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DOMESTIC OIL AND NATURAL GAS: ALASKAN RESOURCES, ACCESS AND INFRASTRUCTURE

OVERSIGHT HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES

OF THE

COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

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OVERSIGHT HEARING ON "DOMESTIC OIL AND NATURAL GAS: ALASKAN RESOURCES, ACCESS AND INFRASTRUCTURE."

Thursday, June 2, 2011
U.S. House of Representatives
Subcommittee on Energy and Mineral Resources
Committee on Natural Resources
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:07 a.m. in Room 1334, Longworth House Office Building, Hon. Doug Lamborn, [Chairman of the Subcommittee] presiding.

Present: Representatives Lamborn, Fleming, Rivera, Duncan of South Carolina, Gosar, Flores, Landry, Johnson, Hastings, Holt, and Sarbanes.

Also present: Representative Young.

STATEMENT OF HON. DOUG LAMBORN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF COLORADO.

Mr. LAMBORN. The Chairman notes the presence of a quorum, which under Committee Rule 3[e] is two Members. The Subcommittee on Energy and Mineral Resources is meeting today for an oversight hearing to hear testimony on Domestic Oil and Natural Gas: Alaskan Resources, Access, and Infrastructure.

Under Committee Rule 4[f], opening statements are limited to the Chair and Ranking Member of the Subcommittee. I have talked with staff for the Ranking Member and as soon as he gets here, which will be any moment, he will be able to make his opening statement, even if it is slightly out of order. So that will be momentarily.

However, I ask unanimous consent to include any other Members' opening statements in the hearing record, if submitted to the clerk by close of business today. Hearing no objection, so ordered.

I also ask unanimous consent that the gentleman from Alaska, Mr. Young, a member of the full Natural Resources Committee, be allowed to join us on the dais when he appears and to participate in the hearing. Without objection, so ordered.

Now I recognize myself for five minutes for an opening statement. Today's hearing will focus on the tremendous resources that are on- and offshore of Alaska and the critical infrastructure that brings these resources to the U.S. market.

Alaska has been, and will continue to be, an integral part of our nation's energy security. The opportunity and promise that has always made Alaska a special place is particularly true when it comes to energy. There is no doubt that Alaska holds tremendous resources. The offshore of Alaska is estimated to hold at least 27 billion barrels of oil and 132 trillion cubic feet of natural gas. But that is just the start. Onshore there are potentially an additional 14 billion barrels of oil just waiting for development.

Currently, in Alaska alone, the oil and natural gas industries support over 43,000 American jobs and comprises 16 percent of the State's wealth. Utilizing these resources will help decrease our

foreign dependence, create jobs, and keep revenue here in the U.S., but accessing these resources is also the main source of frustration.

One example has been development of the National Petroleum Reserve Alaska, an area designated both in name and in status as an area to provide oil and natural gas exploration, which stymied by the inability of the Army Corps of Engineers and the EPA to process a permit for the pipelines and roads necessary to transport the petroleum out of the petroleum reserve. This is a problem that the President should step in and untangle. There are few more egregious examples of bureaucratic red tape, stifling development of our domestic resources than the problem facing oil and gas developers in the NPRA today.

But Alaska isn't just home to vast resources. It is also home to tremendous achievements of engineering. The Transatlantic Pipeline System, TAPS, is one of the great engineering achievements of our nation. This 800-mile pipeline system has resulted in 16 billion barrels of oil flowing from the northern reaches of North America into the cars of the western United States. At the same time, it has kept the money flowing from American consumers into the American Treasury.

This is, in many ways, one of the most important reasons we need to focus on how to ensure the pipeline remains viable and continues to serve as one of the key components of Alaskan energy infrastructure that serves the American people. Each of those 16 billion barrels represents one small victory for domestic development over foreign dependence. But at the same time, every barrel of capacity in the TAPS that goes unused is one more missed opportunity to reduce our dependence on foreign sources of oil.

Witnesses before this Subcommittee have often said that we don't have a lack of resources to curb our foreign dependence; we have a lack of a clear policy. It can and should be the policy of this government to develop the resources in our National Petroleum Reserve quickly, efficiently, and responsibly in order to reduce our foreign dependence, to create jobs, and to keep our revenue here at home.

I want to thank all the witnesses again for being here today and I look forward to hearing your testimony. I now recognize the Ranking Member for five minutes for his opening statement.

[The prepared statement of Mr. Lamborn follows:]

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

Today's hearing will focus on the tremendous resources that are on and offshore of Alaska and the critical infrastructure that brings those resources to the U.S. market. Alaska has been and will continue to be an integral part of our nation's energy security. The opportunity and promise that has always made Alaska a special place, is particularly true when it comes to energy.

There is no doubt that Alaska holds tremendous resources. The offshore of Alaska is estimated to hold at least 27 billion barrels of oil and 132 trillion cubic feet of natural gas. But that is just the start, onshore there are potentially an additional 14 billion barrels just waiting for development. Currently in Alaska alone, the oil and natural gas industry supports over 43,000 American jobs and comprises 16% of the State's wealth. Utilizing these resources will help decrease our foreign dependence, create jobs and keep revenue here in the U.S. But accessing these resources is also the main source of frustration.

One example has been development of the National Petroleum Reserve Alaska, an area designated both in name and in status as an area to provide oil and natural

gas exploration, which sits stymied by the inability of the Army Corps of Engineers and the EPA to process a permit for the pipelines and roads necessary to transport the petroleum out of the petroleum reserve. This is a problem that the President should step in and untangle. There are few more egregious examples of bureaucratic red tape stifling development of our domestic resources than the problem facing oil and gas developers in the NPRA today.

But Alaska isn't just home to vast resources; it is also home to tremendous achievements of engineering. The Trans Alaska Pipeline System, or TAPS, is one of the great engineering achievements of our nation. This 800 mile pipeline system has resulted in 16 billion barrels of oil flowing from the northern reaches of North America into the cars of the Western United States, at the same time it has kept the money flowing from American consumers into the American treasury. This in many ways is one of the most important reasons we need to focus on how to ensure the pipeline remains viable and continues to serve as one of the key components of Alaskan energy infrastructure that serves the American people.

Each of those 16 billion barrels represents one small victory for domestic development over foreign dependence. But at the same time, every barrel of capacity in the TAPS that goes unused, is one more missed opportunity to reduce our dependence on foreign sources of oil.

Before this subcommittee it has often been said that we don't have a lack of resources to curb our foreign dependence, we have a lack of clear policy. It can and should be the policy of this government to develop the resources in our National Petroleum Reserve, quickly, efficiently, and responsibly in order to reduce our foreign dependence, create jobs and keep our revenue here at home.

I want to thank all the witnesses for being here today and look forward to hearing your testimony.

STATEMENT OF HON. RUSH HOLT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. HOLT. Thank you, Mr. Chairman. I thank the witnesses for coming today for what is indeed an important hearing.

There is no question that petroleum is important to Alaska's economy, to our national economy, not just for the economy of producing, refining, and distributing the petroleum, but for how dependent our economy is for the use of it. But we also must look at the bigger picture and it is worth holding this hearing about Alaska because Alaska really lays out in a stark way all of the various issues that are at play here.

Alaska and the Arctic are on the front line, for example, of the effects of global climate change. Alaska has warmed at more than twice the rate of the rest of the United States in the last 50 years with winters that are now on average 6 degrees Fahrenheit warmer. And as the Arctic regions warm one of the risks is melting permafrost, which can undermine the structural integrity of roads and pipelines and other infrastructure.

As we examine oil and gas resources and development, we should also be examining the effects that that development has on our climate and the climate of the Arctic. We also should examine the other effects that oil and gas development have on the environment. This January crude oil was discovered leaking into the basement of a pump station in part of the TransAlaska pipeline and the source was a below-ground pipe encased in concrete leading to Pump Station No. 1 near Prudhoe Bay. The spill forced the shutdown of the pipeline and resulted in spilling more than 13,000 gallons of oil.

This Committee has jurisdiction over the pipeline and we need to ensure that the pipeline's operator, Alyeska, is taking all the appropriate corrective actions to ensure that spills don't happen.

But this recent spill is not the only one. We watched last year as BP was unable to stop an oil spill in the Gulf for 87 days that ultimately spewed four million barrels of oil. And in the spring of 2006, on the North Slope, BP had two other spills from its pipelines, which together released more than 5,000 barrels. And an investigation found that the cause was BP's complete and total failure to inspect properly and maintain its pipelines to prevent corrosion.

Despite the challenges faced in maintaining an onshore pipeline in Alaska, some are advocating for drilling in the still relatively unknown waters of the Arctic Ocean. The independent commission on the BP spill recommended that we needed better scientific understanding of the Arctic environment before moving forward with drilling offshore in Alaska.

As we saw last year in the Gulf, we need to make sure that the companies have the capability to actually contain and respond to a spill, particularly in harsh environments such as we are discussing here. Although big oil would like the public to think that Democrats are against oil production, it is worth noting that House Democrats have introduced legislation that would require lease sales in the National Petroleum Reserve, the NPR Alaska. At least once a year, these have been introduced.

Building on that legislation, and even as U.S. oil production is at its highest level in a decade, President Obama recently announced in his weekly radio address that he would be directing the Department of the Interior to conduct annual sale leases at NPRA.

Now the Chairman talked about reducing our dependence on foreign oil. It is a noble goal. We should work toward it, but we have to understand that this country peaked in oil production 40 years ago. You could drill from Asbury Park to the Bering Straits and this country will not for the foreseeable future ever again produce half as much oil as we did. In fact, as far into the future as this wonderful Rockwell painting is in the past, we will be using very little petroleum.

So we have to bear that in mind as we find a way forward for our country. And just as shale gas has undermined the economics of North Slope natural gas, shale oil may do the same for oil production in Alaska and off the coasts. The New York Times reported oil companies have identified 20 new onshore oil fields in the Lower 48 that could collectively increase the nation's output by 25 percent for a while.

So with oil use down and U.S. oil production up, for the moment, the prospect of additional fields to tap in areas once thought to be spent we need to carefully examine the risks and rewards in drilling in environmentally sensitive and rapidly warming areas of Alaska.

I thank the Chair for calling this hearing.

[The prepared statement of Mr. Holt follows:]

Statement of The Honorable Rush D. Holt, Ranking Member, Subcommittee on Energy and Mineral Resources

Thank you Mr. Chairman.

Alaska and the Arctic are on the front line for the effects of global climate change. Alaska has warmed more than twice the rate of the rest of the United States in the last 50 years, with winters that are now on average over 6°F warmer. As the

arctic regions warm, one of the risks is melting permafrost, which can undermine the structural integrity of roads, pipelines and other infrastructure. As we examine oil and gas resources and development in Alaska, we also should be examining the effects of that development on our climate in the Arctic as well.

We also should examine the other effects of oil and gas development on the Alaskan environment. This January, crude oil was discovered leaking into the basement of a pump station that is part of the Trans-Alaska Pipeline System (TAPS). The source was a below-ground pipe, encased in concrete, leading into Pump Station number 1, near Prudhoe Bay. The spill forced the shutdown of the pipeline and resulted in the spillage of 13,314 gallons of oil. This Committee has jurisdiction over TAPS, and we need to ensure that the pipeline's operator, Alyeska, is taking all of the corrective actions needed to ensure that spills do not happen in the future.

But that is not the only recent pipeline spill on the North Slope. We all watched last year as BP was unable to stop an oil spill in the Gulf for 87 days that ultimately spewed more than 4 million barrels of oil. But in the spring and summer of 2006, on the North Slope, BP had 2 other spills from its pipelines, which together released more than 5,000 barrels of oil. An investigation found that the cause was BP's complete and total failure to properly inspect and maintain its pipelines to prevent corrosion.

Despite the challenges faced in maintaining an onshore pipeline in Alaska, some are advocating for drilling in the still relatively unknown waters of the Arctic Ocean. The independent Commission on the BP spill recommended that we needed a better scientific understanding of the Arctic environment as we move forward with drilling offshore in Alaska. As we saw last year in the Gulf, we need to make sure that oil companies have the capabilities to actually contain and respond to a spill, especially when it comes to the harsh environments of frontier regions like offshore in Alaska.

Although Big Oil would like the public to think Democrats are against oil production, the House Democrats have introduced legislation that would require lease sales in the National Petroleum Reserve—Alaska (NPR–A) at least once a year. Building on that legislation and even as U.S. oil production is at its highest level in nearly a decade, President Obama recently announced in his weekly radio address that he would be directing the Department of Interior to conduct annual lease sales in the NPR–A, while also respecting sensitive areas there.

The NPR–A also has significant natural gas deposits—an estimated 53 trillion cubic feet according to the latest USGS assessment. But there currently is no method of delivering that natural gas to market. Congress has been working to facilitate the development of a natural gas pipeline from the North Slope since 1976 and yet none has been constructed. In fact, just a few weeks ago, BP and Conoco Phillips announced that they were abandoning their proposal to build a 1,700 mile natural gas pipeline from the North Slope to U.S. markets. Moreover, the Energy Information Administration has concluded that a natural gas pipeline would likely not be economic for the next 20 years, especially given the recent discoveries of shale gas in the Lower 48 states.

Just as shale gas has undermined the economics of North Slope natural gas, shale oil may do the same for oil production in Alaska and off her coasts. As reported last week in the New York Times, oil companies have identified 20 new onshore oil fields in the Lower 48 states that could collectively increase the nation's oil output by 25 percent within a decade. With U.S. oil use down, U.S. oil production up, and the prospect of additional fields to tap in areas once thought to be spent, we need to carefully examine the risks and rewards of drilling in environmentally sensitive and rapidly warming areas in Alaska.

These are all important issues for this committee to examine and I look forward to the testimony of our witnesses today.

Mr. LAMBORN. All right. Thank you.

We will now hear from our witnesses. And I want to invite The Honorable Dan Sullivan, Commissioner of the Alaska Department of Natural Resources, Richard Glenn, Executive Vice President of Lands and Natural Resources, the Arctic Slope Regional Corporation, David T. Lawrence, Executive Vice President, Exploration and Commercial of Shell Energy Resources Company, and The Honorable Cynthia Quarterman, Administrator, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation.

Like all witnesses, your written testimony will appear in full in the hearing record, so I ask that you keep your oral statements to five minutes, as outlined in our invitation letter to you and under Committee Rule 4[a].

Our microphones are not automatic, so you need to push the button to make them work. I also want to explain how the timing lights work. When you begin to speak, the clerk will start the timer and a green light will appear. After four minutes, a yellow light comes on. And then at five minutes a red light comes on, and at that point I would ask that you finish the sentence that you are working on and conclude.

Mr. Sullivan, you may begin.

STATEMENT OF DAN SULLIVAN, COMMISSIONER, ALASKA DEPARTMENT OF NATURAL RESOURCES

Mr. SULLIVAN. Good morning Mr. Chairman and Representative Holt. My name is Dan Sullivan. I am the Commissioner of the Alaska Department of Natural Resources—DNR as we are known in Alaska. We manage one of the largest portfolios of oil, gas, minerals, renewables, land and water in the world.

I am a former Attorney General of the State of Alaska and also a former Assistant Secretary of State that had responsibilities over global energy, economic and finance issues.

Mr. Chairman, our country faces very serious energy security challenges and Alaska can and should be able to play a significant role in partnership with the Federal Government in helping our citizens address these challenges. Unfortunately, right now that is not happening, and I would like to explain that.

As you mentioned, Mr. Chairman, Alaska is home to one of America's most vital components of energy infrastructure, TAPS, and Congress played the key role in the rapid construction and development of TAPS. Unfortunately, TAPS sits two-thirds empty from its massive peak of 2.1 million barrels a day to about 620,000 barrels a day, and dropping. Working together, we are confident that we can fix this situation and further promote America's energy security.

First, as you mentioned, Mr. Chairman, the North Slope of Alaska, both on- and offshore State and Federal lands, remains a world-class hydrocarbon basin by any measure with billions of conventional and unconventional oil and trillions of cubic feet of natural gas.

Second, the State of Alaska is doing all it can to reverse the TAPS throughput decline with a comprehensive strategy that includes significant fiscal reform, permitting overall, new infrastructure projects and increased access to state lands, including state leases on the borders of ANWR.

And third, Alaska is one of the most environmentally stringent places on earth to explore and produce hydrocarbons and is the world's leader in developing technologies that have dramatically reduced the footprint of exploration and development activities. We are very proud of this record, Mr. Chairman and my written testimony focuses on this extensively.

But we are missing a critical partner in the development of Alaska's massive hydrocarbon resources and that partner is the Federal

Government. The Federal Government's policies in Alaska have shifted from helping us protect the environment, which we certainly support because we care deeply about our environment, to proactively shutting down resource development. This is not just rhetoric. If you look at pages 9 through 11 of my testimony, I provide six specific examples in less than two years where the Federal Government has made decisions that will stall, kill, or delay resource development on state and Federal lands in Alaska.

This anti-development posture is the cause of extreme frustration and anger with the vast majority of Alaskans. The state has done all it can, countless meetings, letters, public comments, and yes, even suing our own Federal Government to dissuade the Obama Administration from pursuing and continuing such a course. Why? Because locking up Alaska's resources not only hurts Alaskans, but it significantly undermines broader American interests.

Rarely has there been a Federal policy that fails on so many fronts. Jobs and economic growth, energy security, trade and Federal budget deficits, national security are all undermined when Americans are prevented from producing energy from the largest resource basin in our country.

Ironically, this policy also undermines global environmental protection because it drives resource development overseas to places like Brazil, Kazakhstan, Uzbekistan, Russia, Saudi Arabia. Mr. Chairman, I have been to all of those countries and I can guarantee this Committee they don't have nearly the stringent environmental standards or ability to protect the environment that the State of Alaska does.

But my main purpose for traveling from Alaska today is not to complain, but to redouble our efforts to achieve the Federal partnership that we believe is so critical to Alaska and America's energy security success.

In closing, I believe there are three important things Congress can do. One is support the Alaska Governor Sean Parnell's goal of a million barrels of oil a day through TAPS within ten years and make that a national priority of the Congress.

Second, to continue to work on permitting reform to expedite and bring certainty to Federal permitting decisions. And third, Congress should continue its vigilant oversight of Federal agencies that make resource development decisions in Alaska. As a former attorney general, I believe that some of these decisions are made with little regard to national policy set by Congress and Federal law and I think it is important to keep close vigilance on that. Thank you very much.

[The prepared statement of Mr. Sullivan follows:]

Statement of Dan Sullivan, Commissioner,
Department of Natural Resources, State of Alaska

I. Introduction: America's Energy Challenge

Chairman Lamborn, Ranking Member Holt, and members of the House Subcommittee on Energy and Mineral Resources, on behalf of Governor Sean Parnell, the State of Alaska welcomes this opportunity to testify to you about issues of such critical importance to Alaskans. I also wish to express our eagerness to work with the U.S. Congress and the Administration to see that Alaska can meet its potential to deliver to the nation billions of barrels of domestically produced oil and trillions of cubic feet of gas for the U.S. economy. More specifically, we want to demonstrate to this committee and the rest of your colleagues in the Congress the vital role Alas-

ka can play in enhancing America's long-term energy security, expanding American employment, growing the economy, providing significant revenue to federal, state, and local governments, and delivering billions of barrels of domestically produced hydrocarbons to the U.S. marketplace.

Biographical Information

Before getting into substantive matters, I would like to briefly mention my professional background as it pertains to this testimony. I have been serving as commissioner of the Alaska Department of Natural Resources (DNR), a state agency of over 1,100 personnel, since December 2010. Under the Alaska Constitution, my primary responsibility as the DNR commissioner is to maximize the development of the state's resources in a manner that furthers the public interest. DNR manages one of the largest portfolios of oil, gas, minerals, land, and water resources in the world, including approximately 100 million acres of uplands, 60 million acres of tidelands, shore lands, and submerged lands, and 40,000 miles of coastline.

Prior to my appointment as DNR commissioner, I served as the Alaska Attorney General and as the U.S. Assistant Secretary of State for Economic, Energy, and Business Affairs under Secretary of State Condoleezza Rice. I am also a United States Marine, having served on active duty and in the reserves as an infantry officer since 1993.

II. Alaska's North Slope Remains a World Class Hydrocarbon Basin

Alaska is one of the nation's most critical and prolific oil-producing states. Even though production is only about one third of what it was at its peak in 1989, Alaska's North Slope, both on and offshore, remains a world-class hydrocarbon basin with extraordinary potential. According to the U.S. Geological Survey (USGS), Alaska accounts for over 30% of the nation's technically recoverable oil and gas resources, with the North Slope estimated to hold approximately 40 billion barrels of technically recoverable conventional oil and 236 trillion cubic feet of natural gas.

Alaska's Outer Continental Shelf (OCS) constitutes an important share of these totals, with an estimated potential for 27 billion barrels of conventional oil and 132 trillion cubic feet of natural gas. Studies have found that Alaska Beaufort and Chukchi Sea development could result in about 700,000 barrels of oil per day for 40 years. A February 2011 report by Northern Economics and the Institute of Social and Economic Research at the University of Alaska states that development of new oil and gas fields in the Beaufort and Chukchi seas could result in an estimated annual average of 54,700 new jobs for 50 years. These direct and indirect jobs would be created both in Alaska and the Lower 48. With $120/barrel oil, total government oil and gas production from the OCS would be $312 billion.

Considerable reserves also exist onshore. A United States Geological Survey (USGS) report in 1998 showed that the 1002 Area [1] in the Arctic National Wildlife Refuge (ANWR) may have the highest potential for an enormous oil field of conventional any place onshore in the United States, with an estimated 10.4 billion barrels of crude reserves. In 2008, the Energy Information Administration concluded that in the mean ANWR oil resource case, oil production resulting from the opening of ANWR could average about 780,000 barrels per day which is roughly equal to the amount the United States imports from Venezuela (827,000 bpd).

In addition to conventional oil and gas reserves, Alaska's North Slope contains massive quantities of unconventional resources: shale oil and gas, heavy and viscous oil, and gas hydrates. The U.S. Department of Energy has estimated that there are 36 billion barrels of heavy oil on the North Slope. (No current estimates exist of Alaska's shale oil and gas reserves.) Most of these unconventional resources are located onshore near existing infrastructure. Energy companies are beginning to investigate developing some of these resources in Alaska.

Despite the extraordinary production and massive hydrocarbon potential, Alaska remains relatively underexplored compared to any other prolific oil and gas region in North America. Only 500 exploration wells have been drilled within a 150,000-square-mile area on the North Slope—an area that maintains the highest undiscovered conventional oil and gas potential in Alaska. That calculates to three wells per 1,000 square miles. As a comparison, 75,000 square miles within the state of

[1] ANWR covers approximately 19 million acres; the oil lies under a portion of the coastal plain (1002 Area), which is about 1.55 million acres. The 1002 Area has been designated by Congress as an "area of study" to determine its environmental value and oil potential. Under federal law, Congress' decision on whether to make the coastal plain a wilderness area or whether to make it available for oil and gas development was to be deferred until the Department of Interior provided Congress with a recommendation. Close to 75% of Alaskans support opening the 1002 Area for development.

Wyoming, endowed with high oil and gas potential, has more than 19,000 exploration wells, or about 250 wells per 1,000 square miles.

With this remarkable potential, Alaska can and should play a pivotal role in helping our country meet its significant energy and security challenges; reduce our reliance on foreign oil; provide thousands of high paying jobs; reduce the nation's trade deficit; and provide significant revenue to local, state, and federal governments.

III. Alaska Has a Strong Record of Responsibly Developing Resources While Protecting Our Environment; We Are Also a Leader in Environmental Research

Alaska has some of the most stringent environmental policies and regulations in the world and we are a leader in research for sound, responsible resource development. We love our state, not only for its economic opportunities, but also for its natural beauty, and we are very focused on protecting our environment.

The State of Alaska strongly believes that responsible resource development and protecting the environment go hand in hand and we have a strong record of upholding the Alaska Constitution's mandate that the state pursue responsible resource development in a manner that safeguards the environment.

Alaska's Robust Efforts to Protect the Environment and Wildlife

To ensure responsible resource development while protecting the environment, the state has devised a comprehensive system that imposes rigorous environmental protections. Before leasing any area to developing, the state issues a comprehensive "Best Interest Findings" that explains in detail the potential impacts of oil and gas development. A central component of the Best Interest Finding are the mitigation measures. These measures protect wildlife, fish habitats and populations, and protect subsistence and sport harvest activities against undue interference through guidance for site selection and implementation of drilling and related development facilities. Fuel storage facilities and refueling are addressed with requirements for secondary containment and protection of floodplains. Waste reduction and proper waste disposal practices are required. Access to leased areas is constructed to minimize adverse impacts.

What follows are just a few of the additional measures the state requires before oil and gas development can proceed.

- State agencies follow a rigorous scientific protocol to ensure the right combination of snow depth and temperature are met before allowing cross-tundra travel or construction of ice roads. Such protections ensure that the tundra is not degraded.
- Before drilling wells, operators must get approval from the state and explain how they will comply with strict mitigation measures imposed by regulatory agencies; they must demonstrate that their blow-out prevention equipment (BOP) is up to the state's high standards; and they must get approval for their oil-spill contingency plan.
- The state encourages the unitization of leases that overlie reservoirs to minimize the environmental impacts of development.
- Alaska law for oil discharge prevention and contingency planning requires the plan holder to be able to contain or control and clean up the realistic maximum oil discharge within 72 hours.
- Alaska is the only state or federal governmental jurisdiction that regulates flow lines. Flow lines transport three phase liquids from the well head to the processing centers, which separate gas and water from crude oil. Flow lines are viewed as having the greatest corrosion potential and are therefore considered to be the highest risk.
- Alaska mandates that operators use the best available technology for oil discharge containment, storage, transfer, and cleanup.
- State agencies impose significant bonding requirements.
- Wildlife are closely monitored and protected. For example, in March, after a petroleum worker notified the U.S. Fish and Wildlife Service (USFWS) that a polar bear had emerged from a den near their drill site, the operation was shut down and all 50 employees evacuated in less than 12 hours.

Our efforts at protecting the environment and wildlife have been successful. For example, when debating the development of TAPS, many predicted that oil and gas development would decimate caribou herds. These predictions have not come true. In fact, caribou numbers have increased dramatically over the past thirty years. The Central Arctic caribou herd, which occupies summer ranges surrounding Prudhoe Bay, has grown from 5,000 in 1975 to over 66,000 today.

Even with a robust regulatory regime, the state continues to look for ways to improve its regulatory oversight. To this end, the state is engaged in a comprehensive

gap analysis to better understand the spectrum of state agency oversight; better understand the effectiveness of authorities and enforcement over oil and gas operations; and to identify gaps or redundancies in state oversight and determine if they need to be filled or eliminated as appropriate.

Because of the efforts taken by federal, state, and local governments and the energy industry, oil and gas development in Alaska is conducted in a safe and responsible manner with standards that exceed most other jurisdictions in the world.

Alaskan Innovations Minimize Environmental Impacts: The Shrinking Footprint of Alaska Resource Development

In addition to the state's regulatory oversight, Alaska is a leader in innovations that protect the environment. For example, extended reach drilling, horizontal wells, multiple completions, and close-surface well spacing were all invented and pioneered for use in Alaska. These advances in drilling technology have greatly reduced the footprint of modern exploration and development wells in Alaska, while expanding their ability to stretch vertically and horizontally underground.

More specifically, the first drill sites in the Prudhoe Bay field were built in the 1970s and covered 65 acres of land to accommodate the footprint of the drilling rigs of the day. By the time the first production wells were drilled in the Kuparuk River field in the early 1980s, improvements in rig design and drilling techniques and the materials used in the wells meant that the area of the drill sites could be reduced by more than one-half; a 16-well drill site was reduced to just 11 acres. In the 1990s, the Alpine field in the Colville River Delta represents the next stage in drilling advancement. From a drill site of only 13 acres, 54 wells have been drilled and the extended reach of these wells can intercept an area eight miles across and penetrate 50 square miles of the field.

Put simply, in just 30 years, surface footprint requirements have been reduced from over 2 acres per well at Prudhoe Bay, to one quarter (0.24) acre per well at Alpine.

Advances in technology have also allowed for minimal impact during the exploration phase of development. For instance, onshore exploration drilling occurs only in the winter. Heavy equipment is brought out to remote sites on ice roads and the drilling rigs are assembled on ice pads. Ice roads have been used on the North Slope for decades. When the ice melts, there is no trace left of the pad. The only visible sign of prior activity is an eight-by-eight foot well house that will remain on location only because this well is part of a field under development and will one day produce oil. In short, it is possible to explore for oil on the North Slope and leave no visible footprint.

Substantial Studies Have Been Conducted Regarding Alaska OCS Development

Despite the considerable energy security and economic benefits of Alaska OCS development, some have suggested that before leasing additional OCS acreage, more scientific studies need to be conducted. We disagree.

As part of the North Slope Science Initiative (NSSI), there are over 50 organizations and initiatives currently doing scientific work in the Arctic. The NSSI is formally authorized by the Energy Policy Act of 2005; its mission is to improve scientific and regulatory understanding of terrestrial, aquatic, and marine ecosystems in Alaska's North Slope region for consideration in the context of resource development activities and climate change.

Since 1973, federal agencies have performed more than 5,000 environmental studies to better understand the Alaska OCS. Over the past 30 years, the Department of the Interior (DOI) has funded nearly $300 million for environmental studies in Alaska. And since 2000, it has conducted 30–40 environmental studies each year, spending over $45 million.

Additionally, the National Academy of Sciences has produced three Alaska OCS reports on environmental science which guide OCS activity. Industry has also spent millions to better understand the Arctic ecosystem; Shell alone spent over $40 million in the last several years on environmental studies.

On this strong scientific basis, the Obama Administration's Department of the Interior released a "Survey of Available Data on OCS Resources and Identification of Resource Gaps" in 2009. In this report, the DOI concluded: "Overall, an adequate baseline of information exists to address the environmental effects of the OCS oil and gas program. . .in support of leasing decisions." Thus, according to the current administration, sufficient studies have been conducted to support oil and gas leasing.

IV. Co-Located With Alaska's Massive Hydrocarbon Basin Is One of America's Most Important Energy Infrastructure Assets: TAPS

The Trans Alaska Pipeline, 11 pump stations, several hundred miles of feeder pipelines, and the Valdez Marine Terminal constitute the Trans-Alaska Pipeline System (TAPS). At 800 miles long, the Trans Alaska Pipeline is one of the longest pipelines in the world; it crosses more than 500 rivers and streams and three mountain ranges as it carries Alaska's oil from Prudhoe Bay to Valdez.

The first oil entered the pipeline in June of 1977. Since that time, TAPS has transported over 16.3 billion barrels of oil and natural gas liquids for the U.S. domestic market. Oil and natural gas liquid production through TAPS peaked at 2.2 million barrels per day in the late 1980s, representing 25% of the U.S. domestic production. Since its peak, however TAPS throughput has steadily declined. By 2003, production was down to one million barrels a day. Today, TAPS throughput averages about 630,000 barrels per day.

Congress Was Instrumental in the Development of TAPS

Spurred by global concern over the 1973 oil crisis (OPEC embargo) and spiking energy prices that resulted in a severe U.S. and global recession, the U.S. Congress was instrumental in the approval and rapid development of TAPS. Congress approved construction of the pipeline with the Trans Alaska Pipeline Authorization Act of 1973. The principle focus of this Act is as relevant today as it was in 1973: "the early development and delivery of oil and gas from Alaska's North Slope to domestic markets is in the national interest because of growing domestic shortages and increasing dependence upon insecure foreign sources."

Underscoring the urgency of the country's precarious energy security position, the Trans Alaska Pipeline Authorization Act also halted all legal challenges to delay construction of the pipeline and ensured that additional government studies would not be used to delay construction.

TAPS Throughput Decline Raises a Host of Difficult Issues

The reduced flow of oil through TAPS has reached a point where the pipeline is now approximately two-thirds empty. Continued throughput decline raises a host of technical challenges due to the slower velocity of oil in the pipeline, longer transit times, and the resulting dramatic lowering of the temperature of oil during the winter months. These challenges include wax buildup, frost heaves, and ice crystals and ice plugs. The likelihood of these problems occurring increases with lower throughput, and they can cause additional TAPS shutdowns and oil leaks that could harm the environment. This past January, TAPS was shut down for five days as the result of a leak at Pump Station 1 that was contained in a building.

The State of Alaska is working with industry to ensure that we are prepared to address these additional challenges in the near term as TAPS throughput decline continues. But clearly, the most effective way to address these technical challenges and the environmental risks that they may entail is to increase TAPS throughput.

A Premature Shutdown of TAPS Would Significantly Undermine U.S. National Security and Energy Security Interests and Would Devastate the Alaskan Economy

The January 2011 shutdown of TAPS, during the heart of a cold Alaskan winter, not only focused attention on the significant technical challenges of decreased TAPS throughput, but also raised the specter of a broader premature shutdown of TAPS. Such a shutdown would significantly undermine U.S. national security and energy security interests and would devastate the Alaskan economy.

A premature shutdown of TAPS would result in the stranding of billions of barrels of domestic oil in America's largest hydrocarbon basin. Oil prices would continue to soar. Thousands of jobs would be lost. U.S. refineries would likely have to turn to foreign sources of oil, as they did when TAPS shutdown in January, thereby increasing the U.S. trade deficit and undermining American national and energy security.

Even at today's throughput rates, TAPS supplies the US with more than $24 billion of oil per year. If this amount of money was to be spent importing oil, the US trade deficit would increase by nearly five percent. Furthermore, the flow of oil from TAPS amounts to 53 percent of the oil produced on the West Coast and supplies 28 percent of the West Coast demand for crude oil. Interruptions in flow Pump Station No. 1 incident last winter had meaningful effects on the regional market. Prices for crude oil on the West Coast immediately responded to the shutdown as refineries scrambled for supplies of foreign oil.

A premature TAPS shutdown would also have a crushing impact on Alaskans. It has been estimated that one third of the Alaska economy is connected to the oil industry. The loss of North Slope oil production would deprive state and local govern-

ments of billions of dollars in annual revenue. Government services including education, public safety, and health care would be slashed and infrastructure projects would be significantly curtailed. Rural communities, particularly those that have significantly benefitted from oil development such as the North Slope Borough, would face a significant decrease in their standard of living.

But continued TAPS throughput decline does not need to be Alaska's or the country's destiny. The massive North Slope hydrocarbon resource base remains available for development. What is needed to ensure a reversal of this decline are state and federal policies that promote increased investment, responsible resource development, and increased job creation on the North Slope.

V. The State of Alaska Is Doing All It Can to Arrest the TAPS Throughput Decline in Order to Achieve the Goal of One Million Barrels of Oil per Day within 10 Years

The State of Alaska is pursuing several major policy initiatives to arrest the TAPS throughput decline. The cornerstone of this effort is Governor Parnell's recent proposal to the Alaska Legislature to increase Alaska's global competitiveness by enacting significant tax reform. Under Governor Parnell's plan, production taxes will be lowered and the state will offer credits to incentivize additional drilling.

The state is in the process of enacting other reforms that will attract more investment and, ultimately, increase oil production on the North Slope and employment for Alaskans. For example, the Governor's budget focuses on developing significant infrastructure projects to build more roads to our abundant resources. We are also seeking to reform our permitting system to enhance timeliness, predictability, and efficiencies. The state is also holding lease sales on state lands surrounding ANWR and in the OCS on state lands.

In the face of steadily declining production, Governor Parnell recently announced an ambitious but critical goal for Alaska and the country to increase TAPS throughput to one million barrels of oil production per day within a decade. This ambitious goal will be supported by an overall state strategy that seeks to:

- Enhance Alaska's global competitiveness and investment climate;
- Ensure the permitting process is structured and efficient in order to accelerate resource development;
- Facilitate and incentivize the next phases of North Slope development, including: outer continental shelf (OCS), federal onshore lands, heavy and viscous oil, shale oil, smaller pools of conventional oil, and gas;
- Unlock Alaska's full resource development potential by promoting constructive partnerships between the state and key stakeholders to facilitate increased investment, exploration, and production while protecting the state's interests and safeguarding the environment;
- Promote Alaska's resources and positive investment climate to world markets.

The policies described above will significantly benefit Alaska, but will also significantly benefit our fellow citizens in the Lower 48 as they struggle with spiking oil and gas prices that affect their livelihood and standard of living. Unfortunately, the executive branch of the federal government does not have a similar focus. Indeed, as detailed below, their focus has been to proactively shut down or delay resource development throughout Alaska.

VI. Federal Decisions and Policies Have Sought to Proactively Shut Down Resource Development in Alaska

The importance of federal land to the future of oil and gas development in Alaska's Arctic must not be underestimated. Although 98 percent of all of the North Slope oil production to date has come from state lands, the lion's share of the resource potential belongs to the federal government—fully 88 percent of the undiscovered technically recoverable conventional oil and 79 percent of the gas will be explored for on land under federal jurisdiction. As discussed above, development of these lands, in particular from the OCS, Arctic National Wildlife Refuge, and National Petroleum Reserve—Alaska (NPR–A), could result in production of well over a million barrels of oil a day.

Unfortunately, the federal government has consistently denied access to these lands, made decisions that have added significant delays to promising projects, and pursued policies that have chilled the investment climate. More specifically, the federal government has made a series of decisions that prevent or stall responsible development of domestic energy in Alaska. We believe that the following list will be of concern to members of this committee and your colleagues in Congress:

NPR–A (A Region Specifically Set Aside for Oil Exploration and Production)/CD–5 Critical Permit Denial. In 2010, the U.S. Army Corps of Engineers (Corps) and the EPA and Fish and Wildlife Service derailed ConocoPhillips (CP) development of

CD–5, which is a field on the eastern edge of the NPR–A. Once infrastructure is in place, CD–5 will open satellite fields in the eastern NPR–A to development. The state, CP, and Native communities worked with the Corps for years on the project to ensure that responsible safeguards are in place to open this field to development. In response to concerns raised by some stakeholders, the project was modified to minimize environmental impacts and the project garnered strong support from all stakeholders. After years of collaboration, the permits were considered a foregone conclusion. The first production from CD–5 was expected to start in 2012. Nevertheless, in February 2010, the Corps reversed course and denied CP's permits to construct a drill pad, a pipeline/vehicle bridge across the Nigliq Channel in the Colville River Delta, and access roads. The Corps concluded that there are practicable alternatives to the bridge, drill pad, and roads that would have fewer environmental consequences but stakeholders, including the state, have provided substantial evidence to the contrary. We continue to work hard on this matter.

DOI's Wild Lands Designation. Another decision chilling the investment climate in Alaska's NPR–A and beyond is the federal government's new "Wild Lands" policy. Secretary Salazar recently issued Secretarial Order 3310, which empowers the Bureau of Land Management (BLM) to convert vast areas of Alaska, including the NPR–A, into de-facto wilderness areas without Congressional oversight or approval. State officials have heard from many resources companies who have said if state lands receive Wild Lands designation they may not continue to invest in Alaska.

OCS Permitting Delays Shutting Down Exploration Activities. The greatest potential for significant oil and gas production lies in the OCS. In recent years, Shell and other leading energy companies have spent billions of dollars to acquire leases and explore the OCS. Shell has also received approval for several exploration plans and has acquired over 34 federal permits to drill exploration wells. Yet its exploration plans have been repeatedly derailed; first by the 9th Circuit Court of Appeals in 2008 and more recently by the DOI and the Environmental Protection Agency (EPA).

ANWR Wilderness Designation. The USGS has demonstrated that perhaps the greatest potential in America for an onshore elephant-size field is in the 1002 Area of ANWR. Despite this potential, the federal government has consistently refused to open the 1002 Area to exploration. More recently, the U.S. Fish & Wildlife Service (USFWS) is reviewing whether to designate the 1002 Area in ANWR as "Wilderness," which would essentially lock-up ANWR from any oil and gas development. In the Federal Register notice, the USFWS expressly prohibited the public from filing comments related to oil and gas activity. The state believes that such action conflicts with federal laws—under the National Environmental Protection Act (NEPA) and the Alaska National Interest Lands Conservation Act (ANILCA), the USFWS must consider the benefits of oil and gas development before making a recommendation to Congress on a Wilderness designation. We have made this view known to the USFWS.

200,000 Square Miles of Critical Habitat Designated for Polar Bears. The polar bear and its habitat are already well managed and conserved by Alaska, international agreements, conservation programs, and state and federal law. These laws and policies make the polar bear one of the most protected species in the world. Its population has more than doubled since oil production began on the North Slope. Nonetheless, the USFWS recently designated nearly 200,000 acres of the North Slope—which covers an area larger than the size of California—as critical habitat for the polar bear. Never before has the USFWS interpreted its authority to designate such a vast expanse of critical habitat for a species. Worse, the USFWS acknowledges that the designation will not provide significant additional conservation measures for the polar bear and its habitat and that the primary claimed threat to the species (loss of sea ice due to climate change) will not be alleviated by this designation. Despite providing no benefits, the critical habitat designation imposes another layer of costly regulation on Alaska, its citizens, and its economy.

Point Thomson EIS Delay. ExxonMobil has committed to a Point Thomson development plan to produce approximately 10,000 barrels of natural gas condensate starting in 2014. The EIS, however, has not been timely processed. As a result, the start-up date for the project has been delayed from 2014 to 2015.

The Cumulative Impact of These Federal Decisions: Broad Based Policy Failure

As this section demonstrates, in the past two years the federal government has consistently sought to delay, shut down, or prevent resource development in Alaska through its decisions and broad policy mandates. Rarely has there been a federal policy that fails on so many fronts:

- Economic and job security—these policies have killed hundreds of jobs in Alaska.

- Trade deficit—shutting down resource development in Alaska ensures that we import more oil from overseas.
- Federal budget deficit—by denying Americans access to their own lands to produce oil, the federal government is foregoing billions in federal revenues, and instead Americans are forced to help fill the treasuries of countries such as Venezuela, Russia, and Saudi Arabia.
- Energy security—foregoing and shutting down development of Alaska's massive sources of domestic energy undermines U.S. energy security.

It is also important to underscore that the current federal administration's decisions and policies do not advance global environmental protection. To the contrary, they do the opposite. When oil and energy development in Alaska is shut down by our own government, development for such resources is driven overseas to places like Brazil, Russia, Iraq, Azerbaijan, and Saudi Arabia. Environmental standards in these places are not nearly as strong or strictly enforced as in Alaska, where stringent regulations are the hallmark of hydrocarbon production on the North Slope.

VII. The State of Alaska Wants to Partner with the Federal Government to Increase TAPS Throughput to One Million Barrels Within a Decade to Help Reduce the Country's Import of Foreign Oil

The State of Alaska will continue to defend Alaska's interests by trying to persuade the federal government to abandon its anti-development policy in Alaska. Where persuasion fails, we will continue to take other actions, including litigation when warranted. In so doing, we strongly believe that we are also defending and promoting broader American interests. All Americans should be concerned about federal government policies that undermine U.S. interests across such a broad spectrum of critical areas. In particular, the viability of TAPS as a continuing critical component of our nation's energy security infrastructure is an issue for all Americans. It is on this issue that the federal government can play a critical role.

As noted above, the State of Alaska is doing all it can to make oil production on state lands as globally competitive as possible. However, the long-term viability of TAPS will primarily be determined by federal politics and policies. The federal government's antidevelopment policies throughout the North Slope chill the investment climate and discourage companies from exploring and producing in Alaska. When Shell cannot drill one exploratory well in the OCS after five years of spending billions of dollars for leases and permits, ConocoPhillips cannot get a permit, again after five years, to build a bridge across the Colville River to access CD–5 in the NPR–A, and oil companies are unable to conduct exploration drilling in ANWR, it is the federal government that is denying access to abundant hydrocarbon resources and, ultimately, jeopardizing the long-term viability of TAPS.

These are just a few examples of many where federal policies have focused on discouraging—not encouraging—the billions of dollars of investment needed to increase North Slope oil production. If we had a federal government that welcomed exploration and development and permitted operations in a timely and predictable manner, the economics of filling TAPS would take care of itself.

The Federal Government Should Embrace the State of Alaska's Goal of Increasing TAPS Throughput to 1 Million Barrels Per Day as a National Policy

Our preferred approach is to have a federal government that joins us in the mutually beneficial goal of responsible resource development in Alaska. For this reason, Governor Parnell has redoubled the state's efforts to gain federal cooperation on resource development issues.

As noted above on page 8, Governor Parnell recently announced an ambitious but critical goal for Alaska and the country to increase the Trans Alaska Pipeline System (TAPS) throughput to one million barrels of oil production per day within a decade. On the same day, President Obama announced his goal of reducing oil imports by one third by 2025. The State of Alaska fully endorses President Obama's goal. Governor Parnell reached out to President Obama expressing Alaska's support for this important goal while at the same time asking the President to support the state's goal to increase TAPS throughput. More specifically, Governor Parnell respectfully requested that the President direct his Secretaries of Interior and Energy, as well as the EPA Administrator, to work with Alaska on refining a plan that will enable Alaska and the rest of the country to achieve the goal established by the President. More recently, Governor Parnell sent another letter to President Obama requesting his assistance in bring clarity, timeliness, and certainty to federal permitting. We recommend that Congress make these goals a national priority as well.

In closing, the State of Alaska would welcome Congress's involvement in ensuring that the federal government supports Alaska's goal of one million barrels a day through TAPS within a decade. By working together to champion such a goal, as

well as the President's goal of reducing oil imports by one third, we can demonstrate how state and federal governments can come together to curb our dependence on foreign oil and create a brighter, more secure future for Americans.

Mr. LAMBORN. Thank you for your testimony.

Mr. Glenn, you may begin.

STATEMENT OF RICHARD GLENN, EXECUTIVE VICE PRESIDENT OF LANDS AND NATURAL RESOURCES, ARCTIC SLOPE REGIONAL CORPORATION

Mr. GLENN. Thank you, Mr. Chairman. Honorable Chairman, Ranking Member Holt, thank you for the opportunity to appear before you today.

I have more extensive written comments and I ask that they be accepted. I will just give a brief overview of some of those high points. And while I am speaking, I will be referring to a chart that you see displayed off to my left here and that is a chart that should become familiar to all of you by the end of the day.

My name is Richard Glenn and I am the Executive Vice President of Lands and Natural Resources for Arctic Slope Regional Corporation.

Arctic Slope Regional Corporation is a creation of Congress. It was created by the U.S. Government in an attempt to avoid the Indian Reservation System that exists in the Lower 48 states. We are owned by the Inupiat Eskimo People of Alaska's North Slope. My mother is an Inupiat Eskimo. I am a hunter and a whaler from the community of Barrow and you cannot see Russia from our front door, but I can see the Arctic Ocean.

Our communities, the eight communities of Alaska's North Slope, are on the front lines of many of the issues that you brought up this morning, Chairman and Ranking Member. We are witnesses to global climate change. We are witnesses to the development that is in our region, and yet our communities have come to the conclusion that our people, our villages, our subsistence culture depends on both a clean environment and the development that exists in our region.

We formed our local government, the North Slope Borough to a vigilant watcher of the development in our region and many of the worries that existed about development in the Arctic were expressed by our people 40 years ago when the Prudhoe Bay oil fields were developed. And yet, because of our local involvement and changes in technology, we have seen that the animals that we were worried about and the environment that we were concerned about has fared well.

There are more caribou now, more fish, more waterfowl than before development started, and yet Northern Alaska is America's energy province. The TransAlaska pipeline system is the single artery that connects the rest of the country to this province. Twenty-three million acres of petroleum reserve, the coastal plain of the Arctic National Wildlife Refuge, Alaska's bountiful OCS promise as well as dozens of oil fields are connected to the country by this important link. In many ways it defines access and infrastructure.

After a peak of two million barrels a day and today at 600,000 barrels a day, and dropping, as you see represented by this curve, we are headed for an uncertain future. When you look at that

curve, what it says to you is a volume of oil produced over time. But what it says to me is the history of our people. The left side of the curve is the 1970s and just at the end of the age when were putting men on the moon our villages were in very hard scrabble conditions. And the peak of the curve represents the efforts that we made to improve the quality of life in our villages.

I am talking about a flushing toilet where before we had a five-gallon bucket in the corner of the room. Reliable power where before they had to turn off the power generation systems at night. Construction of schools where before our parents had to go thousands of miles away just to go high school. Things like this were built in our communities by the presence of industry in our region. Largely, without the help of any Federal programs like you will find in tribal country elsewhere in the United States. So that curve means something a lot different to me than it means to the rest of you.

But as the curve shows, we are headed for a low point and the low point beyond which the pipeline cannot safely transport oil and gas. Meanwhile, prospects on the North Slope in the neighborhood of the start of this pipeline lie fallow because of wrong-minded policies that seem to obviate, deter, and block efforts at reasonable production. The National Petroleum Reserve (NPRA) is a good example—regardless of your views on whether or not the coastal plain of ANWR should be explored and developed for oil and gas. I think it should because Native-owned lands are there and we want the chance to better ourselves with that. We were told to use the NPRA as an alternative rather than ANWR. Now when we try to develop ANWR, we are told that national monument status, critical habitat status, and potential wildlife swathes of special designation block us for reasonable development of native-owned lands there.

Mr. Chairman, our eyes are open. While the rest of the world's were fixed on the events of the Gulf of Mexico, we looked at the safety measures of the explorers in Alaska's OCS and we were favorably impressed. We have come to the conclusion, Mr. Chairman, that our communities will not survive without development. Let me repeat that. Without development in the Arctic, the Arctic Slope Native communities will not survive. Thank you.

[The prepared statement of Mr. Glenn follows:]

Statement of Richard Glenn, Executive Vice President of Lands and Natural Resources, Arctic Slope Regional Corporation

Chairman Lamborn, Ranking Member Holt, and distinguished Subcommittee members, thank you for allowing me an opportunity to address this important issue.

My name is Richard Glenn. I am the Executive Vice President for Lands and Natural Resources for Arctic Slope Regional Corporation (ASRC), based in Barrow, Alaska. Arctic Slope Regional Corporation is an Alaskan Native-owned regional corporation that was established pursuant to the Alaska Native Claims Settlement Act of 1971 (ANCSA). It is a private, for-profit corporation that is owned by the 11,000 Iñupiat Eskimos from the villages of Point Hope, Point Lay, Wainwright, Atqasuk, Barrow, Nuiqsut, Kaktovik, and Anaktuvuk Pass on Alaska's North Slope.

Our villages are small and separated by great distance with no roads connecting them. Barrow, my hometown, is a coastal community located 340 miles north of the Arctic Circle. It is located in a region of tundra plains, devoid of trees, with an average annual temperature of around 10 degrees Fahrenheit. In Barrow, the ground is frozen to a depth of about a thousand feet and our ocean is ice-covered for much of the year. In our more remote villages, fuel can cost ten dollars or more per gallon; milk—eleven dollars per gallon. Despite these physical and current economic chal-

lenges, the Inupiat people have endured. We have done so for centuries. We have demonstrated a close relationship with both the land and sea in our region.

Our communities realize that our survival depends on a healthy environment and upon resource development that exists in our region. Safe, responsible oil and gas development is the only industry that has remained in our region long enough to foster improvements to our remote communities. More than forty years ago, when the Prudhoe Bay oilfields were first being developed, our people were worried about the effects on the environment and its wildlife. We formed our regional government in part to exercise permitting control on the explorers and producers. Now we can look back and see that fish, caribou and waterfowl were not threatened by development-in fact they have increased in number. Regarding environmental effects of oil and gas development, on and offshore, no one has more at stake than the residents of the North Slope.

Congress in 1971 passed the Alaska Native Claims Settlement Act in an attempt to extinguish claims of aboriginal title by Alaska's Native people. With ANCSA, Congress chose to create 12 land-based Alaska Native Regional Corporations and more than 200 Alaska Native Village Corporations, and gave each of them title to surface and/or subsurface ownership of some of the land they claimed, as well as a cash settlement for part of the remainder of lands each group claimed. With these lands and cash settlements, the corporations were poised to develop their resources and benefit their shareholders, the tribal members of their region or village. My regional corporation, ASRC, represents the Natives of Alaska's North Slope.

With approximately five million acres of surface and subsurface estate conveyed to it under the terms of ANCSA, ASRC is the largest private landowner on the North Slope. ASRC's lands contain a high potential for oil, gas, coal and minerals, including lands that are already producing oil. As stewards of the land, ASRC continuously strives to balance management of Iñupiat Eskimo cultural resources with management of natural resources.

Alaska's North Slope is a national energy province. It covers 50 million acres of the northern portion of our state and hosts many well known energy resource prospects and production areas including Prudhoe Bay and nearby oil fields, the National Petroleum Reserve in Alaska (NPR–A), the Coastal Plain of the Arctic National Wildlife Refuge and many others. It is adjacent to both the Beaufort and Chukchi Seas, which overlie the most prospective hydrocarbon basins of Alaska's Outer Continental Shelf (OCS).

At its peak around 1990, northern Alaska produced up to a fifth of the country's oil, sending more than two million barrels per day from the prolific Prudhoe Bay, Kuparuk and nearby oilfields down the 800-mile long Trans Alaska Pipeline System (TAPS) for marine shipment to the West Coast. Today, TAPS remains the single conduit for development of Alaska's resources; it defines access and infrastructure. And, the resources of the North Slope have been developed without negatively affecting the wildlife species such as fish, caribou or migrating waterfowl.

Today, Alaska's production is at about a third of its peak (see chart). Continued reduction in volume, or throughput, as the large fields decline, threatens the integrity of the pipeline itself. At lower flow rates, paraffins and water are more prone to settle out and the oil cools more in transit due to its slow velocity. The result is an increased risk of accelerated corrosion and freezing. Despite the development of about a dozen other North Slope oil fields, none have yet been able to compensate for the decline of the much larger Prudhoe and Kuparuk fields. They have only lessened the steepness of the decline.

Other nearby prospects for production or exploration lie fallow today because there is a near shutdown of new onshore development. This is due to a mixture of federal policy and land use decisions that have chilled new exploration and development. A good example is the National Petroleum Reserve in Alaska (NPR–A). The 23 million-acre NPR–A was designated in 1923 by President Harding specifically for its hydrocarbon potential due to the presence of naturally occurring oil and gas seeps throughout the area. Today, further exploration of the NPR–A is at risk by overlapping swaths of National Monument and Critical Habitat status—in a petroleum reserve. When North Slope leaders and others have advocated over the years for the exploration of the Native-owned lands on Coastal Plain of the Arctic National Wildlife Refuge, we have been told that the NPR–A exists for that kind of activity. Now, at a time when we need additional development, even the Native-owned lands in the NPR–A are being held off limits.

According to the USGS, the most significant prospects for additional new production lie in Alaska's OCS region. It appears that this Administration agrees that it is in the nation's interest that Alaska's OCS should be explored and developed. With the production decline of the larger onshore fields and few marginal discoveries to replace them, the future of TAPS (and the economic future of both the North Slope

and the State of Alaska itself) depends on the development of additional production from offshore prospects.

We believe that offshore exploration can be conducted safely. While the rest of the world was fixed on the disaster in the Gulf of Mexico, we were reviewing the leading exploration safety measures that the Alaska OCS explorers have developed for the Arctic. We were favorably impressed. In addition, we have seen the extra measures that explorers have taken to avoid conflict with our subsistence hunters. They have gone a long way to ease our concerns.

This hearing is timely. Our region, just last week, assembled our leadership to discuss this very topic. We find that our community survival depends on continued production from our region. Let me be clear, without development in our region our communities will not survive. Thank you again, Committee members, for allowing me to share the views of the people of the North Slope regarding development of Alaska's natural resources.

Mr. LAMBORN. Thank you very much for your compelling testimony. Mr. Lawrence.

STATEMENT OF DAVID T. LAWRENCE, EXECUTIVE VICE PRESIDENT—EXPLORATION AND COMMERCIAL, SHELL ENERGY RESOURCES COMPANY

Mr. LAWRENCE. Mr. Chairman, members of the Subcommittee, I appreciate the opportunity to speak to you today.

I have been asked to talk about Alaska's extraordinary offshore oil and gas resource potential and how tapping these resources could benefit the country.

The world needs oil and gas. It is widely recognized that global demand for energy will double by 2050, and to meet it we will need all forms of energy. Alaska's Outer Continental Shelf holds world-class resources. Government experts say Alaska's offshore holds at least 27 billion barrels of oil. It could be much more. We won't know until we can actually explore with the drill bit. We have been ready to do that since 2007. However, we have been blocked by regulatory barriers.

Put simply, developing Alaska's OCS is imperative for U.S. energy supplies, our economy, and our national security. Credible studies project that peak production from Alaska's OCS could top 1.4 million barrels of oil per day, more than the 2010 imports from Saudi Arabia. Reducing foreign imports has immediate economic benefits. The balance of trade improves and U.S. dollars stay here to fuel our own economy. Alaska's OCS development will create an average of nearly 55,000 jobs per year for generations. These are long-term, well-paying jobs, both in Alaska and in the Lower 48. It will generate conservatively, almost $200 billion in government revenue from royalty and taxes. Perhaps most importantly, our offshore oil will move through the TransAlaska Pipeline System or TAPS, which for the last 30 years has delivered more than 17 billion barrels of oil to terminals in Washington State and California.

TAPS is a major energy supply line to the Lower 48, and it should continue to be so. It is now running at one-third of its peak capacity. Unless more crude is developed in Alaska, TAPS is at risk, meaning that a major energy supply artery to the Lower 48 is at risk.

A generation of Americans worked to build TAPS and it remains not only an economic engine, but a symbol of American know-how and ingenuity. Without a reliable, new resource base, TAPS future is uncertain at best. The TransAlaska Pipeline is a national secu-

rity asset we are counting on to deliver offshore to the U.S. well into the future, and for that to happen we are also counting on government to uphold its obligations to leaseholders. Regulatory barriers that undermine the nation's oil and gas leasing program should be of grave concern to policymakers.

Consider the facts, at the government invitations Shell participated in offshore lease sales in Alaska. We paid the government more than $2 billion for those leases and invested more than 1.5 billion additional dollars to prepare for an exploratory program that meets and exceeds regulatory requirements. But despite our most intense efforts, we have yet to be able to drill a single well.

This is highly unusual. When the Federal Government holds a sale, it is saying OCS exploration and development is desired. If a company presents a plan that meets all regulatory requirements that plan should be permitted. Unlike a development and production program, exploration is a temporary, short-term operation. Our initial Alaska wells will each take approximately 30 days to complete. Data will be gathered and the well will be permanently plugged and abandoned.

These are not complex wells. The much lower pressures encountered in Alaska's shallow waters means the mechanical barriers and Shell's design will have even greater safety margins and much lower risk profiles than those in the deep water Gulf. Still, Shell has assembled an unprecedented oil spill response capability. There is no question the bar should be high in the Arctic. We support high standards and a robust permitting process. But the process must work and currently the government's permitting and regulatory process is not equipped to deliver.

These delays are frustrating and disappointing and they are undermining our confidence in the American regulatory system. And it is more than just exploratory drilling delay. Production from the Chukchi Sea, for example, will be delivered to TAPS through a pipeline across the National Petroleum Reserve, so timely permitting for that is also crucial. Thousands of men and women are counting on the jobs that will follow success and local businesses are counting on the revenue and communities are counting on the tax boost.

Certainly, this is an area that Congress needs to address. Decisive action must be taken to bring these resources to bear and ensure our country remains an attractive environment for investment. It comes down to this, if policymakers want to enable the development of our offshore resources, they must support the regulatory process, fund and staff the agencies to ensure the necessary permitting work in a competent and efficient manner, require the regulatory process be clear and streamlined and recognize that clear timelines are critical so that companies can plan investment decisions accordingly. Thank you and I look forward to your questions.

[The prepared statement of Mr. Lawrence follows:]

Statement of David Lawrence, Executive Vice President, Exploration and Commercial, Shell

Introduction

Mr. Chairman and members of the Subcommittee, I appreciate the opportunity to testify today. I would like to thank you for having this hearing to examine the re-

source potential in the Alaska Outer Continental Shelf (OCS) and why this is important to the future of the Trans Alaska Pipeline System (TAPS) and the Nation's energy supply.

As Executive Vice President of Shell Exploration and Commercial, I lead a team of professionals who identify, invest in and explore for oil and gas resources around the world. The Arctic, including Alaska's offshore, holds world-class resource volumes. That is why Shell has invested in leases off the coast of Alaska.

Alaska can continue to play a major role in meeting the energy needs of American consumers and American businesses, but achieving that result requires action and political will. Developing these resources will extend the life of TAPS, and also create thousands of jobs; hundreds of billions in revenue for local, state and federal coffers; reduce imports; and improve the balance of trade.

Shell has been prepared to explore in Alaska's OCS since 2007, but regulatory and legal challenges have prevented us from drilling even a single well. In the five years since first seeking to explore in Alaska, Shell has drilled more than 400 exploration wells around the world. I remain hopeful that the barriers to exploring in Alaska's OCS will be addressed so that Shell can begin its exploration drilling in 2012.

Today I will discuss:

- Global energy demand forecasts, and the fact that oil and gas will play a critical role in meeting future energy needs and in fueling the economy.
- Alaska's OCS resource potential, and the benefits to the nation of developing those resources.
- Shell's proposed exploration program in Alaska and the challenges that have blocked the program.
- And finally, some recommendations for moving forward.

Global Energy Demand

The world must grapple with the reality that global energy demand is projected to increase by roughly 50 percent over the next 20 years and could double by 2050. As the global recession fades and economies recover, demand will accelerate. A key driver will be strong economic growth and a vast, emerging middle-class in the developing nations.

To address this demand, we will need all sources of energy—hydrocarbons, alternatives, renewables and significant progress in efficiency. Oil and gas will be the dominant energy source for decades. Renewables and energy efficiency will play an ever-increasing role. Shell is actively pursuing research and development into next generation biofuels. We also have a wind business in North America and Europe, for which I am responsible.

Future growth for alternative energy forms will be paced by the speed of technological development, public and private investment capacity, government policies, and the affordability of energy supply. Still, it takes several decades to replace even one percent of conventional energy with a renewable source. The effort to tip the scale towards more renewable sources of energy is worthwhile but even unprecedented growth in renewables would leave an enormous energy gap that must be filled with oil and gas.

As we move to meet the world's energy needs, environmental challenges must be met and policies kept in place to ensure responsible energy development. We must recognize and provide the amount of energy that will be required to allow our economy to grow; and do so in an environmentally sustainable way.

Governments have a role to play in defining the policies that will foster a viable, efficient and workable marketplace that allows technology and innovation to move forward. Industry—and most particularly the energy industry—has an important role to play as well.

U.S. Oil and Gas Resource Potential

The President recently acknowledged that reducing dependence on imports was a national policy imperative. We agree. The U.S. is resource-rich in many ways, especially in oil and gas. Yet, the U.S. imports more than 60 percent of its petroleum.

Consider the enormous costs created by importing oil. According to the EIA:

- Petroleum net imports will average 9.7 million barrels per day 2011 and 10 million barrels per day in 2012, comprising 50 percent and 52 percent of total consumption, respectively.
- Imports cost the U.S. more than $350 billion last year.

I applaud the President for highlighting the need to reduce imports. Producing more oil and gas in our own country is a "win-win" proposition. It provides real economic and security benefits. With increased domestic production, less money is exported from the U.S., more money is invested here and federal revenues increase

through royalties and taxes. This can be done in a way that provides appropriate environmental protections based on solid science and an understanding of ecosystems and the impact of oil and gas activities on them.

I offer an example from the OCS:

According to the U.S. government, 420 trillion cubic feet of natural gas and more than 86 billion barrels of oil are yet to be discovered on the OCS, including Alaska. To put that into perspective, that is enough natural gas to heat 100 million homes for 60 years and enough oil to fuel 85 million cars for 35 years.

The greatest offshore resource potential lies in four key areas: the Gulf of Mexico, Alaska and the Atlantic and Pacific Coasts.

- **Gulf of Mexico—**This has been the heartland of U.S. offshore activity. The industry has been in the Gulf for more than 60 years, producing more than 10 billion barrels of oil and more than 73 trillion cubic feet of natural gas. Estimates state there are at least 45 billion barrels of oil and more than 233 trillion cubic feet of gas remaining.
- **Alaska OCS—World Class Potential—**The Alaska offshore likely holds some of the most prolific, undeveloped conventional hydrocarbon basins in the world. Conservative estimates from the Bureau of Ocean and Energy Management Regulation and Enforcement (BOEMRE) place roughly 27 billion barrels of oil and over 120 trillion cubic feet of gas in the Alaska OCS.
- **Atlantic and Pacific Coasts –** Assessments of these areas have not been updated in decades, but the estimate is that the Atlantic Coast holds 4 billion barrels of oil and 37 trillion cubic feet of gas and the Pacific Coast holds 10 billion barrels of oil and 18 trillion cubic feet of gas.

History of Alaska OCS

The world has long been aware of the Arctic's vast resources. In total, more than 500 exploratory, production, and disposal wells have been drilled in the Arctic waters of Alaska, Canada, Norway and Russia. As a result of federal OCS lease sales in the 1980s and 1990s, more than 35 wells have been safely drilled in the U.S. Beaufort and Chukchi Seas.

Shell is proud of its offshore legacy in Alaska, having produced in the state waters of Cook Inlet in Alaska for more than 30 years beginning in 1964. In the late 1970s and mid 1980s, Shell drilled exploration wells offshore in the Gulf of Alaska, St. George Basin and the Bering Sea. In the late 1980s and early 1990s, Shell drilled several exploration wells in the Beaufort Sea and later drilled four of the five exploration wells ever drilled in the Chukchi Sea.

Although oil and gas were found, Shell chose not to proceed to development. We plugged and abandoned those exploratory wells for economic reasons—including the fact that, at that time, TAPS was already running near capacity.

Since 2005, the federal government has held several more OCS lease sales in Alaska. Shell participated in these lease sales and in fact, is now the majority leaseholder in the Alaska offshore. Shell has paid the federal treasury nearly $2.2 billion for ten-year leases in the Beaufort and Chukchi Seas. Additionally, Shell has invested more than $1.5 billion and six years preparing for an exploration drilling program with unparalleled mitigation and safety measures. Shell's work includes multiple years of 3D seismic data collection, first-of-its-kind baseline science, shallow hazard surveys, geotechnical programs, numerous social investment initiatives and hundreds of meetings with North Slope residents.

The Benefits of Developing the Alaska Offshore

The benefits of developing Alaska's offshore oil and gas resources are many—not only to Alaska, but also to the Lower 48. Development would be an economic engine for decades to come.

The jobs growth and economic benefits of Alaska OCS exploration and development are well understood. A study conducted in 2010 by Northern Economics and the Institute for Social and Economic Research (ISER) at the University of Alaska details the potential national benefits of developing the oil and gas resources of the Alaska OCS:

- An annual average of 54,700 new jobs would be created and sustained through the year 2057, with 68,600 jobs created throughout decades of production and 91,500 at peak employment;
- A total of $145 billion in new payroll would be paid to employees through the year 2057, including $63 billion to employees in Alaska and $82 billion to employees in the rest of the U.S.; and
- A total of $193 billion in government revenue would be generated through the year 2057, with $167 billion to the federal government, $15 billion to the

state of Alaska, $4 billion to local Alaska governments, and $6.5 billion to other state governments.

Several important implications for national policy and domestic supply are raised in the study including:

- Alaska OCS development maximizes the value of Alaska's and the nation's oil and gas resources by enhancing both value and volume. Using TAPS' existing infrastructure, which is currently operating far below capacity, would enhance value by lowering transportation costs. Further, the new expanded infrastructure needed to connect to TAPS would enable development of satellite fields such as the National Petroleum Reserve-Alaska (NPRA).
- Alaska OCS development would extend the operating life of TAPS and increase the viability of an Alaska gas pipeline, due to greater certainty of the available gas resource base to fill it.

To elaborate, Alaska's OCS likely has at least one-third more oil than has been produced in Prudhoe Bay, moved through TAPS and used to fuel the U.S. for the past 30 years. It is two-and-a-half times what has been produced in the Gulf of Mexico since 1990.

An independent assessment of industry-wide development of Alaska's Beaufort and Chukchi Sea OCS concluded that an average of about 700,000 barrels of oil per day would be produced for 40 years. This is equivalent to our 2010 oil imports from Iraq (506,000 bbl/day) *and* Russia (137,000 bbl/day) combined. This same study found that Alaska OCS production would peak at 1.45 million barrels of oil per day in 2030 (and 2.1 billion cubic feet of gas per day in 2050). This is more than our 2010 oil imports from some of our major importing nations, e.g, Mexico (1.03 million bbl/day), Saudi Arabia (958,000 bbl/day), Nigeria (996,000 bbl/day), or Venezuela (827,000 bbl/day).

Such production numbers, which could potentially eliminate the need for imports from one of our largest foreign suppliers, is significant, and even—more so in a world of increasing geopolitical instability.

Domestic energy production is critical for the security and prosperity of the U.S. Money spent on domestic energy cycles in the U.S. economy, increases domestic economic activity and jobs. Alaska OCS activity will also help address our national debt, bringing in hundreds of billions in federal revenues in taxes and royalties from oil and gas production and the economic activity that is stimulated as a result.

A major benefit from Beaufort and Chukchi development would be the long-term viability of TAPS. Since 1977, Alaska has supplied the U.S. and its refineries with vast quantities of domestic oil via TAPS, totaling roughly 17 billion barrels through 2010. The construction and operation of the pipeline has also provided hundreds of thousands of high paying jobs in Alaska and the nation, helping to lift America out of one of its worst economic downturns. A generation of Americans worked to build TAPS; and it remains not only an economic engine, but a symbol of American know-how and ingenuity. Unfortunately, without a reliable new resource base, TAPS' future is uncertain.

Production in Prudhoe Bay has fallen significantly in recent decades. At its height, TAPS supplied the nation with 2.1 million barrels of oil per day or about one-third of the nation's oil production.

Today TAPS supplies only 600,000 barrels per day; about 11 percent of our domestic supply. If the throughput in the pipeline continues to decline and no new supplies are developed, TAPS will eventually be shut down, cutting access to one of the largest sources of domestically produced oil in the country. Our already increasing dependence on imported oil will accelerate and the U.S. balance of payments and federal revenues will both get worse.

A temporary shutdown of TAPS earlier in 2011 had an immediate impact on crude prices, jeopardized the continuity of the U.S. West Coast refinery infrastructure, and resulted in a spike in U.S. reliance on Russian crude supplies. This could be a harbinger of things to come unless we develop new resources in Alaska.

Fortunately, the U.S. has an opportunity to prevent this scenario from reoccurring. According to Northern Economics and ISER at the University of Alaska, if OCS oil is transported through TAPS, the higher volume of throughput would reduce the TAPS tariff and would extend the life of TAPS for decades. Doing so would require new pipelines that connect offshore fields in Camden Bay and the Chukchi Sea to TAPS. These projects would certainly rank among the largest private sector construction projects in U.S. history.

It is clear that resource development, such as OCS oil and gas production, is the first step in wealth creation. It has an enormous economic multiplier effect. Jobs and revenues created by oil and gas development reverberate throughout our economy, producing long-term high paying jobs. It creates a need for domestic manufacturing capabilities, steel production, transportation, infrastructure development,

electronics and high-tech components. Alaska OCS development is a genuine long-term economic stimulus plan.

Finally, by exploring and developing our Alaska OCS resources, the U.S. has an opportunity to reaffirm its global role as an Arctic nation. It is no secret that the Arctic is becoming a critical location from a geopolitical and strategic perspective. Arctic nations are increasingly interested in international boundaries and opportunities for resources and economic development.

Recently, Norway and Russia signed a maritime border delimitation agreement that settled a long-standing seaward boundary dispute in the Barents Sea. The stimulus for the agreement was mutual cooperation that would allow the development of offshore Arctic oil and gas resources. Elsewhere, Arctic nations are asserting their claims to continental shelf borders in accordance with the United Nations Convention on the Law of the Sea. For instance, we've recently seen reports that Denmark will lay claim to the North Pole itself, as an extension of Greenland territorial waters. Even nations outside the Arctic are positioning themselves for Arctic resource development.

With continuing U.S. inactivity, our country risks falling even further behind the rest of the world in developing its Arctic resources. In Norway, Russia, Greenland and Canada, Arctic resources are highly valued and new exploration is already underway. We have an opportunity to develop our own Arctic resources and the infrastructure appropriate to facilitate our presence in this valuable region.

Offshore Safety Standards

Before moving to a discussion of Shell's Alaska OCS exploration program, it remains appropriate to acknowledge the *Deepwater Horizon* incident in the Gulf of Mexico. The incident forced a re-examination of offshore operations and led to new regulatory requirements that have raised the bar on safety and led to substantial changes in the way the industry operates. There is no question that the industry must be held to the highest standards both for protecting the environment and protecting the health and well-being of our workers and communities in which we operate.

Let me highlight a few of the new regulatory requirements systems adopted by the federal government and industry:

- The Interim Final Drilling Safety Rule is focused on minimizing the likelihood of an incident and addresses barriers that should be in place to prevent a hazard. Preventing an incident is a top priority.
- Responding to an incident is now substantially enhanced with new requirements for containment capability. The Marine Well Containment Company (MWCC), which Shell initially formed in partnership with three other oil and gas companies, is designed to do just that. The MWCC is a stand-alone organization committed to improving capability for containing a potential underwater well control incident in the Gulf of Mexico.
- The industry announced that a new Center for Offshore Safety will be created to promote the safety of offshore operations and enhance the government's regulatory role. The Center will provide an effective means for sharing best practices. Members will be subject to independent, third-party auditing and verification to ensure integrity. The Center will operate around an existing safety framework known as RP75, or "Recommended Practice for Development of a Safety and Environmental Management Program for Offshore Operations and Facilities."
- Industry has also significantly increased its resources to respond to a major oil spill by adding vessels, equipment and personnel. Significant research and development is ongoing for oil spills in ice.
- Shell recently announced it has taken the lead as operator of the Subsea Well Response Project (SWRP) to be based in Stavanger, Norway. Nine major oil and gas companies will work pro-actively and collaboratively progressing development of subsea well intervention and oil spill response equipment that can be deployed swiftly to different regions in the world.

In addition to regulatory requirements, a company must foster and promote safety relentlessly each day. At Shell we call this Goal Zero. Everyone who works for us—both employee and contractor—is expected to comply with the rules; intervene when anything looks unsafe; and respect people, the environment and our neighbors. Compliance is not optional.

We have personal safety systems and procedures with clear, firm rules; simple "do's and don'ts" covering activities with the highest potential safety risk, such as getting proper authorization before disabling safety-critical equipment and protecting against falls when working at heights.

We have process safety systems to ensure the safety and integrity of our operations and assets. Process safety is also managed through a variety of tools, such as well and facility design standards; established "operating envelopes" not to be exceeded; maintenance and inspection intervals for safety critical equipment; and an effective Management of Change process.

Our approach also requires that all our drilling contractors develop a Safety Case to demonstrate major risks are properly managed. A Safety Case shows how we identify and assess the hazards on the rig; how we establish barriers to prevent and control the hazards; and how we assign the critical activities needed to maintain the integrity of these barriers. Further, it guides the rig and crews in risk management; and ensures staff competency, especially for those new to the rig.

Shell's Alaska Exploration Program

Shell is planning an offshore oil and gas exploration program in Alaska's OCS in 2012 during the three-month open water season. This program could include drilling multiple wells in both the Beaufort and Chukchi Seas, site clearance surveys and baseline science studies. It is important to note that an exploration program, unlike a development and production program, is a temporary, short-term operation. In the Alaska OCS, an exploration well is anticipated to take approximately 30 days to complete, at which time the well will be permanently plugged and abandoned and the site cleared. Shell's exploration program will meet or exceed all applicable regulatory requirements for the protection of health, safety and the environment.

Shell is committed to employing world-class technology and experience to ensure a safe, environmentally responsible Arctic exploration program—one that has the smallest possible footprint and no negative impact on North Slope stakeholders or traditional subsistence hunting activities. Aspects of the 2012 program have been under evaluation by federal agencies since 2006. At every step, Shell has worked with federal agencies, the State of Alaska, and local communities to develop a program that achieves the highest technical, operational and environmental standards.

My discussion here focuses on the following points:

1. The currently available science regarding the Arctic is extensive and more than adequate for an exploration program;
2. The shallow water, low pressure Alaska OCS wells differ significantly from Gulf of Mexico deepwater exploratory wells; and
3. The oil spill prevention, containment, mitigation and response plans included in Shell's 2012 Arctic exploration plan are robust and comprehensive.

Arctic Baseline Science

Some argue that there is insufficient scientific data regarding the Arctic and, therefore, exploration in the Chukchi and Beaufort Seas should not go forward. This is not accurate. In fact, the available scientific data is more than adequate to identify and evaluate the impacts of an exploration program that is, by definition, a short-term, temporary operation.

Several thousand environmental, ecological, and socio-economic studies applicable to oil and gas activities in the Arctic OCS have been completed over the last 30 years. The categories of scientific data available include: tides and ocean currents, weather (e.g., wind and its effect on currents, precipitation), ice conditions, baseline environmental data related to species found in the arctic (e.g., benthic, fish, birds, marine mammals, etc.), assessments regarding the impacts of oil and gas exploration activities on those species, and, specifically, information assessing the impacts of an oil spill on those resources, in the highly unlikely event of an incident during exploration drilling.

Since 1973, federal agencies have performed more than 5,000 environmental studies to better understand the Alaska OCS and coastal environment, and document or predict the effects of offshore oil and gas activities. The former Minerals Management Service Environmental Studies Program spent more than $600 million (more than $1 billion in inflation adjusted dollars) for studies under the guidance of the OCS Scientific Committee, which advises the Secretary of Interior. About half of these funds have been directed to Alaska.

The advancement of scientific knowledge will continue. This expanded knowledge is critical because it informs government regulators who must issue permits, it informs policymakers who must develop sound energy and environmental policy and it informs our operational decisions. In fact, Shell is contributing to advancing Arctic science in several ways. Since returning to Alaska in 2005, Shell has spent $60 million engaging in an aggressive environmental studies program in the Arctic offshore. Shell has worked in a collaborative manner with a wide range of stakeholders, including industry partners, local, state, and federal governments, univer-

sities, and non-government organizations to share resources and facilitate the further development of our understanding of the Arctic marine ecosystem.

Shell has also taken the lead in the development and implementation of new technologies, including unmanned aerial systems, acoustic recorders, and integrated ecosystem studies to advance capacities to work in this challenging offshore environment. Shell fosters and funds such diverse research as computer assisted identification of marine mammal calls, greatly enhancing the capacity to utilize acoustic sampling technologies, satellite tagging of whales and seals, ice and weather forecasting and physical oceanography.

Recently, the North Slope Borough (NSB) and Shell entered into a multi-year collaborative science agreement that will enable impacted North Slope communities to build capacity for scientific research and independent review of studies, exploration and development plans and regulatory documents. The research program established under this agreement will be guided by an Advisory Committee of representatives from each of the coastal communities (Point Hope, Point Lay, Wainwright, Barrow, Nuiqsut and Kaktovik), scientists from the NSB and Shell, and independent scientists. This committee will be responsible for identifying critical issues, setting investigative priorities, and integrating traditional knowledge with science. The current agreement is between the NSB and Shell, but it anticipates expansion of the studies program through additional funds from third parties, which may include either private or public sources.

If exploration leads to a commercial discovery, even more science will be needed. Consistent with the Outer Continental Shelf Lands Act's (OCSLA) multi-stage process, development and production activities will build on the information gathered through the exploration stage. The first development in the Arctic OCS will require the preparation of an additional environmental impact statement. The issues to be addressed in that document will be determined during a public scoping process. Since 2006, Shell has spent almost $90 million pre-investing in data acquisition, studies, and research and development that will support environmentally sound offshore development. Information gathered during these earlier OCSLA stages (including exploration) will form the basis for that scoping process, as well as the identification of any issues that may require additional research or study before informed decision making.

This approach was recently validated in the final version of the President's Oil Spill Commission report where it states, "The need for additional research should not be used as a *de facto* moratorium on activity in the Arctic, but instead should be carried out with specific timeframes in mind in order to inform the decision making process."

Exploration in Alaska's OCS vs. Exploration in Deepwater Gulf of Mexico

The drilling conditions for Shell's proposed 2012 Alaska OCS exploration program are typical of wells that have been safely drilled for decades in shallow water around the world. The Alaska OCS wells are in shallow waters and have much lower downhole pressure, which is vastly different from the conditions found in the deep waters of the Gulf of Mexico. This increases the safety margin.

The *Deepwater Horizon* was drilling the Macondo well in 5,000 feet of water and down to a depth of 18,000 feet. The pressure encountered in the Macondo well was about 15,000 psi based on mud weight at total depth. The water depth, well depth and pressure make the Macondo well and other deepwater Gulf of Mexico wells far more technically complex than the shallow wells that will be drilled off the coast of Alaska.

In Alaska's Beaufort Sea, the wells will be in 150 feet of water or less. The wells will be between 7,000 to 10,000 feet deep. We have extensive reservoir pressure models based on previously drilled wells in the Chukchi and Beaufort Seas that show the pressure at total depth in our initial exploration wells will be no more than 6,000 psi, less than one-third the pressure of Macondo.

With lower anticipated bottomhole pressure in the Alaska wells, all of the mechanical barriers in Shell's well design have higher overall safety margins between operating pressure and mechanical barrier design pressures. Even if the riser from the drill rig to the blow-out preventer on the seafloor was breeched, as it was in Macondo, the weight of the drill mud in the downhole pipe would maintain well control and prevent a blowout from happening. To reiterate, Shell's 2012 Arctic well program is exploratory. The well will not be converted to a production well. It will be permanently plugged and abandoned per federal regulations.

Oil Spill Prevention and Response

Oil spill prevention and response planning is a top priority. Shell's Oil Discharge Prevention and Contingency Plan is robust. We have invested in an unprecedented

oil spill response capability to support our drilling plans in the Beaufort and Chukchi Seas. Our spill recovery equipment is state-of-the-art, widely acknowledged by experts as proven and effective under cold-climate conditions and designed to remove the worst-case discharge.

Specifically, Shell has developed a three-tier or layer system for use in the Alaska OCS.

1. The first tier is located on site, always less than an hour from the drilling rig. It is a dedicated fleet of purpose-built vessels and specialized oil containment equipment, which will be on-site 24/7 before a drill bit ever touches the sea floor.
2. The second tier is located to capture oil that might move away from the drill rig.
3. The third layer involves pre-staged shoreline protection. This, along with the first two tiers involves extensive use of both local residents and traditional knowledge.

Shell's oil spill response personnel routinely practice and conduct spill response drills. The response system consists of dedicated oil spill response assets including:

- Offshore recovery vessels with skimmers and boom,
- Near-shore barges with skimmer and boom,
- Shallow water vessels with skimmers and boom,
- Pre-identified protection strategies and equipment for environmentally and culturally sensitive sites, and
- Onshore oil spill response teams to deploy and support the above.

These assets are staffed during operation around the clock with trained crews provided by Alaska Clean Seas, Arctic Slope Regional Corporation, and Ukpeagvik Iñupiat Corporation.

Design Prevention, Containment and Spill Response

Shell has design standards and practices that have enabled us to safely drill many deepwater and shallow water wells worldwide in a variety of conditions, including the Arctic. Shell will rigorously apply these standards in all well operations on the Alaska OCS. As described above, the conditions of the well mean that prevention through the mechanical barriers built into the design have a high margin of safety.

The blow out preventers (BOP) that Shell will use have been extensively maintained, inspected and tested by third party specialists. The BOPs have been validated to comply with the original equipment manufacturer specifications, in accordance with API Recommend Practice No. 53. Shell's BOPs will have two sets of shear rams and comply with all regulatory requirements.

We will also retain the ability to mechanically cap the well in the unlikely event of a BOP breach. In fact, all existing Shell wells, in deep water, around the globe, can be capped. The design and construction of these wells allows them to withstand the pressure build-up that results when the well is capped. If the blow-out maintains mechanical integrity in the borehole and wellhead, a "capping and containment" operation would be employed. Mechanically capping the well, for example with an additional pre-engineered BOP, has the ability to reduce or even stop the flow, but still requires a surface collection system. The benefit of this response methodology is that it reduces or completely halts the flow of oil entering the water column. This capping method was eventually proven successful in terminating the well bore flow even at Macondo, and has been an integral part of well control descriptions in industry's recently approved permits in the deepwater Gulf of Mexico return to drilling.

In the extremely unlikely event that the wellhead integrity is compromised and an uncontrolled flow occurs, we would employ a pre-fabricated "subsea collection" system. This would consist of a capping stack that would be located on top of the blowout preventor, collecting fluids to a surface barge where gas, oil and water can be separated prior to storage and disposal. Separated gas would be flared; separated oil and water would be stored in tanks for subsequent disposal offsite or flared.

Collecting the flowing fluids close to their source of origin prevents or limits the flow of oil into ocean waters, and optimizes the suite of surface oil spill response capabilities by engaging the problem at its source. Surface oil spill response equipment would remain on station in the immediate area. Given we will have two functional drilling vessels in our 2012 exploration operations, each drilling rig will act as the relief backup well drilling unit for the other. Each can immediately stop operations and respond to drill any ultimate relief well.

Oil in Ice

A significant amount of oil-in-ice research has been completed over the last 30 years and more is underway. A four-year program known as the Joint Industry Project (JIP), under the management of SINTEF Norwegian Research Institute, was sponsored by six international oil companies, including Shell, and involved a host of international scientists including those from the Department of the Interior.

The purpose was to advance knowledge, tools and technologies for oil spill response in ice-covered waters. The program looked at:

- The fate and behavior of oil spilled in Arctic conditions;
- In-situ burning of oil in Arctic and ice-covered waters;
- Mechanical recovery of oil in Arctic and ice-covered waters;
- Use of chemical dispersants in Arctic and ice-covered waters;
- Monitoring and remote sensing of oil in and under ice;
- Preparation of a generic oil spill contingency plan; and
- Field experiments at Svalbard, Norway, in offshore ice-covered waters.

In May 2009, the group spent two weeks in the pack ice in the Norwegian Barents Sea to study the behavior of oil spills in Arctic waters and to test various response options in realistic oil-in-ice conditions. The tests proved that ice acts as a natural boom or protective barrier to confine and reduce the spread of an oil spill and to provide a longer window of opportunity in which clean-up technologies can be used effectively. These tests are the most wide-ranging research and development programs ever undertaken to evaluate Arctic oil spills.

These real-world offshore tests marked the final stage in the largest and most wide-ranging international research and development program ever undertaken to enhance detailed understanding, to further improve and develop spill-response technologies and to increase the ability to react rapidly in the event of an accidental oil spill in ice-covered conditions. The summary of that research showed that by using a suite of available tools (all of which are part of Shell's Alaska tool kit), including Arctic-tested booms and skimmers, and in-situ burning and dispersants, the majority of oil could be cleaned up in a variety of Arctic conditions; including broken ice and slush.

Shell is now leading industry efforts to perform another JIP to continue advancing the technology and research for oil spill response in ice.

Regulatory Challenges

Shell participated in several Alaska OCS lease sales at the invitation of the federal government. Although the leases were issued to Shell, the government's permitting and regulatory process has not been equipped to deliver. As a result, Shell has been blocked from drilling even a single exploration well.

Let me stress that this is *highly* unusual. The federal government's decision to hold a sale is, in effect, a decision that OCS exploration and development is desired. The federal government does years of in-depth analyses before holding an OCS lease sale. Therefore, an exploration or development plan that meets regulatory requirements is permitted. In the case of Shell in Alaska, we have met and exceeded the regulatory requirements and still have not been able to drill a well.

Each of our 414 leases in the Beaufort Sea and the Chukchi Sea has a ten-year term. A lease will expire and return to the federal government at the end of its term, if substantial steps to develop it are not taken.

So, Shell is in a "Catch-22." We have invested more than $3.5 billion in leases and in supporting infrastructure—equipment, support vessels, baseline studies, and workforce training—in order to take the first step to explore for oil and natural gas. We have assembled what is arguably the most environmentally sensitive and thoroughly responsible exploration plan in history. Yet, for reasons largely beyond our control, permits have not been issued. Since our leases are only valid for a limited time, we are keen to move forward.

A Robust Regulatory Process Is Critical

Let me be clear, Shell fully supports a robust permitting process. Shell does not seek lower environmental standards for OCS activities or a less exhaustive public permitting process. Such a process protects people and the environment and ensures safe and responsible operations. The bar is high in the Arctic, and it should be. Shell fully understands and supports this. We are ready to proceed with an exploration program that does precisely that.

But we need a regulatory framework that is clear; and a regulatory process that is properly funded, efficient and robust. The process should lead to timely decisions. Regardless of one's views on oil and gas development, we can all agree that endless delays by our government are wasteful to the taxpayer and should not be tolerated.

Permitting for oil and gas activity must be done thoroughly and to the letter of the law. Without that, legal challenges are likely and can also act to block a program.

In the absence of a sound regulatory system, confidence in the U.S. offshore program is undermined. Where OCS leasing has occurred, the government has done literally years of environmental analysis in advance of the lease sale. It has invited companies to buy leases, and it has accepted bonus bids from companies. In return, the government bears responsibility to follow through. There is an expectation that the government is prepared to do the regulatory work that allows for exploration and development. If this is not the case; if the regulatory system fails to work in support of the leasing program; policymakers should be concerned.

Recommendations: How Do We Move Forward?

Now I would like to look forward—to where we go from here and what policymakers should do.

There is no question that the federal government has a critical role to play as a steward of our oceans. It also has a role to play in supporting the OCS leasing program and the sustainable development of our natural resources. What does this mean?

- It means that federal permitting agencies must have enough staff with appropriate expertise to execute the program, or have the authority to contract with outside experts to do the work. Lack of staff should be no excuse for delaying permitting work.
- It means that the government needs funds to do the environmental studies, ecological characterization and baseline science, that underpins the permitting of any oil and gas work in OCS areas. Lack of funds should be no excuse.
- It means that federal permitting agencies must coordinate and streamline the permitting work. Multiple federal agencies are now involved in issuing multiple federal permits for a single offshore project. Duplication and inefficiency means delay and waste. It should be identified and eliminated.
- It means the regulatory process does not have open-ended timeframes that leave permit applicants with no clear understanding of the permit timeline. Rather, the regulatory process should have a firm timeline for delivering permits and clear milestones marking the path to their delivery.
- It means that the statutes, the regulations and the rules must be clear. It is unreasonable to expect anything less. Only when the rules are clear can a permit applicant meet them.

Fundamentally, it means that the government must respond in a timely and competent manner. Where the government, as the landlord, hands over a federal lease, it must also hand over the "key" to a lessee proposing a responsible program.

The President and Members of Congress have called for a government-wide review of burdensome regulations that hinder economic development. I am hopeful that this will result in true reform. With this, we can move forward with responsible development of our rich natural resources such as those in Alaska.

Conclusion

Oil and gas will remain critical sources of energy for decades to come. This is fact. Further, there are broad and sustained benefits in developing our own domestic resources. By tapping our resources here, we will create jobs, power the economy, put billions into dwindling government coffers, provide energy security, reduce imports and reduce our trade deficit. Keeping this economic value here at home, we can at the same time move forward with the investments in the next generation of technologies and energy solutions that will power the future.

Thank you. I am happy to answer any questions.

Mr. LAMBORN. Thank you for your testimony. Ms. Quarterman.

STATEMENT OF HON. CYNTHIA QUARTERMAN, ADMINISTRATOR, PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

Ms. QUARTERMAN. Good morning, Chairman Lamborn, Ranking Member Holt, members of the Subcommittee. Thank you for the opportunity to appear today to discuss the Pipeline and Hazardous Materials Safety Administration's oversight of the approximately 5,000-plus miles of energy pipeline in Alaska under our jurisdiction.

Safety is the number one priority of Secretary LaHood, myself and the employees of PHMSA and we are all strongly committed to reducing the transportation risks to the public and the environment.

PHMSA is responsible for establishing and enforcing safety standards for the design, construction, operation, and maintenance of the nation's pipeline transportation system. In Alaska, PHMSA's authority includes oversight of the TransAlaska Pipeline System, other North Slope and Cook Inlet pipelines, as well as other energy-related facilities.

As critical as Alaska's oil and gas resources are to supporting the nation's energy needs, PHMSA recognizes that its role in ensuring these energy resources are transported safety and efficiently is even more important. For this reason, PHMSA has invested heavily in working with the State of Alaska and operators to ensure the safety of both existing and proposed interstate and intrastate pipelines.

Alaska is only one of two states that have not accepted jurisdiction over its intrastate pipelines. Therefore, PHMSA is responsible for enforcing its pipeline safety regulations on the state's interstate and intrastate oil and natural gas pipelines. While production facilities, including pipeline upstream of the processing centers on the North Slope are regulated by the State of Alaska and the Environmental Protection Agency, PHMSA regulates the North Slope oil transit lines downstream of the processing centers.

In addition, PHMSA also regulates the TransAlaska Pipeline System, the Cook Inlet Pipelines, and local distribution pipelines. PHMSA has six-person staff in Anchorage that conducts comprehensive inspection and enforcement activities to ensure that pipeline operators are complying with its pipeline safety regulations.

PHMSA routinely coordinates with the Joint Pipeline Office, the Alaska Department of Natural Resources, the Office of the Federal Coordinator, and the Alaska Gas Development Corporation to provide oversight and technical support that helps protect the public and the environment and ensures operating reliability. Additionally, PHMSA is fully engaged with the Department of Natural Resources and other state agencies responsible under the Alaska Gas Inducement Act to advance the Alaska Gas Pipeline Project.

Mr. Chairman, ensuring the safety and reliability of the nation's hazardous liquid and natural gas pipeline network is an enormous responsibility. PHMSA looks forward to working with Congress to address any issues you may have concerning the pipelines, the agency's pipeline safety program, and the regulation of gas and hazardous liquid pipelines in Alaska. PHMSA very much appreciates the opportunity to report on our oversight role on those pipelines. I look forward to any questions the Committee may have. Thank you.

[The prepared statement of Ms. Quarterman follows:]

Statement of Cynthia L. Quarterman, Administrator, Pipeline and Hazardous Materials Safety Administration

I. Introduction

Chairman Lamborn, Ranking Member Holt, members of the Subcommittee, thank you for the opportunity to appear today to discuss the Pipeline and Hazardous Ma-

terials Safety Administration's (PHMSA) oversight of America's 2.5-million-mile energy pipeline system. Safety is the number one priority of Secretary Ray LaHood, myself, and the employees of PHMSA and we are all strongly committed to reducing transportation risks to the public and environment. Our Nation's reliance on the safe and environmentally sound transportation of energy fuels and hazardous materials is increasing. PHMSA's safety oversight of the pipeline network that delivers these products is providing critical protections for the American people.

PHMSA is responsible for establishing and enforcing safety standards for the design, construction, operation, and maintenance of the nation's pipeline transportation system. PHMSA's authority to regulate pipelines includes oversight of the Trans Alaska Pipeline System (TAPS), North Slope pipelines, certain pipelines in the Cook Inlet area, Liquefied Natural Gas (or LNG) facilities, and the distribution systems that deliver natural gas to homes, businesses, and power plants. Alaska oil and gas resources are critical to the nation's energy needs, and PHMSA recognizes its role in ensuring that this energy is transported safely and efficiently. For this reason, PHMSA has invested significant time and resources working with the State of Alaska and operators to ensure the safety of both existing and proposed interstate and intrastate pipelines, including the Trans Alaska Pipeline System and Alaska natural gas pipeline projects. The support of Congress is critical for the continued safe operation of oil and natural gas pipelines in Alaska. PHMSA seeks to increase the safety of Alaska's pipelines by providing the agency with additional staffing, enhancing our ability to collect information and data from pipeline operators, eliminating certain statutory limitations applicable to the regulation of gathering lines, and providing for reimbursement of expenses related to reviewing new pipeline projects.

II. PHMSA Coordination with the State of Alaska

PHMSA is an active member in the pipeline regulatory community in Alaska. Alaska is only one of two states that have not accepted jurisdiction over its intrastate pipelines, therefore PHMSA is responsible for enforcing its Pipeline Safety Regulations on both interstate and intrastate oil and natural gas pipelines in Alaska. The State of Alaska and the Environmental Protection Agency (EPA) regulate the production facilities, including pipelines, upstream of the processing centers on the North Slope. PHMSA regulates the North Slope oil transit lines downstream of the processing centers, as well as the Trans Alaska Pipeline System, the Cook Inlet pipelines, and local distribution pipelines. PHMSA has a six-person staff in Anchorage that conducts comprehensive inspection and enforcement activities to ensure that pipeline operators are complying with its Pipeline Safety Regulations. PHMSA routinely coordinates with:

- The Joint Pipeline Office, a consortium of 12 Federal and State Agencies;
- The Petroleum Systems Integrity Office, which is part of the Alaska Department of Natural Resources;
- The Office of the Federal Coordinator for Alaska Natural Gas Transportation Projects; and
- The Alaska Gasline Development Corporation, which is working to develop a plan for an in-state natural gas pipeline project.

PHMSA also regularly provides Alaska state agencies with technical support. For example, we recently collaborated with the Department of Natural Resources on a special permit for a pipeline facility that connects a new natural gas field on the Kenai Peninsula to a transmission line that serves the Cook Inlet. The special permit allows the pipeline operator to use advanced pipeline materials, but also requires the operator to take additional safety measures beyond our regulations to safeguard the pipeline's operation. In addition, a senior PHMSA leadership and technical team, including myself, will be traveling to Anchorage in the next few months to meet with State officials on pipeline matters including the proposed interstate and intrastate gas pipelines.

PHMSA is committed to achieving coordinated and effective oversight of Alaska pipeline systems. We would like to achieve more coordinated inter-agency inspections; the development of state–of-the art programs designed to better manage the integrity risks associated with operating pipeline systems in the unique conditions of Alaska; the development of enhanced inspection protocols and training programs; and the execution of cooperative agreements with other Federal and State agencies for the purpose of achieving effective oversight.

III. PHMSA Oversight of the Trans Alaska Pipeline System and the North Slope

PHMSA recognizes the importance of TAPS and the pipelines on the North Slope, and is vigilant in overseeing those that are within our jurisdiction. PHMSA works

with the Joint Pipeline Office to ensure oversight that helps protect the public and the environment, and ensures operating reliability. Federal oversight is limited, however, and PHMSA can only provide oversight and protections for transportation-related pipelines under our jurisdiction.

Historically, gathering and low-stress lines in rural areas, such as the BP Exploration Alaska (BPXA) pipelines that leaked in 2006, were exempt from the Pipeline Safety Statutes and regulations. In the absence of Federal oversight, Alaska had been regulating these gathering lines and flow lines on the North Slope under State law. In March 2006, approximately 5,000 barrels of crude oil were released from BPXA's Western Operating Area pipeline. A smaller spill on the Eastern Operating Area pipeline occurred in August 2006. Since the affected BPXA pipeline was considered to be a transportation pipeline, PHMSA issued a Corrective Action Order (CAO) in response to the spills requiring BPXA to perform certain corrective measures. Ultimately, PHMSA identified seven different violations of the CAO, each violation involving BPXA's failure to timely complete either maintenance pigging or in-line inspection of one of the pipelines. At the joint request of DOT and EPA, the Department of Justice filed a complaint in the US District Court for the District of Alaska in March 2009. We recently reached a consent agreement that, once it is approved by the court, will provide for heightened Federal oversight of BPXA's production related pipelines in Prudhoe Bay and require BPXA to pay $25 million. This accident highlighted the importance of PHMSA's enforcement program and jurisdiction over the nation's pipelines.

PHMSA has made significant progress in regulating these lines. In June 2008, PHMSA issued a final rule that established new safety requirements for regulated rural hazardous liquid gathering lines. This rule brought BPXA's and other low-stress pipelines that had been exempt from PHMSA regulations under our jurisdiction. However, PHMSA still does not have complete authority to regulate certain gathering lines in rural areas. Removing the statutory exemption for gathering lines would clarify the extent of PHMSA's jurisdiction and provide additional safety for the nation's pipelines in rural areas. Even those lines that we do have jurisdiction to regulate pose a challenge that requires focused and dedicated resources. The integrity of TAPS is challenged by the unique conditions in Alaska, the reduction in the volume of oil transported, and the age of the pipeline. The continued safe operation of TAPS will require technical ingenuity as well as ongoing monitoring and attention.

A leak that occurred at Pump Station 1 in January highlights this challenge. The leak appears to have been the result of internal corrosion and occurred in a piece of pipe that could not be assessed using in-line inspection tools. Following the discovery of that leak, PHMSA and other federal and state agencies worked together to address it and to prevent adverse environmental impact. PHMSA issued a Notice of Proposed Safety Order to Alyeska in response to this accident that proposed corrective measures that will help assure the future safe operation of TAPS. One proposed requirement is for Alyeska to remove all sections of pipe that cannot be assessed using in-line inspection tools. We have been working with Alyeska to reach an agreement for the resolution of this notice and other alleged violations of the pipeline safety laws.

IV. PHMSA's Oversight of Alaska Natural Gas Pipeline Projects

The proposed Alaska interstate and intrastate natural gas pipeline projects will tap into gas reserves on North Slope fields next to the Beaufort Sea for transportation to markets in Alaska and the Lower 48 states. Both the State and Federal authorities will regulate these proposed projects. PHMSA is fully engaged with the Department of Natural Resources and other state agencies responsible under the Alaska Gas Inducement Act (AGIA) to advance the Alaska Gas Pipeline Project. We are also in regular contact with the Office of the Federal Coordinator, the lead federal agency charged with facilitating the federal review of the gas pipeline project, and our federal partners at the Federal Energy Regulatory Commission and the Bureau of Land Management. PHMSA conducts periodic meetings with TransCanada/Exxon Mobil, the AGIA sanctioned operator of the proposed Alaska Gas Pipeline Project, to review the technical requirements of the pipeline that will incorporate unique design scenarios.

We are also aware of and fully engaged in the Alaska Stand Alone Gas Pipeline Project pursued by the Alaska Gasline Development Corporation to bring North Slope gas to the Fairbanks and Anchorage areas. PHMSA has been coordinating with state authorities overseeing the project and the U.S. Army Corps of Engineers and other federal agencies to support the project.

For these proposed pipelines, PHMSA will need to conduct reviews of design, material, construction, commissioning, and operation and maintenance plans. These

pipeline projects will incorporate novel design concepts needed for the unique Arctic operating environment, which will likely require special permits. These projects will be of unprecedented size, and will require significant involvement from PHMSA for oversight and planning. The costs associated with these activities should be allocated to the beneficiary pipeline operators through reimbursement and permit fees.

V. Conclusion

In closing, we look forward to working with Congress to address any issues you may have concerning PHMSA's pipeline safety program and the regulation of gas and hazardous liquid pipelines in Alaska. PHMSA very much appreciates the opportunity to report on our oversight role of these pipelines and the opportunities that exist to strengthen oversight.

Mr. LAMBORN. All right. Thank you for your testimony.

At this point, before we begin our questioning, I would like to recognize the Chairman of the Full Committee, Representative Doc Hastings of Washington State for a five-minute opening statement.

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

Mr. HASTINGS. Thank you very much, Mr. Chairman, and thank you for your consideration. I apologize for coming in late, but we have another hearing in our other hearing room on the manmade drought in California and that has taken a lot of interest and work in this Committee. Thank you for holding this important hearing today on the vast energy resources continued in our northern most state and the unique access and infrastructure issues facing energy production in Alaska.

America might not have a single state with more abundant energy resources than the offshore and onshore lands of Alaska. The utilization of these resources is vital to moving America forward to a future less dependent on foreign sources of energy, at the same time creating hundreds of thousands of American jobs.

Certainly, in any form of energy production there are challenges that must be overcome. However, some of the greatest challenges in Alaska seem to originate from our own government, not the physical characteristics of the Arctic. In the 1970s, the Trans-Alaska Pipeline System was build to transport up to two million barrels of oil a day from Prudhoe to Valdez. TAPS is now operating less than half that capacity, due to the Federal Government's refusal to explore for more oil resources to fill the pipeline in places like the National Petroleum Reserve or the Beaufort or Chukchi Seas. Critical infrastructure is needed to ensure TAPS remains open. Yet, after years and years, the Administration isn't issuing the necessary permits for the infrastructure to be installed.

If capacity isn't increased, the pipeline could shut down, putting thousands of hard-working American workers out of work and eliminating the valuable irreplaceable American asset. The Obama Administration's effective moratorium on new offshore drilling took the Chukchi and Beaufort Seas out of consideration for the 2012/2017 lease plan. Together these offshore areas contain potentially over 20 billion barrels of oil and over a 100 trillion cubic feet of natural gas.

Now fortunately, this Committee has responded by passing H.R. 1231, not only out of this Committee, but out of the House, and it would require them to move forward with these lease sales.

As gasoline prices continue to put a strain on the pocketbooks of American families across the country, it would be irresponsible for Congress to sit idly by and not act to harness the resources in Alaska, and for that matter elsewhere in America, to make us more energy secure. Alaska's energy resources will play a vital role in America's ability to fuel our economy, create American jobs, and lessen our dependence on unstable foreign energy.

So thank you once again, Mr. Chairman, for the courtesy of allowing me to testify at this very important hearing regarding the vast resources that we have in Alaska. And with that, I yield back my time.

[The prepared statement of Chairman Hastings follows:]

Statement of The Honorable Doc Hastings, Chairman, House Committee on Natural Resources

I would like to thank Chairman Lamborn for holding this important hearing today on the vast energy resources contained in our northern most state and the unique access and infrastructure issues facing energy production in Alaska. America might not have a single state that richer in energy resources than the offshore and onshore lands of Alaska. The utilization of those resources is vital to moving America to a more energy independent future while creating hundreds of thousands of American jobs.

Certainly, there are challenges in energy production that must be overcome; however, some of the greatest challenges in producing energy in Alaska seem to originate from our own government, not the physical characteristics of the Arctic.

The Obama Administration's effective moratorium on new offshore drilling took the Chukchi Beaufort Seas out of consideration for the 2012–2017 offshore lease plan. Together those offshore areas contain over 20 billion barrels of oil and over 100 trillion cubic feet of natural gas. Fortunately, H.R. 1231, passed out of this Committee and the Full House of Representatives would require the Administration to move forward with lease sales on those areas in the next five year lease plan.

In the 1970's the Trans Alaska Pipeline System was built to transport up to 2 million barrels per day from Prudhoe Bay to Valdez. TAPS is now operating at less than half capacity due to the federal government's refusal to explore for more oil resources in places like the National Petroleum Reserve-Alaska, or the Beaufort or Chukchi Seas. Critical infrastructure is needed to increase ensure TAPS remain open; however the Administration isn't issuing the necessary permits for the infrastructure to be installed. If capacity isn't increased, the pipelines will eventually shutdown putting thousands of hardworking American's out of work.

As gasoline prices continue to put a strain on the pocketbooks of American families across the country, it would be irresponsible for Congress to sit idly by and not address the resources we have to make America more energy secure. Alaska's energy resources will play a vital role in America's ability to fuel our economy, create American jobs and lessen our dependence on unstable foreign energy.

I'm looking forward hearing testimony from today's witnesses and asking them questions about the best way to access Alaska's untapped energy resources.

Mr. LAMBORN. All right. Thank you.

We will now begin questioning. Members are limited to five minutes, but we may have additional rounds, although the time may not permit that. So we will have a dialogue about that later. I will now recognize myself for five minutes.

First of all, Mr. Glenn you live in the region that this hearing focuses on. As you know, one of the primary concerns surrounding oil and natural gas production in this area is that it be done in an environmentally responsible manner. In your testimony you briefly discussed the impact energy development will have on wildlife.

Can you tell me, from your own experience, have the fish, caribou and waterfowl been negatively impacted by energy development on these lands?

Mr. GLENN. Not at all. The caribou, the freshwater fish and the waterfowl teem across the entire Arctic Slope and it is almost irrelevant whether there is industry presence there or not because the impact on the animals is so benign. This is for onshore development.

Regarding offshore development, we are home to many populations of migrating sea mammals and what we have seen is the voluntary efforts by industry to minimize their impacts to that exploration, for example, is timed not to conflict with migrating period for animals like the bowhead whale. And importantly also, the explorers like Shell have offered to pull back away from their exploration areas during the times of the subsistence hunt because we are interested in these animals welfare, not just for their own sake because our people and our culture depend on them as well. And so we have not seen any harmful effects on wildlife.

Mr. LAMBORN. All right. Thank you.

Mr. Lawrence, in your testimony you discussed the leases that your company holds in the Beaufort and Chukchi Seas for which you have completed the exploration plan, invested billions of dollars and are essentially ready to begin drilling exploration wells, is this correct?

Mr. LAWRENCE. Yes, that is correct. We started a leasing program and have picked up more than 415 leases. We have invested $2.2 billion in that leasehold through time. And to properly evaluate that leasehold, including environmental studies, including what would be necessary for going forward for development, and including all this response that we need to safely do this program in Alaska we have invested an additional $1.5 billion. So at this point, prior to drilling a single well, we have invested almost $3.7 billion.

Mr. LAMBORN. That is amazing. You go on to say that permits have not been issued for these wells despite your having completed all the required steps to obtain them. Has any reason been given to your company as to why you have not been issued permits for these leases?

Mr. LAWRENCE. We work closely with all the different permitting agencies, and just to be clear, there are almost 35 different permits from different agencies that are required to be able to drill in Alaska. The permits have been denied to be given to us for a wide variety of reasons. Some of those reasons include that the studies, that were done by the various permitting agencies themselves, had not been deemed to be complete.

Some of those things have been, for example, on the air permits that there have been questions around such things as where was the air to be measured. At what point did something become a stationary source and so forth. In combination, what you have is a number of different regulatory requirements that each on its own we are very happy to comply with, and as I stated in my testimony we happily would adhere to and often exceed regulatory requirements. But in combination, makes an almost impossible maze to work through to be able to obtain these permits.

Mr. LAMBORN. Thank you.

And Mr. Sullivan, can you make any recommendations for streamlining this Federal permitting process for oil and gas explo-

ration and development without undermining environmental protections?

Mr. SULLIVAN. Yes, sir, Mr. Chairman.

One of the things that we are working on from the state perspective is doing exactly what you just mentioned, which is streamlining, looking at efficiencies in our own state permitting system. And we are doing that with a continued focus of environmental protection, which as I mentioned, and mention in my written testimony is a hallmark of the way resources are developed on the North Slope of Alaska.

The President recently mentioned having a high-level Federal coordination group with regard to expediting permitting in Alaska with regard to oil and gas. We think that is a good first step. What Mr. Lawrence mentioned about the overlapping different jurisdictions is a problem. Governor Parnell requested in a letter to President Obama that if there is a high-level permitting coordination group at the Federal level, that the State of Alaska be part of it because it is very important with regard to the overlapping jurisdictions.

So whatever can be done to accelerate and bring certainty to a system that is slow and has no certainty is what we think is important.

Mr. LAMBORN. Thank you all for your answers. I would now like to recognize the Ranking Member of the Subcommittee, Representative Holt of New Jersey.

Mr. HOLT. Yes, thanks for those answers.

Mr. Sullivan, the Oil Spill Commission concluded in its final report, and let me quote, "Scientific understanding of environmental conditions in sensitive environments such as the Arctic is inadequate," and they go on to talk about the effects, the impacts of oil spills.

The Commission continued, "Good information exists only for a few species in the Arctic, and even for those just for certain times of the year or in certain areas. As a result, the Commission recommends an immediate comprehensive Federal research effort to provide a foundation of scientific information on the Arctic with periodic review by the National Academy of Sciences." Do you agree or disagree with that recommendation?

Mr. SULLIVAN. Representative Holt, one of the things that is mentioned in my testimony is the studies. If you look on page 6.

Mr. HOLT. Yes.

Mr. SULLIVAN. And there has been hundreds of millions of dollars worth of studies. As a matter of fact, the Obama Administration in 2009 mentioned——

Mr. HOLT. So to my question, Mr. Sullivan, you are saying you do not agree that there is poor scientific understanding.

Mr. SULLIVAN. As a matter of fact, Representative Holt, I think that the USGS right now is undertaking an analysis of what the studies are in the Arctic.

Mr. HOLT. So you do not——

Mr. SULLIVAN. And my understanding of that——

Mr. HOLT. I am not trying to badger you. I just want an answer. Is the Commission way off? They are wrong. There is adequate scientific understanding in your opinion?

Mr. SULLIVAN. We think there is adequate scientific understanding to undertake exploration drilling.

Mr. HOLT. OK. Mr. Lawrence, do you agree? Let me turn to—I am sorry. I just have limited time. Mr. Lawrence, do you agree with the recommendation made by the Spill Commission?

Mr. LAWRENCE. I have looked at the Presidential Commission and actually had many discussions with the Commission as they looked at that. And one of the things that they have stated is that in many cases there is a baseline of studies that have been done that would support that work and that continuing exploration would add to that scientific base. So to build on that, 5,000 studies to date, $500 million spent on that research to date, $50 million spent on research to date by Shell.

Mr. HOLT. So do you or do you not agree with the recommendation that an immediate, comprehensive Federal research effort to provide a foundation, not supplemental, but a foundation of scientific information on the Arctic should be undertaken?

Mr. LAWRENCE. I believe that we have more than adequate foundation to go forward with that.

Mr. HOLT. OK. So you disagree. OK.

Mr. Sullivan, the Commission also really issued what would have to be called a scathing indictment of the entire offshore oil and gas industry when the Commission said that from 2004 to 2009, this is a quote. I hear some muttering from the other side of the dais here. I am just quoting the Commission and I am asking whether or not you agree with that.

"From 2004 to 2009, fatalities in the offshore oil and gas industry were more than four times higher per person hours worked in U.S. waters than in European waters, even though many of the same companies operate in the same venues." Are there recommendations made by the BP Commission that could improve the safety of offshore drilling that should be undertaken before we expand offshore drilling in Alaska?

Mr. SULLIVAN. Representative Holt, one of the things I wanted to mention, we are always looking to increase safety and analyze our regulatory——

Mr. HOLT. But the question is, is this before or after the deaths occur? I am asking should these be undertaken before we do further drilling. Are you saying no?

Mr. SULLIVAN. I what I am saying is the record in Alaska is quite strong. We have had 84 wells drilled in Federal waters over the last three decades.

Mr. HOLT. Yes, 84 is not so many, but OK.

Mr. SULLIVAN. But we have had dozens drilled in state waters and we have a very, very strong safety and environmental record in the State of Alaska. Are we always looking to increase safety——

Mr. HOLT. So these reforms, if undertaken, should be undertaken after we expand the drilling in the offshore waters?

Mr. SULLIVAN. I am saying, sir, that we shouldn't further delay development in Alaska.

Mr. HOLT. OK. So it should not be done before we expand the drilling? OK.

Mr. SULLIVAN. But as the same time, as I mentioned, it is in my testimony, we are always looking for increase——

Mr. HOLT. In the few seconds that I have remaining, let me turn to Ms. Quarterman.

Did the lower throughput of oil in the TAPS have anything to do with the January spill?

Ms. QUARTERMAN. No, it did not.

Mr. HOLT. Are there things that we should be doing that would be as effective as increasing the flow in the pipeline to prevent spills?

Ms. QUARTERMAN. There are a number of challenges that are being raised by the fact that the flow has decreased on the pipeline. Some of the things we should be considering is how to keep the pipeline sufficiently warm to continue it to operate. As the pipeline cools down, water falls out which can cause ice plugs.

Mr. HOLT. Or in pipeline inspections, pigs and so forth. So you are saying those could be done. They would be as effective as increasing the throughput?

Ms. QUARTERMAN. I think they are alternatives. Absolutely.

Mr. HOLT. Thank you.

Mr. LAMBORN. Thank you.

Now I would like to recognize the gentleman from Alaska, Mr. Young, who is also Chairman of the Subcommittee on Indian and Alaska Native Affairs.

Mr. YOUNG. Thank you, Mr. Chairman. And it is hard for a person to sit by and listen to someone talk about something they don't know about. And I want to thank the witnesses.

The gentleman, Mr. Holt, refers to a commission and Bill Riley, a known environmental extremist on fossil fuel, who said there should be no offshore drilling, period. Former Senator Bob Graham from Florida agrees with that and, of course, Frances Beinecke, Natural Resources Defense Council. I would say it was not really a fair commission. I mean they were prejudiced when they started and you know it.

Their report, and I have attacked it time and again is false. I just want to make that record clear.

Mr. Sullivan, can you give me some specifics how they have interfered in delaying development of oil in Alaska?

Mr. SULLIVAN. Yes, sir, Congressman Young. And I just want to, just to clarify, I did want to make the point that in 2009 the Obama Administration itself stated quote, "There is an adequate baseline of information that exist to address the environmental effects of OCS oil and gas programs." So that was from this Administration.

I also want to just clarify——

Mr. HOLT. Would you give us the date again, please?

Mr. YOUNG. It is not your time.

Mr. HOLT. I beg your pardon.

Mr. YOUNG. Just remember that.

Mr. SULLIVAN. The spill in January did not spill one ounce of oil on—there was a misstatement, 13,000 gallons. There was not a drop of oil spilled on the land in January. It was all contained in a small building. But to answer your question further Congressman Young, on pages 9 through 11 of my testimony we give specific

examples of exactly specific projects and then broader policy determinations by this Administration that we think have had a chilling affect on the significant amount of investment needed to increase production to increase TAPS throughput. So I can give a few examples.

Mr. YOUNG. If it is in your testimony, I don't need it. But you have specifics in your testimony?

Mr. SULLIVAN. Absolutely. And that is not even going through all of them, as a matter of fact.

Mr. YOUNG. Mr. Glenn, thank you for your testimony too. When you say your people will not be able to survive the way they have been able to survive recently because of development, what will happen? I mean what do you think is going to occur up there?

Mr. GLENN. Sometimes I think the term "village," "Alaskan native village" does us an injustice. Today's villages are modern, small cities. We have power plants, water sewer plants, runways, roads. Things that need continued maintenance. In the absence if this municipal infrastructure that we built, we run the risk of responding to a fire, for example, in a building like we used to by running home and grabbing small fire extinguishers.

In the absence of snow removal, we run the risk of no more ambulance visits to someone during a time of medical emergency. And these are real world possibilities in the absence of continued development in our region.

Mr. YOUNG. So what they are doing is by non-acting and then the government is really trying to extinguish a culture.

Mr. GLENN. A lot of people will fight Arctic development in the name of saving——

Mr. YOUNG. The culture.

Mr. GLENN. The culture of the native people there. If they really want to help us, they should come try and live where we live.

Mr. YOUNG. I would like to see them move a honey bucket out and dump it in a lagoon for a while. I think you might learn a little bit, Mr. Holt.

Mr. Lawrence, can I ask you a question? When you weren't issued a permit last year, who really stopped the permit. EPA issued a permit, did they not?

Mr. LAWRENCE. We have had air permits that have been remanded to the EPA and we are waiting on those air permits.

Mr. YOUNG. But was it the appeal board that turned down the decision of EPA?

Mr. LAWRENCE. Again, continue to study and not provide the requisite decision.

Mr. YOUNG. This is my concern. You know 30 agencies to get permits from?

Mr. LAWRENCE. Thirty-five different permits. Yes.

Mr. YOUNG. Gentlemen, that is our problem. We have agencies doing this one. They don't want any oil development. And by the way, if we don't do something about oil development in this country, every man, woman, and child pays about $1100 a year in taxes to the foreigners. We do have fossil fuels and it is what makes our commerce run. It moves our trains, our planes, our automobiles, and our trucks and our ships and nothing else moves those things. And to have Obama sitting down and saying we are going to go use

windmills. We are going to stop nuclear power when that is what runs our commerce and we have the oil in Alaska. We have the oil offshore. China knows it. They are going to drill. Russia knows it. They are going to drill. Iceland knows it. They are going to drill. Greenland knows it. They are going to drill. And we are sitting around in this Congress doing nothing about developing our fossil fuels.

Mr. Chairman, it is time we started acting in this Congress on an energy policy and fossil fuels. I am through.

Mr. LAMBORN. Thank you.

Now I would like to recognize the gentleman from Maryland, Mr. Sarbanes.

Mr. SARBANES. Thank you, Mr. Chairman. Thank you all for your testimony.

Obviously, I don't have the years of experience of Congressman Young. I have only been here four years. But in the four years of sitting in hearings like this one, looking at the issue of oil and gas development I haven't seen any evidence that the agencies that are charged with oversight of the industry are against oil and gas development.

I think what they are for is oil and gas development that is done in a safe way. That is done in a way that preserves the environment. And frankly, is done in a way that means that that resource over time is sustainable. Because if you don't do these things safely and you have accidents with significant consequences, it can then result in the industry being pushed back. So it is in the industry's interest to make sure this is done well on the front end.

Now Mr. Lawrence, I was actually encouraged by your testimony because you said a number of times that you don't resist the regulatory requirements that are being asked of the industry and your corporation. Your concern is about whether the permitting process happens in a timely way, whether there is adequate coordination of the expectations of these different agencies and so forth. That is a fair case to make because sometimes the bureaucracy can be an impediment, but that doesn't speak to the I think good intentions of the agencies in terms of what they are trying to accomplish.

What it actually speaks to is we have to make sure that there are sufficient resources available to these agencies to be able to do these reviews in a way that is efficient, in a way that is timely, and that is a concern I have, particularly as these agencies try to regroup in the wake of what happened last year, and in the wake of other information that has come forward.

So I would hope, and I don't really have a question. But I would hope that going forward you would be an advocate with others in the industry for making sure that there are really sufficient resources available there for these agencies to do their job. I don't really have a question. But I thank you all for your testimony and I yield back.

Mr. LAMBORN. Thank you.

Mr. Fleming of Louisiana.

Mr. FLEMING. Thank you, Mr. Chairman.

I would like to extend, first, on the remarks from Mr. Young. It was mentioned here today that somehow we are at some peak of oil production, energy production and nothing further could be from

the truth. If you look at the overall trend line, oil production peaked in this country in 1972 at nine million barrels of oil per day. We are down to six million barrels of oil per day and dropping rapidly.

Off-shore we peaked in 2010 at 1.7 million barrels a day. We are down to 1.59 million barrels a day and we will drop another 200 to 250,000 barrels per day over the next year. And then we see a graph there showing that the TransAlaska Pipeline System peaked in the eighties at 2.2 million per day, which represented at the time 25 percent of U.S. domestic production. It is down to 630,000 barrels per day.

Now conventional wisdom has it that the reason why oil production or really fossil fuel production is declining in this country is because we are using it up. That it is gone. That we have very little left. But the reality is that the USGS has found in recent years that we have far more of these entities, these God-given minerals than we ever thought we had and new technologies are showing that we can find them and get to them in ways that we never thought we could.

My own district, District 4 of Louisiana, we discovered the Haynesville shale only five years ago and we now know that we have more natural gas just in the Haynesville shale, in fact, than the largest deposit in North America, the third largest deposit in the entire world—and more then any other shale developments that we are seeing. So the reality is we know today that the United States has more coal, natural gas, and oil than any country in the world, more than any country in the world. The second to it is Russia and they are not even close, far more than Saudi Arabia.

So the issue here today, ladies and gentlemen, is not that we are using up these vital resources. We face a number of issues, including the permitting process, hyperregulation, extreme environmentalist positions, a whole cascade of Administration members who say that they are quite happy to see gasoline prices go up to $10 a gallon—like they have in Europe—in order to advance a so-called green agenda, and in order to make alternative fuels more competitive in the marketplace. That is really impossible to do.

So it really seems to me that the problem is that we are artificially constricting the production of fossil fuels hydrocarbons and that is, in fact, what is causing our price increases at the gasoline pump. Americans think that we are up here working to get that down when, in fact, we are doing just the opposite. We are slowing it down and we are hearing wonderful witness testimonies here today that tell us exactly why that is happening.

In fact, I will follow up with a question here. Mr. Lawrence, in light of the recent deep water incident, could you please elaborate on how your regulatory hurdles have grown just since April 2010?

Mr. LAWRENCE. Yes. Thank you very much and appreciate the opportunity to discuss. Following the deepwater Macondo incident, we have taken on board the numerous recommendations from the Commission to be able to operate safely. And in fact, we had already implemented most of those and helped provide insights into what those might look at.

We have had a significant challenge with our permitting process. Just to give you an example, we have deferred almost $700 million

of investment as a result of the delays in permitting that have come from that. That cost us almost 10,000 barrels a day. Last year almost 50,000 barrels a day going into 2011. We currently have five deepwater rigs. You know what the rates of these things are, up to an all inclusive million dollar a day type rate. We have only three of those deepwater rigs working at this point in time and we have received three permits with numerous others out for request.

So we are working off of five discoveries in the Gulf of Mexico, ready to get those on, appraise them, develop them, bring them onto production, and it is having a significant impact on us in terms of not only our activity, the jobs that we have, but also directly for the country in terms of production and then revenue loss and lost investment.

Mr. FLEMING. So I would submit then to you today that we have plenty to go after. We have plenty of opportunities out there in terms of our equipment, the personnel and so forth, but it is the Administration's agenda that is really constricting the production, not other issues that perhaps may be discussed here today. Thank you.

Mr. LAMBORN. Mr. Landry of Louisiana.

Mr. LANDRY. Thank you, Mr. Chairman.

You know Mr. Glenn I want you to know that I always believe the other side of the aisle lived in a Utopian world and I was proven that yesterday when I sat in an Natural Resources Committee and heard the wind farm industry tell us how they can't put up windmills because the environmentalists are blocking their windmills. So I don't know how they are going to power their homes.

They don't like it when you are able to afford to put your own toilet in your home. That is not enough for them. They want to be able to pay for you to put your toilet. Then they want to tell you what kind of toilet to put in your home. So understand what you are dealing with. These people have driven gas prices to almost record highs. They are fixing to wreck this economy because they won't allow us to produce affordable energy, which stems this economy just like Congressman Young says. They want us to be more like Europe.

Every time I read the Wall Street Journal I don't want anything to do with Europe's economy. I want you to be able to drill over there. Wouldn't you say that you know how to protect your home. This is actually both for Mr. Sullivan and Mr. Glenn. You are both native Alaskans, I would guess. Wouldn't you say that you know how to protect your home better than me?

Mr. GLENN. Yes. I have a real world example that helps to illustrate the answer to that question. In the town where I live is 340 miles north of the Arctic Circle. No roads go there. We are only visited by aircraft and ships like barge traffic. We have developed natural gas for our home local use. It is a 12-mile pipeline that goes from the gas fields from my town that keeps the lights on and the houses warm. I helped drill those wells, Congressman. And I was part of the exploration effort. I had to listen to the state and the Federal regulations that protect our environment. So the short answer is yes. We do protect our environment. We care about it.

Mr. LANDRY. And you know how to protect your home better than I would, wouldn't you agree with that?

Mr. GLENN. I would hope so. Yes.

Mr. SULLIVAN. Congress Landry, I would agree that we live in the state and most people live in Alaska because they love the environment. Its pristine nature. We all get out there, use it, so we are very focused, and that is way a big part of my written testimony is focused exactly on what we do to protect the environment. I recently signed what they call a best interest finding for increased development on state land. It is very, very detailed. Pages and pages of what you have to do if an explorer runs into a den of bears or things like this and we are very focused on it.

I think the key issue is that we think you can do both. You can responsibly develop resources and protect the environment, and we have a good record in Alaska doing that and it is not an either or proposition.

Mr. LANDRY. I am for letting you protect your home. I want you to know that. I want to ask two quick questions. One to Mr. Lawrence.

Last year when the TAPS pipeline was shutdown because of a slowed flow, coupled with the cold weather, where did the refineries in California get their oil?

Mr. LAWRENCE. Thank you. So for that period of time, oil came from Asia.

Mr. LANDRY. From Asia?

Mr. LAWRENCE. It did not come from Alaska as it normally comes. Again, that throughput that went to the refineries was shutdown and they needed to seek other sources.

Mr. LANDRY. So we have the ability to fuel our refineries with our oil.

Mr. LAWRENCE. That is correct. The shutdown, again, requires those—you don't want to shut those refineries down so that oil then needs to come from elsewhere.

Mr. LANDRY. So that means that people who refused to let us drill in Alaska, who refuse to let us put oil in the pipeline basically promote us purchasing foreign oil, that is a correct statement, is it not?

Mr. LAWRENCE. What I would say is that the Alaska pipeline is absolutely essential to supplying our West Coast refineries with American oil.

Mr. LANDRY. Mr. Lawrence, I hate to put you on the spot because I love Shell. I think they do a great job in the Gulf of Mexico. Thumbs up to you all and your safety record there, but honestly, if that pipeline is not there that means that we have to buy foreign oil for our West Coast refineries.

Mr. LAWRENCE. If the pipeline does supply oil from Alaska, that oil will come from elsewhere and much of it will come from foreign suppliers.

Mr. LANDRY. So that means that people who refuse to let us fill that pipeline support us purchasing foreign oil? That is a yes or no question.

Mr. LAWRENCE. Yes.

Mr. LANDRY. Thank you.

Dr. FLEMING. [Presiding] The gentleman's time is up. Next is Mr. Johnson.

Mr. JOHNSON. First of all, I want to thank the Chairman for holding this hearing.

I have heard a lot of banter from the other side this morning about how it must take congressional experience to see that $4 a gallon for gas is hurting Americans and how America's dependence on foreign sources of oil is a national security issue. I think Americans get it and it doesn't take an American that is sitting in the halls of Congress to get it. My constituents in eastern and southeastern Ohio get it.

I don't see why my colleagues on the other side of the aisle and the Obama Administration don't see the need for an immediate national energy policy that is going to ensure America's energy security. I am new. I am freshman, but I am a loss for words on this Administration's security policy. Back in my district in eastern and southeastern Ohio my constituents are fed up with high gas prices. They have told me time and time again that we need to produce more of America's energy from our own natural resources. From the testimony that we have heard from you folks today, we have heard how the Federal Government is not only slowing down the production of an area of land that is set aside specifically as a national strategic reserve, but is also holding up permits to allow drilling in the shallow water OCS off the Alaska coast.

As we have heard from Mr. Lawrence, Shell's proposed drilling in Alaska's Beaufort and Chukchi Seas OCS is estimated to produce an on average 700,000 barrels of oil a day for 40 years, 700,000 barrels a day is more than America imports from Russia and Iraq per day combined. It is mind boggling to me and my constituents that the Federal Government won't let the Shell project go forward and reduce America's dependence on foreign oil.

Because of the lack of oil and gas production in Alaska, the TransAlaska Pipeline, as you know, or TAPS, as we have heard this morning is in danger of shutting down to a lack of volume. Without an increase in production, TAPS will shutdown and America will become more dependent on foreign oil. We just heard that in the question period from Mr. Landry. And folks I submit to you that this simply cannot happen.

Finally, I would like to point out that Shell's story of investing over a billion dollars into trying to drill in Alaska is a poster child for why the other side's so-called Use it or Lose It legislation is so misguided. Here we have a company that is trying to use their lease, but because of the Federal Government's broken permitting process they haven't been able to start drilling. Instead, the other side's proposal would place a tax on the company for the Federal Government's incompetency. And this idea just defies logic. I do have some questions.

Mr. Lawrence, do you think that the Federal Government in the past have purposely slowed down Shell's drilling permits because of a fundamental disagreement over whether drilling should take place in Alaska's Beaufort or Chukchi Sea OCS or because of a lack of competency by the agencies involved to handle such a request for a permit.

Mr. LAWRENCE. Thank you. I think there are two things that have fundamentally caused that delay. The first is the coordination between the different agencies so that the right hand knows what the left hand is doing and assures that we are able to actually get timely delivery of those permits.

Mr. JOHNSON. That is the competency issue.

Mr. LAWRENCE. The second thing, and that is the coordination issue. The second thing brought up, and I do think it is quite important, is that these agencies are properly resourced to ensure they can operate and go through these permits in a timely manner. And I think that deserves support to get that proper resource in addition to the coordination.

Mr. JOHNSON. I am glad you brought that up because I will submit to you that they are more than adequately resourced. If we look at the permitting process from just a few short years ago, 300-and-some permits per year. The next year—after the Obama Administration came in—100-and-something. We are down into the double digits in terms of numbers of permits. They are asking for an increase in budget authorization and 21,000 additional people to put in a robust permitting process to do less than what they used to do three years ago, four years ago. I don't understand that. So I appreciate your answer, Mr. Lawrence, but I submit to you that they are resourced. They simply are not doing what the American people are doing.

I apologize. I am out of my time. I yield back.

Dr. FLEMING. The gentleman yields back. Next for five minutes Mr. Duncan from South Carolina.

Mr. DUNCAN. Thank you Mr. Chairman and thank the panelists for being here today.

If I get passionate about this issue it is because I am passionate about American energy production. I may not be as passionate as the gentleman from Alaska and the gentleman to my left from Louisiana, but it is an issue that I have been following for a long time, having served on the MMS, Outer Continental Shelf Five-Year Planning Subcommittee and understanding that areas that we were talking about back then when I served on that committee were very, very limited, a couple of grid squares in the western GOM and a little area off the coast of Alaska is the only thing we could talk about for future lease sales on the next five year plan, which I thought back then was ludicrous but I know with the Administration is not doing now with future lease sales. They don't have a five-year plan for the future.

I am concerned about what we are going to do without future lease sales in this country to open up these areas that American people know the resources are there. They know that we have them in this country. We are very, very blessed, yet the Administration's policies are continuing to hamper our ability to get out there and harvest the resources, whether it is any hydrocarbon, whether it is oil or natural gas.

The folks watching back home need to realize that this Administration has been very clear. Dr. Chu, the Secretary of the Department of Energy said before he was ever elected that he wanted to see America have European-styled gas prices. As Mr. Landry mentioned a minute ago, folks that eight, nine, $10 a gallon gasoline.

That is unsustainable. I look at this mural here and we see planes and trains and automobiles and ships and a city in the background and everything in that picture is run on hydrocarbons. It is run on oil and natural gas, primarily in that picture diesel fuel, which comes out of the ground and is produced in the refining capacity process.

Anyway, America needs to know that this Administration is standing in the way of us harvesting our own resources and moving forward with American energy independence. But I know how the folks in Alaska feel about drilling there. I met with the former speaker of the house recently in my office from Alaska and she said that a drilling bill passed in Alaska 51 to 1, 51 to 1. That tells me how Alaska feels about it. Your testimony is very, very clear that the gentlemen that are from Alaska.

We went to the White House this week and we met with President Obama. And he looked at us and he said that he didn't necessarily think we had a spending problem in this country. We had a revenue problem and he talked about possibly raising taxes on the higher income producers in this country. But you know what, the second largest income producer for this nation, second only to taxation, if you take borrowing, Mr. Chairman, out of the equation, when we are borrowing 43 cents of every dollar we spend.

If you take borrowing out, the second largest income producer for this country is the revenues we get from oil and natural gas royalties and lease sales, the second largest revenue producer. If we want to increase revenue, Mr. President, we need to increase American domestic energy production and increase the revenue we get from the royalties there.

And I looked at the graph that you provided and ANWR is the size of my home state of South Carolina. The whole thing is a national wildlife refuge. I can't imagine South Carolina, the whole state being a national wildlife refuge. And then I investigate where the oil and natural gas areas that we possibly could drill and produce from, if ANWR is the size of that wall right there and I put a postage stamp up there that is what we are talking about, the negligible impact on the area is something that we have to talk about.

So I will get off my soapbox and ask a question because Mr. Lawrence you made a comment that I have been thinking about EPA not issuing Shell Oil an air quality permit. And having gone to an offshore production and drilling platform in the Gulf of Mexico, both of them had flare gas. And I am assuming that the air quality permit is dealing with that flare gas because I don't remember seeing any other emissions that may have been under an air quality permit the EPA would be involved in.

But in your comments you talk about that BOEMRE had normally been the only agency that issue air quality permits, if I read this correctly. Why is the EPA the agency involved here?

Mr. LAWRENCE. Yes, you are correct. BOEMRE has responsibility for those air quality permits in the central and western Gulf of Mexico and has for years. They would look at any emissions, for example, from drill ships in those areas. In the Alaska jurisdiction, the EPA has been designated as having that responsibility.

Mr. DUNCAN. For how long?

Mr. LAWRENCE. Since at least I have been going for a permit. And what I would say is that the experience level with working with those permits and the kind of issues that you face with those permits is far less with the EPA than it is elsewhere.

Having said that, what I look forward to is just to be able to receive the permit, having met all those requirements and having been able to deliver what we have said we would deliver to be able to get those permits.

Mr. DUNCAN. Mr. Lawrence, I know you are going through a permitting process with EPA and you are treading very lightly because you don't want to impact that. I appreciate those comments, but I am going to question this committee why the EPA is involved in the Alaskan Sea, Beaufort and Chukchi and the rest of them when BOEMRE does it everywhere else there is offshore drilling. Thank you very much, Mr. Chairman.

Mr. LAMBORN. Thank you. Now Mr. Rivera of Florida.

Mr. RIVERA. Thank you, Mr. Chairman.

Just one question regarding the pipeline and what the effect would be or the actual effect would be on the pipelines should the flows continues to slow down because my staff has told me that if it gets to a certain point it will have to be dismantled, according to Federal law. How much would dismantling the pipeline costs, how long would it take to rebuild, how much would it cost to rebuild? Any reflections on that?

Mr. SULLIVAN. Yes, sir. Congressman, just to address that issue more broadly, we believe that the best way to ensure that the pipeline doesn't shut down is to increase the TAPS throughput. The best way to deal with the technical problems, the best way to deal with potential spills is to actually increase. As you go lower in through-put, we may see an increase in these kinds of problems, regardless of technical fixes. But there is a requirement, if it is shutdown, for the actual pipeline to be dismantled and it would cost probably in the billions of dollars and it would in some ways be, from our perspective, an enormous wasted investment because we still have the massive resource base to fill it and that is where we believe the investment dollars should be focused on is the responsible production to actually fill it.

Mr. RIVERA. Anyone else? Any other comments?

I yield the rest of my time, Mr. Chairman.

Mr. LAMBORN. All right. Thank you.

At this point, I want to thank the witnesses for coming today. You provided some illuminating and educational responses and testimony to help us do our jobs better, hopefully. So thank you for being here. And I would like to urge the witnesses to answer any questions that Members may submit to them in writing immediately afterwards.

And if there is no further business, the Subcommittee stands adjourned.

[Whereupon, at 11:25 a.m., the Subcommittee was adjourned.]

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