not understand why they are taking that position.

Mr. HASTINGS. Well, I just wanted to, because I understand at least your local association is probably a part of that, and I just wanted, for the record, to denote that in Florida there are some that have a different view than yours. So, thank you very much.

Mr. Chairman, I ask unanimous consent to submit for the record—and I have a list here that I can read off or just give to you, whichever way you want to do that.

The CHAIRMAN. Just throw it in.

Mr. HASTINGS. OK. I will just throw it in. With that, there are seven statements, including Mr. Lamborn's opening statement, and I ask unanimous consent that that be submitted for the record.

The CHAIRMAN. Without objection, so ordered.

[A CRS memorandum entitled "Possible Federal Revenue Estimates From Oil and Gas Production in Areas Currently Off-Limits (under leasing moratoria or inaccessible)" submitted for the record follows:]

Memorandum September 12, 2008

TO: House Committee on Natural Resources
Attn: Kevin V. Kennedy

FROM: Marc Humphries
Analyst in Energy Policy
Resources, Science, and Industry

SUBJECT: Possible Federal Revenue Estimates From Oil and Gas Production in Areas Currently Off-Limits (under leasing moratoria or inaccessible)

This memorandum is in response to your request for estimates of revenues from royalties and corporate income taxes if the public lands, now off-limits, (i.e., outer continental shelf moratoria and onshore inaccessible areas) were open and available for oil and natural gas leasing and development.

Resource estimates in Table 1 are from the Department of the Interior Statement of Stephen C. Allred before the Senate Committee on Energy and Natural Resources, Resource Estimate Table, January 25, 2007 and onshore resource estimates in Table 2 are from the Interagency report: Inventory of Onshore Federal and Natural Gas Resources and Restrictions to Their Development, 2008.

I hope this information meets your needs. If you have any further questions, please call me at ext. 7-7264.

Background

The federal government currently collects revenues from oil and gas leases on public lands in the form of bonus bids, annual rents, and royalties. Bonus bids are upfront payments made to secure a lease in a competitive lease sale. Leases are awarded to the highest bidder. Royalties are based on the value of production. Annual rental payments are made by lessees on a per acre basis. Once commercial production begins, rental payments are no longer required. The primary lease term for onshore leases is ten years. For offshore leases the primary term is 5 years for shallow water (<400 meters), 8 years for mid-depth water (400-800 meters) and 10 years for deep water (>800 meters). Leases continue as long as commercial production takes place. The Bureau of Land Management (BLM) administers the onshore leasing program and the Minerals Management Service (MMS) administers the offshore leasing program. The MMS collects and disburses all revenues from federal leases. The MMS and BLM are agencies within the Department of the Interior.

In FY2007, the MMS collected about $11.5 billion from leasing activity on public lands. About 90% came from royalty payments. A royalty rate of 12.5% applies to onshore leases and up to 18.75% applies to offshore leases.[1] All states except Alaska generally receive 50% of the revenue generated from leasing activity within their state for onshore leases. Alaska receives 90%. The Reclamation Fund receives 40% of onshore receipts and the General Treasury receives 10%. Revenues from offshore leases are statutorily allocated among the coastal states, the Land and Water Conservation Fund (LWCF), the National Historic Preservation Fund (NHPF) and the General Treasury. Revenue sharing among the coastal states is limited to revenues generated within an area three miles beyond the state's boundary and revenues from leases identified in the Gulf of Mexico Energy Security Act of 2006 (P.L. 109-432).[2] Despite the statutory allocations, the vast majority of revenues from offshore leases go to the General Treasury.

Assumptions

A number of assumptions are made in this memo to simplify a very complex process of making revenue projections. Supportable projections of revenue generation would require complex economic modeling and would likely include many more variables. A simplified approach here assumes that leasing restrictions were lifted and once those restrictions were lifted, discovery and production of all possible undiscovered technically recoverable resources (UTRR) estimated by Department of the Interior in the OCS and onshore would be produced over a 58-year time horizon (2010-2068). Federal revenue projections are over the entire recovery cycle (58 years), until oil and gas is no longer recoverable. Production rates, however, are beyond the scope of this memo. It is assumed that once legislation to open withdrawn lands is enacted, it could take at much as 5 years or longer for lease sales in the newly opened areas to be held. Production might begin 5-10 years from the lease sale if commercial quantities were found. However, in certain areas of the OCS, production, if resources are discovered, could come onstream much sooner, thus, revenues might be generated as soon as 2010, assuming there is known geological data and infrastructure requirements, among other variables, are in place. To receive revenues as early as 2010, an assumption is made that the administration would begin its new 5-year OCS leasing program in 2010. Further, a lease sale would need to occur in 2010 along with drilling and development. According to assumptions in this memo, most of the revenues would likely be generated beyond 2018. The revenue estimates are based on the mean resource estimates provided by the Department of the Interior and the base forecasted price ($113/barrel oil, $10.34/thousand cubic foot of natural gas) by the Energy Information Administration within the Department of Energy. Price and revenue estimates are in nominal dollars. Revenue estimates are not discounted to reflect present value. These revenue projections are very rough and meant to reflect what might happen, not what will happen. Data in Tables 1 and 2 reflect receipts to the General Treasury only and do not include bonus bids and rents collected or revenues to the states.

Royalty revenue estimates in Table 1 assume the federal government (General Treasury) would receive a 50% share and the coastal states would receive 50%. Statutory allocations to the NHPF and the LWCF would come out of the revenues allocated to the General Treasury. This assumption reflects a distribution formula that

[1] The Mineral Leasing Act of 1920, as amended, established a minimum royalty rate of 12.5% for federal leases. The most recent offshore lease sales contained a royalty rate of 18.75%. MMS Congressional Affairs representative Lyn Herdt indicated that MMS would likely continue to impose the 18.75% rate on offshore leases in the foreseeable future.

[2] For a more detailed discussion of revenue sharing see CRS Report RL33493 Outer Continental Shelf: Debate Over Oil and Gas Leasing and Revenue Sharing by Marc Humphries.

is included in nearly all of the legislation proposed to lift the moratoria in the outer continental shelf (OCS). The royalty revenue estimates in Table 2 are based on the current onshore distribution allocation that distributes 50% to the states, 40% to the Reclamation Fund, and 10% to the General Treasury. This formula also includes revenue estimates from ANWR. Alaska would also receive 50% of the estimated royalty revenues.

Corporate income tax estimates are based on calculating pre-tax profits from assumed oil production in the newly opened areas, then multiplying that amount by an estimated effective federal corporate income tax rate for large integrated oil companies that would have an interest in oil and gas development. Net pre-tax profit for those companies averaged 31% of revenue and the average effective tax rate for the years 1998-2005 was 33%.[3]

Caveats

These rough estimates should be used with caution. There are major uncertainties involved. First, the amount of recoverable resource is an estimate based on assumptions and probabilities; in fact, they are educated guesses. Second, projecting the price of oil for a few years is difficult and complex; projecting for decades is highly uncertain. Lastly, the possible legislation and its terms are not known at this time.

Results

Given the above caveats, OCS leases might generate royalty revenue, (over a 50-year period), of about $518.5 billion of which 50% ($259.25 billion) might go to the states and 50% ($259.25 billion) might go to the General Treasury. Corporate income tax revenue is estimated to be about $283 billion.

Onshore leases (excluding ANWR) in areas that might be opened might generate an estimated total royalty revenue of about $280 billion, of which about $28 billion would flow to the General Treasury, $140 billion to the states and $112 billion to the Reclamation Fund. Corporate income tax revenue is estimated at about $230 billion.

ANWR leases might generate royalty revenue of about $114 billion of which $11.5 billion might go to the General Treasury, $57 billion might go to the states, and $45.5 billion might go to the Reclamation Fund. Corporate income tax receipts could total about $95 billion.

[3] For more details on corporate income tax rates and production costs see CRS Report RL34547 Possible Federal Revenue from Oil Development of ANWR and Nearby Areas by Salvatore Lazzari.

Table 1. Federal OCS Revenue Estimates From Areas Currently Under Moratoria (billion $U.S.), 2010-2068

	UTRR Oil (billion barrels)	Oil Royalty Revenue	UTRR Natural Gas (trillion cubic feet)	Natural Gas Royalty Revenue	Total Royalty Revenue	Corporate Income Tax Revenue
Atlantic						
North	1.91	20.25	17.99	18.0	38.25	41.65
Mid	1.50	15.89	15.13	14.65	30.54	33.4
South	0.41	4.34	3.86	3.74	8.08	8.81
Total Atlantic	3.82	40.48	36.88	36.39	76.87	83.86
Gulf of Mexico						
Eastern	3.44	36.44	19.37	18.78	55.22	60.25
Pacific						
Wash/Ore	0.40	4.23	2.28	2.21	6.44	7.0
Northern Ca.	2.08	22.0	3.58	3.47	25.47	27.78
Central Ca.	2.31	24.45	2.41	2.33	26.79	29.24
Southern Ca.	5.58	59.0	9.75	9.45	68.45	74.8
Total Pacific	10.37	109.7	18.02	17.46	127.15	138.82
Total OCS	17.63	186.61	74.37	72.63	259.24	282.93

Source: Department of the Interior, Statement of C. Stephen Allred, before the Senate Committee on Energy and Natural Resources, Resource Estimate Table, January 25, 2007.

Notes: Major assumptions include: OCS royalty rate = 18.75% (ad valorem) price: oil = $113/barrel, natural gas = $10.34/Mcf, 58-year time horizon, 50% of the estimated royalty revenue would go to the General Treasury and 50% to the states. The table presents estimates of revenue to the General Treasury only.

Table 2. Federal Onshore and ANWR Revenue Estimates in Areas Currently Classified Inaccessible (billion $U.S.), 2018-2068

	UTRR Oil (billion barrels)	Oil Royalty Revenue	UTRR Natural Gas (trillion cubic feet)	Natural Gas Royalty Revenue	Total Royalty Revenue	Corporate Income Tax Revenue
Onshore	12.0	16.9	86.5	11.18	28.08	230.2
ANWR	7.5	10.59	8.0	0.84	11.44	95.16

Source: Interagency report, *Inventory of Onshore Federal Oil and Natural Gas Resources and Restrictions to Their Development, Phase III Inventory*. In compliance with the Energy Act of 2000, P.L. 106-469, as amended by the Energy Policy Act of 2005, P.L. 109-58.

Notes: Major assumptions include: Onshore and ANWR royalty rate = 12.5% (ad valorem), price: oil = $113/bbl, natural gas =$10.34/ Mcf, 50-year time horizon, General Treasury would receive 10%, the Reclamation Fund would receive 40% and the states would receive 50% of the estimated royalty revenue. The table presents estimates of General Treasury revenues only.

[A Florida Association of Convention & Visitors Bureaus' paper entitled "Position on Offshore Oil Drilling" follows:]

FACVB

FLORIDA ASSOCIATION OF CONVENTION & VISITORS BUREAUS

Position on Offshore Oil Drilling

Introduction

Serving as the single unifying voice for all of Florida's convention and visitor bureaus, the Florida Association of Convention and Visitors Bureaus (FACVB) strives to provide insight and direction on emerging trends that may impact the effectiveness of Florida CVBs' destination management efforts. Energy availability is a key factor in Florida's tourism industry. Affordable and available fuel makes it easier for consumers to consider Florida as their vacation destination.

The FACVB has been monitoring impacts on Florida's tourism industry associated with recent trends in energy affordability and reliability. The FACVB recognizes that a comprehensive, long-term energy policy, including conservation, efficiency, renewable and alternative fuels as well as increased U.S. domestic oil and natural gas production, is essential to maintain a healthy, vital Florida tourism industry.

Tourism Trends in Florida

During 2007, Florida tourism generated $65.5 billion in revenues from 84.5 million visitors and was responsible for directly employing 991,300 Floridians, according to VISIT FLORIDA research. Over the five-year period between 2003 and 2007, revenues increased 21.4 percent and visitors increased 11.7 percent. Effective marketing efforts combined with Florida's attractions and natural resources continue to make Florida a favored destination throughout the world and tourism a prime contributor to Florida's growing economy. However, the five-year growth trend statistics also indicate a flattening of the growth trend between 2005 and 2007. In particular, visitor and revenue growth grew only 0.8 percent during 2007, and visitors arriving via automobile actually declined 2.3 percent during 2007. It is important to note the correlation between the flattening growth in Florida tourism and the concurrent rise in energy costs. Energy in Florida

Florida's tourism industry heavily relies on consistently affordable energy from dependable sources. The state's residents and visitors consume approximately 23 million gallons of gasoline per day, more than 8 billion gallons per year. In addition to meeting the transportation needs of Floridians, products are necessary to fuel vehicles for more than 40 million tourists arriving via automobiles; to fuel cruise ships, fishing and recreational watercraft; and to fuel the airplanes servicing Florida's numerous airports.

While U.S. demand has slowed over the past decade, global demand for crude oil, the raw material of most refined transportation fuels, has increased dramatically due to emerging markets in Asia and other parts of the world. This has led to a tightening of supplies. Many of the congressional and presidential moratoria that prevented domestic oil and natural gas exploration and production were either recently withdrawn or expired; however, the long-term status of the moratoria will probably remain unclear for some time after the elections in November. During the duration of the various moratoria over the previous three decades, our country's dependence on imported oil has increased from 40 percent to 60 percent of our total consumption.

Significant state and federal legislation and efforts of the Governors Climate Action Team are designed to address global climate change and have established aggressive renewable fuel mandates for transportation fuels. Florida has been a leader in recognizing the importance of alternative fuels, and this year has mandated that by December 31,2010, all gasoline must contain at least 10 percent ethanol. Additionally, federal mandates dictate that 9 billion gallons of renewable fuels must be blended with transportation fuels in 2008, expanding to 36 billion gallons by 2022. Further, increasing amounts of the renewable fuels must originate from cellulosic sources beginning in 2011; however, it is questionable as to whether adequate commercial cellulosic fuel refining plant production will be available to meet the mandate. No commercial cellulosic product is available in Florida or the United States at this time.

Florida is committed to taking a new direction in energy production, requiring utilities to meet stringent air emission guidelines amid concerns about global climate change. Florida utilities have always been more reliant on natural gas for power generation than our surrounding states; this commitment to clean-burning natural gas will only grow stronger through the next decade. According to Florida Public Service Commission statistics, total utility generation capacity that uses natural gas will increase from 29 percent to 44 percent by 2014. Many sources for natural gas fall under the same moratoria that had been issued for oil production; therefore, the industry has had to rely more on imported natural gas to meet growing demand. Recent tightening of supplies in the natural gas markets, evidenced by the increased price of natural gas and the subsequent rise in utility rates, ultimately increases operating costs of airlines, cruise ships, attractions, convention centers and hotels.

FACVB Position on Offshore Oil and Natural Gas Production

The state and federal governments, along with entrepreneurs and major energy companies, have made a long-term commitment to the development of alternative energy sources; the FACVB endorses the diversification of energy sources, particularly lower carbon alternative and renewable fuels, as a means to address global climate necessities. However, petroleum products will remain a key energy source for our country as we make necessary technological advancements so alternative energy sources become cost efficient. Recognizing that affordable and reliable energy is essential to nourish the future growth of Florida tourism and the state's economy, the FACVB evaluated domestic oil and natural gas access, including off Florida's coasts. The FACVB conducted an Offshore Oil Drilling Summit on October 2, 2008, allowing members to discuss issues in depth with representatives from the environmental community and the petroleum industry. The discussions covered long-term energy projections, the local and global environmental impacts of drilling, impacts to fishing industries, advanced drilling and production technologies, mitigation of risks through redundant systems, regulatory oversight, revenue sharing, impacts of hurricanes, and the availability of oil and natural gas based on previous seismic and geophysical data.

After carefully considering all factors, the Florida Association of Convention and Visitors Bureaus (FACVB) endorses state and federal energy policies allowing the production of oil from existing leases within the Gulf of Mexico out of sight of Florida's coast (at least 30 miles offshore), with the following conditions imposed by state and federal lawmakers:

1. Any Florida offshore drilling must be a component of a comprehensive energy policy dedicated to reducing America's dependence on foreign oil.
2. Production facilities must incorporate the most advanced zero discharge natural gas and oil production systems.
3. The federal revenue sharing plan affecting Gulf of Mexico resources, which currently does not include revenue sharing to Florida, must be changed by the U.S. Congress to include significant revenue dedicated to the state for 1) beach renourishment projects; 2) alternative energy investments for the state of Florida; 3) tourism promotion to attract more visitors to Florida to bolster the

state's economy and tax collections; and 4) a catastrophe fund to reimburse Florida for expenses related to any oil release into the environment as a result of these oil production activities;

4. A five-year moratorium on new leases in the eastern Gulf of Mexico must be established so state officials can evaluate oil production safety and evaluate any impact on Florida's natural resources. This moratorium should permit exploration by seismic and geophysical scientific testing to identify potential future reserves.

The military mission of the U.S. Department of Defense shall have the first priority in the offshore in the Gulf of Mexico.

Conclusion

Changes in global energy markets have affected the price and supply of oil and natural gas and subsequently may have a future impact on Florida's tourism industry. The FACVB recommends that environmentally responsible exploration and production of domestic oil and natural gas from current leases be an essential element of state and federal energy policies. Experts expect production from existing leases could commence as early as within 2 years from the date leaseholders are permitted to proceed.

[A list of documents retained in the Committee's official files follows:]

- American Petroleum Institute booklet entitled "Strengthening Our Economy: The Untapped U.S. Oil and Gas Resources" dated December 5, 2008
- U.S. Department of Energy / Office of Fossil Energy booklet entitled "Environmental Benefits of Advanced Oil and Gas Exploration and Production Technology"
- U.S. Department of the Interior/ Minerals Management Service fact sheet entitled "OCS Oil Spill Facts" dated September 2002
- The National Academies report entitled "Oil in the Sea III"—Copyright 2002 by The National Academy of Sciences

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Mr. HASTINGS. And with that, Mr. Chairman, thank you very much for the indulgence. And I want to thank the panel very much for their time, and especially for the break that we had when we had to go do our business on the Floor of the House. And I appreciate your being here.

The CHAIRMAN. Per our usual unanimous consent requests, all Members will have a right to submit statements for the record.

[The prepared statement of Mrs. Capps follows:]

Statement of The Honorable Lois Capps, a Representative in Congress from the State of California

Thank you, Mr. Chairman.

I'm pleased the first hearing before this Committee will deal with the impacts of offshore oil and gas drilling on the environment and coastal communities.

I have been a long time opponent of new offshore oil and gas development.

It's no surprise that I don't want to see more oil rigs off my congressional district.

I witnessed firsthand the devastation of the Platform A blowout in 1969.

The disastrous spill created an 800 square-mile slick and marred 35 miles of California's coastline.

I saw the dead birds and seals, the beaches covered with oil, the land that I love so much nearly destroyed.

In the years since oil accidents and drilling-based pollution in my congressional district has been an ongoing story.

In December, more than 1,400 gallons of oil spilled into our coastal waters from the same location as the infamous 1969 spill nearly 40 years ago.

Also last year, Exxon-Mobil agreed to pay millions in fines for releasing dangerous PCBs into the Santa Barbara Channel from Platform Hondo.

Spills of course are not limited to offshore locations on California's Central Coast.

Greka Oil has been polluting our local creeks with toxic runoff and countless oil spills, looking like it got its environmental policies straight from the movie There Will Be Blood.

There was also the Torch pipeline explosion in 1997 and the decades-long pollution that required rebuilding the entire town of Avila Beach.

And that's not even including the impacts on our local air and water quality we deal with every day.

So, yes, my constituents and I don't want more of that.

Even so, my opposition to new offshore drilling is mostly because it is simply not in the best interests of this country.

It is the slowest, dirtiest, and most expensive way to produce energy.

And the longer we try to fool ourselves into believing that new drilling will bring us lower gas prices and that we still have plenty of time to get ourselves off this oil addiction, the tougher the day of reckoning will be.

Mr. Chairman, America's coastal waters and economies should not be sacrificed for campaign sound bites.

That's why I was pleased by the Obama Administration's responsible decision to take a fresh look at the 5-year offshore leasing plan that former President Bush released on his last day in office.

Future leasing decisions must be based on the strongest, most objective science available, especially in areas that have previously been off limits to drilling for decades.

While we need to take a more reasoned approach to managing our public energy resources, I continue to believe there are cheaper, cleaner, faster, and more sustainable energy solutions than more drilling.

Energy efficiency and clean, renewable energy will start saving consumers and businesses money today.

Improved vehicle standards on their own would do more to lower gas prices than wiping out sea otter habitat to drill for more oil.

I'm hopeful this Committee will invest its time, energy and creativity into real solutions that put us on the right path, toward renewable energy solutions for our future.

Our nation shouldn't be known for chasing after yesterday's energy solutions, but for its leadership toward the clean energy solutions of today and tomorrow.

Thank you again for calling this hearing and I look forward to the testimony from our knowledgeable witnesses.

The CHAIRMAN. Gentlemen, lady, thank you very much for being here. I know some of you have traveled long distances, and your input into our deliberations will be very useful. And I appreciate the facts you have presented, and the manner in which you presented it, and this story shall be continued. Thank you.

The Chair wishes to thank all Members, too, on both sides of the aisle, I might add. I think we had a very good attendance record today, and I appreciate so many Members attending. Let that be on the record.

The Committee is adjourned.

[Whereupon, at 4:46 p.m., the Committee was adjourned.]

[Additional material submitted for the record follows:]

[A letter submitted for the record by Brant Branham, Chairman, and Brad Dean, President & CEO, Myrtle Beach Area Chamber of Commerce, follows:]

February 10, 2009

Congressman Henry Brown
103 Cannon House Office Building
Washington, DC 20515

Dear Congressman Brown:

As you know, the Myrtle Beach Area Chamber of Commerce serves as the region's primary promoter of tourism. Because our chamber of commerce represents tourism-related businesses as well as the general business community, we have taken a keen interest in the ongoing discussion about America's national energy policy and, specifically, offshore drilling. The public, including the business community, has a heightened sense of awareness regarding this issue, largely due to the rising cost of energy in recent years.

The Myrtle Beach area is a popular drive-to destination with more than 90 percent of visitors arriving in personal vehicles. Our local economy has been directly impacted by rising fuel prices in the recent past. In fact, 75% of our visitors made changes to their 2008 travel plans due to rising fuel prices. Likewise, we are very aware of the impact rising energy costs have had upon local businesses.

The Myrtle Beach Area Chamber of Commerce believes our nation lacks a comprehensive energy policy that will ensure affordable energy prices for individuals and businesses, while reducing the country's over-dependence upon foreign energy suppliers. Developing and broadening the use of renewable and alternative energy sources must be a part of this solution, but that alone may not be enough. Spending billions of dollars each year to import energy products, while leaving domestic natural resources largely untapped, costs businesses and individuals unnecessarily, ultimately limiting our economic prosperity. We should strive to enhance domestic energy production, thereby reducing our dependence upon foreign nations and creating jobs for American workers.

Based upon evidence made available by the U.S. Department of Energy and the U.S. Department of Interior - Mineral Management Services office, we understand large deposits of natural gas likely exist off the South Carolina coast. We also believe that the decision as to whether or not to drill offshore should ultimately be made at the state level. With this in mind, we support public policy that allows for sensible, environmentally-conscious exploration of U.S. coastal boundaries far enough from the shoreline to protect our coastal environment and local tourism economy. Given the importance of natural gas to our regional, state and national economies, we recognize the need to explore natural gas deposits so that we may evaluate the costs and benefits of developing this vital energy source. Likewise, we acknowledge that other states may desire to drill off their coast for oil, so long as their offshore drilling does not pose any reasonable risk to our coastal environment or local tourism economy.

Tourism is an economic engine that fuels our state's economy. It is arguably the state's largest industry, employing more than 200,000 South Carolinians and generating an annual economic impact that exceeds $15 Billion. We must not allow offshore drilling to threaten our state's tourism industry and will vehemently oppose any measure that may irreparably harm our coastal environment.

P.O. Box 2115 • 1200 North Oak Street • Myrtle Beach, South Carolina 29578 • (843) 626-7444
www.MyrtleBeachAreaChamber.com • www.VisitMyBeach.com

Nevertheless, we believe it is appropriate for the United States Congress to avoid reinstating the moratorium on explorative drilling and allow each state to decide for itself what is best. Furthermore, we support exploration of natural gas deposits at appropriate distances off the South Carolina coast with assurances that the measures implemented will not irreparably harm our coastal environmental nor our local tourism industry.

We thank you for your time and appreciate all you do to lead our nation while representing the First Congressional District of South Carolina.

With great respect and admiration, we are,

Sincerely,

Brant Branham
Chairman

Brad Dean
President & CEO

[A letter submitted by Faith Gemmill, REDOIL, follows:]

Resisting Environmental Destruction on Indigenous Lands (REDOIL)
P.O. Box 74667 * Fairbanks, AK 99701 * PH: 907-456-2181 *
Fax: 907-456-2184 * Email: redoil1@acsalaska.net

February 11, 2009

Chairman Nick Rahall (D-W.Va.)
House Natural Resources Committee
1324 Longworth House Office Building
Washington, DC 20240'

Respectful Greetings;

Today we submit these comments for the record to the House Natural Resource Committee on behalf of Resisting Environmental Destruction on Indigenous Lands (REDOIL) an Alaska Native Network of the Inupiat, Yupik, Aleut, Tlingit, Eyak, Gwich'in and Denaiana Athabascan Tribes. REDOIL is a movement of Alaska Natives who are challenging the fossil fuel and mining industry and demanding their rights to a safe and healthy environment conducive to subsistence. REDOIL aims to address the human and ecological health impacts brought on by unsustainable development practices of the fossil fuel and mining industry, and the ensuing effect of catastrophic climate change. REDOIL supports the self determination right of Tribes in Alaska, as well as a just transition from fossil fuel and mineral development to sustainable economies, and sustainable development.

The Alaskan Outer Continental Shelf (OCS) provides an abundance of marine life, and is adjacent to some important terrestrial public resources in Alaska. Alaska Native coastal communities have depended on marine subsistence resources since time immemorial. The Beaufort and Chukchi Seas, North Aleutian Basin (Bristol Bay), Cook Inlet and other offshore areas are critical to Alaska Natives subsistence. REDOIL is deeply concerned with the risks posed to sensitive marine and coastal environments from oil and gas activities in the Alaskan OCS. Vital subsistence resources that are intrinsic to the livelihood of coastal Alaska Native communities within the Alaska OCS area are at risk. Due to the serious risk posed to these ecological areas and the communities that are within these areas or in close proximity who rely upon coastal resources, REDOIL strongly recommends the entire Alaska OCS be suspended from the Federal OCS Energy Plan. Considering that the Bush Administration imprudently pushed through a massive expansion of oil and gas activities in the Beaufort and Chukchi Seas, North Aleutian Basin and Cook Inlet in the face of opposition from federal expert agencies, conservation groups, Alaska Native entities, and commercial fishing organizations. These experts and others correctly asserted that there is too little information known about the existing biological conditions in the Arctic, especially in light of changes wrought by climate change, to be able reasonably to understand, evaluate and address the adverse impacts of oil and gas activities on those environments. Therefore we recommend an immediate suspension and cancellation of oil and gas leases and activities within the Alaska OCS and other conservation priority areas in the NPRA and we also support the strongest possible protection for the coastal plain of the Arctic Refuge.

Existing international law already protects subsistence rights. This right is recognized and affirmed by civilized nations in the international covenants on human

rights. Article I of both the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights read in part: **"...In no case may a people be deprived of its own means of subsistence."**

The Outer Continental Shelf of Alaska—Each of Alaska's OCS regions contains important subsistence resources that would be threatened by oil and gas development. Subsistence use of fish and other marine animals is both an established economy of Native coastal communities and is absolutely central to the survival of Alaska's indigenous cultures. Unlike oil and gas resources, the marine resources of the Alaska OCS can last indefinitely, and should therefore not be jeopardized by non-renewable resource development.

Beaufort Sea—The Arctic Ocean's Beaufort Sea is the primary marine subsistence use area for the Inupiat of the North Slope. The Beaufort provides critical habitat for polar bears, walruses, seals, migratory birds, threatened spectacled and steller's eiders and the endangered bowhead whale. In this vulnerable and harsh environment, spilled oil will concentrate in restricted open water such as the leads and breathing holes where marine mammals surface and birds congregate, and along the sensitive coasts. The Arctic National Wildlife Refuge, with its incomparable wildlife and wilderness, adjoins the eastern portion of the Beaufort Sea in the United States. Critical bowhead whale spring migratory pathways in the lead zone are located east of Barrow, and fall migratory and feeding habitats are located offshore of the Arctic National Wildlife Refuge.

Chukchi Sea—Lease Sale 193, would allow oil and gas exploration and development for almost 30 million acres of the Chukchi Sea. The Chukchi Sea is an important primary subsistence use area for Inupiat that live in nearby coastal communities. Oil leasing in Arctic waters of the Chukchi Sea threatens critical spring migration route for bowhead and beluga whales, important feeding areas for gray whales and other Whales and Pacific walruses, staging and molting areas for migratory birds, polar bear and walrus habitats. In Government to Government consultations the Native Village of Point Hope has consistently objected to any offshore activities toward oil and gas development, despite this, the Minerals Management Service has consistently approved offshore leases for exploration and development of the Chukchi Sea and this has been perceived as blatant disregard of government to government consultation.

North Aleutian Basin (Bristol Bay)—President Bush lifted a longstanding presidential order that specifically prohibited oil and gas drilling in Alaska's pristine Bristol Bay. In light of the lifting of the moratorium, as part of the Outer Continental Shelf (OCS) five year plan offshore oil and gas development in Bristol Bay by as early as 2010 has been included. Bristol Bay supports the world's largest sockeye salmon run, other important fisheries, and abundant seabirds and marine mammals. Offshore drilling in this sensitive place would put fisheries, marine life, traditional subsistence livelihoods, and economies at risk.

Cook Inlet—Cook Inlet is the birthplace of commercial oil and gas development in Alaska. With that we observe the ensuing effects of underwater seismic blasting, toxic dumping from offshore platforms, and regular leaks and spills which are the primary threats to the Cook Inlet Beluga Whales and their habitat. The U.S. Army also retains a presence in Cook Inlet, and its bombing range at Eagle River Flats on Fort Richardson regularly showers toxics and other pollutants into areas that support belugas and their prey. Cook Inlet is also a major shipping hub and fishing center, and ship traffic, noise, port dredging and prey disturbance may be affecting belugas. The National Marine Fisheries Service (NMFS) listed the beluga whale as "endangered" in October 2008 after an exhaustive scientific review. The State of Alaska announced its intent to challenge the listing in a January 12, 2009, letter to NMFS. We support maintaining the "endangered" listing of the Beluga.

It is an undisputed fact that the burning of oil, gas, and coal ("fossil fuels") is the primary source of human-induced climate change. The United States appetite and high consumption of energy creates a stubborn insistence upon the use of non-renewable sources of energy, particularly, unsustainable and highly polluting, fossil fuels. Pristine and un-recoverable ecosystems are being assaulted in the short-sighted quest for new sources of fossil fuel. Indigenous communities are disproportionately impacted by fossil fuel exploration and extraction/drilling activities, and by the resulting effects of pollution, global warming, and climate change. Here in Alaska this is our reality. We are living with unsustainable fossil fuel extraction, and dealing with ensuing cumulative impacts of loss of our subsistence resources, detrimental impacts to human and ecological health and this is compounded by climate change. Further pursuits into pristine ecosystems of which Alaska Native peoples depend on for subsistence such as the Beaufort and Chukchi Seas, North Aleutian

Basin (Bristol Bay) and Cook Inlet is a threat to Alaska Native subsistence livelihoods, culture, spirituality and social systems.

If these critical offshore areas within the Alaska OCS are pursued and allowed to proceed and development of these critical subsistence use areas ensues, the harm to Alaska Native cultures and subsistence livelihood would be severe and in some cases irreparable.

In regard to Federal OCS plans specifically in Alaska's OCS we strongly encourage the Department of the Interior to fulfill and honor their government to government responsibilities and work collaboratively and in good faith with Tribes in Alaska on these important issues. It is unfortunate that the federal agencies have disregarded the federal government to government meeting outcomes in which Tribes have consistently opposed any development activity within the oceans which provide the very lifeblood of their communities. The experience thus far of tribes in Alaska on these issues with the MMS has been a clear erosion of federal trust responsibility.

We are also gravely concerned with the threat of an oil spill in Arctic waters if development is allowed within the Alaska OCS—the MMS itself has stated that the risk of a significant oil spill can be as high as 51 percent. Because of the remoteness of these areas and the extremely harsh environment it may be near impossible to have immediate response to any spill or accident that occurs due to oil and gas development. The detrimental impacts that may occur to key subsistence species may create a situation where they may never be able to recover from the stresses that oil and gas development will cause. It has become clear that if an oil spill occurs within the Alaska OCS, there is no proven technology to clean up oil spills in Arctic waters. Demonstrations have shown that oil cannot be cleaned up in Arctic waters.

The fact remains that we cannot drill our way to oil independence. The U.S. must break its insatiable dependence on oil—be it foreign or domestic—if we are to achieve true energy independence and national security. Limiting leasing and development could have an even more profound impact on this country's energy landscape if coupled with a re-direction of billions of dollars in federal subsidies, tax breaks and incentives away from fossil fuels and toward renewable energy sources, energy efficiency and conservation. The United States generates about 25 percent of world petroleum demand. This fact alone indicates that Americans can have a much larger impact on global markets on the demand side than on the supply side. This conclusion is strengthened by the fact that there are large untapped energy efficiency resources, yet the United States government continues to focus almost exclusively on exploiting non-renewable oil and gas resources. Energy efficiency alternatives to opening up these sensitive areas are numerous. Using available technology, we could save an average of 3.2 million barrels of oil per day within 10 years.

Today's profit driven economies are not sustainable and threaten the existence of our future generations. Our actions as humanity are creating an imbalance within the natural order and natural laws created for all our benefit. The decisions that are made today by government leaders will effect the rights of the unborn and this responsibility cannot be taken lightly. Though Alaska Natives are hit first and hit hardest by climate change, we now share the consequences together. We have to take action now to implement genuine measures of a just transition toward clean renewable energy and an energy efficient economy that supports sustainable jobs and communities. We ought to be weaning our addiction to fossil fuels now, not allowing more development in areas that are critical to the survival of Indigenous Peoples such as within the Alaska OCS.

We strongly recommend that Congress begin taking concrete serious measures now to address the Climate crisis we are in, such as imposing a moratorium on all new exploration for oil, gas and coal as a first step towards the full phase-out of fossil fuels with a just transition to sustainable jobs, energy and environment. We take this position and make this recommendation based on our concern over the disproportionate social, cultural, spiritual, environmental and climate impacts on Indigenous Peoples in Alaska

Should drilling in Alaska's OCS move forward without regard to the serious and profound concerns for the very survival of Alaska Native Peoples the dire implications of that decision would harm untold generations. **We request that Congress by any means necessary suspend and cancel leases within the Alaska OCS.**

Thank You.

K'eegwaadhat Noohaa Ooli'

Faith Gemmill, Executive Director
Resisting Environmental Destruction on Indigenous Lands (REDOIL)

[The response to questions submitted for the record by Jefferson M. Angers follows:]

Response to questions submitted for the record by Jefferson M. Angers, President, Center for Coastal Conservation

1. Mr. Angers, do you believe that offshore wind turbines could also provide similar fish habitat benefits to what you ascribe to oil and gas platforms?

From a fishery perspective, most structures do benefit the fishery. My testimony focused on the actual conditions related to offshore oil and gas production and the Gulf of Mexico fishery. I attempted to share with the committee my observations regarding the co-existence of energy activities and fish stocks. We currently do not have experience with offshore wind turbines; however, I think it important to note that one of the first offshore wind projects in the nation (Cape Wind) has been subject to significant opposition and delay.

2. Mr. Angers, in your testimony you mention four primary culprits for wetlands loss, and two of them, exploration and pipeline canals and navigation channels, are either directly related to oil and gas activity, or are a consequence of the increasing industrialization of the coastline. Since you also mention that most of the fish species in the Gulf are estuarine dependent, can we be sure that the habitat destruction being caused in the estuaries by the oil and gas industry isn't much more significant than the habitat creation due to the platforms?

I believe that it is important to clearly understand our coastal challenges in the Gulf. Numerous studies have confirmed that the primary cause of coastal wetlands loss (and associated ecosystems) in Louisiana was due to the installation of levees on the lower Mississippi River system. The levees achieved the goal of establishing a certain navigation channel and improved flood protection, but cut off the river sediment that provided for the accretion of land in Louisiana. Prior to this time, our state—and the estuary—was actually growing in size. Today, more than 30 states benefit from the maritime commerce accommodated by the levees and the navigation system they protect.

Many have predicted a collapse of the marine fishery if domestic offshore oil and gas production were allowed to expand into new production areas. Based upon the experiences in the Gulf of Mexico, this is not the case. The states of Florida, Alabama, Mississippi, Louisiana and Texas remain as some of the most productive waters in the nation.

I do believe that there were some important lessons learned in the oil and gas industry as it relates to coastal sustainability and proper stewardship of our marine resources, but in my opinion, these pale in comparison to the extraordinary impact that river levees have had on Louisiana's coast.

Future offshore oil and gas development both in the Gulf of Mexico and in potentially new lease areas in other parts of the U.S. exclusive economic zone, must be done in the most environmentally sound manner taking into account critical habitat and the overall protection of fishery resources.

3. Mr. Angers, could you elaborate on the new operating procedure that you believe the Minerals Management Service should adopt in order to balance the concerns of all ocean users? How would it be different from how they operate now?

First, I believe it critical that decisions be based upon the most accurate information possible. In many cases, extraordinary claims are made related to the adverse impacts of offshore energy production. Many of those claims are not supported by actual conditions in the Gulf of Mexico and should be challenged.

In regard to improved operating procedures, balance is appropriate. Blanket policies, such as moratoria, are not appropriate in today's challenging economic climate. Commercial and recreational fishermen are affected in pursuing their vocation and their avocation by the price of fuel. Similarly, all the concomitant businesses that service the fishing industries feel that pain. Efforts to increase domestic energy production will help to temper future fuel price spikes that prevent America's fishermen from ever leaving the docks.

There are some areas where any potential disturbance to a sensitive or threatened fishery may outweigh any benefits ascribed to the expansion of offshore energy production. In some cases, an area with promising energy potential may require innovative recovery techniques to ensure proper balance with other resource needs. I be-

lieve that current technologies are available to allow for win-win situations in most cases.

4. Mr. Angers, you mention the need for a network of conservation areas for fishing before offshore energy leasing and development should proceed. Do we have the information we need to make the determination of what areas need to be protected? And what kinds of protections are you talking about?

Information does exist related to essential fish habitat and productive marine wildlife areas. Rather than first trying to survey the entire exclusive economic zone of the United States for potential conservation area designations, prioritization may be appropriate. Reviewing areas that have attractive volumes of oil and gas, wind, wave and other energy potential to identify marine resources pressures would be a wise approach to balance our needs.

The type of protections to be placed upon areas would depend upon the conditions of those areas. Again, blanket prohibitions preventing access to our marine resources is inappropriate in most areas.

5. Mr. Angers, you call for additional transparency in the management of the oceans. Coincidentally, that was one of the goals of Oceans-21. Are you supportive of that legislation, and if not, what are you calling for that is different from what is in that legislation?

Over the past 33 years since the passage of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), there have been many well-intended proposals to alter this unique federal/state fisheries management law. While not perfect, the legal structures under the MSA that created the eight regional councils have provided for important regional and local input on how best to manage the unique fishery resources in a particular ocean region.

I believe the single biggest failing of the Oceans 21 proposal is its mandate to provide an overarching national ocean policy that would effectively subordinate the regional councils to a subcommittee status reducing substantially the critical input from the various regions. Oceans 21 proposes to enforce this national ocean policy by establishing another strata of ocean governance comprised completely of governmental officials from the federal, state, local and tribal level. This would take out all input and recommendations from user groups and local insights on the best management of unique regional ocean resources.

I would suggest that fisheries management and ocean conservation is complex enough without an additional layer of governmental oversight. Rather than create more government, I would suggest providing greater transparency and public process in the ocean laws we currently have and make sure the best science available is used to make informed ocean management decisions.

6. Mr. Angers, you describe vehicles that already exist to enable royalties to be directed towards marine research and recreational fisheries conservation. Could you specify which vehicles you're talking about, and explain how they currently direct funds to marine research and conservation?

The Coastal Impact Assistance Program authorized in the Energy Policy Act of 2005 and the Gulf of Mexico Energy Security Act of 2006 are two examples of vehicles that could be used to fund marine research and conservation activities. While I would not call either of these perfect, they do demonstrate a structure through which outer Continental Shelf revenues could be reinvested into under-resourced coastal needs. Other examples that have been proposed include the Conservation and Reinvestment Act (CARA) and the Coastal and Ocean Assistance for States Fund developed by Senators Inouye, Stevens, Kerry and the Coastal States Organization.

[The response to questions submitted for the record by Philippe Cousteau follows:]

Response to questions submitted for the record by Philippe Cousteau

1. Mr. Cousteau, can you describe in more detail how an ocean investment fund would work, and if it were established how it could be used to support ocean planning.

Congress could establish a permanently appropriated, dedicated fund that is capitalized through a percentage of revenue derived from offshore energy development.

Funding sources could include OCS oil and gas development, wind, tidal and wave energy production projects, and potentially other revenue-generating uses of marine resources in federal waters, especially those that include fixed structures and/or preclude other uses. The Ocean Investment Fund (the Fund) should be used to pay for activities and projects that protect, maintain, and restore ocean, coastal and Great Lakes ecosystem health including the necessary research, planning, and management.

Planning for the use of submerged areas is needed for both marine areas and the Great Lakes. For now, I will refer to it collectively as ocean planning.

I would recommend that planning within state waters be voluntary. States should be able to access the Fund if they are willing to engage in ocean planning that is comprehensive and takes into account whole ecosystems including humans. Planning must be done in a way that anticipates the cumulative effects of given policies rather than focusing on single species, sectors, activities or concerns. It needs to entail spatial planning that allocates three-dimensional marine and freshwater spaces (ecosystems) for specific uses to achieve ecological, economic, and social objectives. These objectives would need to include: safeguarding ecological processes and ecosystem services, protecting special and sensitive areas, improving the resilience of ecosystems to disturbances, increasing the adaptability of ecosystems to climate change, and providing for sustainable economic development.

Regional planning should be mandatory (for EEZ areas beyond state jurisdiction) and should be done in a manner similar to that described above for state waters. There should be incentives for states to participate in regional planning and to coordinate state plans with regional plans. Consideration should be given to using existing regional structures such as the West Coast Governors' Agreement and the Northeast Regional Ocean Council as the geographical basis for regional ocean planning. Areas where human activity is concentrated should be prioritized.

2. Mr. Cousteau, if we were to pursue the ocean investment fund concept, would the revenue be generated from just oil revenue or renewable energy revenue as well?

The Fund could be established and credited with a small percentage of existing oil and gas revenue that is collected by MMS and deposited into the Treasury. A portion of revenue from any new development of oil and gas production facilities in the OCS should also go toward this fund, but it should be structured so that it does not provide an incentive for such development.

If such facilities are paying fees, a percentage of funds from leasing fees and/or a portion of revenue from renewable energy projects such as wind and/or hydrokinetic energy generation facilities should also be collected for the Fund since these facilities will impact the OCS ecosystem and will need to be properly sited. However, whether these facilities are paying substantial fees in the short term is a question related to our larger energy strategy, which ought to include encouraging renewable energy sources.

In addition, consideration should be given to other offshore business ventures such as aquaculture facilities, transatlantic cables and other fixed-structure ocean activities being subjected to fees, of which a portion could be collected and deposited into the Fund.

3. Mr. Cousteau, you mentioned on a number of occasions that we don't know enough about the oceans, and that more scientific studies are needed. Could you elaborate on what types of studies, and where, you would like to see take place on the U.S. Outer Continental Shelf?

The first step would be to compile existing data and make it available in a spatially explicit form wherever possible. There should be a common framework for information such as a multipurpose marine cadastre, which could be an expansion of the cadastre currently being used by MMS. The data needs for a particular area will be a function of what data is available and what data gaps exist.

Data on the geophysical and biological characteristics of an area as well as data on current and future human activities must be collected, as they are intertwined.

Currently the greatest demand on the OCS is for the development of energy resources, and some have argued for seismic studies to determine as precisely as possible the location, extent and types of hydrocarbon resources that may exist. However, with respect to more preferable renewable energy development, studies are needed to assess the locations of potentially exploitable wind, wave and tidal energy. For example, wind speed, water depth, distance from shore (to determine visual impact), bottom type (to determine if piles can be driven) are some of the physical variables that need to be understood to site a wind facility. These studies will allow predictions of where additional exploration and development activities may occur in-

cluding the transport of energy via ships, pipelines or transmission lines to the shore.

Data on other human activities must also be complied in a spatially explicit, scientific, and standardized way. In many cases, data exists but it is patchy and/or anecdotal. Information is needed on activities such as shipping, sand and gravel mining, dredging and dredged material disposal, recreational and commercial fishing, recreational boating and diving, scientific research, and cultural and historic preservation such as shipwrecks and submerged artifacts.

With respect to marine species, studies are needed to understand abundances, distributions and migration patterns. For example, more information is needed about endangered marine mammals such as the northern right whale and the humpback whale. Sea turtles comprise another group that merit further study including migration routes and juvenile and foraging habitats.

In many cases, even basic maps of habitat distributions are unavailable. In order to conserve critical habitats and communities we need to know where they are. The submarine canyons and shelf edges are structurally complex and support diverse benthic and pelagic communities. Deepwater corals and golden tilefish (that construct extensive burrows that drive ecological processes) are examples of species that must be mapped in order to inform decisions about development of OCS resources.

In terms of where these studies should take place, with finite resources it might be expedient to focus the effort on the OCS within 25 miles, and locations where leases for oil and gas activity are being considered for areas between 25 and 200 miles. Human activities are currently concentrated within 25 miles of shore. At least for the near term this is also where development of renewable energy projects are expected based on transmission limitations. Some proposed oil and gas leases are extensive but if development of an area is a possibility, it should be adequately studied.

Finally, the science of "ecosystem services" (the delivery of benefits from natural ecosystems to humans) needs to be advanced rapidly. It is impossible to evaluate the benefit of a project that provides economic benefit against the environmental impacts without understanding the economic value of the ecosystem itself.

4. Mr. Cousteau, you talked about the need to initiate marine spatial planning to avoid the "suburban sprawl" of the oceans, but won't this type of national marine planning take many years to implement? Is it worth starting such a protracted national process now, when the industrialization of our oceans is already upon us?

It's never too late to start planning for, and managing development, whether on land or in the ocean. The alternative is a continuation of poorly planned uses contributing to the degradation of marine resources.

With adequate funding, marine spatial planning can be accomplished relatively quickly. In Massachusetts the Oceans Act was signed into law May 28th, 2008, the draft plan is due June 2009, and the entire plan must to be completed and promulgated by December 31st 2009. Rhode Island is developing a marine spatial plan within a similar 18-month time frame. Proper planning is expected to actually expedite the siting of projects such as renewable energy facilities by increasing the certainty of permitting outcomes. It might be possible to provide funding first to those states and regions that have the most pressing needs based on pending permit applications for offshore projects.

Industrialization of our oceans may be upon us, but it is expected to accelerate in the near future. Existing uses, especially those that include fixed structures, have been permitted without comprehensive planning. However, that is no reason to allow all future uses to be sited without a plan. Some states may choose to hold permit applications for projects in state waters until a plan is complete. This is the approach that Rhode Island has taken but federal legislation should not mandate this approach for either state or federal waters.

5. Mr. Cousteau, you mentioned the need for more consideration to be given to siting issues in the leasing process. Do you think the current MMS and NEPA processes provide sufficient safeguards to ecosystem health? Do you think they look comprehensively at all marine activities and their cumulative impacts on the oceans?

The current MMS siting process does not take a comprehensive look at all marine activities. The process focuses on oil and gas exploration and development and evaluating the impacts of those activities on the marine environment. It does not consider how oil and gas development might preclude other ocean uses, and the process was not designed to accommodate renewable energy siting. Furthermore, when de-

termining the long-term economic value of fossil fuel development there is no consideration given to whether a renewable energy project in the same area would have comparable economic returns with fewer environmental impacts. The value of ecosystem services is also not considered.

Among the criteria examined for siting are key geographic and geological features of these regions. But, MMS does not examine whether these regional features might be better suited to a different use. Given the increased competition for ocean spaces, it is imperative that we manage ocean energy uses in concert with all other economic development uses and conservation. The MMS process is insufficient to address this need. Marine Spatial Planning is needed to ensure that each use is sited in an environmentally appropriate manner, and that ocean space is used efficiently.

The NEPA process was designed to evaluate the impacts of a particular project and does not consider the cumulative impacts of multiple projects, nor does it require specific actions to be taken to mitigate environmental harm. It is entirely reactionary—driven solely by competing uses that apply for permits. A developer proposes a location usually based on a dearth of knowledge as opposed to knowing what locations might be appropriate for the project based on an understanding of the ecosystem including current and future human uses. The NEPA process also does not have the capacity to consider any future ecosystem changes such as shifts due to climate change.

Putting an ocean plan in place does not eliminate the need for the NEPA process or intrude on the authority of MMS or any other agency for siting projects. A full NEPA process that evaluates environmental impacts would still need to be done. However, many of the environmental variables, for example the locations of sensitive habitats, would have already been identified during the planning process. Ocean planning is intended to streamline the NEPA process.

6. Mr. Cousteau, some points were made in the hearing about the number of environmental reviews that must occur before oil and gas production can begin on the OCS. Does that seemingly intensive review process give us the information that we need to make informed decisions about where to make new drilling decisions?

There is no doubt that the MMS process is both time consuming and intensive, but that alone does not lead to sound decision-making. The MMS process starts with proposing specific planning areas, then after a period of comment the agency issues a final proposed program along with a draft EIS for that program. The process hinges on the initial planning areas that are proposed. If those are not evaluated correctly, it does not matter how thorough the EIS is. When MMS decides which sites to initially propose they look at eight key factors ranging from energy interests to environmental and predictive information for the area. The decision on where to locate leases in the OCS is made by balancing those eight factors and MMS uses a comparative analysis to evaluate potential sites. The problem is that key data is not included or not factored into the comparative analysis.

For example when evaluating potential environmental costs of offshore drilling they do not calculate the costs from catastrophic events or impacts on unique resources such as endangered species—both of which are two of the primary concerns with offshore drilling. Even when they assess the risk of incidental oil spills, they present an incomplete estimate. When MMS assesses the risk of incidental oil spills they evaluate shoreline sensitivity. Shorelines are ranked according to their sensitivity to oiling, the natural persistence of oil, and the ease of clean up. It is important to note biological productivity and sensitivity only applies to the physical shoreline and not biological habitats that are on or adjacent to the shoreline. What is not included is whether or not a wetland shoreline serves as a habitat for endangered birds, or whether a beach is a haul out site for endangered seals.

The comparative analysis is only used to rank the planning areas; the final decision is still at the discretion of the Secretary. Several court cases have elaborated on the Secretary's role in decision-making stating, "The environmental and coastal zone considerations are undoubtedly important, but the act does not require they receive a weight equal to that of potential oil and gas discovery."[1] No part of the OCSLA requires MMS to give equal weight to environmental impacts.

[1] California I, 668 F.2d, p.1317.

7. Mr. Cousteau, if, as was cited during the hearing, there are dozens of law overseeing our oceans and protecting the natural resources of the outer continental shelf, why do we need a new planning process? Aren't the current laws sufficient?

There are many laws that were designed to protect the natural resources of the outer continental shelf and a myriad of agencies that implement them. That is part of the problem. Authorities are fractured and there is no coordination of the various efforts. Each agency has responsibility for a particular sector or issue but there is no overarching plan that connects them nor is there a common vision or a set of goals. The underpinning of ocean planning is the coordination of existing planning efforts. Upon that is built a spatially explicit, comprehensive plan that is based on adequate information.

[The response to questions submitted for the record by Ted Danson on behalf of Oceana follows:]

Response to questions submitted for the record by Ted Danson

1. Mr. Danson, could you elaborate a bit on the difference between natural seeps and man-made spills, and why we should be concerned about the small fraction of the oil in the ocean that comes from manmade spills?

First, according to the National Research Council, more than half the oil released into the world ocean comes from the extraction, transportation and consumption of petroleum, so this is not really a "small fraction" as stated in the question.

Crude oil can seep naturally from beneath the sea floor into the marine environment. While these seeps do release oil, the rate of release is very slow, and it tends to be in fixed locations, two factors which allow the surrounding ecosystems to adapt to the oil in their surrounding environment. Many mobile animals such as fish and marine mammals are able to avoid these slow releases. Additionally, while some species can adapt, others may be unable to do so, even given the slow release and the fixed location.[1] Unlike natural oil seeps, however, human caused spills, and even relatively small ones, can cause considerable harm in areas that have not adapted to oil. Even animals with some degree of prior oil exposure tend to be unable to cope with the impacts of a spill which generally will involve more oil than what they may have been exposed to naturally.[2] Most animals, which are not naturally exposed to oil seeps, will be even less able to cope, including the marine mammals that I described in my written testimony.

It is important to note that there is very little evidence that oil drilling reduces natural seeps.[3] In fact, we are aware of only one study, in one specific location, that has linked oil drilling to a reduction in natural seeps.[4] Even in such a case, reductions in natural seep rates may only occur at the early stages of drilling, when oil is easily extracted. Beyond this point, as an oil field ages, oil recovery becomes more difficult and more advanced technology and drilling techniques are required. Importantly, these more advanced techniques may in fact, increase the likelihood of seepage, rather than decreasing it.[5] Therefore, the suggestion that drilling reduces seeps requires much more evidence to back it up.

The bottom line is this: natural oil seeps are largely out of our control. However, the impacts from unnecessary offshore oil exploration, production and transportation are entirely in our control.

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[1] Committee on Oil in the Sea (2003) Oil in the Sea III: Inputs, Fates, and Effects, Ocean Studies Board, Marine Board, and Transportation Research Board, National Research Council http://books.nap.edu/catalog/10388.html

[2] Luyendyk, B. (2008) Statement on oil seeps and drilling. Presented to the Board of Supervisors, Santa Barbara County at the August 26 meeting. State and National Energy Crisis—Discussion. http:// www.geol.ucsb.edu/faculty/luyendyk/seeps%20pubs/luyendyk_BOS.pdf

[3] Luyendyk, B. (2008) Statement on oil seeps and drilling. Presented to the Board of Supervisors, Santa Barbara County at the August 26 meeting. State and National Energy Crisis—Discussion. http:// www.geol.ucsb.edu/faculty/luyendyk/seeps%20pubs/luyendyk_BOS.pdf

[4] Quigley, D. et al. (1999) Decrease in natural marine carbon seepage near Coal Oil Point, California, associated with offshore production. Geology, 27(11):1047-1050

[5] Luyendyk, B. (2008) Statement on oil seeps and drilling. Presented to the Board of Supervisors, Santa Barbara County at the August 26 meeting. State and National Energy Crisis—Discussion. http:// www.geol.ucsb.edu/faculty/luyendyk/seeps%20pubs/luyendyk_BOS.pdf

2. Mr. Danson, there was a comment made in the hearing about the percentage of a barrel of oil that goes to fuel and the percentage that goes to plastics and other materials. Could you provide the exact data on the breakdown of products that are derived from a barrel of oil?

First, we must recognize that while oil provides resources, it has become more obvious that we must move away from a carbon-based society. The costs associated with drilling and producing petroleum products are increasing as our climate warms. These costs are even more dramatic with regard to offshore oil production.

According to the U.S. Energy Information Agency, a 42-U.S. gallon barrel of crude oil provides slightly more than 44 gallons of petroleum products. This is largely made up of finished motor oil, diesel fuel, propane and other energy producing fuels. Other products that can be made from components of oil include, according to EIA, things like ink, dishwashing soap, deodorant, tires, and even heart valves.[6] EIA reports that about 16% of a barrel goes to these "other" uses though it is unclear whether that includes only non-energy-related purposes.

It is important to keep in mind, however, that none of these products requires drilling on the Outer Continental Shelf, and each can and will continue to be produced regardless of whether the OCS is opened to additional drilling. The OCS provides such a small fraction of our oil needs, its use is irrelevant to the manufacture of the above products. In fact, our ability to continue to use oil to make these products in the future is furthered by implementing the shift away from oil use as fuel, and towards alternatives, as I recommended in my testimony. Finally, it is important to keep in mind that many of the products that are made with petroleum components can be made using alternative materials.

3. Mr. Danson, following up on a line of questioning from the hearing, could you describe the differing environmental impacts between a properly sited wind tower and a properly sited oil rig? During the hearing, it sounded as if you and Mr. Cousteau were saying that the environmental impact of the rig itself is no different than the impact of the tower.

There are tremendous differences between offshore oil production and offshore wind production. The impacts of oil rigs are numerous, beginning with siting the rig, the oil production process, the transportation of the product, and ultimately the use of the product itself. I discussed each of these steps in my written testimony, including the impacts associated with each of them, for the record. Wind turbines, on the other hand, do not require the same siting process; they produce only minimal impacts and present no risk of oil spills.

While it may appear that the physical infrastructure is the same, there is a big difference between building a structure that drills into the earth's crust, injecting and extracting materials through it constantly, and one that is anchored to the ocean floor, harnessing the wind that passes above it.

In addition, there are a variety of factors associated with oil drilling that present risks to marine life and coastal economies. Accidents, for example, inevitably accompany all stages of offshore production. The most typical causes of accidents include equipment failure, personnel mistakes, and extreme natural impacts from seismic activity, ice movements, hurricanes, and so on. Besides accidents, offshore oil and gas activities create a myriad of other threats to marine life including routine spills, and disposal of wastes such as drilling muds and produced water, and noise pollution.

Furthermore, daily offshore drilling operations create a variety of pollutants that affect marine and other wildlife. Offshore rigs can dump tons of drilling fluids, metal cuttings, including toxic metals (lead, chromium and mercury) and carcinogens (such as benzene, xylene and toluene and especially polycyclic aromatic hydrocarbons) into the ocean. Drilling muds are used to lubricate and cool the drill bit and pipe. One drilling platform normally drills between seventy and one-hundred wells and discharges more than 90,000 metric tons of drilling fluids and metal cuttings into the ocean. Some studies suggest that drilling-related chemicals can stunt fish growth and affect breeding patterns.

Wind, on the other hand, creates little if any pollution surrounding the site. While some concerns exist with the impact of wind turbines on wildlife, we believe these concerns can be alleviated through a proper environmental review process prior to siting. However, the overall suggestion that a rig is the same as a wind farm is a "red herring" designed to distract attention from the myriad of risks clearly and indisputably associated with offshore oil and gas drilling and production.

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[6] Energy Information Agency, Energy Kids Page (2009) http://www.eia.doe.gov/kids/energyfacts/sources/non-renewable/oil.html#Howused

4. Mr. Danson, in your opinion, how would you like to see Congress moving forward to address ocean acidification?

First of all, it is crucial to recognize that the only way to avert ocean acidification is to stabilize and ideally reduce the amount of carbon dioxide in the atmosphere. No other plausible technological fixes exist. The most important thing that we can do now is to cap and reduce carbon dioxide emissions in our atmosphere.

Preventing the expansion of offshore oil and gas drilling on the Outer Continental Shelf is a first step. We also need to stop ongoing activities in the Arctic until we develop a comprehensive conservation and clean energy plan as I described in my testimony and as I discuss further below.

We must shift toward a future in which we rely upon affordable, carbon-free, renewable energy; a future in which our oceans and the environment are healthy. Part of this effort must include an emphasis on development of carbon-free technologies such as wind and solar and improved energy efficiency.

To make this shift, we will need to strengthen the infrastructure for energy alternatives such as solar and wind. We also need to increase the efficiency of cars, trucks, trains, planes and ships, as well as homes, office buildings and industrial processes, while cutting down on deforestation and promoting reforestation efforts to help "draw down" carbon dioxide levels in the atmosphere.

As I stated in my written testimony, there are many conservation measures that could be put in place immediately to reduce our energy needs and that will help us lower the demand that needs to be filled by renewables. The United States Department of Energy has projected that we can generate 20% of our electricity demand from renewables by 2030. Offshore wind could provide 20% of this amount. This effort has started, as the United States added enough wind power in 2007 alone to provide electricity to more than a million homes.

As you can see clearly from my testimony and from my answers to these questions, Oceana is not opposed to harnessing energy from the oceans. We must do so based on sound science and a thorough assessment of the ecosystem, risks, and benefits. At this point, an objective assessment of the comparative risks and benefits of oil and wind clearly demonstrates that wind can better help us solve climate change with minimal impacts to marine resources. In shifting to clean, renewable energy, we are reducing our reliance on carbon dioxide emitting energy sources that put our oceans at risk from climate change and ocean acidification.

5. Mr. Danson, in your testimony you mentioned the need for the development of a comprehensive conservation and energy plan for the Arctic. Could you elaborate on the unique characteristics of the Arctic that you believe would necessitate such a plan? And also, who do you think should be in charge of putting together such a plan?

The Arctic is home to vibrant communities of indigenous peoples and provides vital habitat for some of the world's most iconic wildlife species. The region is warming at approximately twice the rate of the rest of the planet, and the resulting changes—particularly the loss of sea ice—have created the potential for rapid industrialization. Science-based, precautionary management should be implemented through an interagency task force charged with developing an Arctic conservation and energy plan.

Tens of thousands of people inhabit the Arctic region of the United States, which is entirely in Alaska. The majority of these residents consider themselves to be Alaska Natives and, though organized into towns and villages like elsewhere in the country, inhabitants of the far north lead a much different life. For many Arctic residents, culture is dependent on subsistence harvesting, sharing of food, travel on snow and ice, traditional knowledge, and adaptation to Arctic conditions.

In addition to the vibrant communities that have adapted to the top of the world, the Arctic also supports some of the last remaining relatively pristine terrestrial and marine ecosystems. The Arctic Ocean provides important habitat for 23 species of marine mammals, including polar bears; bowhead, beluga, and gray whales; narwhal; walruses; and bearded, ringed, and ribbon seals; 100 species of fish including Arctic cod, capelin, and herring; and more than 50 species of seabirds, including spectacled Eiders, Arctic terns, and Ivory Gulls.

In addition, the Arctic plays an important role in regulating our climate. The long periods of little to no sunlight and high reflectivity of snow and ice during periods of sunlight result in a net loss of heat. These factors help drive the circulation of the Earth's atmosphere and ocean currents which transport heat from the tropics to the poles where it is released from the planet. Thus, the health of the Arctic is important to the Earth's atmospheric and oceanic circulation patterns, which affects climate, weather, and natural systems worldwide.

The changes to the Arctic are occurring in an area that is not well understood by scientists. According to the U.S. Arctic Research Commission Report on Goals and Objectives for Arctic Research, the Arctic is "the least studied and most poorly understood area on Earth," and, in particular, the Arctic Ocean is the least understood of all the world's oceans. Scattered efforts are underway to gather data on Arctic Ocean ecosystems, but no comprehensive, reliable database of this and other relevant information exists to inform federal policies and agency actions with regard to the American Arctic.

Further, the reduction in Arctic sea ice over the last few years also is opening the Arctic Ocean to the possibility of unprecedented industrialization. The expansion of high-risk activities such as large-scale commercial fishing, shipping, and oil and gas exploration and development would add additional pressures to the already-stressed communities, animals, and ecosystems of the far north. Of particular concern is the 70 million acres opened for drilling in the Beaufort and Chukchi seas in the current 5-year OCS leasing plan (2007-2012). Leasing has occurred, and there is ongoing seismic exploration in many of these areas.

These leasing decisions were made despite an acknowledged, substantial risk of a major oil spill and the direct recognition that there is no proven technology to clean up such a spill in icy Arctic conditions. The same environmental conditions that contribute to oil spill risks in the Arctic—lack of natural light, extreme cold, moving ice floes, high winds and low visibility—can make spill response operations extremely difficult or totally ineffective.

Current drilling activities must stop until a comprehensive, science-based, precautionary approach to any industrial activity is developed. The federal government must design a comprehensive Arctic conservation and energy plan based on a full scientific assessment of the health, biodiversity, and functioning of Arctic ecosystems to guide decisions about whether, when, where, and how industrial activities are permitted. Creating a comprehensive plan would begin with a gap analysis and research plan developed by independent scientists, such as the National Research Council. Further, the plan could be created in conjunction with broader climate and energy plans for America.

An interagency task force comprised of federal agencies regulating activities in Arctic and those with expertise in the region should oversee the creation and implementation of an Arctic conservation and energy plan and could be headed by a new position in CEQ or by the NOAA Administrator. In addition to federal agencies, creation of an Arctic conservation and energy plan will require participation from local governments, Native tribes, and other local entities.

[The response to questions submitted for the record by W.F. "Zeke" Grader follows:]

PACIFIC COAST FEDERATION OF FISHERMEN'S ASSOCIATIONS

14 March 2009

The Honorable Nick J. Rahall II
Chairman
House Natural Resources Committee
Washington, DC 20515

RE: Response to Questions for Testimony Presented 11 February 2009—"Offshore Drilling: Environmental and Commercial Perspectives?"

Dear Chairman Rahall:

The following are my responses to written questions sent me in your 2 March 2009 letter:

1. The precautionary zones our members in the Santa Barbara Channel are subject to are 1,000 feet in diameter around each platform. Those zones were imposed following the attacks of 11 September 2001. They appear to be fairly well enforced for commercial fishing craft, but perhaps less so for smaller recreational fishing vessels. Prior to 9/11 there were precautionary zones placed around rigs in the North Sea and at times off Santa Barbara. These are the ones I am aware of and that were reported to me. For trawlers operating around rigs in deeper waters such as the Santa Barbara Channel and the North Sea there have been de facto closed areas to fishing around the rigs due to cables and anchor extending out from the platforms that can snag or destroy fishing gear.

2. Pipelines create a problem for fishing gear, including trawls, troll lines and traps, where the pipelines are not covered over and create snags - for gear either being towed through the water near the bottom or gear is being dropped to the bottom (e.g., traps). I have not had reported to me any instance where fishing gear encountering a pipeline has caused a leak, but it is reasonable to expect that as pipelines age they will be more vulnerable to leaks, particularly if hit by a hard, heavy piece of fishing gear such as the weighted metal door used to keep a trawl net open. Conflicts between fishing gear and pipelines can be kept to a minimum as long as the pipelines are adequately buried or, if not buried, as long as they have smooth surfaces and no protrusions that may snag fishing gear.

3. Yes, there are three reasons why we do not believe offshore oil platforms should be converted to offshore aquaculture facilities.

First, there are the lease agreements requiring platforms to be removed at the end of their useful life in oil and gas production. This was the legal condition on the leases and from a fishing industry perspective we expect them to be removed, the seabed cleaned-up and the area returned as it was so it may again be used, among other things, as fishing grounds. As far as we're concerned the oil industry has a legal obligation to remove those platforms and we expect nothing less.

Second, offshore aquaculture is highly problematic (excepting perhaps certain types of mollusks) from the standpoint of feed (i.e., demand on wild fish for feed, conversion ratios of feed to edible protein), pollution, spread of disease/parasites, and escapes. The thrust for aquaculture development at this time should focus on completely-contained, land-based facilities utilizing non-carnivorous species as stocks for such operations.

Third, the water quality around oil and gas platforms may not be suitable for raising edible fish/shellfish products, where there are increased hydrocarbon levels in the water column or seafloor sediment around a platform or increased levels of heavy metal toxicity. The whole point of eating seafood is that it is supposed to be healthy—good for you, not kill you.

4. Yes, we know there will be spatial conflicts with other types of offshore development, including renewable energy generation, such as wind and wave. We are generally supportive of renewable energy development (e.g., as replacement power to help facilitate removal of salmon-killing hydro electric dams), particularly since it is non-carbon based and does not contribute to green house gas emissions which, in turn, make the oceans more acidic. Currently we are having to deal with a number of wave energy proposals along the west coast—mostly from San Francisco north to the Canadian Border—that would either displace fleets from traditional fishing grounds and/or create navigation hazards. We have called for a better mechanism than the current conflicting authorities between FERC and the Minerals Management Service for siting offshore energy development to minimize conflicts with fishing and other maritime activities.

Thank you again for the opportunity to testify. If there are any further questions, please do not hesitate to contact me.

Sincerely,

W.F. "Zeke" Grader, Jr.
Executive Director

[The response to questions submitted for the record by Carolyn McCormick follows:]

March 10, 2009

The Honorable Nick J. Rahall, II, Chairman
Committee on Natural Resources
1324 Longworth House Office Building
Washington, D.C. 20515

Dear Chairman Rahall and U.S. Congressional Members, Committee on Natural Resources:

Once again, I would like to personally thank each of you for the opportunity and your time to discuss our nation's future energy needs and pleased the Committee on Natural Resources has recognized that tourism based economies are part of the discourse and will be part of finding solutions to our energy needs.

I have addressed your three (3) questions as succinctly as possible and would welcome the opportunity to elaborate if needed.

1. "I've heard the term, sustainable tourism used in the past and wonder if you could elaborate on what exactly this means?"

The classic definition of sustainable tourism is: "...sustainable tourism is achieving quality growth in a manner that does not deplete the natural and built environment and preserves the culture, history, and heritage of the local community." (*Managing Sustainable Tourism: A Legacy for the Future* by David L. Edgell, Sr., PhD, page 4). Further: "Managing sustainable tourism...depends on forward-looking policies and sound management philosophies, including a harmonious relationship between local communities, the private sector, and governments in developmental practices that protect natural, built, and cultural environments in a way compatible with economic growth" (Ibid, page 4).

"It means handling tourism in such a way that the place is not degraded, so that future generations can also enjoy it—historically, culturally, environmentally, and visually." Jonathan B. Tourtellot, Director, Center for Sustainable Destinations, National Geographic Society; and Geotourism Editor, National Geographic Traveler

2. "And you could also give concrete examples of things being done in your community to address these issues."

- GOSPL—Green Open Space Preservation of Land grant program created in 2000 by the Dare County Tourism Board, a public Authority. The Dare County Tourism Board recognizes the natural resources that have attracted citizens and visitors to Dare County and the physical beauty of our coastal environment is Dare County's greatest asset. The GOSPL program is available to all Governmental Municipalities in Dare County as well as the County of Dare.

Written proposals are required and must demonstrate applying organizations' ability to meet the GOSPL criteria., and N.C.G.S. 121-34 et seq., the Uniform Conservation and Historic Preservation Agreements Act (hereinafter "the Act") provides that public bodies of the State, including subdivisions thereof such as the Dare County Tourism Board may enter into preservation and conservation agreements; and whereas, N.C. House Bill 225, Section 7, provides that the Dare County Tourism Board may expend funds on services or programs subject to certain limitations; and whereas, governmental partnerships to preserve and protect land is in the best interest of the entire community directly benefiting citizens and visitors for generations to come. Adopted the 21st Day of September 2000.

The Dare County Tourism Board is proud to have recently purchased nineteen (19) acres of land in critical mass areas that have been placed with conservation deeds.

- The (Short Term) Restricted Fund Grant is designed to help Dare County based Municipalities and nonprofit organizations with projects such as highway beautification, beach and sound accesses, or hike/bike walk trails. Grants are disbursed on a 50/50-match basis.

Since 1994 the Dare County Tourism Board, doing business as the Outer Banks Visitors Bureau, funded fifty (50) public and sound beach accesses and multi-use paths. These projects were funded in order to increase non-motorized mobility and encouraging park and walk, bike ride run, skate and free and open access to America's beaches.

In addition to the above adaptation and mitigation concrete projects that in fact minimize carbon emissions, the State of North Carolina is currently working on an adjustment to coastal development due to the ever changing nature of these barrier islands and sea level rise.

- The State of North Carolina Coastal Resource Commission (CRC) has set forth new set back rules for building along the coast and although these rules have not been approved by the NC legislature there are ardent steps being taken to protect property, the economy and the environment.

Current rules:

Residential buildings: 30 times erosion rate setback or if greater than 5000 sq ft then 60 times erosion rate or minimum of 120ft.

Commercial structures: 60 times erosion rate.

Buildings less than 5000 sq ft: 30 times erosion rate is rate less than 3.5 ft/yr but if greater than 3.5ft/yr then 30 times rate plus 105 ft.

Proposed rules adopted by CRC and in public hearing stage:

Building size: less than 5000 sq ft 60 feet or 30 times erosion rate whichever is larger.

Greater than 5000 but less than 10,000 sq ft: 120 feet or 60 times erosion rate whichever is larger.

Greater than 10,000 but less than 20,000 sq ft: 130 feet or 65 times erosion rate whichever is larger.

Greater than 20,000 but less than 40,000 sq ft: 140 feet or 70 times erosion rate whichever is larger.

Greater than 40,000 but less than 60,000 sq ft: 150 feet or 75 times erosion rate whichever is larger.

Greater than 60,000 but less than 80,000 sq ft: 160 feet or 80 times erosion rate whichever is larger.

Greater than 80,000 but less than 100,000 sq ft: 170 feet or 85 times erosion rate whichever is larger.

Greater than 100,000: 180 feet or 90 times erosion rate whichever is larger.

Other projects that the County and several towns have spent millions of dollars, years and countless hours; concrete projects needed but have not been funded due to lack of federal funding and limited local funds are:

- Beach re-nourishment. - Currently there is a 1% occupancy tax in place to build this fund and the project is on the Army Corps of Engineers list.
- Public Transportation system. Task force met for four years and disbanded in late 2008 due to lack of funding.

3. "And explain how that relates to this issue of energy development."

Energy that contributes to global warming and sea-level rise pose an obvious long-term threat to any barrier island destination, not to mention the still-undetermined risk from changes in storm patterns, as well as risk to portions of the marine food chain that are dependent on back-bay wetlands and supply the area's seafood. Pollution risk is an obvious hazard. Visually, industrial-style activity close within eyeshot and land based infrastructure for refineries would have an obvious negative impact on the desirability of the locale for a vacation.

Dare County and the Towns of Duck, Southern Shores, Kill Devil Hills, Kitty Hawk, Nags Head and Manteo, along with the State of North Carolina, are working together to revise wind generated energy opportunities along the coast and also in preliminary discussions on hydro technology.

Energy development is critical to the mobility of humans and diversification and innovation should remain the driving force to find alternative ways to keep American's working and traveling while understanding the perils barrier islands face as we dance with Mother Nature.

As always, I remain,

With best regards,

Carolyn E. McCormick
Enclosures (5)

cc: Dare County Tourism Board

CLIMATE CHANGE AND TOURISM: THE CASE FOR THE COASTLINE OF THE OUTER BANKS, NORTH CAROLINA

David L. Edgell, Sr., PhD, Department of Hospitality and Management, East Carolina University

Carolyn E. McCormick, Managing Director, Outer Banks Visitors Bureau, North Carolina

Introduction

The tourism industry generates trillions of dollars in income and provides memorable experiences to individuals and families worldwide. Tourism brings people outdoors and so is heavily dependent on changing climates and ecologies. Coastal areas are amongst the world's most important tourism destinations and are especially vulnerable to climate change. This paper discusses planning, public perception, climate change and tourism on the Outer Banks of North Carolina.

Tourism creates jobs, adds to income, spurs economic development, promotes economic diversification, introduces additional products, spawns new businesses, increases tax revenue, and contributes to economic integration. Global tourism, a U.S. $7.1 trillion industry, is a large fast growing industry that employs more than 232 million people. The U.S. tourism industry is one of America's major retail industries with $700 billion in total expenditures, employing 7.5 million people. In North Carolina tourism is a $15.4 billion industry with employment at 184,000, and North Carolina's Outer Banks accounts for expenditures of $705 million and 15,000 jobs.

The tourism industry has identified climate change as key to future strategic planning. United Nations World Tourism Organization's Secretary General, Francesco Frangialli, addressing climate change said: "We (tourism industry) are part of the problem (global warming) and we will be part of the solution". Social scientists recognize the need to create innovative responses to projected impacts of climate change on tourism. Climate change presents a special challenge to the Atlantic Ocean coastline of the Outer Banks of North Carolina. Stakeholders along this dynamic chain of barrier islands are planning strategies now to mitigate future negative climate change impact. The beautiful environmental coastline is a major reason why five million visitors from more than 50 countries visit the Outer Banks each year.

Impact

The tourism industry consists of an integrated set of private businesses, private-public partnerships, and public agencies. Tourism and travel are nearly synonymous and many of its key businesses are highly dependent on fossil fuels; which emit large amounts of greenhouse gases (GHGs). Forecasted growth in tourism suggests that these emissions are likely to increase. These interactions between climate change and tourism have to date not been examined on a large scale (Viner and Becken, 2003).

Researchers from four North Carolina universities collaborated on a scientific study entitled "Measuring the Impacts of Climate Change on North Carolina Coastal Resources." The scientists considered the impacts of sea-level rise on coastal recreation and tourism. Their study, using 2004 data, measured the impact of climate change on "beach recreation and tourism" in four southern North Carolina counties (Carteret, Onslow-Pender, New Hanover, Brunswick; excluding the high density tourism counties of Dare and Currituck) and on marine recreational fishing (along the entire North Carolina coastline). This study estimated, in 2004 dollars, that the value lost to local beach goers would be $93 million a year by 2030 and $223 million a year by 2080 and for local anglers, $15 million a year by 2030 and $17 million a year by 2080 (Bin et al, 2007).

In a February, 2007, interview, Dr. Stanley Riggs, a geology professor at East Carolina University, stated that "The Outer Banks is one of the most important coastal systems in the world, there is no other place like this one" (Bragunier 2007). Dr. Riggs pointed out that climate change along the coast has been taking place for thousands of years but it is only recently that we have good geologic records of such changes. He presented diagrams showing substantial loss of shoreline from the years 1962-2005 on the Outer Banks. He concluded his presentation with the following remarks: "There is a lot of human modification to the Outer Banks without understanding the dynamics of the system...Conflict of natural dynamics and human dynamics and they are on a collision course. We have to start to understand the natural dynamics and work with them, work in partnership with nature."

The research reviewed and developed for this paper suggests that much of the tourism industry does not understand the present and future impact of climate change on tourism. "Tourism administrators must undertake a paradigm shift away from overuse of natural resources toward environmental stewardship...Additionally, as global warming comes to the forefront in environmental concerns, tourism managers will need to stay attuned to forecast changes...Individual regions need to address their potential climate changes and the effects on international inbound travel." (Edgell, et al, 2008, p. 351).

The Changing Coastline

The authors of this study (Edgell and McCormick) made an aerial reconnaissance to review and better understand the dynamics of coastal changes. We noted damages to tourism related facilities that had taken place in the recent past due to beach erosion, storms, and hurricanes. From this aerial view, there was no visual evidence of transformations resulting from climate change.

The authors met with Research Hydraulic Engineer Bill Birkemeier at the Field Research Facility, U.S. Army Corps of Engineers, Engineer Research and Development Center for Dare County's Outer Banks. This facility, considered the finest such center in the U.S., measures the level of the coastal waters and climate change. According to Mr. Birkemeier, "over the past twenty years there has been a slight rise in both sea temperatures and sea levels due to climate change. Because the Outer Banks are dynamic and ever changing, and since sea-level rise is at present small and gradual, relative to twice-daily tidal variation and surges caused by frequent storms, it is difficult to determine what changes on the coastline are due directly to sea-level rise. A more immediate concern would be whether climate change may

increase the number or severity of storms on the coast as storms have a major impact on coastlines".

Dr. Nancy White, Director, University of North Carolina Coastal Studies Institute has been studying water quality and coastal sustainability. Tourism, which is water-dependent and an important coastal industry, is of concern to the Institute. Dr. White suggests that "currently there is not enough research or evidence to suggest that climate change is impacting tourism in a negative way in the Outer Banks". In an interview with Dr. Patrick Long, Director, North Carolina Center for Sustainable Tourism, and a researcher on climate change and tourism, he stated that "We need to further our knowledge about climate trends and projections, the impacts of variability and seasonality on federal, state, local, and private sector tourism communities, and the development of strategies to adapt to and mitigate effects of climate change".

While it is not clear whether Outer Banks tourism is being impacted by climate change, the issue has generated serious discussion and some concern amongst private business interests, government agencies and the public. Carolyn McCormick, in an article in The Island Breeze, and Outer Banks newspapers, said: "Before the concerns about climate change and the effort by some to make us a symbol for climate change became part of the public debate, Outer Banks officials, including those of us at the Visitor's Bureau and the members of the Tourism Board, worked with state and federal officials and environmental groups on climate change discussions and helped to shape policy for coastal dwellers and visitors". A colleague working with Ms McCormick on related issues, Dr. Stephen A. Smith stated "I believe that the tourism industry can become a leading voice to help educate visitors about the vulnerabilities of the Outer Banks and other important natural areas".

Conclusion

Few industries are more dependent on climate change than tourism. Paradoxically, climate change may not be totally negative to beach tourism; certain coastlines may be able to extend their seasons due to higher water and air temperatures. Regardless, we must better understand the interactions of climate change and tourism and respond with responsible plans and policies.

The Outer Banks is particularly vulnerable to storms, beach erosion near homes, and loss of fish habitat (due to erosion and the increasingly close link between the land and near shore waters causing decreased water quality). These changes affect the quality of the environment, the experience of tourists, and, finally, the number of visitors. It is clear that a changing climate and rising water levels could have a tremendous impact on tourism in the Outer Banks. Researchers, businesses, and government agencies in the Outer Banks are cooperating and developing ideas to respond to climate change and storm severity. Tourism stakeholders need to seek solutions now in order to cope with the impact of climate change on tourism in the future.

Recommendations

With respect to climate change and tourism along the Outer Banks coastline., the tourism industry (business and government) should:

1. Work with individuals and institutions to improve data collection and communication of climate trends /projections to the community.
2. Help to develop, monitor and test climate change models and assess the effect of individual storms over a substantial time period.
3. Sponsor open forums of discussion on climate change and tourism to seek long-term sustainable solutions.
4. Develop strategies to lessen the impact of tourism and travel on greenhouse gas emissions.
5. Embrace sustainable programs that encourage efficient usages of energy and land resources in tourist destinations like the Green Open Spaces for People and Life program in Dare County.
6. Investigate solutions to the impact of climate change and storm severity with respect to long-term erosion of the coastal beaches.
7. Improve emergency planning and crisis management with regards to the evacuation of coastal areas.

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