S. HRG. 108–12

ENERGY PRODUCTION ON FEDERAL LANDS

HEARING

BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

TO RECEIVE TESTIMONY REGARDING FEDERAL ENERGY DEVELOPMENT ON PUBLIC LANDS

FEBRUARY 27, 2003

Printed for the use of the
Committee on Energy and Natural Resources

U.S. GOVERNMENT PRINTING OFFICE

86–709 PDF WASHINGTON : 2003

For sale by the Superintendent of Documents, U.S. Government Printing Office
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ENERGY PRODUCTION ON FEDERAL LANDS

THURSDAY, FEBRUARY 27, 2003

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

The committee met, pursuant to notice, at 10 a.m., in room SD–366, Dirksen Senate Office Building, Hon. Pete V. Domenici, chairman, presiding.

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

The CHAIRMAN. The hearing will please come to order. This hearing is taking place to take the testimony on energy production from our Federal lands. It is my understanding that Federal lands hold 80 percent of the U.S. oil reserves and 60 percent of the gas reserves. In spite of this significant resource, only about 5 percent of domestic oil production and about 11 percent of gas production come from the Federal lands.

Specifically, the committee is interested in how Federal lands can help to supply the growing daily demands in the United States. What are the current production levels from Federal lands? What is the potential for new production? Where are these resources? And what is being done to develop the Federal resources and bring them to market?

I decided from my standpoint to forego opening statements so that we can hear from the witnesses. If any of my colleagues would like to make an opening statement, you are welcome to do so as part of your first round of questions.

Before we begin, I would like to inform members that the record will remain open until 6 o'clock this evening, in order to submit questions of the witnesses.

We have four witnesses today: Steve Griles, Deputy Secretary of the Department of Interior. We welcome you here today, Steve, to testify on the Federal energy resources under the administration of the Interior Department. We will then allow time for questions. And then I understand he is on a tight time schedule, which means he has a plane to catch before noon.

Following Mr. Griles' testimony, I would like to ask our other witnesses for their testimony. So let us begin with Mr. Griles. If that is satisfactory with Senator Bingaman, let us proceed.

Mr. Secretary, will you proceed?

[The prepared statements of Senators Bingaman, Bunning, and Murkowski follow:]

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

The subject of energy production from federal lands is of great interest to all of us. These lands contain a wealth of resources and are used for multiple and varied purposes. They provide rangeland for the ranching community. Public lands afford unique recreational and scenic opportunities. These lands are the source of timber, they provide important fish and wildlife habitat, and last but not least, they are a vital source of energy for our Nation.

Clearly, the energy resources found beneath these lands make a significant contribution to meeting our energy needs and must continue to play that role. Lands administered by the BLM provide 5 percent of the Nation's oil production and 11 percent of its natural gas production. In fiscal year 2001, my home state of New Mexico produced more natural gas from onshore federal lands than any other state and ranked second in oil production. Federally-administered offshore oil and gas resources are also crucial to our energy security. The OCS provided over 25 percent of both the Nation's oil and gas in 2003.

There is substantial interest on the part of industry in the development of coalbed methane in the Rocky Mountain West. Last month, the BLM issued two final environmental impact statements regarding oil and gas development in the Powder River Basin, indicating that there could be as many as 63,000 new coalbed methane wells in drilled on federal lands in that area. I understand that a similar analysis is being undertaken with respect to the San Juan Basin, and that significant new drilling is anticipated in that area, as well. These wells are projected to provide significant energy resources, but at the same time raise issues with respect to water duality and quantity and potential conflicts with other uses of the federal lands, such as for grazing and coal production. I will be interested to hear the witnesses' views on this topic.

I also expect that the witnesses will comment on the issue of access to federal lands for energy development purposes. Because this is a topic of interest to me, I co-authored a provision in the Energy Policy Conservation Act Amendments of 2000, calling on the Department of the Interior to undertake an analysis of oil and gas resources underlying federal lands and restrictions on their development. The report that was issued last month focusing on five basins is a helpful step in providing information on this subject. My goal in seeking this report is to be certain that the discussion of this topic is focused on fact and not fueled by rhetoric. I hope that the hearing today will help us better understand this important subject.

I have voiced my concerns in the past regarding the level of resources devoted by the Interior Department to the oil and gas leasing program. I believe that a key reason for backlog and delay in processing drilling requests is a lack of resources. I also am concerned that the Department devotes inadequate dollars to the inspection and enforcement of existing operations. I have received assurances that this topic is being addressed and I hope that the Deputy Secretary can confirm my understanding.

Finally, a word about renewable energy. I am pleased that the President's National Energy Policy called on the Secretaries of the Interior and Energy to look at ways to increase renewable energy production on federal lands. I believe that the potential for environmentally sound renewable energy production on our federal lands is great. I am particularly interested in hearing what the Department of the Interior is doing to encourage renewable energy production.

I want to thank the witnesses for their attendance. I look forward to hearing their testimony.

PREPARED STATEMENT OF HON. JIM BUNNING, U.S. SENATOR FROM KENTUCKY

Thank you, Mr. Chairman.

I appreciate having this opportunity to take a look at the types of energy production available on federal lands.

This is an important issue to examine when we are trying to put together a common sense energy policy.

In the past, I think Congress has failed to make progress on energy because we have fallen into the trap of choosing between conservation and production.

But now I think that we have escaped that trap and reached the point where most of us in the Senate understand that a balanced energy policy must do both—it must help boost production of domestic energy sources, as well as promote conservation.

As we have seen from the previous hearings on the current state of oil and gas supply in the United States, America's demand for energy continues to rise while our supply diminishes.

In the interest of America's energy future, and most importantly, our national security, we must increase domestic energy production.

We must have an energy policy that helps reduce our dependence on foreign oil to strengthen our energy independence and to protect ourselves from dictators like Saddam Hussein and the politics of the Middle East.

New technology now enables us to increase our production of energy by operating with less impact on the environment. In fact, today's domestic operations for producing energy would be conducted under the most comprehensive environmental regulations in the world.

I look forward to hearing about the possibilities of production of energy from oil, gas, and coal on federal lands as a way for us to increase domestic energy production.

I appreciate the time our witnesses have taken today to come testify.

Thank you.

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

Mr. Chairman, thank you for calling this hearing today regarding energy production on federal lands. As you and the other members of the committee are aware, this topic is very important to my State of Alaska. I look forward to hearing the testimony of the panel.

We face an energy crisis in this country. Insufficient supply, excess demand, and a failing infrastructure unable to deliver energy to where consumers need it the most are resulting in rising energy prices that impact every American family and business, impair U.S. economic growth, and threaten our national security.

And with a war in Iraq very likely the situation shows no sign of improving. Energy prices continue to rise.

Congress and this committee must take action.

The United States must take a balanced approach to lessening our dependence on unstable foreign energy sources.

There are solutions to our energy crisis, and the production of energy on land currently owned by the federal government is one way we can lessen our dependence on unstable foreign sources of energy.

It is time for us to act.

The members of this committee are very aware that much of the land—with and abundance of natural resources—of my State of Alaska are owned by the federal government. Those resources remain unavailable for production.

67.9 percent of the 586,412 square miles of land in my State of Alaska is owned by the federal government.

This includes 76 million acres of Wildlife Refuges, 51 million acres of National Parks, 26 million acres of Bureau of Land Management lands and 23 million acres of National Forests.

The potential for energy production on federal lands in Alaska is unparalleled anywhere else in the U.S.

The place to start is ANWR. And we should also consider the production of energy in the National Petroleum Reserve-Alaska (NPR-A).

The 1.2 million acre 1002 area of the Arctic National Wildlife Refuge (ANWR) and the 23.5 million acre NPR-A both along Alaska's North Slope contain a great deal of recoverable oil and natural gas .

The U.S. Geological Survey also estimates that the Coastal Plain area of ANWR contains between 3.5 and 16 billion barrels of oil. And the mean average estimate offered by the U.S. Geological Survey and the Minerals Management Service are that the NPR-A contains 9.3 billion barrels of oil and 59.7 trillion cubic feet of natural gas. The actual amounts could be higher.

These resources can be recovered using new technologies that would minimize the impact on the natural environment and the area wildlife.

We have been over the details of the arguments for and against responsible exploration in ANWR ad nauseam, so I will not repeat the myriad of reasons that support my position at today's hearing.

I will simply say that a new energy strategy is needed, and production on federal lands on the North Slope of Alaska should be part of the solution to the ongoing energy crisis.

I am committed to seeing that these areas are opened up to environmentally sensitive oil and natural gas leasing as part of a comprehensive national energy policy.

Of course, energy production in ANWR and the NPR-A cannot be the only elements of a national energy strategy. There are many exciting possibilities for lessen-

ing our dependence on foreign imports of petroleum, besides increasing domestic production, including renewable resources and other energy alternatives.

While I will fight for oil and gas leasing in federal lands on the North Slope, I will also work on other initiatives to promote new technologies that will lessen harmful emissions and improve efficiency.

During the last Congress, this committee considered many proposals for a new national energy policy. Negotiations got as far as a Conference Committee, but a compromise could not be reached on many of the controversial issues.

I hope efforts this year to enact a national energy policy will be successful. We must work together, and see to it that all the parties can reach a common ground. I intend to fight for the interests of my State, while I carefully evaluate the positions of all interested parties.

The goal of any national energy policy needs to be reducing the cost of energy, reducing our dependence on unstable foreign energy imports and reducing harmful emissions.

I will work very hard to see this vision come to fruition.

These initiatives will benefit our economy by reducing costs for consumers and businesses, and by creating jobs in the energy sectors and those parts of the economy that support the energy sector.

Finally, Mr. Chairman, I look forward to working with you, and Senator Bingaman, and the other members of this committee on a national energy policy that includes environmentally responsible energy production on federal lands in my State of Alaska.

Thank you, Mr. Chairman.

STATEMENT OF J. STEVEN GRILES, DEPUTY SECRETARY, DEPARTMENT OF THE INTERIOR

Mr. GRILES. Yes, sir. Mr. Chairman, I am Steve Griles, the Deputy Secretary of the Interior. And as you said, I am on my way out of town, hopefully before the snowstorm gets here. And I appreciate the committee allowing me to come before you and spend some time to talk to you about energy.

Patty Morrison, the Deputy Assistant Secretary for Lands and Minerals Management, will be here with you the rest of the morning and is also very knowledgeable on the Department's energy policies and will be able to respond to other questions that may come after I leave.

I would like to ask that my statement in totality be entered into the record. And I will just try to summarize for you, Mr. Chairman, some of my thoughts.

The CHAIRMAN. Without objection, that will be done.

Mr. GRILES. America's public lands have an abundant opportunity for exploration and development of renewable and nonrenewable energy resources. Energy reserves contained on the Department of the Interior's onshore and offshore Federal lands are very important to meeting our current and future estimates of what it is going to take to continue to supply America's energy demand.

Estimates suggest that these lands contain approximately 68 percent of the undiscovered U.S. oil resources and 74 percent of the undiscovered natural gas resources. President Bush has developed a national energy policy that laid out a comprehensive, long-term energy strategy for America's future. That strategy recognizes we need to raise domestic production of energy, both renewable and nonrenewable, to meet our dependence for energy.

For oil and gas, the United States uses about 7 billion barrels a year, of which about 4 billion are currently imported and 3 billion are domestically produced. The President proposed to open a small

portion of the Arctic National Wildlife Refuge to environmentally responsible oil and gas exploration.

Now there is a new and environmentally friendly technology, similar to directional drilling, with mobile platforms, self-containing drilling units. These things will allow producers to access large energy reserves with almost no footprint on the tundra. Each day, even since I have assumed this job, our ability to minimize our effect on the environment continues to improve to where it is almost nonexistent in such areas as even in Alaska.

According to the latest oil and gas assessment, ANWR is the largest untapped source of domestic production available to us. The production for ANWR would equal about 60 years of imports from Iraq.

The National Energy Policy also encourages development of cleaner, more diverse portfolios of domestic renewable energy sources. The renewable policy in areas cover geothermal, wind, solar, and biomass. And it urges research on hydrogen as an alternate energy source.

To advance the National Energy Policy, the Bureau of Land Management and the DOE's National Renewable Energy Lab last week announced the release of a renewable energy report. It identifies and evaluates renewable energy resources on public lands.

Mr. Chairman, I would like to submit this for the record.* This report, which has just come out, assess the potential for renewable energy on public lands. It is a very good report that we hope will allow for the private sector, after working with the various other agencies, to where can we best use renewable resource, and how do we take this assessment and put it into the land use planning that we are currently going, so that right-of-ways and understanding of what renewable resources can be done in the West can, in fact, have a better opportunity.

The Department completed the first of an energy inventory this year. Now the EPCA report, which is laying here, also, Mr. Chairman, is an estimate of the undiscovered, technically recoverable oil and gas. Part one of that report covers five oil and gas basins. The second part of the report will be out later this year.

Now this report, it is not—there are people who have different opinions of it. But the fact is we believe it will be a good guidance tool, as we look at where the oil and gas potential is and where we need to do land use planning. And as we update these land use plannings and do our EISs, that will help guide further the private sector, the public sector, and all stakeholders on how we can better do land use planning and develop oil and gas in a sound fashion.

Also, I have laying here in front of me the two EISs that have been done on the two major coal methane basins in the United States, San Juan Basis and the Powder River Basin. Completing these reports, which are in draft, will increase and offer the opportunity for production of natural gas with coal bed methane.

Now these reports are in draft and, once completed, will authorize and allow for additional exploration and development. It has taken 2 years to get these in place. It has taken 2 years to get some of these in place. This planning process that Congress has

*The report has been retained in committee files.

initiated under FLPMA and other statutes allows for a deliberative, conscious understanding of what the impacts are. We believe that when these are finalized, that is in fact what will occur.

One of the areas which we believe that the Department of the Interior and the Bureau of Land Management is and is going to engage in is coordination with landowners. Mr. Chairman, the private sector in the oil and gas industry must be good neighbors with the ranchers in the West. The BLM is going to be addressing the issues of bonding requirements that will assure that landowners have their surface rights and their values protected.

BLM is working to make the consultation process with the landowners, with the States and local governments and other Federal agencies more efficient and meaningful. But we must assure that the surface owners are protected and the values of their ranches are in fact assured. And by being good neighbors, we can do that.

In the BLM land use planning process, we have priorities, ten current resource management planning areas that contain the major oil and gas reserves that are reported out in the EPCA study. Once this process is completed, then we can move forward with consideration of development of the natural gas.

We are also working with the Western Governors' Association and the Western Utilities Group. The purpose is to identify and designate right-of-way corridors on public lands. We would like to do it now as to where right-of-way corridors make sense and put those in our land use planning processes, so that when the need is truly identified, utilities, energy companies, and the public will know where they are Instead of taking two years to amend a land use plan, hopefully this will expedite and have future opportunity so that when the need is there, we can go ahead and make that investment through the private sector. It should speed up the process of right-of-way permits for both pipelines and electric transmission.

Now let me switch to the offshore, the Outer Continental Shelf. It is a huge contributor to our Nation's energy and economic security.

The CHAIRMAN. Mr. Secretary, everything you have talked about so far is onshore.

Mr. GRILES. That is correct.

The CHAIRMAN. You now will speak to offshore.

Mr. GRILES. Yes, sir, I will.

Now we are keeping on schedule the holding lease sales in the areas that are available for leasing. In the past year, scheduled sales in several areas were either delayed, canceled, or put under moratoria, even though they were in the 5-year plan. It undermined certainty. It made investing, particularly in the Gulf, more risky.

We have approved a 5-year oil and gas leasing program in July 2002 that calls for 20 new lease sales in the Gulf of Mexico and several other areas of the offshore, specifically in Alaska by 2007. Now our estimates indicate that these areas contain resources up to 22 billion barrels of oil and 61 trillion cubic feet of natural gas.

We are also acting to raise energy production from these offshore areas by providing royalty relief on the OCS leases for new deep wells that are drilled in shallow water. These are at depths that

heretofore were very and are very costly to produce from and costly to drill to. We need to encourage that exploration. These deep wells, which are greater than 15,000 feet in depth, are expected to access between 5 to 20 trillion cubic feet of natural gas and can be developed quickly due to existing infrastructure and the shallow water.

We have also issued a final rule in July 2002 that allows companies to apply for a lease extension, giving them more time to analyze complex geological data that underlies salt domes. That is, where geologically salt overlays the geologically clay. And you try to do seismic, and the seismic just gets distorted. So we have extended the lease terms, so that hopefully those companies can figure out where and where to best drill. Vast resources of oil and natural gas lie, we hope, beneath these sheets of salt in the OCS in the Gulf of Mexico. But it is very difficult to get clear seismic images.

We are also working to create a process of reviewing and permitting alternative energy sources on the OCS lands. We have sent legislation to Congress that would give the Minerals Management Service of the Department of the Interior clear authority to lease parts of the OCS for renewable energy. The renewables could be wind, wave, or solar energy, and related projects that are auxiliary to oil and gas development, such as offshore staging facilities and emergency medical facilities.

We need this authority in order to be able to truly give the private sector what are the rules to play from and buy, so they can have certainty about where to go.

Mr. Chairman, it is my understanding that today Chairmen Tauzin and Barton, Senator Inhofe, and others will be introducing the President's Clear Skies legislation. Although that proposed legislation will have the jurisdiction on another committee, if enacted, it will assist in stabilizing the use of coal and gas in this country for electric generation, as well as reducing air emissions.

Mr. Chairman, this legislation will reduce emissions more rapidly, more surely, and more cheaply than the current standards. In so doing, coal-fired utilities and that issue will give certainty and a rational approach to emissions reductions. And the American consumer will have cleaner air and more reliable electric generation, which is energy.

Witnesses before this committee this week, as I read in the paper, indicated that gas prices are at extremely high levels. They are. $12 at Henry Hub two days ago is extraordinary. Each year electric generation is being built exclusively for gas. Gas is what most American consumers are relying on heat their homes, in many instances. We must provide assurances and long-term stability to the utility community so we can continue to assure a diverse source of fuels, including coal and electric generation. That is what the Clear Skies legislation will do.

In concluding, I just want to say that it is a pleasure to be with you. And it is also going to be a pleasure to work with you. We need to get the national energy legislation that the President has proposed enacted. We look forward to working with each of you to see how we can best accomplish that.

Mr. Chairman, thank you.

The CHAIRMAN. Thank you very much, Mr. Secretary.
[The prepared statement of Mr. Griles follows:]

PREPARED STATEMENT OF J. STEVEN GRILES, DEPUTY DIRECTOR, DEPARTMENT OF THE INTERIOR

Mr. Chairman and Members of the Committee, thank you for the opportunity to appear here today to discuss energy production on Federal lands. I would like to discuss the key role the Department of the Interior has in meeting the nation's energy needs. I am accompanied by Patricia Morrison, Principal Deputy Assistant Secretary for Land and Minerals Management.

OUR ENERGY FUTURE

America faces an energy challenge. Energy use sustains our economy and our quality of life, but a fundamental imbalance exists between our energy consumption and domestic energy production. We must look at ways to narrow the gap between the amount of energy we use and the amount we produce. There is no one single solution. Achieving the goal of secure, affordable and environmentally sound energy will require diligent, concerted efforts on many fronts on both the supply and demand sides of the energy equation.

President Bush's National Energy Policy report laid out a comprehensive, long-term energy strategy for securing America's energy future. That strategy recognizes that to reduce our rising dependence on oil and gas, we must also increase domestic production. The President proposes to open a small portion of the Arctic National Wildlife Refuge (ANWR) to environmentally responsible oil and gas exploration using newly available, environmentally friendly technology. ANWR is by far the largest untapped source of domestic petroleum and would equal nearly 60 years of imports from Iraq.

In 1998, a United States Geological Survey assessment of petroleum resources of the 1002 region of ANWR estimated the expected mean volume of technically recoverable oil beneath the 1002 area to be 10.4 billion barrels. For comparison, the U.S. currently consumes about 7 billion barrels per year. Of this, the U.S. imports about 4 billion barrels and produces about 3 billion barrels.

Most media coverage focuses on the production of traditional energy sources in the National Energy Policy, but increased energy conservation and alternative and renewable sources are also critical components of the President's balanced, comprehensive policy. Good stewardship of resources dictates that we use energy efficiently and conserve resources. Thus, fossil fuel development is only a part of the solution to our Nation's energy issues. Americans have already made great strides in using energy more efficiently. Since 1973, the United States economy has grown nearly three times faster than energy use, in part due to more efficient use of energy. Had we continued to use energy as intensely as in the 1970's, the United States would have consumed about 177 quadrillion BTUs of energy in 2001, compared to actual consumption of approximately 97 quadrillion BTUs. To put that in perspective, the 80 quadrillion BTUs saved is more than the total amount of energy produced in the United States from all sources oil, gas, coal, nuclear, renewable—in the year 2000.

ALTERNATIVE AND RENEWABLE ENERGY

Alternative and renewable sources of energy can also play an important role in helping meet our increased energy needs. To this end, the National Energy Policy encourages development of a cleaner, more diverse portfolio of domestic energy supplies. The Policy includes measures to aid in the development and expansion of renewable energy technologies in use today, including geothermal, wind, solar, and biomass, as well as continued research into using hydrogen as an alternative energy carrier. Such diversity helps to ensure that Americans will continue to have access to the energy they need.

Between 1975 and 2000, total renewable energy production in the United States increased from about 4.8 to 6.8 quadrillion BTUs, supplying about seven percent of the Nation's energy consumption in 2000. By 2020, renewable energy production is forecast to rise to about 8.6 quadrillion BTUs, but still will account for only about seven percent of consumption.

Thus, for the present and as far as the future can be reasonably forecast, renewable energy is likely to remain an incremental source of supply supplementing fossil fuels as our primary source of energy. Renewable and alternative energy sources are currently considered a "step" energy technology, but they can be an important component to a diversified domestic energy portfolio especially for addressing distrib-

uted energy and peak demand needs. At the Department of the Interior, Secretary Norton has convened two conferences focused on renewable resources.

As part of its efforts to advance the President's National Energy Policy, the BLM recently released a joint report with the Department of Energy that identifies and evaluates renewable energy resources on public lands. The BLM will use the report's findings to prioritize land-use planning activities, and to increase the development and use of renewable energy resources on public lands.

ENERGY PRODUCTION FROM FEDERAL RESOURCES

The Department of the Interior has administrative and managerial responsibility for the Bureau of Land Management (BLM), the Minerals Management Service (MMS), and the Office of Surface Mining Reclamation and Enforcement (OSMRE). All of these bureaus are undertaking significant initiatives to fulfill the President's National Energy Policy, and are working diligently to promote environmentally sound production of our Nation's energy resources. The BLM and MMS have authorities to offer lands under their jurisdiction to produce mineral and energy (renewable and non-renewable) resources consistent with environmental protection goals.

The Department of the Interior manages approximately 500 million surface acres of land, with the BLM managing 262 million surface acres and more than 700 million subsurface acres of Federal mineral estate. MMS manages approximately 1.76 billion acres of offshore Federal mineral estate. These lands and resources currently account for 30% of total domestic energy production—including 48% of geothermal production, 35% of natural gas production (25% offshore and 10% onshore), 35% of coal production, 35% of oil production (30% offshore and 5% onshore), 20% of wind power, and 17% of hydropower production.

NEW ENERGY RESOURCES

Deepwater areas of the Gulf of Mexico are expected to provide substantial volumes of new natural gas production, but it may be several years before that area reaches its potential. The shallow waters of the Gulf of Mexico hold the greatest promise for new resources of natural gas to meet the Nation's near-term gas needs. MMS is taking steps to develop economic incentives to spur industry activity in this area of the Gulf. Beginning in 2002, MMS started providing royalty relief as part of OCS lease sale terms to encourage production from wells on new leases drilled to deep horizons (greater than 15,000 feet total depth). This deep gas play, expected to hold between 5 and 20 trillion cubic feet (Tcf) of gas, can be developed quickly due to existing infrastructure in the shallow waters of the Gulf. MMS also issued a final rule in July 2002 that allows companies to apply for lease suspensions for exploration of subsalt resources.

Coalbed natural gas, also known as coalbed methane, accounts for about 9.6% of the total natural gas reserves in the United States. The Rocky Mountain States of New Mexico, Utah, Colorado, Wyoming, and Montana hold an estimated 30 to 48 Tcf of undiscovered natural gas resources associated with coal. This represents the second largest gas resource in the United States behind the Gulf of Mexico. While many areas of the United States are experiencing declining natural gas reserves, the Rocky Mountain resources are largely untapped and the amount of newly discovered gas in the area is increasing on a daily basis.

I am recused from certain matters involving the subject of coalbed natural gas and do not directly participate in them. Thus, I will speak here only to the Secretary's position on these issues. The majority of the coalbed natural gas is in the federal mineral estate. As good stewards of these domestic natural gas reserves and consistent with the National Energy Policy directive to facilitate our domestic energy supplies, we should develop these resources in an environmentally-responsible manner to sustain our Nation's quality of life in the face of our increasing demand for natural gas.

Coalbed natural gas from public lands can and should play a role in meeting increasing energy demands. Congress established a policy of multiple use for much of the federal lands, which the Department strongly supports. Many uses, including access for energy development, can co-exist on public lands, if properly managed. We do not believe the public lands and resources should be put off limits to development. Today the Nation meets over 50% of demand for petroleum products with imports. Many of these imports are vulnerable to disruptions resulting from instabilities in exporting Nations or regimes. Thirty percent of our total domestic energy production comes from Federal lands and resources. Without the contribution of public resources, the country's energy supply would be even more dependent on foreign sources. And, of significance for the public lands states that are anywhere from

30% to 80% Federally-managed, the development of these resources can help western rural economies by creating jobs, new wealth, and tax revenue.

THE EPCA INVENTORY

In January 2003, BLM delivered to Congress the first Energy Policy Conservation Act (EPCA) inventory of 59.4 million acres managed by Federal agencies in five study areas in the West. The areas contain the bulk of the known natural gas and much of the known oil resources under public management in the onshore United States. The EPCA inventory provides an estimate of undiscovered technically recoverable resources and proved reserves of oil and gas beneath the five basins and an inventory of the extent and nature of limitations to their development. All information gathered as a result of the EPCA effort will be integrated into the BLM's ongoing land use planning efforts are a cornerstone for future energy production from public lands. The BLM has also prioritized a number of land-use planning efforts that have major oil and gas components.

ENERGY RIGHTS-OF-WAY

Federal lands are important to the rights-of-way needs of the energy industry and utilities, especially in the western United States. BLM estimates that 90% of the oil and natural gas pipeline and electric transmission rights-of-way in the western U.S. cross federal lands. The BLM alone administers approximately 85,000 rights-of-way, including approximately 23,000 for oil and gas pipelines.

Our challenge is to improve and expand the existing network of pipelines and transmission lines to meet the increased demand for energy. One way to meet that challenge is to identify and designate right-of-way utility corridors on public lands in a collaborative manner. The Department has been working with the Western Governors' Association and the Western Utility Group to do just that. The designation of utility corridors through BLM land use plans provides an important tool in the planning and location of future pipelines and assists in the processing of rights-of-way applications on the public lands.

OFFSHORE RESOURCES

As you may know, Federal offshore lands on the Outer Continental Shelf (OCS) encompass 1.76 billion acres. However, of this total, about 600 million acres are currently off limits to oil and gas leasing. This action has been extended by Presidential directive through 2012. Nevertheless, industry activities on the remaining areas available for development, particularly the 40 million acres currently under lease, make the OCS an essential part of ensuring the energy and economic security of the United States.

At the end of December 2002, the Department estimated that Federal offshore lands produce about 1.7 million barrels of oil each day, accounting for 30 percent of the oil produced in the United States. This makes the OCS the largest single source of oil for the U.S. economy (larger than Saudi Arabia or our neighbor to the north, Canada). In addition to oil, the OCS is also a major source of the Nation's natural gas, making a contribution of about 13 billion cubic feet per day, or about 25 percent of the Nation's domestic production. More than 90 percent of these resources come from the Gulf of Mexico OCS, with the rest coming from leases offshore California and the Beaufort Sea offshore Alaska.

With major projects slated to come online in the next few years (including *Thunder Horse*, the largest discovery in the U.S. in the past 30 years), we project that OCS production could easily reach 2 million barrels per day in the next few years and account for over a third of domestic crude oil production. Natural gas production is expected to remain at its current level, or increase slightly.

At the Department, we are taking steps to ensure that the OCS remains a solid contributor to our Nation's energy and economic security by holding sales in available areas on schedule. The OCS 5 Year Oil and Gas Leasing Program for 2002-2007, which was approved in July 2002, calls for 20 lease sales in the Gulf of Mexico and certain areas offshore Alaska during that timeframe. We estimate that these areas could contain economically recoverable resources of up to 22 billion barrels of oil and 61 trillion cubic feet of natural gas.

In 2002, the Department's Minerals Management Service held the 128th and 129th competitive oil and gas lease sale since OCS leasing began in 1954. For these two Gulf of Mexico sales alone, MMS leased over 800 tracts, bringing in more than $500 million in revenue from high bids for the American people. Next month, on March 19, 2003, the Department will hold the 130th lease sale in the program. Since 1953, more than $140 billion has been brought into the U.S. Treasury from OCS lease sales.

In addition to holding the lease sales outlined in the 2002-2007 program, MMS has developed a series of economic incentives to encourage industry to explore "frontier areas" where business risks are very high, and to facilitate getting the most production possible from available OCS acreage. The MMS continues to offer a royalty incentive program for deepwater leases in the Gulf of Mexico, and has expanded the incentives to promote development of natural gas from deep horizons in shallow waters. These leasing incentives come in the form of a royalty suspension for specified amounts of production from these areas. Currently, MMS is considering extending the shallow water, deep gas royalty relief provisions to leases purchased before 2002. MMS has also offered lease extensions for certain qualifying exploration activities that focus on reservoir targets that occur beneath subsurface salt sheets.

For offshore areas of Alaska, MMS is considering various incentives in addition to changes in suspension policies that will allow more time for exploration activity to occur. Additionally, MMS is evaluating its business processes program wide to take advantage of opportunities to make the permitting process for drilling wells more efficient.

OFFSHORE ALTERNATIVE ENERGY PROPOSAL

For the past 50 years, the Department has leased the OCS for oil, gas, and other minerals under the mandates of the OCS Lands Act. However, in recent years we have seen a growing interest by the private sector in developing alternative energy projects located on the OCS, such as renewable energy production from currents, wind and waves, and floating supply bases and other facilities that would directly support OCS oil and gas development.

In an effort to facilitate these innovative projects and to ensure that the Federal government's economic and land use interests are fully protected, the Administration submitted legislation to Congress in June 2002 that would set up a statutory framework for reviewing and permitting such activities that are not otherwise covered by statute. It was developed in close collaboration with other Federal agencies with permitting authority on the OCS and would provide the Department with a full suite of regulatory tools necessary to comprehensively manage non traditional OCS energy and related activities.

The Administration continues to strongly support enactment of such legislation and looks forward to working closely with Congress on this important issue. We firmly believe that we must encourage new and innovative technologies to help us meet our increasing energy needs. Enactment of this legislation will be one important step in helping us meet those needs.

CONCLUSION

We will continue to operate under Secretary Norton's leadership and vision for managing the public resources—through communication, cooperation, and consultation in the service of conservation. The essence of this goal is to continue to forge new and stronger partnerships with other Federal and state agencies, Tribal governments, and all of our stakeholders—including Congress—to create greater opportunities for the responsible development of energy resources on Federal lands.

In summary, the following actions have been implemented or are being considered to facilitate the President's National Energy Policy:

- The BLM has recently released a joint report with the Department of Energy that identifies and evaluates renewable energy resources on public lands. The BLM will use the report's findings to prioritize land-use planning activities, and to increase the development and use of renewable energy resources.
- To ensure that the OCS remains a solid contributor to our Nation's energy and economic security by holding sales in available areas on schedule, we approved a 5-year Oil and Gas Leasing Program in July 2002 that calls for 20 lease sales in the Gulf of Mexico and certain areas offshore Alaska during that timeframe. We estimate that these areas could contain economically recoverable resources of up to 22 billion barrels of oil and 61 trillion cubic feet of natural gas.
- MMS is acting to increase energy production in promising, shallow waters of the Gulf of Mexico by providing royalty relief in OCS lease sale terms to encourage production from new wells drilled to deep horizons (greater than 15,000 feet total depth). This area of the Gulf of Mexico is expected to hold between 5 and 20 trillion cubic feet (TCF) of gas and can be developed quickly due to existing infrastructure in the shallow waters of the Gulf.
- MMS is considering providing similar shallow water, deep gas royalty relief to leases purchased before 2002.
- MMS issued a final rule in July 2002 that allows companies to apply for lease term extensions that will provide additional time to analyze complex geo-

physical data in area under salt sheets. Vast resources of oil and natural gas may underlie sheets of salt in the OCS, which makes it difficult to obtain a clear image of the subsalt geology. This will help identify and define drilling targets and accelerate discovery and production of deep natural gas as well as foster new technology.

- The Department completed the EPCA inventory this year. The EPCA inventory provides an estimate of undiscovered technically recoverable resources and proved reserves of oil and gas beneath the five basins and an inventory of the extent and nature of limitations to their development.
- BLM is completing the necessary land management planning for the two major coalbed methane basins in the United States: San Juan and Powder River Basin. BLM's completion of these plans will allow for considerable additional drilling, which will increase the production of natural gas from coalbed methane. BLM is developing an approved methodology for drilling permit approval and are improving our coordination with regard to land owners in the regions. In addition, BLM is improving the necessary coordination and consultation with State and other federal agencies to address the concerns that have been raised and to make the process more efficient.
- The BLM has prioritized a number of land-use planning efforts that have major oil and gas components. Once the public process is completed, this will expedite the development of natural gas and oil.
- The Department is working with State and local governments as well as with industry on identifying and designating right-of-way utility corridors on public lands. For example, the Department has been working with the Western Governors' Association and the Western Utility Group to do just that.
- The Department is taking steps to ensure that the OCS remains a solid contributor to our Nation's energy and economic security by holding sales in available areas on schedule. In past years, scheduled sales in several areas were either delayed, cancelled or put under moratoria even though they appear on a 5-year schedule. This did not provide industry with the certainty it needs to make long-term investments in the OCS.
- In support of the President's goal of streamlining permitting of energy projects, MMS has initiated a multi-year effort designed to increase our efficiency in processing applications to permit drilling of OCS wells.
- The Administration submitted legislation to Congress in June 2002 that would set up a statutory framework for reviewing and permitting alternative energy and energy-related activities not otherwise explicitly covered by statute. This legislation will include renewable energy projects, such as wind, wave or solar energy; and energy-related projects that are ancillary to OCS oil and gas development, such as offshore staging facilities and emergency medical facilities.

Thank you for the opportunity to testify before you today. I welcome any questions the Committee may have.

The CHAIRMAN. The various reports that you have alluded to will be made part of the record. They will be adjunct to the record. We thank you for bringing them. And I assume—have they been distributed heretofore, or are you just bringing them up today?

Mr. GRILES. They have been given to the committee. But we will make copies available to the committee, sir.

The CHAIRMAN. All right.

The CHAIRMAN. Mr. Secretary, I have a few questions. And then I will yield to Senator Bingaman. He has to leave for a little while and will return. Then we will go to our side for questions before we take the next witness.

Again, we appreciate your coming. And thank you for your succinct testimony. We hope that we can work with you and with the reports and the President's program in putting together a bill in the not-too-distant future, which will yield results this year.

Let me talk a little bit about the EPCA report.

Mr. GRILES. Yes, sir.

The CHAIRMAN. Does it tell the full story when it comes to the impediments and delays associated with oil and gas leasing on Federal lands?

Mr. GRILES. No, sir. It does not give the full story, an entire story. It was—in the opinion of the Bureau of Land Management, when they started this study, I think it was in 2000, 2001, it did not give the full story. It gave as best story as it could. But there are other things that it does not deal with, like some of the impediments that go through the leasing processes and the appeals processes and those kind of things.

But I think that it gives an overview of where the oil and gas is. And by using that and incorporating it into the land use plans, we hope that it will at least give some understanding of what we believe the future should be for these land use plans for oil and gas development.

The CHAIRMAN. What specific action is the BLM taking with regard to the EPCA report?

Mr. GRILES. Well, what it will do, sir, it is incorporating today into these ten land use plans that are underway. We prioritized all the land use plans that we thought would respond to the President's energy plan. And this EPCA report will be integrated into those land use plans so that the public and all stakeholders will know what we believe the potential will be for oil and gas development, so that the people in the West and all people in this country will know what these land use plans will be looking at, and how can we go forward given the conflicts with endangered species, as well as scenic values that we have to deal with, as well as looking at where these resources are located.

The CHAIRMAN. Now that you have completed the EPCA report, can you characterize the significant features that the study brought out with regard to oil and gas availability on Federal lands?

Mr. GRILES. Well, I will give you a quick summary. But I think that question deserves more than me just trying to do it from the hip. But I would like to give you a more detailed response for the record, if I could.

I think that the conclusions I would reach from this is that, yes, the report showed that a large amount of Federal land, greater than 60 percent, were open for oil and gas, that it in fact is under lease, much of it. But what it also points out is that 40 percent of it is not. And of that 40 percent, it shows that, I believe the number is in the 30 percent range. And I would like to make sure we get that submitted to the record, so my guessing is not incorrect.

The CHAIRMAN. Right.

Mr. GRILES. But maybe 30 percent of the potential out there is in these 40 million acres that are closed. And if we are going to increase domestic oil and gas production, it is going to be from those areas which are closed, as well as from those areas that are open. We can do additional infield drilling. We can do additional leasing from the areas that are not restricted.

But even in those areas where it is open, we have seasonal stipulations. We have restrictions imposed in those land use plans that go way back, Senator, to when I was the assistant secretary. These land use plans go back, in many instances, 15 to 20 years ago. They do not reflect modern technology. They do not reflect an understanding of the science. And they do not reflect better ways in which you can deal with these conflicts.

So we need to update all these plans, incorporate the other stuff, and try to get a better public acceptance and understanding of how oil and gas can be done in the West.

The CHAIRMAN. When you say we must, you mean if the administration must do that. Is that correct?

Mr. GRILES. Yes. These are administrative decisions that the Department will reach with these ten high priority land use plans that are under way right now and should be completed within the next year and a half.

The CHAIRMAN. Various oil and gas industry experts say that the number of APDs processed under the administration—that is this administration—has fallen relative to the previous administration. How do you explain this trend, if it is so?

Mr. GRILES. Well, I think that may be an accurate number. I am not going to dispute the number. I will explain it this way, Senator. What we found when we came is that we did not have these documents done. And until you have a land use plan that authorizes the issuance of APDs, you cannot issue them. We found that we did not have inspectors in the field to inspect the oil and gas areas.

This committee and members of this committee have increased, and asked for increases in, the budget for BLM. That started even under the previous administration, increasing the number of inspectors out there. Until you get these land use plans completed, you cannot issue APDs. And so the numbers probably are down. But they are down because without the authority to issue an APD, if you issue it, you will just be stopped in the court. That is not in the best interest of anyone.

The CHAIRMAN. Thank you very much.

Senator Bingaman.

Senator BINGAMAN. Thank you very much.

Secretary Griles, thank you for being here. One issue that I have been concerned about for some time is that it has appeared to me that we have not had adequate resources either to process applications, which of course is a major concern of the industry, or to do the inspection and enforcement, which is intended to happen, to be sure that people are actually following the stipulations. Because I come at this with the idea that not all stipulations are necessarily bad. In fact, many of them are very important and need to be enforced.

And the extent of the conflict is growing, particularly in some of the basins we are talking about, in the San Juan Basin, for example. Your draft statement there that you are still working on.

Mr. GRILES. Right.

Senator BINGAMAN [continuing]. Indicates that you are going to intend or expect to issue 10,000 to 12,000 new wells or permits to drill new wells over the next 10 or 15 years. I believe that is roughly accurate. And most all of that is infield drilling.

Mr. GRILES. That is correct.

Senator BINGAMAN. And there is more and more concern by surface owners and others about the impact of this and the failure to enforce the stipulations that do exist. Do you have the resources you need to do this job right? I mean, we have been going at this. When I asked Secretary Norton whether they were going to add 13

new people up in the San Juan Basin, she said yes, they were. I am still not confident that that is adequate.

Could you give us your opinion?

Mr. GRILES. I would say I do not know if 13 is adequate or not. I will tell you that we are very concerned, as you are. I would agree with all the sentiments you expressed, Senator. Before I came back into government, one of the things that I worked with you and others on the committee on was getting more resources allocated to BLM to assure we had not only the right to issue and the people to issue the permits, but to have people on the ground.

We need to make sure that the landowners and the surface owners know that we have adequate trained people that are going to assure that the stipulations are enforced and met. If we do not do that, the kinds of conflicts we have seen even in your State that have arisen in the last 6 months will occur. We have to provide that assurance.

We are going to be looking at that. The President's budget asks for—and I will use a number, I think it is $15 million. That may not be right. And maybe Patty can respond when she comes up, if that number is correct—additional monies for additional people. And those people are not only APD issuers, but also inspectors on the ground.

I could not agree with you more that we have to make sure that have enforced and assured that those stipulations are in place.

Senator BINGAMAN. Well, I appreciate your comments very much, because, you know, one area that is now being looked at by the BLM for leasing is the Otero Mesa in my State. It is very controversial, a lot of opposition. One of the things that I hear from the opposition there is that all of this talk about how the BLM will require that certain stipulations and remediation occur, all of that is just hogwash, because, in fact, they have not been doing it in the San Juan Basin. It does not matter what the stipulations say. The BLM is not going to enforce them. I mean, that is the line that we hear from various of the groups that are opposed to that drilling.

I have not opposed the notion of drilling in that entire area, but I certainly do hear some validity in their concerns about whether or not the BLM is going to be prepared to go ahead and actually enforce the stipulations that they are saying they would enforce.

Let me ask about another issue, surface use conflicts. We have a whole bunch of problems. Senator Thomas is, I am sure, very focused on this issue of conflicts between coal production and coal bed methane production. What is the department doing to address those conflicts and get that resolved?

Mr. GRILES. Well, two things. Just from a historical perspective, Senator, this was a big, very big issue in the late 1990's and the early 2000's. And I do not have any personal knowledge except what was conveyed to me a few minutes ago by some of the coal bed methane producers in the audience and some of the coal companies. I was told that the prior conflicts had been resolved in Wyoming. I do not know that is true. I know that is what I was told. I do not have any personal knowledge except for that information.

It is a fundamental issue that where the Federal Government has offered and leased coal and offered and leased oil and gas, that it is provided the rights to two different private parties. And it did

it back in the 1970's and 1980's before there was a knowledge that coal bed methane had a real value.

So we have a conflict. The BLM adopted a directive about how it ought to be dealt with. That has helped some. There is a need potentially for some legislative consideration. Do we need to find a way, if intractable arguments occur in the future, about how to mitigate those? I would encourage you to look at that. We will look at it with you to see if we think legislative efforts are needed.

As I said to you, some of the problems of the past seem to be resolved. But it may be something we ought to figure out how better to assure that it does not occur in the future. The BLM needs to understand that if it leases for oil and gas and there is a coal lease there already, it creates an inherent conflict. And it needs to be sure that that lease reflects some kind of right of establishment. Those who are first time have the right for the ones who come second can compensate and find a way that is reasonable, not through extortion, but reasonable payment so that values can be acquired.

Senator BINGAMAN. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Bingaman.

Before I yield to Senator Thomas, let me just say, Mr. Secretary and Senator Bingaman, I was out in New Mexico and met with Linda Rundell, the new Director of the BLM. And we spoke of the issue that you just raised. And she is very aware of the conflict that is brewing between the ranchers and the oil and gas producers with reference to the stipulations and compliance with them. And she is busy attempting to set up a plan to figure out just what is needed, so that there is better compliance so that we do not have this conflict growing into something that prevents the appropriate use by both.

It is obvious that under multiple use, grazing is supposed to take place, and ranching and also oil and gas development. But we cannot have that continue if in fact one of the users, to wit the ranchers, feel that the production people do not care about their rights and do not do what they are supposed to do.

So that is going to get done. If we have to find new money to give them more inspectors and more field people, we are going to do that. I assure those who are concerned about it that I have already spoken to the administration. And I am going to work personally on some of the appropriation matters to make sure they have enough people to do it. Thank you for raising the issue again, Senator Bingaman.

Now, Senator Thomas, would you like to proceed?

Senator THOMAS. Yes. Thank you, Mr. Chairman.

I would like to say, as you point out, the two of you, there are two factors. One is the split, where the surface owner and the mineral owner are different. And the other, of course, is where you have leases for coal and gas. So both of those are very important.

Thank you for being here, Mr. Secretary. Last year Senator Landrieu and I introduced a bill that had to do with altering the Federal acreage cap for oil leases. And the productive aspect of it was not charged against the total. Is the Department supportive of that sort of an exemption on the cap?

Mr. GRILES. Senator, we very much believe that the chargeability law needs to be updated. It is a standard that was adopted way

back in the turn of the century. And it was very low acreage. And that acreage every 10 or 15 years is changed to reflect what is going on.

But the consolidation that has occurred in the oil and gas industry and with the greater expansion of oil and gas that has gone on in the West, it seems logical that we need to have a chargeability number that reflects the current needs of capital investment, and also to assure that the chargeability does not inhibit the exploration and development of oil and gas. And I think it has.

We would support your efforts and that of Senator Landrieu to change the chargeability standard.

Senator THOMAS. Well, the investment issue is really very much a part of it, as you know. You know, one of the difficulties, of course, in this whole thing is accessibility and being able to do it in a fairly timely way. It seems like at least part of the time the BLM, for example, will go ahead and do the IS' and start to do the permitting. And then EPA comes in later and says: Wait a minute. That is not done properly. And it stalls the whole thing.

It seems like it would make sense if there was a little more coordination in the production of those permits, rather than having them observed later and sometimes being turned back. What is your reaction to that?

Mr. GRILES. I agree with you 100 percent, Senator. The Government needs to coordinate its activities and its efforts. We have initiated with the EPA and the State and the local governments. And we are trying to do in each of these land use plans and EISs a cooperative agency status so all parties are sitting at the table. And they all have the opportunity to participate in the decision making and in the writing of the drafts, so that the final document, when it comes out, we do not have the dispute, well, I was not at the table.

In the Dagmar Hills EIS that we have here, Senator, that is exactly what we did. We have all the parties. The governmental parties became cooperating agencies and gave them status so that they have a legal and a moral obligation to participate. So that we can say: You are at the table. You have the right to participate. We expect you to participate. And we are trying to do this at all levels of government, so that everyone is there. And it is the result of those very comments.

Senator THOMAS. Yes. I certainly met with Administrator Whitman yesterday. And she also seems to be interested in doing that. From the—you know, particularly in the methane area, the length of time it takes to get permitting and so on has a great deal to do with how this thing works out.

The other, sometime we talked about coal and how coal is really our long-term resource for generation. But you have to have transmission. And you have to have to have right-of-way And I am told often the most difficult place to get rights-of-way is on Federal land. How do you react to that?

Mr. GRILES. Well, I would say that is exactly right. We are not easy to deal with. That is probably a great understatement for those in the audience——

[Laughter.]

Mr. GRILES [continuing]. Including the conservation community. But the fact is, Senator, these are not easy processes to follow.

Senator THOMAS. I know.

Mr. GRILES. FLPMA and NEPA and all the other statutes we have have historical perspective built in, as well as judicial efforts. So we have to do it right. And doing it right, we found, takes a lot of time and effort. It is now 2 years to do one of these volumes, 2 years from the time someone comes to us and says: I need a right-of-way. Okay. You need an EIS. It takes a long time, probably 18 months at a minimum, to do an EIS. Then it takes the decision-making process. A record of the decision has to be built. And it goes through these processes. It is 2 years.

One of the things that I mentioned earlier was the cooperative effort with the Western Governors and the Western utility corridors, which includes transmission pipelines, as well as electrical wires. If we can do that in these land use plans we are doing now, then that cuts that 2 years down to an application of request and the processing of the application.

So if we can think through where these corridors are going to be and do it up front, as we do these land use plans within a swath, then that stops that. And you do not have to go through the 2 years.

Senator THOMAS. Well, the challenge for all of us is to have access and multiple use of these lands, maintain the environment, as well as being able to do that. So it is a challenge.

I just want to commend Kathleen Clarke and the BLM for working with DOE and the Forest Service on this thing. I think that was an excellent effort. And I hope it can be worked in.

Thank you, sir.

Mr. GRILES. Thank you, Senator.

The CHAIRMAN. Senator Alexander.

Senator ALEXANDER. Thank you, Mr. Chairman.

On almost all these issues there is an intersection of the energy and environment. There is a balance there. And I would like to get your comments in two areas. You mentioned one. Would you talk a little more about the new technology that reduces the risk to the environment? Because that seems to me to be awfully important. And where that technology might be used to produce the greatest energy production benefit.

The second area is the idea already used in the law, which was a part of the—which was a principal, which we talked about in the mid-1980's, when I chaired President Reagan's Commission on Americans Outdoors. And that was to take some of our revenues from oil drilling and use it to fill up the land and water conservation fund.

I wonder if one way to think about building a broader base of support for additional drilling in the future is to allocate more of those funds to particularly the State part of the program.

Mr. GRILES. Senator Landrieu is smiling. I cannot imagine why.

Senator LANDRIEU. I am so happy to have a friend over there.

[Laughter.]

Senator LANDRIEU. Not that I have favorites.

Mr. GRILES. I will respond to the latter question first, Senator. Obviously, the issue of revenue sharing with producing States is

something that has been before this body for a number of years, a lot more years than a lot of people have been senators and longer than I have been in Federal service.

So it is an issue that we struggle with, as to how you incentivize States and local Government to participate, at the same time how those resources are going to be shared. I have seen bills that shared revenue from offshore drilling in 50 States. We do not even have oceans in 50 States. And yet they are going to get revenues from it.

So the question is, do you put it in the Federal Treasury and distribute it or do you give it to all the States?

Senator ALEXANDER. Well, you put it in the land and water conservation.

Mr. GRILES. That is one way, sir. That is true. And that is one that needs to be looked at.

Senator ALEXANDER. As I understand, Federal lands belong to all the taxpayers.

Mr. GRILES. That is correct.

Senator ALEXANDER. So revenues, if they were to be distributed, would be distributed in some way to all the taxpayers, would they not?

Mr. GRILES. That is true. And the administration is always willing to consider ways to find means to allow us to be better neighbors. And also in the conservation field, how do we assure that our conservation efforts can be enhanced? And that is the kind of areas that the President is looking at, and how to better do that.

As you and the other Senators look at how to do this, we will be more than willing to sit down and discuss it with you. In the fiscal constraints we have today, these are tough issues to deal with. And we are not unaware of the need to have good conservation on also revenue sharing to the States and communities that are in fact the greatest impacted by the exploration and development of the activities.

So let me move to the first question, if I could, for you.

Senator ALEXANDER. Yes. And I just want to emphasize that the—I am sure the recommendation came many years ago for that kind of thinking. But one place it came from was the commission appointed by President Reagan in 1985 and 1986. And it was a unanimous recommendation of the commission.

Mr. GRILES. And I was in the Reagan administration. And I remember you serving as chairman of that. And you did a great job for us then, and I am sure you will as Senator, too.

Let me just say that on the technology environmental question, last week, within the last 2 weeks, I had a company come in and gave me a CD and showed me new technology of how one can explore and develop in the most sensitive areas, environmental areas. And if I could best describe it, it would be like to have ice pilings driven through the tundra. And the platform would be set on the ice pilings. And it would move from one set of pilings to the other. And the impact on the tundra would be almost nonexistent.

The technology growth curve since even in the last 10 years, in the last 5 years, has been phenomenal. So anything we do in terms of ANWR, we need to make sure we do not limit the technology. We need to make sure we have the greatest opportunity for techno-

logical advances. And that is going on today in a pilot program that DOE is funding with the private sector to see how in fact it can best work.

Many years ago, when we had oil and gas drilling, every well had its own pad. Today we have a small pad, on which wells for directional drilling can go out from several miles. So the impact is greatly minimized. We need to do more of that. We need to find better ways to do that.

The confluence of good environmental practices and good technological advances are occurring every day. And we are working with the industry to make sure those are put in place through stipulations, as well as good practices that the industry is doing.

Senator ALEXANDER. Thank you.

The CHAIRMAN. Senator Burns.

Senator BURNS. Thank you, Mr. Chairman.

Thank you, Mr. Secretary, for coming today. First, to give you some kind of an idea, as you know, we have extensive coal bed methane development in the south central part of Montana. We have completed the EIS up there, which is 900 pages. And we also have many more pages in the research on how we develop that in a sensitive way.

Can you give me a time line, or where do we go from here? It seems like after we complete this EIS and we jump through all the hoops, it seems like something magic falls out of the air, and we just—we are stalemated. In other words, there is just the lack of any activity. There is lack of movement in the Department.

So what are those challenges? How do we jump over that last hurdle before we start most of the permittings being done? And the only thing lacking is the green light to start a—what do we have to do to get over that last hurdle?

Mr. GRILES. Well, Senator Burns, I would like to respond two ways. First of all, as you probably are aware, in my private sector I represented a lot of the coal bed methane companies. So I have a recusal on these particular documents sitting here. So I do not want to respond specifically to any of the things relating to coal bed methane, the issuing or permitting. I am not involved in it.

Generically, I can respond this way: Any time the Federal Government is involved, there is a process. And these processes require people. It requires an understanding. And it requires industry to produce the best document possible to meet the standards. The confluence of those two in the beginning, in a new area, takes some time to be done. But we will be happy, I will be happy to have submitted to the record for you from other people in the Department who are directly involved and can respond to your question better than I can, if I could do that, Senator.

Senator BURNS. Now saying that, if you had this big Christmas tree of things out here of what you think and what is generally accepted in the scientific community of practices, in the legislative sense, if you only had a wish for one thing to happen legislatively, what would it be, so that we might help you and help this country in its recovery of tremendous energy resources that we have on our public lands?

Mr. GRILES. Pass ANWR.

Senator BURNS. Lisa, have you talked to him before this hearing today?

It is something for—I would imagine in conversation—and, of course, we have had many of them. But I just want—I want to really say that the new BLM director is terrific. She is doing a terrific job for you. And we understand that agencies get jerked in all kinds of directions. And it took a long time to get those laws in place. We could identify the misuse of those laws, the unintended consequences of those laws. But it seems like getting them changes to fit the times is very difficult.

I look forward to working with you and identifying those areas and make some progress in some areas. We in Montana, I do not think there is a State in the Union that is more sensitive to the environment. But we are also very sensitive in the prospects of balancing our State budget, as in the past, coal, gas, oil, timber, all of these great resources in mining paid for a lot of roads and a lot of schools, a lot of public services, in the States that have a large amount of public lands.

Just to give you an idea, I met with a group that said they were being denied access to their national forest. Now I know that is not under your jurisdiction. And he said, "Those are public lands." He says, "By gosh, I'm part of the public. I deserve access to that land."

And I said, "They also belong to that little, old lady on 5th and Park Avenue in New York City. And she don't want you on that land. And so you go argue with her."

That is the conflict. And we have—it seems like we do not have a framework for dispute resolution. And I would recommend that somewhere in the bureaucracy that we should form a special—I know CEQ was supposed to be that answer. But it has been used for other things, also. But I would recommend that we find some way, if we have to go outside of government, for dispute resolution.

That is the way we did on a little border problem called the Milk River in mining in Canada. Three people from Canada were assigned to that commission, three people from the United States. They were from completely outside the industry. And with no government pressure. We resolved that water issue out of that mining project in Alberta and its impact on the Milk River that, as you know starts in Montana, comes up into Canada, and then comes back into—or up into Canada and then comes back in Montana.

That has worked pretty well. And those border disputes that we get into with our friends to the north and the impact that they may have on the United States, especially in environmental issues. So I would—we cannot—our only problem is the border with Wyoming. We do not have any way to take care of that.

Senator THOMAS. Do you see that red light out there?

[Laughter.]

Senator BURNS. I am going to quit right now. But I wish you would give us some consideration, though. And we might resolve some of these areas that we think should either, let us say, if we are going to say no, let us say no and move on. If we say yes, let us say yes and move on. And I think that is what the industry is looking for, is a decision to move.

I congratulate you and thank you for coming today.

Mr. GRILES. Well, thank you, Senator. I—within the context of these decisions, they are never easy. Multiple use is just that. And it means there has to be a balance reached in all of these decisions. And yes, you are right. These lands belong to all Americans. And they need to be protected and managed for all Americans. And that is a difficult choice that we have to make every day within the Department of the Interior.

I do not go outside of Interior to get in a fist fight. The Fish and Wildlife Service and Park Service, the BLM, Bureau of Reclamation can all be arguing for the exact same piece of land for entirely different missions. And as they go through the resolution, all of a sudden the BIA shows up and says it belongs to an Indian tribe who has a claim on it. So we have those debates at Interior.

Kathleen Clarke is a wonderful Director of BLM. She is trying to put the right people in the field in these State directors and the field offices that can work with all the stakeholders, so that the issues that each of you have raised, that you have confidence that we are going to take care of landowners' concerns. We are going to assure certainty in the processes. And it is going to be an even-handed, balanced approach to decision making.

I just wanted to say, Senator Alexander, I would like to offer you an opportunity. You should come up, or the entire committee should come up, and visit the National Petroleum Reserve, which we are drilling in Alaska, some very sensitive areas, and see the technology that is now being employed. I think it would really be an education that is just evolving almost every day, as to how and what we are doing within these sensitive environments.

I really would love to accompany you, love to offer you the chance to come up.

Senator ALEXANDER. Can we come in late June or July?

Mr. GRILES. Absolutely, Senator. And I will be there with you.

Senator BURNS. Now is the time to go, right now.

I just want to offer a comment. And I know we have to deal with some of these sensitive areas. But I want to—we have to talk about fish and wildlife and my position on the Appropriations Committee. End of comment.

The CHAIRMAN. Are you finished?

Senator BURNS. Yes, sir.

[Laughter.]

The CHAIRMAN. Senator Landrieu.

Senator LANDRIEU. Thank you, Mr. Chairman.

I just want to begin by thanking the Senator from Tennessee for his remarks regarding the land and water conservation fund. I was really kidding, actually, because every member of this committee has really contributed in many positive ways to this debate over the last 6 years. And we represent different States and different views. But we have made a lot of progress.

I want to thank you for your leadership and, as your service as governor, leading that effort. I just gave a speech to about 400 people yesterday from around the country, Governors and recreational directors and interests, community activists, environmentalists, business leaders. And the feeling is very strong out there in this Nation that we need to continue to pursue more balanced policies that allow us to make more strategic and significant investments

in the conservation of our land and management of our land that we already own, which is brought up quite often on this committee, and which I agree with, in expanding the opportunities for recreation in urban areas, in small communities, large communities, and to maintain our wilderness and large national parks.

Senator, you have done an outstanding job, along with many members. But there is a broad bipartisan grassroots and, my new phrase top roots, around this country that feel very strongly about this, Mr. Secretary, as you know.

My second comment, Mr. Chairman, is to thank our Assistant Secretary Mr. Griles for his comments about the balance that is required to achieve this and how promising I think—although prices are high, and we are in the verge of a war, the economy is in a dip, you would say: How could you be optimistic? Maybe it is because I think sometimes pain and tightening helps us to focus on what things we can do.

One of the great things that has happened in these hearings, at least for me, is clarifying in my mind the difference between the oil market and the gas market. While we have limited control over the oil market, we have a tremendous amount of control, Mr. Chairman, over the natural gas market here in the United States, and the benefits of natural gas and clean coal. I am more familiar with natural gas, of course. My State is a huge producer. But the benefits of natural gas to the environment, lie in the exciting and extremely promising new technologies that exist to minimize the impact to the environment.

So what I want to say and then ask a question is, it seems to me that it is not that difficult, first, to understand why it is important to stabilize our gas market, to recognize that it is within our power to do so. It is not impossible to streamline regulations, standardize regulations, open some public lands—we do not have to open all public lands, but some public lands—and to include revenue sharing with States and communities, and an increased commitment to stewardship.

I want to show you a couple of charts, Mr. Chairman, if you will just bear with me, about this stewardship idea. First I want to show the Gulf Coast drilling in that chart here.

[Chart.]

Senator LANDRIEU. We have been drilling in Louisiana for a lot of reasons. One, we have a lot of resources. Two—and you will see that in the whole continental, Outer Continental Shelf, $140 billion has come from offshore. You can see basically where it has come from, off the coast of Texas and Louisiana. The red shows that. I want, Mr. Chairman, for you particularly to be able to see that.

There is a little bit off the coast of California. Now I am not going to get into that debate right now. But I would just say to you that we are happy to produce this in Louisiana. We do so for a number of interesting reasons, which would take me too long. But one of them is that the Government does not necessarily—they own the land that you see there. But onshore, private owners own the land and the mineral rights.

There as a great incentive, because the drilling, benefits of the drilling, not only went to the Government that got royalties and fees, but also the private landowners benefitted financially and oth-

erwise, as I believe is appropriate. Because I think there is enough money to benefit the Government to benefit the landowners, and to benefit the land itself, to keep it as pristine as possible and to keep the water clean. I just believe there is enough money.

With gas at $12, I know there is enough money. But even if it was at $5, it is a huge amount of money. We are just not distributing it correctly.

So we have been drilling offshore, of course. The Federal Government owns the land. And let me just say to my friend from Wyoming, he and I do this debate. And I am so happy that Wyoming got $448 million last year from their drilling.

Louisiana sent $5 billion to the Federal Government. And we did not get anything. Now I am happy for Wyoming to continue to share in those revenues. But I do think it is important for other States.

Now I want to show you what happens when you do not spend your money correctly. Can you all see this picture?

[Chart.]

Senator LANDRIEU. This is 50 years of stupidity. This highway, Mr. Chairman, is the highway, the only highway. It is two lanes. There are 1,000 trucks a day, a day, 1,000 trucks a day, that try to get, if you could visualize Louisiana from somewhere like around New Orleans, which is south, but they try to get from I-10, to this little tiny highway. This is it. It is LA-1.

When it rains, it goes under water. This is the highway that 25 percent of the Nation's energy supply depends on. And while these trucks are trying to get down the highway, children are trying to go to school. And so when the bridge closes, the schools close. The people that work there—now you would think, people in New York would not put up with this for one second. It is just the way they are, the way people in California. I mean, you know, we are like well, whatever. We have been dealing with this for 50 years.

It is ridiculous. So I have asked for a portion of the money to come back to reorganize this highway, protect the environment, make it safe for everyone. And that is what this is all about.

My point of showing you this picture is, I do not blame people in the West, Mr. Chairman, for being upset about drilling on land that they are using for other purposes. They do not see what they are going to get out of it. They think their land is going to be damaged. This is the Federal Government's policy. So why would anyone with common sense want any drilling anywhere?

But it is not hard to solve. You just fix it, revenue share in the appropriate ways and make sure that a lot of that money goes for environmental protection. And then we can have a good, sound market for natural gas that helps us clean the environment, keeps the air clean, and keeps prices low.

And the final point I will say about this is if we do not get natural gas prices stabilized and down, this economy will never recover. We are going to lose jobs. And instead of losing the 2 million or whatever we have lost, we are going to lose more, Mr. Chairman.

I thank you for giving me just a few moments. I will pass on my questions, because you can understand the direction they might be going. But I look forward to working with you on full funding for

land and water, proper stewardship, streamlining, and opening up public access where it is appropriate.

Thank you.

The CHAIRMAN. Thank you very much. We look forward to working with you on that, having you work with us on a comprehensive bill. Thank you very much, Senator.

Now we have Senator Murkowski and then Senator Talent.

Senator MURKOWSKI. Thank you, Mr. Chairman.

Good morning to you, Mr. Secretary. And I appreciate all the lead-ins that everybody has given me. I mean, you have given me ANWR. There has been some great pictures on how to do it wrong. I wish I had the pictures on how to do it right. But I appreciate the invitation that you have extended to all my fellow committee members to come up to the great State and really see how it can be done.

I think most people understand that Alaska is huge. We are huge in just our geography. We are huge in our natural resources. But, you know, to put it in perspective in terms of our ownership, it is important to recognize that of the 586,412 square miles that are in the State, 68 percent of the entire State is owned by the Federal Government.

I think you need to put that in context of your State, whether it is Louisiana or Wyoming or Missouri, and say: What would my State look like if 68 percent of it were owned by the Federal Government? What would be happening within our State?

Within that makeup, in terms of ownership, we have 76 million acres of wildlife refuges, 51 million acres of national parks, 26 million acres of BLM lands, and 23 million acres of national forests. Million acres. This is huge.

When we talk about what is happening in the Federal lands, and in our opinion the Federal Government's obligation to manage these resources for not only Alaskans, but for all Americans, we are talking about just huge numbers. And in terms of what is available up there for America to meet our energy needs, when we look at the National Petroleum Reserve and the reserves that are available there, the mean average estimate offered by USGS and Minerals Management, NPRA contains 9.3 billion barrels of oil and 59.7 trillion cubic feet of natural gas. We are assuming these actual amounts. We are anticipating that they are going to be higher.

As far as ANWR goes, the estimates there are between 3.5 and 16 billion barrels of oil. We are talking about huge, huge quantities. Our problem, of course, as has been pointed out by yourself and several other people in the hearings that we have had over these past few days, is the access to them.

We are glad that we are moving ahead with the leasing on NPRA. We are looking forward to that and to what we are going to be seeing out of that. We need to make sure that we are able to do the same on the coastal plain of ANWR and get moving there with the recognition that it takes so long to get the energy down the line to meet the needs across the country. And we have some serious access issues. But I do not need to tell you about that.

I would ask you to comment a little bit more. When you were talking about the land use plans and the need to just re-up them, make them more current, with the recognition that we have en-

hanced in technology, and you hit just on the highlights of a few. It is amazing. It is incredible what we have managed to accomplish in terms of how drilling is conducted, at least in the Arctic, between the time that we constructed the oil pipeline 30 years ago and where we are now. It is a technology that I think people could not have even dreamed of.

When you look to that footprint that we leave, whether—it used to be multiple drilling pads. Now we are down to one through the directional drilling. You have mentioned the pads on the tundra. These are huge advantages. How can we make sure that when we update these land use plans that we do not limit ourselves to just the technology of that moment? Because this is going to be critical. We tie ourselves to a technology that does not exist anymore for all intents and purposes.

I want to know how we can help you in that regard. What do we have to do? Is it more PR, or how do we get that message out that we do do it better?

Mr. GRILES. Senator, I think that there is—specifically, the National Petroleum Reserve, we call it the West plan, is now out for review. It is and has a lot of stipulations in it, some to address and assure the balance of the environment and the opportunity to drill for oil and gas are compatible, or at least we understand the conflicts. The kind of technologies you talk about, as you say, they are almost space age in comparison to where we were 30 years ago. And they are.

One of the things that we are encouraging, not only these land use plans, but in the lower 48 as well, is what I call an adapted management principle. And how that works is, instead of making all the decisions black and white, you have to allow for discovery science and new technology. And you set up an advisory committee. And you let that advisory committee have the authority in the land use plan to go back and look at the stipulations and see, okay, what in fact science has occurred since that land use plan was completed.

What have we learned? And that advisory committee can set up a subcommittee of experts and come back to the advisory committee. And the advisory committee can make a recommendation to the State director of BLM to modify them without going through another 2- to 3-year planning period. And all the interest groups, conservation groups and industry groups, can participate in adaptive management principles.

And this allows us to assure that modern technology, and if we find that we have an endangered species that we did not know it was there, that occurs, we can modify those stipulations to account for that, without going through this laborious planning process that we have set in place.

But what that means, it means that all the affected parties have to be willing to be there and participate and make sure it happens. And they have to be willing to allow for flexibility. And that is what we are encouraging in all of these land use plans.

Heretofore, we said you cannot drill or you can drill. And in many instances, neither answer was right, because we did not know what the technology changes were going to be. And we really

did not know what the science was on those sites until we had a full monitoring of the exact site.

Sometimes an endangered species would never show up during drilling season. But the stip says you cannot drill from April to May, because that is when they are supposed to be there. So we find out they are not there. Let us drill. If we find out they are there, when we did not think they were going to be there, you should not drill, but they were authorized to drill.

The adapted management principles, in my opinion, will create some uncertainty for industry, but it also creates the certainty that we can do the best way to manage those kind of activities.

NPREs, there were stipulations imposed in that plan 2 to 4 years ago that are not reflective of the technology today. One of the things the BLM is going to go back and look at is in the NPRs land use plan that was adopted, do those stipulations need to be reflective of new technology? And can we, in fact, not make them black and white, but ways to look at them so we do not inhibit the opportunity for exploration, and we assure that the environment is going to be protected?

So we are going to do those. And we are going to be reviewing that again. So those are the kind of things specifically you have asked that I hope respond to your question.

Senator MURKOWSKI. Well, I just hope they work.

Mr. GRILES. I think they can work. I think the responsible operators that you and I know that are in Alaska can make it work. They will make it work. We in the Government have to be partners with them and assure that they are in fact doing it and they are doing it right. And in that regard, the environment is protected, and the American people may get the energy that is there.

Senator MURKOWSKI. Thank you.

The CHAIRMAN. Thank you very much, Senator.

Senator Talent.

Senator TALENT. Thank you, Mr. Chairman.

Let me just ask the witness, because I have been reading through the different statements of the witnesses who are to come. And they present vastly different pictures in a very broad sense of what is happening on our public lands, which is not uncommon in terms of these kinds of hearings.

Mr. Bayless is saying that basically most of the land is unavailable for leasing and exploration either in theory or in practice or both. And Mr. Alberswerth is going to testify that most of the land is in fact available for leasing and exploration, and that leasing and exploration is up and is increasing. And it is at an intense level of activity.

I think that is a fair summation of both men. I am not trying to put—they are both going to have an opportunity to testify. And I am trying to be as neutral as possible in summarizing them both.

This, of course, is an example of the kind of situation that people in my position are put in. I cannot go out over all of the public lands and get a sense of what actually is happening on my own. Which in your view is correct, if you would care to speculate? And I am going to ask both those witnesses that, if I am still here and can do that.

And second, how can we get some kind of a system of reliable estimations and information? So that people who are in positions we are in have a reliable basis of facts to go on. And I am not saying that your department is. And I am sure it. But, I mean, you see? We get diametrically opposite, at least in a general sense, statements about what ought to be questions of fact. These are not opinions about which interest we ought to weigh more or less. These are statements of fact about the situation.

So would you care to comment on that?

Mr. GRILES. Well, I think that is a legitimate question. And I am sure both witness will respond to your concern. And they can——

Senator TALENT. If you do not want to comment——

Mr. GRILES. Oh, I am more than happy to comment, Senator. That is one thing you will find about me, unfortunately.

Senator TALENT. Okay.

Mr. GRILES. You know, I am not going to say either one is right or wrong. This report says the following, that about 60 percent of the land is open for exploration and development. Mr. Bayless will say, yes, but the 60 percent, you put stipulations on them that say 90 percent of the time I cannot be on the land. So it is not open. It is closed. And it is only open 10 percent of the time.

Senator TALENT. Let me just interrupt for a second. So when Mr. Alberswerth says that—and he will speak for himself. I am not trying to—because I like witnesses to comment on other witnesses are saying. That is the only way we reach any conclusions here. He says 85 percent of the technically recoverable oil and 88 percent of the technically recoverable natural gas resources underlying Federal lands in this region of the country are currently available to leasing and development.

He is talking about total amounts of energy. And you are talking about acreage. Is that the reason for the difference?

Mr. GRILES. Well, he is using a resource number of what is technically recoverable oil and gas. And let me give you a little bit of information on that.

First of all, on the acreage basis, you know, we can—this report is as good of information as you are going to get on it today. If you use a technically recoverable number, 5 years ago, you would have said the amount of oil and gas that is in the Powder River Basin was maybe 2 tcf. Today it is maybe 30. Until you drill, until you open it, until you look at it, it is all a guess.

So when you get into the numbers of what the resource number is, is it economically recoverable? Is it technically recoverable? Is it a resource? So these numbers are science numbers. But they are science based on intuition, which people like sit around the table. They say, well, my estimate is this. Why is that? My estimate is this. Why is that? And they try to come together with some consensus over the number.

But they will always have a range. And the ranges will be based on technological considerations and economical considerations. And science and government uses those kind of ranges. And so when you ask the question, you can get three different answers. And guess what? They are all right. They are all right, based on the assumptions they make, as well as the question and the way it is asked.

I think the U.S. Geological Survey, the Bureau of Land Management, and those agencies are the best. And any time you have a question, I will be happy to have them respond. But they should never give you one answer. They should give you a range of answer, because there is not one answer, because we do not all the answers. We can tell you what our best guess is.

So these gentlemen will be responding. And I hope they will be fair with you about that. They are always estimates. And they are based on the assumptions they make. And you should ask them: What are the assumptions you are making? If you change that assumption to something else, what would the answer be?

In terms of the lands that are open, a lot of lands are open. So the sources that we know about have been drilled. They have been discovered. Where do you find and what do you project the undiscovered resource? It is going to be in the undrilled lands. So when you talk about undiscovered guesstimates, they are going to be on the undrilled land.

So you have to look at that is where maybe 40 percent of the area is not open. And so that is how these numbers play out, Senator. And sometime when you have a moment, we will sit down and we will go through some of these.

Senator TALENT. I understand. And hearing formats are not necessarily the best one for resolving these things. But I wanted to at least raise the issue.

Mr. GRILES. Absolutely.

Senator TALENT. I thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator.

I think we had better proceed to the next panel. Could I just make one observation, as we change panels, Senator Talent? One of the problems is, in addition to the one you raised, is that frequently we think we have done something that we have not. And so we change the law and assume that this and this and this is going to happen. And it takes 5 years. And we find out that we did not because of what is happening in the field, in the courts, in the interpretations.

It appears to this senator that we have an opportunity because a lot more studying has been done, as we prepare for this bill than before, to make some decisions as to whether we want to streamline some of the processes or not, and to understand which ones we are streamlining, and they pertain to which lands. Those will be tough votes, because some people will assume that if you streamline, you destroy something that is very sacred.

We have so much land that is not producing that many people assume could produce, and we have a shortage of both natural gas and crude oil, that we have to make some decisions on where should some risks be taken. Should it all be absolutely certain, or should we take some risks? And which way would we, in making risks, which way would we move the teeter-totter? And I think it is time to take a few risks on open public lands, especially where there is—we are not speaking of a wilderness. We are not speaking of a national park. We are speaking of other public lands that are multiple use lands.

Mr. Secretary, appreciate it very much. And our staff will be working with yours as we prepare to use those documents which

you have given us. We understand they are going to be very helpful. And we thank all those who worked so hard to prepare them.

Mr. GRILES. Well, Mr. Chairman, thank you so much for the opportunity to be before you. I look forward to working with all of you as we go forward.

The CHAIRMAN. Yes, indeed.

The next panel is made up of Robert Bayless, Jr., from Farmington, New Mexico, Independent Petroleum Association; Steven Leer, Arch Coal; David Alberswerth, Wilderness Society of Washington.

[Pause.]

Senator Talent, were you going to introduce one of the witnesses?

Senator TALENT. Yes, with your permission. Thank you.

The CHAIRMAN. Would you do that, please?

Senator TALENT. Thank you. I appreciate that, Mr. Chairman.

We are pleased in Missouri to have the headquarters of Arch Coal, with produces roughly 6 percent of the electricity used by Americans each year. And I am grateful to have them there and appreciate the opportunity to introduce today the president and the CEO of Arch Coal, Mr. Steve Leer. Steve is an outstanding industry executive and a member of our community. I look forward to this opportunity to introduce him and, as a member of the committee, to hear his testimony on these important issues. And I thank, Mr. Chairman, for the opportunity to do so.

The CHAIRMAN. Thank you very much, Senator.

Senator TALENT. Thank you for being here today.

The CHAIRMAN. We will proceed with Mr. Bayless first. Thank you so much for coming up here and giving us of your time. And we appreciate hearing from you;. Your remarks will be made a part of the record, as will the remarks of all the witnesses. If you could proceed to streamline and make your remarks as brief as possible, we would appreciate it.

STATEMENT OF ROBERT L. BAYLESS, JR., PRESIDENT, INDEPENDENT PETROLEUM ASSOCIATION OF MOUNTAIN STATES

Mr. BAYLESS. I will attempt to do that. May I also, before I make my remarks, add to the record a brochure that my organization, IPAMS, has prepared. It has many of the facts that we have discussed today.

The CHAIRMAN. It will be done.

Mr. BAYLESS. Thank you.

Mr. Chairman, members of the committee, I am Rob Bayless with Robert L. Bayless Producer, L.L.C., and this year's president of the Independent Petroleum Association of the Mountain States, IPAMS. Today I am testifying on behalf of IPAMS and the Independent Petroleum Association of America.

I would like to thank the committee for focusing its attention on the significance of Federal land in developing a sustainable national energy policy. There are three points that I would like to make today.

First, I would like to call attention to the disconnect between policies that increase demand for natural gas and policies that restrict the access to supplies of natural gas.

Second, I would like to address industry's ability to meet future demand and the important role that Federal lands and land managers will play in that effort.

And third, I will address some of the misperceptions that I believe are limiting a constructive dialogue on how to improve the management of oil and gas and development on public land.

Over the last two decades, there has been a growing disconnect between policies that encourage demand for natural gas and policies that restrict access to new supplies. This policy disconnect is a root cause of the high prices and volatility currently being expressed in the marketplace.

Further, because many people are unfamiliar with the impediments that encumber natural gas development on Federal land, some question the gas industry's ability to meet the Nation's future demand. Natural gas producers can meet the Nation's future need for energy. But the Federal Government must play an important role. It is, after all, the single largest owner of natural gas reserves through its land holdings.

The Federal Government must partner with industry to ensure the efficient and environmentally responsible development of its resources to meet current and future demand. Largely considered a frontier with great potential, the Inter-Mountain West has a strong track record that earns it broad enthusiasm. The region not only produces nearly 20 percent of the total natural gas in the lower 48, it is also the only region that has consistently experienced growth in production over the last 30 years. And the best news is that it still contains more than 40 percent of the Nation's estimated and proven reserves.

My third point is that misperceptions about the Inner-Mountain West have frequently clouded important policy discussions. members of Congress have been regularly misinformed and mislead about what is actually occurring on public lands. Congress has been told that 95 percent of Federal lands in the Inter-Mountain West are available for leasing. This is inaccurate. A recent report by the Department of the Interior sets the record straight, showing that 36 percent of the region is off limits to leasing.

Another common misperception is that Federal lands in the region have seen a rapid influx in drilling over the last 2 years. In reality, 30 percent fewer wells were drilled in 2002 than in 2001. And the number of wells drilled in the United States in 2002 was approximately 80 percent less than in the early 1980's.

Reports about an onslaught of development on Federal lands have been pervasive, but also inaccurate. The Inter-Mountain West has shown strong production growth over the last decade. But only 5 percent of the Federal mineral estate in the region is both leased and currently producing.

There are also misperceptions regarding the rate of new permitting on public lands. Some groups have claimed that it is accelerating. Having analyzed the BLM's own data, we find evidence to the contrary. An application for permit to drill, an APD, that, according to BLM guidance should take 30 days to process, takes on average 137 days to be approved.

Despite the best intentions of BLM leadership, agency performance, in the processing of applications, decreased by 60 percent in

2000. What is worse, the level of uncertainty has grown. Last year, companies seeking permission to drill waited as long as 370 days for Federal approval. In just one year, the average permitting time has nearly doubled.

I mention BLM performance not to disparage their efforts, but to draw attention to the needs of an agency that is inadequately funded and desperately in need of additional staff and new technology.

In closing, I would like to reiterate that our industry can meet the Nation's growing demand for natural gas. But it will occur one well at a time. Meeting this future demand will provide a partnership between industry and Government. Policies that provide adequate and timely access to the resource will bring gas to market more quickly and help stabilize gas prices.

IPAMS and IPAA stand ready to aid Congress and the administration in reducing the barriers to the appropriate development of the abundant resources on Federal lands.

Thank you.

The CHAIRMAN. Thank you very much.

[The prepared statement of Mr. Bayless follows:]

PREPARED STATEMENT OF ROBERT L. BAYLESS, PRESIDENT, INDEPENDENT PETROLEUM ASSOCIATION OF MOUNTAIN STATES

Mr. Chairman, members of the committee, my name is Robert L. Bayless, Jr., Executive Manager of Robert L. Bayless, Producer LLC, and this year's President of the Independent Petroleum Association of Mountain States (IPAMS), based in Denver, Colorado. Today, I am testifying on behalf of IPAMS and the Independent Petroleum Association of America (IPAA). IPAA and IPAMS represent virtually all of the independent oil and natural gas producers across the nation. Independent producers drill 85 percent of the wells, and produce 40 percent of the oil and 65 percent of the natural gas in the United States.

I would like to thank this committee for focusing its attention on the significance of federal land in developing a sustainable national energy policy. Policies that either limit or encourage energy development on federal land have very real consequences. Policies that promote the use of a particular energy source, yet fail to provide for the necessary and orderly development of that same resource are predisposed to failure. Such has been the predicament of policies that address natural gas.

There are three main points I would like to make today. First I would like to call attention to the growing disconnect between policies that increase demand for natural gas, and policies that restrict access to supplies of natural gas. Second, I would like to address industry's ability to meet future demand and the important role that federal lands and land managers will play in that effort. Finally, I will address some of the misperceptions that I believe are limiting a constructive dialogue on how to improve the management of oil and gas development on public land.

Over the last two decades, a disconnect has grown between environmental policies that encourage demand for natural gas, and federal land management policies that restrict the development of new supplies of natural gas. This policy disconnect is a root cause of the high prices and volatility currently being expressed in the marketplace. Furthermore, because most people are unfamiliar with the many impediments that encumber natural gas development on federal land, some question the gas industry's ability to meet the nation's future demand for natural gas.

Natural gas producers can meet the nation's future need for natural gas, but the federal government must play an important role. The federal government is the single largest owner of natural gas reserves through its land holdings. The federal government must partner with industry to ensure the efficient and environmentally responsible development of these resources to meet current and future demand.

In the Inter-Mountain West, a gas industry/government partnership will be critical since more than half of the mineral estate is owned by the federal government (figure 1).* Largely considered a frontier with great potential, the Inter-Mountain West has a strong track record that supports the broad enthusiasm for the region.

*Figures 1-8 and the appendix have been retained in committee files.

The region not only produces nearly 20 percent of the total natural gas production in the lower 48, it is also the only region that has consistently experienced growth in natural gas production over the last 30 years (figure 2). And, the best news is that it still contains more than 40 percent of the nation's estimated and proven reserves (figure 3).

My third point is that misperceptions about the Inter-Mountain West have frequently clouded important policy discussions. In short, I believe that Members of Congress have been regularly misinformed and misled about what is actually occurring on public lands.

For example, Congress has been told that 95 percent of federal lands in the Inter-Mountain West are available for leasing. So pervasive is this misinformation that it is often quoted in hearings on both sides of the Hill. However, a recent report by the Department of the Interior (See Appendix for more on the EPCA Report) sets the record straight, showing that 36 percent of the region is off limits to leasing.

Another common misperception is that federal lands in the Inter-Mountain West have seen a rapid influx in drilling over the last two years. In reality, 30 percent fewer wells were drilled in 2002 than were drilled in 2001. To put this in perspective, the number of wells drilled in the United States in 2002 was approximately 80 percent less than in the early 1980s.

Reports about an onslaught of development on federal lands have been pervasive, but upon further discovery are also found to be inaccurate. While the Inter-Mountain West has shown strong production growth over the last decade, only five percent of the federal mineral estate in Inter-Mountain West is both leased and producing (figure 4). Much of the recent growth in production from the region is attributable to development on state and private lands (figure 5). In Colorado, Utah, and Montana, production from federal land has not even begun to keep pace with production on adjacent private and state lands (figures 6 & 7). In Colorado for example, per acre production from non-federal land is six times greater than per acre production from federal land.

A misperception also exists over the level of protection and environmental analysis required prior to the approval of a drilling project on federal land. Contrary to popular myth, the time and costs of preparing environmental studies have increased exponentially in recent years, reaching a level that prevents many smaller companies from considering projects on federal land. (See Appendix for more on NEPA)

Another misperception involves alleged changes or improvements to the permitting process. Using the Bureau of Land Management's own data, IPAMS recently examined the permitting performance for all the BLM offices in the Inter-Mountain West (figure 8). What we found confirmed our deepest frustrations about the delays associated with working on federal land. An Application for Permit to Drill, or APD, that according to BLM guidance should take 30 days to process, takes on average 137 days to be approved. Despite the best intentions of BLM leadership, agency performance in the processing of applications decreased by 60 percent in 2002.

What's worse, the level of uncertainty has grown. In 2002, companies found it harder than ever to plan their business around BLM permitting uncertainties. For example, companies seeking permission to drill waited an average of 137 days, and sometimes as long as 370 days for federal approval. In just one year the average permitting time has nearly doubled. I mention BLM performance not to disparage the efforts of an agency that I believe is truly doing its best in spite of inadequate funding, limited personnel, and antiquated technology. Instead, I mention these facts to illustrate that misperceptions and misinformation often prevent us from focusing on solutions to the many real challenges associated with developing natural gas on federal land.

In closing, I would like to reiterate that our industry can meet the nation's growing demand for natural gas, but it will occur one well at a time. Meeting the nation's future demand for natural gas will require a partnership between industry and government. Policies that provide adequate and timely access to the resource will bring gas to market more quickly and also stabilize prices. IPAMS and IPAA stand ready to partner with Congress and the Administration to reduce the barriers in developing the abundant resources on federal lands.

ADDITIONAL TESTIMONY REGARDING ENERGY PRODUCTION ON FEDERAL LANDS

The Independent Petroleum Association of America (IPAA) and the Independent Petroleum Association of Mountain States (IPAMS) would like to submit additional testimony for the February 27, 2003 hearing on energy production on federal lands. Specifically, we would like to address issues involving assessments of the federally controlled resource base.

In 2002, RAND released an Issue Paper presenting "A New Approach to Assessing Gas and Oil Resources in the Intermountain West." This new approach can be graciously considered as a well-intentioned misunderstanding of the federal development process or more critically viewed as a specious effort to further misdirect the issues associated with access to the resource base by those opposing its development. Taken to its logical conclusion the RAND approach would vest in the federal bureaucracy the determination of development decisions that are now—and properly so—a part of the federal permitting process. The federal government has never been positioned to make economic judgments on the development of its resources—nor should it be. That is the role of the permitting process. The RAND approach should be rejected for what it is—a theoretical but inappropriate think tank white paper.

In broad terms, RAND inaccurately presents the role of the recently released EPCA Study that addresses both the location of natural gas and oil resources underlying federally controlled lands and the federal restrictions to accessing these reserves. It is essential to put the intent of the study in perspective, which is stated in the Executive Summary of the report:

> It is important to emphasize that this inventory was prepared at the direction of Congress. It is not a decision making document. The inventory identifies areas of high and low oil and gas potential and the nature of constraints to the development of those resources in five basins in the Interior West. Any reassessment of these restrictions on oil and gas activities will occur in public-land use planning or the legislative process, both of which are fully open to public participation and debate over the appropriate balance between resource protection and resource development.

The primary interest in developing this information relates to assuring that the debate over access is addressing real issues—land where the resources are, the restrictions that exist there, and the basis for those restrictions. It is a valuable tool to get beyond the false arguments that have been made over the past few years that 95 percent of federal lands are available to leasing. With the SPCA Study, these efforts at misdirection can be avoided.

However, RAND tries to obfuscate the issue by suggesting new factors should be considered. Specifically, RAND suggests that the determination of resources should be based on a new test—viable resources. To move from the current approach of defining "technically recoverable" resources—the type of analysis in the EPCA study—to "viable resources," RAND proposes three additional factors. These are: (1) exploration and production costs, (2) infrastructure and transportation costs, and (3) environmental impacts. All of these are, in fact, elements that go into the ultimate development decision for a resource. At issue is not whether they are factors, but how they will be used.

In the RAND approach, the federal government would assess these issues. While the environmental impacts of development are an appropriate issue for the federal government to ultimately address, the economic determinations are not.

In the RAND theory, the federal government would assess whether the wellhead price was adequate to justify development. RAND even includes a simple graph demonstrating that its economic assessment in a specific basin diminishes the justifiable resource to a negligible volume. The RAND theory would also have the federal government determine if there was adequate infrastructure and transportation to move the produced oil and natural gas to market.

Simply put, the federal government is not positioned to make these determinations. This is the role of the permit process and capitalism. Currently, those who believe they can meet the economic challenges of finding, producing, and transporting oil and natural gas drive the development decisions. If they believe they can economically develop the resource, they apply for permits to drill. This is a logical and proper approach. No U.S. Geological Survey assessment of a resource will be as robust as those who seriously seek to develop it. They will look to more extensive information and, if convinced, will take the risk to find it. Risk is the key issue here. The federal government does not bear the burden if its assessment is right or wrong. But those who want to permit an area do. If they fail, they lose the money. So, they will carefully choose when and where to develop. They will make the decisions regarding whether the wellhead price is adequate—or will be. They will make the decisions on whether the infrastructure is adequate—or will be. This is the proper place for these decisions to fall—not the RAND approach of tossing these choices to the bureaucracy.

The final issue of environmental impacts becomes a part of the permitting process. On a case-by-case basis, the federal government makes the decisions regarding what environmental requirements must be met to develop an area. It has been an imperfect process for decades. But, it should remain a function that is applied

through the development of Resource Management Plans and permits. If the environmental protection requirements are too severe, they will limit or stop development. At the same time these decisions should be based on sound science and pragmatic management of the environmental needs of each area.

The RAND approach fails a key test—where decisions should be made. It may be interesting reading, but it is valueless as a policy tool.

Thank you this opportunity to submit testimony. We look forward to working with the Committee on these important issues in the coming months.

The CHAIRMAN. I think we will proceed to hear the witnesses and then inquire of them, unless somebody wants to otherwise. Let us proceed then.

The next witness is Mr. Steven Leer. You have been introduced, Mr. Leer. Please proceed.

STATEMENT OF STEVEN F. LEER, PRESIDENT AND CEO, ARCH COAL, INC., ON BEHALF OF THE NATIONAL MINING ASSOCIATION

Mr. LEER. Thank you, Mr. Chairman and members of the committee. And thank you, Senator Talent, for that gracious introduction.

As Senator Talent said, I am president and CEO of Arch Coal. And I am here on the behalf of Arch Coal and the National Mining Association. I appreciate the opportunity to appear before the committee and ask that my entire written statement be made part of the hearing record.

The CHAIRMAN. It will be made a part of the record.

Mr. LEER. Mr. Chairman, we want to thank you for holding these hearings on the important role of resources found on Federal lands and how those resources will play in a balanced national energy strategy. We also want to commend your efforts to produce balanced comprehensive energy policy legislation.

The need for legislation is being driven home daily, as we witness the stunning run-up in stop market prices for oil and gas over this winter, prices that will be reflected in the energy markets as well and will be reflected in our economic performance.

Affordable and reliable energy is a necessity for economic growth. One of the foundations of our economy is reasonably priced abundant energy. Coal is the fuel of choice for over 50 percent of the electricity generated in the United States. Low-cost coal-fired electric generation has tripled since 1970, while criteria emissions are only 70 percent of what they were 1970.

The CHAIRMAN. Would you state that again, please?

Mr. LEER. Coal-fired electricity is about 50 percent of the Nation's generated electricity today. Low-cost, coal-fired electric generation has tripled since 1970, yet criteria emission, as measured by the EPA, are only 70 percent of what they were in 1970. The Clean Air Act is working is what that really says.

The CHAIRMAN. Right.

Mr. LEER. With approximately 395 million tons of production in 2001, the latest available data, coal from Federal lands constitutes 35 percent of the domestic production. In the Western United States, 71 percent of the coal is produced from Federal lands. These mines on Federal lands directly employ approximately 11,000 workers with annual wages of nearly $500 million. Royalties paid to the Federal Government were an estimated $337 million in

2001, with many millions more paid through bonus bids to obtain the leases.

In 2001, my company paid over $145 million in royalties, bonus bids, taxes, and fees to the Federal and State governments from a single mine in Wyoming. That is over 40 percent of the total sales realization from that operation. And it does not include income tax.

Because coal is a domestic energy resource that is reliable, affordable, and, through the use of clean coal technologies, increasingly clean, coal can and should continue to play a major role in meeting the energy needs of our Nation in the future. Of the known Btus in the ground in the United States, 85 percent are in the form of coal, 10 percent are natural gas, and 5 percent are oil.

Coal production will increase. And much of this new coal will be from reserves located on Federal lands or lands effectively controlled by Federal policies. BIA estimates that the Nation will require an additional 300 million tons of coal production per year by 2020. 90 percent of that additional 300 millions of production will probably be produced from Federal lands.

With coal from Federal lands projected to play an increasingly important role in meeting our growing energy needs, Federal policy should promote efficient and responsible production of coal resources. To meet this anticipated need and to fulfill the balance in environmental and economic visions that I have heard many in this room articulate, demand limited and focused modifications to the Federal Coal Leasing Act of 1976.

These changes will help enhance our use of domestic energy in a time of increasing uncertainty. Neither NMA nor Arch advocate a wholesale reform of the Federal Coal Leasing Act. However, we do support the focused modification of a limited number of provisions that, one, no longer reflect the economic and market realities; two, result in bypass of nearby coal reserves from existing leases; three, compel inefficient production; and, four, reduce Federal and State royalties and bonus bid revenues.

Specifically, we propose eliminating the 160-acre life of lease limitation on Federal modifications to mines so that smaller adjacent tracts of noncompetitive Federal coal that would be otherwise bypassed can be added to a Federal coal lease. Particularly in the West, the mines have gotten and larger. And 160 acres is really something that was appropriate, probably, back in 1976, but is just inappropriate today.

Giving the Secretary discretion to allow consolidation of leased reserves that will require more than 40 years to mine, thereby providing long-term efficiency and orderly development of Federal, State, and private coal and minimizing the potential for bypassing nearby coal resources and the attendant loss of Federal and State royalty and tax revenues. Again, the mines are much larger. Our largest mine has over $800 million invested and produces over 70 million tons a years, which, to put that in perspective, is 30 miles of unit trains every day. It is not a train crossing anybody wants to be at.

Allowing the Secretary to accept the payment of advanced royalties in lieu of continued operations for a total of 20 years and allowing the lessees to apply those paid royalties against actual pro-

duction beyond the current 20-year limitation, while simplifying the methodology for computing advanced royalties.

And the last point would be allowing—excuse me, second to last point—allowing the Federal coal lease to lessee to file its mine plan with the Secretary later than three years after the issuance of the lease, but before taking any action on the lease that might cause a significant environmental disturbance, so that the coal operator can coordinate his preparation and submission of its MLA plan, lease plan and mine plan, dealing with the coal resource recovery with the permit required under the Surface Mining and Control Act, SMACRA, which addresses the environmental planning and production measures, as appropriate.

And last point is clarifying that the act does not require a bond in connection with deferred bonus bid for coal leases while protecting the Federal interests, but that if a lessee fails to pay an installment of a deferred bid on or before its due date, the lease would revert back to the Federal Government.

These changes recognize the long lead times and the extremely large capital expenditures necessary to produce Federal coal in the most efficient low cost and environmentally sensitive manner.

I have reached my time, but I would like to add just one last comment on some of the other—really, following perhaps Senator Talent's point. We talked a bit about coal bed methane and the Powder River Basin as a huge producer of both coal and coal bed methane. Really, legislation is urgently needed to provide a statutory mechanism to resolve the mineral development conflicts, which have resulted from conflicting leases issued by the Federal Government and since the 1999 Supreme Court decision that reversed the previous practice in the *Souther Ute* case.

This committee has previously reported legislation to provide a mechanism to resolve these conflicts. And we are eager to work with the committee to report a comparable measure as a free-standing legislation or part of a broader energy package.

My prepared statement also does make some comments on the poorly developed and, I would argue, legally questionable late 2004 service roadless rule. And I think it is imperative of expeditiously addressing the need for western regional power planning process to facilitate the siting and construction of necessary generation and transmission.

Again, I would like to thank you, Mr. Chairman, for all of your hard work, and the committee's, because this is very important to the Nation. Thank you.

The CHAIRMAN. Thank you very much.

[The prepared statement of Mr. Leer follows:]

PREPARED STATEMENT OF STEVEN F. LEER, PRESIDENT AND CEO, ARCH COAL INC.

Mr. Chairman, my name is Steve Leer. I am President and CEO of Arch Coal, Inc. headquartered in St. Louis, MO. I am appearing here today on behalf of the National Mining Association (NMA) to testify on the important role energy resources on federal lands, specifically coal resources, have in maintaining the reliable and affordable supply of energy that our nation needs to support our economy. Thank you for the opportunity to present the mining industry's views on this subject.

SUMMARY

Affordable, reliable energy is a necessity for economic growth. Domestic, affordable and increasingly clean coal provides over 20% of all the energy that is used in the United States and is the fuel of choice for over 50% of the electricity generated in our nation today. Nearly 35% of our coal production is from mines on federal and Indian lands. Over one-third of the nation's coal reserve is found on lands owned or controlled by the federal government. Forecasts show that close to 90% of new production expected to come on line over the next 20 years will be from mines on federal lands. This statement will discuss the changes in policy needed to ensure that the vast resources on federal lands can contribute to the goal of energy self-sufficiency while at the same time ensuring that both the environment and the economies of the regions in which these resources are located are protected and advanced.

GENERAL INTRODUCTION

Arch Coal, Inc., headquartered in St. Louis, MO is the second largest coal producer in the United States. In 2002, our operating subsidiaries mined nearly 115 million tons of coal—approximately 11 percent of the nation's production—from surface and underground mines in Wyoming, Colorado, Utah, West Virginia, Kentucky and Virginia. Arch shipped coal to approximately 140 power plants in 30 states, providing the fuel for 6% of the electricity used by Americans last year. Arch owns or controls approximately 3.0 billion tons of coal reserves including reserves on federal lands.

In 2002, our company mined nearly 70 million tons of low-sulfur, sub-bituminous coal from our operating mines in the Powder River Basin ("PRB") of Wyoming, 7 million tons in our West Elk Mine in Colorado and 13 million tons from three mines in Utah. This coal is almost exclusively mined on federal lands. One of Arch Coal's highest priorities is to operate safe and environmentally responsible mines. We are very proud of the safety and reclamation performance of our mines and the national recognition we have received from the Office of Surface Mining (OSM) and the Mine Health and Safety Administration (MSHA) for our efforts

The National Mining Association (NMA) represents producers of coal, metals and non-metal minerals, as well as manufacturers of processing equipment, machinery and supplies, transporters, and engineering, consulting and financial institutions serving the mining industry. The members of NMA produce over 80% of America's coal, a reliable, affordable, domestic fuel choice used to generate over 50% of the electricity used in the nation.

COAL FROM FEDERAL LANDS IS AN IMPORTANT CONTRIBUTOR TO A BALANCED NATIONAL ENERGY STRATEGY.

Mr. Chairman we would like to commend you for holding these oversight hearings on the important role resources found on federal lands play in a balanced national energy strategy. Energy, whether it is from coal, oil, natural gas, uranium or renewable sources, is the common denominator that is imperative to sustain economic growth, improve standards of living and simultaneously support an expanding population.

There is no question that our nation will require more energy in the future both for economic reasons and to support a larger population. We will use energy more efficiently due to technological advances, conservation and increased efficiency. But, we will use more energy. Meeting this demand with reliable affordable energy while maintaining high environmental standards will be a challenge, but a challenge that can be met with the correct policies that consider and enhance the role of all energy sources, including those sources found on federal lands.

THE ROLE OF COAL IN U.S. ENERGY

Coal reserves, which are geographically distributed throughout the US, comprise the greater share of the nation's energy resource base. The demonstrated coal reserve is over 500 billion tons, a reserve large enough to support a growing coal demand for over 200 years. In 2002, 1.1 billion tons of coal were produced in mines located in 26 states. Coal, or electricity generated from coal is used in all 50 states. The coal industry contributes some $161 billion annually to the economy and directly and indirectly employs nearly 1 million people.

Last year, close to one billion tons of coal were used to generate over 50 percent of all electricity used in the U.S. Although this is more than triple the amount of coal used for electrical generation in 1970, emissions have declined by over one-third. The Energy Information Administration forecasts show that electricity use

will increase by another 40% by 2020 and that coal use for electricity will total at least 1.265 billion tons in 2020, some 280 million tons or 28% more than is currently utilized. Data supporting the EIA Annual Outlook 2002 forecast shows that over 90% of the increase in coal production needed to meet these new requirements will come from coal reserves located on federal lands.

Meeting electricity demands will require construction of new power plants including coal fired power plants and transmission facilities to move the power to where it is needed. Although beyond the scope of this hearing, the comprehensive energy bill that is ultimately passed by the Congress should include provision for incentives that allow companies building these new plants to assume the risks of commercializing new advanced clean coal technologies. The mining industry supports legislation designed to provide a measure of burden-sharing to cushion the cost of improving the environmental performance of existing coal-based generating facilities and to stimulate deployment of advanced technologies to further reduce emissions and improve efficiency in new generating facilities.

Coal fired electricity is and will remain the most reliable and affordable electricity available. Electric rates in regions dependent upon coal for electricity average at least one-third lower than rates in regions dependent upon other fuels for electricity. Forecasts show that these differentials will remain in place over at least the next twenty years.

Because coal is a domestic energy resource that is reliable, affordable and, through utilization of clean coal technologies, increasingly clean, coal can and should continue to play a major role in meeting the energy needs of our nation in the future. Coal production will increase and much of this new coal will be from reserves located on federal lands or effectively controlled by federal land policies.

COAL ON FEDERAL LANDS

Coal mined on federal lands provides a vital portion of the nation's domestic energy supply. In 2001 (the latest data available) approximately 395 million tons of coal, 35 percent of national production, was mined on federal lands. Considering western production only, 71 percent came from mines on federal lands and, considering that the majority of privately held western reserves are on lands that are effectively controlled by federal land policies one can assume that at least this much or more of the growing western coal industry depends upon federal land management policies. Coal mines on federal lands are found in Colorado (68% of production within the state), Montana (56% on federal lands and another 13% on Indian lands), New Mexico (26% on federal and 35% on Indian lands), North Dakota (8%), Oklahoma (46%), Utah (75%), Washington (53%) and Wyoming (85%). In addition, 100% of Arizona's coal production occurs on Indian Lands.

Coal produced on federal lands contributes directly to local economies in a positive way. In 2000, this coal was worth over $3 billion. Production activities provided high paying jobs for at least 11,000 workers in 2000, paying wages of nearly $500 million. Considering both direct and indirect economic benefits, coal produced on federal lands provided employment for nearly 110,000 workers with wages of over $3 billion dollars. Royalties paid to the Federal Government due to coal produced were an estimated $337 million in 2001. Additionally, several million dollars annually is received by the federal government and shared with the public land states from bonus bids for federal coal tracts.

All the benefits of coal mined on Federal Lands do not remain within the region as this coal is shipped to electric generators in 30 states. Taken as a whole, coal mined on federal lands is used to generate over 40% of all electricity generated from coal, or approximately 20% of all electricity produced in the U.S.

The Federal Government owns about one-third of the Nation's coal resources, which are located on approximately 76 million acres of land principally in the Western United States. Western federal lands contain approximately 60 percent of the total western coal reserve base. An additional 20 percent of the coal resources in the West are managed or impacted by the Federal Government by virtue of (1) the commingling of State and private coal reserves with Federal leases and (2) trust responsibilities for Indian lands.

MINERAL LEASING ACT MODIFICATIONS

As stated earlier, over one-third of our coal reserve is owned or controlled by the federal government. In the western United States 80 percent of the coal comes from federal lands. Further, a majority of privately held western coal reserves are on lands that are effectively proscribed by federal land policies, because of the commingling of state and private coal reserves with federals leases. To meet the demand described above, limited, focused modifications to the Mineral Leasing Act of 1920

(MLA) must be made. These changes will also help ensure the nation's energy independence in a time of increased uncertainty.

The MLA authorizes the Department of the Interior through the Bureau of Land Management to lease federally owed coal for development by private lessees subject to payments and other lease terms and conditions. Significant leasing of federal coal did not occur during the first 40 years of the MLA. However, by the early 1970s, the amount of coal under lease was four times the amount leased prior to 1960, but actual production had not increased significantly. This raised concern about the holding of vast coal reserves for speculation and whether the government was receiving a fair return for the resource.

In 1976, after several administrative moratoriums on coal leasing, Congress addressed these concerns with the passage of the Federal Coal Leasing Act Amendments Act (FCLAA). FCLAA imposed a series of requirements related to development time frames, land use planning, and royalty rates for federal coal leases. Many of these policies were based upon forecasts of immediate spikes in coal demand and prices in the wake of the 1973-1974 oil embargo. For example, FCLAA's legislative history cites forecasts that predict coal demand reaching as high as 1.4 billion tons by 1980. Although these events spurred development of western coal reserves, coal demand never reached the level predicted and coal prices actually declined in real terms by $10 a ton in just 10 years following FCLAA's enactment.

In many respects, the coal leasing policies adopted in FCLAA were intended to address a coal market and industry structure anticipated in a different era. In the more than 25 years since FCLAA's enactment, the coal industry has undergone a substantial restructuring in order to survive a market and price structure that dictates flexibility and efficiency. While there are many features of the federal coal leasing program that present impediments to the most rational and efficient development of federal coal resources, today we focus our testimony on modifications to a limited number of provisions that: no longer reflect economic and coal market realities; result in the bypass of nearby federal coal reserves; compel inefficient production; and reduce federal and state royalty revenues.

These changes recognize the long lead times and extremely large capital expenditures necessary to produce federal coal in the most efficient, low cost and environmentally sensitive manner. Moreover, they reflect the very type of flexibility most private coal lessors retain in order to assure that their coal resource can be fully developed so they can maximize their return in the form of future coal royalty revenue.

Coal Lease Modifications: Current law recognizes that it might not always be possible to determine all the lands to include in an initial lease due to geologic uncertainty or other reasons. In an effort to balance the desire to ensure federal coal is competitively bid, with the realization that an operating mine may need to add unleased federal coal, it was provided that up to 160 acres in the aggregate could be added to a federal coal lease. This provision would eliminate the 160 acre life-of-mine limitation on federal coal lease modifications. This provision would allow the Secretary to add smaller quantities of non-competitive coal to an existing lease outside the time consuming lease-by-application process. This valuable tool facilitates the leasing of small quantities of contiguous coal that might otherwise be bypassed forever as the coal in question cannot support a stand-alone mining operation. Certain leases either have met and others are dangerously close to the current limitation.

The Secretary's discretion in the granting of lease modifications is not unfettered. 43 CFR 3432 allows the authorized officer to modify the lease to include all or part of the lands applied for if it is determined that: (1) the modification serves the interests of the Untied States; (2) there is not competitive interest in the lands or deposits; and (3) the additional lands or deposits cannot be developed as part of another potential or existing independent operation. While the lands could be added without competitive bidding, the government would retain discretion to lease these tracts based upon its determination whether it will receive the fair market value for the lease of the added lands, either by cash payment or adjustment of the royalty applicable to the lands added to the lease by the modification.

40-Year Mine-out Requirement: The Secretary should be given the discretion to allow the consolidation of leased coal reserves into a logical mining unit (LMU) that will require more than 40 years to mine. A logical mining unit may include federal leases as well as contiguous lands where the U.S. does not own the coal. The purpose of an LMU is to allow the coal lessee to achieve maximum economic recovery of federal coal, and where mixed coal ownership exists by combining federal and private tracts of coal into one unit for purposes of meeting MLA requirements of diligent development and continued operations. Current law requires that the coal reserves of the entire LMU must be mined within a period of 40 years.

This change would allow long term efficiency and orderly development of federal, state and private coal and minimize the potential for bypassing nearby coal resources and attendant loss of federal and state royalty and tax revenue. This proposal would not affect the existing requirement of diligent development or continued operation.

Advance Royalties: The Secretary should be allowed to accept the payment of advance royalties in lieu of continued operation for a total of 20 years, allow the lessees to apply those paid royalties against actual production beyond the initial twenty year lease term, and simplify the methodology for computing advance royalties. This change would permit the Secretary and federal coal lease holders the flexibility to manage federal coal resources for maximum return to the federal and state treasuries and avoid the compulsion of production that is not warranted by market conditions.

LMUs and individual federal coal leases are subject to the MLA's requirements of "diligent development" and "continued operation." To meet the diligent development requirement, a federal lessee must produce the LMU or federal lease's recoverable coal reserves in commercial quantities within its initial 10-year period. "Commercial quantities" is defined by regulation as one percent of the lease or LMU's recoverable coal reserves. Failure to meet diligent development requirements shall result in the termination of the lease by the Secretary. The diligent development requirement cannot be postponed or substituted by the payment of advance royalties. NMA is not suggesting the elimination of the existing diligent development requirement in the MLA.

After the diligent development requirement is met, the lessee must continue to produce coal from the lease or LMU in commercial quantities defined by regulation as one percent of the recoverable reserves during the remainder of the lease term. This is referred to as the continued operation requirement. Any federal coal lease on which continued operation is not maintained shall be cancelled.

Continued operation is not always possible if the coal producer cannot mine coal at the prevailing market price. As a practical matter, a lessee must spend tens of millions of dollars, if not hundreds of millions, in order to lease federal coal, prepare and process permits, acquire equipment, hire a labor force, and achieve diligent development. Obviously, the operator of a mine wishes to continue operating after the significant costs to open the mine have been expended. However, a currently operating mine may temporarily lose its competitiveness, due to a number of factors, including: increased costs of production due to geology; limited labor supply in rural areas; changes in prices for competing coals or other fuels such as oil, gas, hydro and nuclear; changes in transportation costs for coal and competing fuels, which transportation costs constitute a significant cost to the coal consuming customer; and shifting state and federal environmental regulations which periodically affect which coal can be burned in which power plant. When one or more of these factors arise, an operation is generally idled and when the market dictates, operations resume.

Under current law, upon application to and approval by the Department of Interior, an operator/lessee may pay advance royalties in lieu of continued operation. This system keeps royalty income flowing to the government while a mine is idled. Currently however, the aggregate number of years during the period of any lease for which advance royalties can be paid in lieu of continued operations is 10. Thus, a mine which periodically opens and closes as the market dictates, can add to this aggregate 10 year limitation. Due to the current age of many currently operating mines exceeding 25 years, and the potential for many additional years of mining at the same locations, the 10 year aggregate should be extended to 20 years.

When advance royalties are paid in lieu of continued operation, those amounts can be used to offset production royalties due when coal is again produced. At present, no advance royalty paid during the initial 20-year term of a federal lease or LMU may be used to reduce a production royalty after the 20th year of that lease or LMU's initial term. This arbitrary limitation should be removed in light of the longevity of mines producing federal coal.

When advance royalty is accepted in lieu of continued operation, it must be paid in the amount equal to the production royalty that would be owed on the production of 1 percent of the recoverable coal reserves and shall be computed on the federal recoverable reserve estimated by BLM at the initiation of the lease. Determining this amount is a long and contentious process. Changing the calculation to one computed based on the average price for coal sold in the spot market from the same region saves considerable federal and industry resources currently expended over disputes on acceptable valuation methods and more accurately reflects the current market conditions that idled the mine. Simply put, if the mine is idled, the coal is

marginal and would find its highest value in the spot market. If the coal actual sale reflects a higher value, the difference in the royalty is collected at that time.

Due to the shifting competitiveness of various operations, several federal coal lease holders have been forced temporarily to curtail production and idle mines. Without the option of extending the lease by paying advance royalties, producers will be forced to take one of three courses of action: 1) prematurely terminating leases and walking away from the massive existing investment; 2) pay advance royalties on older leases with no opportunity to recover advance royalties; 3) dump coal onto the market at distress prices. All of these options will have a negative impact on the Nation's energy position, disrupt coal and electricity markets, waste federal coal resources, cost jobs, and reduce federal and state tax and royalty income.

If leases are terminated, the probability of the location being mined again is small. Royalty income that would otherwise flow from the payment of advance royalties would cease. Not only would jobs at the subject mine be lost, but so would jobs in the mine support sector (transportation, construction, vendors, consultants, and other jobs in the community that support the miners and their families.) Coal that otherwise would fuel electricity generation would remain in the ground—wasted.

Paying advance royalties without ever recouping the payment would result in the practical application of a 25 percent royalty on future production. Even if the market could bear the price of coal burdened with this levy, which is unlikely, electricity rates would ultimately reflect this increase.

If federal coal lessees/operators send this coal to market in order to recover at least a portion of the cost of production, it would compete not just with other federal coal from the West, but also private coal in markets shared by private coal from the Midwest and Appalachia. Failure to address these anachronistic provisions in the MLA will hurt non-federal coal producers in the Midwest and Appalachia. Modifications to the advance royalty provisions do not favor Western coal over Eastern coal or federal coal over private coal. They just make good sense for America's energy future.

Coal Lease Operation and Reclamation Plan: Under current law, before causing a significant disturbance of the environment, but no later than three years of lease issuance a lessee must submit for the Secretary's approval an operation and reclamation plan. NMA supports the elimination of the three year mandate.

This change would allow the coal operator to coordinate the preparation and submission of its MLA mine plan dealing with coal resource recovery with the permit required under the Surface Mining Control and Reclamation Act (SMCRA) which addresses the environmental planning and protection measures. This will eliminate duplication of resources by both the lessee and the Department while still requiring the lessee/operator to submit a plan before it takes any action which might cause a significant environmental disturbance as required presently by the MLA.

Financial Assurances with Respect to Bonus Bids: This section clarifies that MLA does not require a bond in connection with deferred bonus bids for coal leases. However, if the lessee fails to pay any installment of a deferred bid, the lease would terminate.

A combination of economic conditions and extraordinary events over the past two years has caused severe constraints in the surety capacity available to satisfy financial assurance requirements of the coal mining industry. It is unlikely that in the near term adequate surety capacity will be available to meet the mining industry's financial assurance requirements. The mining industry's inability to access surety for various financial assurance requirements imposed under federal and state regulatory programs is a product of severe disruptions to the credit markets, and not a result of any unusual loss experience associated with mining related projects. Indeed, the surety industry loss experience for mining related bonds are no more, and often less, than that for the other surety lines. Between 1989 and 2000, for example, the loss ratio for the entire surety industry was about 28%, while the ratio for mining related obligations was about 25%. However, substantial losses that began to appear at the end of 2000 through 2002 in the surety industry's other underwriting lines of business has resulted in the exit of many primary sureties from the market and caused the remaining ones to limit their underwriting in all areas. For the mining industry, the inability to access surety jeopardizes the continuation of existing operations and thwarts development of new operations since bonds are required as a condition to receive permits or other necessary government authorizations.

Last summer, the House Resource Committee Subcommittee on Energy and Mineral Resources conducted a hearing on this emerging crisis in the surety market. The Subcommittee heard testimony describing how an investment grade company was unable to access a surety bond at a reasonable price and terms to secure its deferred bonus bid payments for a federal coal lease. Companies that cannot access surety bonds for their financial assurance requirements must use cash or cash

equivalents which compromise their capital and liquidity positions. The effect of these developments for the federal coal leasing program is that potentially fewer bidders will participate and bids will be lower than before as companies factor in the higher expense of posting some form of financial assurance. At the same time, not requiring a bond or other form of financial assurance to secure future installments for a deferred bonus bid does not pose any undue risk. First, bonus bids must be paid in five installments with the first due upon execution of the lease. Placing a lease into production typically exceeds five years so the leasehold will remain largely undisturbed. If the successful bidder defaults on an installment and is unable to cure that default, the Department of the Interior can cancel the lease and the cancelled lease resold to another prospective bidder.

In sum, this provision protects the government in the event of default without further reducing the limited surety capacity available to guarantee performance of other regulatory obligations.

COAL/COAL BED METHANE CONFLICT IN THE POWER RIVER BASIN

The Powder River Basin of Wyoming and Montana is one of the world's richest energy resource regions and includes the largest reserves of low sulfur coal in the United States. Virtually all of the coal and about 50 percent of the oil and gas reserves in the Basin are owned by the federal government and managed by the Bureau of Land Management (BLM) under the Mineral Leasing Act of 1920. Problems have arisen because BLM issued federal coal leases and federal oil and gas leases for the same locations in the Basin. When these oil and gas leases were issued coal bed methane resource development was not contemplated. It was not until a Supreme Court decision that the law became clear regarding whether the coalbed methane underlying federal land belongs to the oil and gas lessee or the coal lessee.

In those areas leased both for coal and oil and gas, disputes over timing of mineral development have risen. For safety and operational reasons, concurrent development typically is impossible. No statutory measure exists to resolve disputes over the sequence of mineral development in these areas where the federal government has "double leased" its minerals. BLM has yet to provide effective guidance to reduce the likelihood of these disputes.

In order to achieve optimum recovery of the Basin's energy assets, legislation that would provide the necessary statutory direction to resolve these minerals development contests should be enacted. The statutory provisions should be used only in the conflict areas of the Powder River Basin and only as a last resort if private negotiations and BLM administrative policies prove to be inadequate.

Absent a statutory mechanism, coal production could be delayed, blocked or jeopardized by the inability of the coal producer to meet FCLAA's diligence requirements and, as a consequence, forfeiting its lease and/or reducing royalty revenue to federal government and states if coal is bypassed on active operations. Bonus bids paid to the federal government, and shared by the state, could also be diminished as a consequence of the bidder uncertainty over whether the coal leased can be economically and timely developed.

This committee has previously reported legislation to provide a mechanism to resolve these conflicts and we are eager to work with the committee to include comparable provisions either as free-standing legislation or as a part of a larger energy package.

U.S.DA FOREST SERVICE ROADLESS AREA CONSERVATION RULE

As the roadless rule was being developed in the late1990s, the mining industry sought meaningful maps from the Forest Service that identified the areas affected by the proposed rule. Other than large scale maps available to the general public on the Forest Service's roadless area web site, NMA members were given no maps nor descriptions on which a coal operator could base operational decisions. Ultimately, coal operators with reserves underlying or adjacent to lands administered by the U.S. Forest Service developed their own maps for Colorado and Utah and provided copies to the agency. These maps showed that in several locations the roadless area boundaries overlaid existing federal coal leases and other significant coal resources.

The roadless area boundaries are based on a 20-year old inventory and were never field-verified to establish whether the areas in question still retained the roadless values the rule supposedly was designed to protect. Neither the Forest Service nor any other federal agency has made an effort since the promulgation of the rule to undertake such verification.

While implementation of the rule was enjoined by the U.S. District Court in Idaho, operations located on Forest Service administered lands continued with mod-

est delays as a result of federal agency concerns about the roadless area boundaries. Since the 9th Circuit Court set aside the District Court injunction, affected operations on and adjacent to Forest Service administered lands have been subject to noteworthy delays and uncertainties.

Many of the coal mines that are impacted by the roadless rule are underground operations that do not cause the surface disturbance that is associated with surface mining operations but do need access to the surface to construct and maintain ventilation and other systems essential to the health and safety of miners. Many of these systems must be in place in advance of extraction. Others, such as fire suppression systems must be accessible instantaneously in the event of emergency.

Unless unexpected and immediate access to surface areas overlying operations is certain, no mine operator will develop underground coal already under lease. Unless it is certain that reserves lying beyond initial-leased areas will be available for leasing in the future, capitol for any mine development will not be available. To overcome these obstacles, a process must be established by policy, rule, or legislation whereby the roadless area boundaries can be identified and modified based on currently existing roadless values in a timely manner. Whatever the mechanism, the process must be flexible, predictable and timely.

ELECTRIC POWER PLANTS BUILT NEAR WESTERN COAL FIELDS CAN PROVIDE RELIABLY AFFORDABLE ELECTRICITY, BUT CHANGES NEED TO BE MADE IN HOW TRANSMISSION LINES COST JUSTIFIES, FUNDED AND PERMITTED.

Low cost coal and hydroelectric generation are the two reasons electricity is affordable in the U.S., by providing over 60% of the electricity in the Western U.S. and well as the U.S. as a whole. The West in particular, and the the U.S. in general, have benefited from locating this generation where the natural resource is located and building high voltage transmission lines to deliver the affordable energy to the load. The West as in most of the U.S. completed the last of these major low cost generation and transmission expansion over 20 years ago. Since that time, the electric load has grown by 60%, but little new low cost generation has been added and the transmission system has expanded by less than 20%. The Western power crisis two years ago as well as the current price run up that is working its way through the country but especially the Northeast is significantly attributable to the lack of transmission to move low cost generation to the high cost areas which are transmission constrained. In order to stabilize electricity prices and continue to provide affordable electricity in the U.S., new low cost coal generation needs to be built along with the associated transmission lines. The most significant barrier to adding this low cost generation is getting the necessary transmission built.

There are three fundamental obstacles to getting transmission built in the U.S.. The first is having a regional transmission planning analysis which will show economic value via reduced power prices by adding major transmission lines in conjunction with new and existing low cost generation. Such planning and cost/benefit analysis does not currently exist but is sorely needed to convince and provide support to the State regulators and public officials of the need for these new and/or upgraded transmission lines. This is especially true in the West where three Regional Transmission Organizations bifurcate the West. The Western Governors have proposed a voluntary region wide planning process, however the effort is sorely in need of funding and, without official standing, is unlikely to make timely or useful progress.

The second obstacle to getting new transmission built is having a mechanism to allow customers who are hundreds if not over a thousand miles away from the low cost generation fund on a long term basis part of these transmission lines so they can receive the benefits of this low cost remote generation. The lack of a truly regional and in the West, Westwide transmission planning and rate setting entity prohibits customers far away from low cost generation to advocate and pay for these valuable transmission projects which are associated with new affordable generation.

The final obstacle to getting new transmission built is the timing, siting and permitting processes. This obstacle will only be apparent once the first and second transmission obstacles are removed. No project will get to the siting and permitting phase unless it has recognized cost/benefits and can be funded, hopefully in part by those who will benefit from the lines being built. While siting and permitting is difficult, the West appears to have a protocol developed by the Western States and the Federal land and environmental agencies that have jurisdiction over some element of siting and permitting transmission lines. This joint protocol is intended to enable a single coordinated review of the siting and permitting issues to timely process transmission applications. I would add that it may useful to have the DOE take the

lead moving these projects through the siting and permitting phase similar to what occurred via Executive Order to address the California energy needs.

The CHAIRMAN. You know that the issue you raised is very sensitive to some of the Senators for their respective States. And we are going to try our best to resolve that issue.

Mr. LEER. Thank you.

The CHAIRMAN. Mr. Alberswerth, we welcome you here. Would you please note that your testimony is going to be made a part of the record and proceed, please?

STATEMENT OF DAVID ALBERSWERTH, DIRECTOR, BUREAU OF LAND MANAGEMENT PROGRAM, THE WILDERNESS SOCIETY

Mr. ALBERSWERTH. Thank you very much, Mr. Chairman, for inviting me today. As predicted by Senator Talent, my views on the new EPCA report are quite different from Mr. Bayless'. And I will briefly try to describe those differences. And my remarks today focus on the availability of onshore Federal oil and gas resources in the Rocky Mountain States.

The vast majority of Federal oil and gas resources within the Rocky Mountain States is currently available for leasing and development and has been for a long time. That is the inescapable conclusion to be drawn from the Interior Department's recently released EPCA report. It concludes that 85 percent of the technically recoverable oil and 88 percent of the technically recoverable natural gas resources underlying Federal lands in this region are currently available for leasing and development.

Interesting, if you add to those amounts of technically recoverable oil and gas estimates, the oil and gas on non-Federal lands, that would be State and private lands, the amount of technically recoverable oil and gas is even greater.

The CHAIRMAN. Why has it not been recovered? Why has it not been used?

Mr. ALBERSWERTH. I believe that a lot of it is being developed. I think the estimates include resources that are currently under development. There are several different categories that that report discusses, including those lands that are currently under development, sir.

The CHAIRMAN. Those numbers are not the same. The amount that is available is not the amount that is producing, is that not right?

Mr. ALBERSWERTH. That is correct.

The CHAIRMAN. I am asking why, if there is so much, why is so little producing?

Mr. ALBERSWERTH. I believe that there is—well, as I understand it, there are about—about 11 percent of our natural gas is coming from Federal lands. I think that includes the OCS.

The CHAIRMAN. That begs the question: How much of the Federal land is not producing natural gas that is available for natural gas? And how much of it that is available for oil is not producing oil? Do you know?

Mr. ALBERSWERTH. That, I cannot tell you, sir.

The CHAIRMAN. Would it not be a lot?

Mr. ALBERSWERTH. I think that the point of the EPCA report was to report that there is a great deal of Federal oil and gas that is in fact available for development. And in fact there is a lot that is being developed and explored for currently.

The CHAIRMAN. I guess my question is: Is the industry not interested in developing that that is not currently being used, or why is it not developing it?

Mr. ALBERSWERTH. Oh, no, sir. I believe the rest of my statement goes into how much development is—to give you a sense of how much development is taking place. We believe that—it appears to us that oil and gas development is a very robust activity on the Federal lands.

The CHAIRMAN. Proceed.

Mr. ALBERSWERTH. Okay. Thank you, sir.

For example, according to the Bureau of Land Management, there are currently over 94,000 producing oil and gas wells on the public lands that it manages. In 2001, the BLM permitted a record 4,850 drilling projects on BLM lands, which was up from 3,400 permits issued in fiscal year 2000. The recently released Powder River Basin environmental impact statement projects development of over 39,000 new wells in the Wyoming portion of the Powder River Basin—this was one of the documents that Mr. Griles is submitting for the record—and between 10,000 and 26,000 new wells in the Montana portion over the next 10 years.

The new reasonably foreseeable development scenario for the Farmington resource area in your State projects a development of close to 10,000 new wells during the next 20 years, an area that already has 19,000 producing oil and gas wells. I think the point, sir, in response to your question is that the oil and gas program of the BLM is a very robust one on the public lands.

These facts and trends and the recent findings of the EPCA report contradict claims that there are too many restrictions or impediments that inhibit industry access to oil and gas on the public lands. For instance, the Bush administration's National Energy Policy claimed that about 40 percent of the natural gas resources on Federal land in the Rocky Mountain region have been placed off limits to development. However, the new EPCA report, based on the most recent information that we have, indicates that it is about 12 percent.

If you view that from another perspective, and that is the estimates of gas resource base published in the National Petroleum Council's 1999 study, that 12 percent amounts to about 1 percent of the total gas resource base that we have in the Continental United States and the Outer Continental Shelf.

Because it is now established from the Interior Department's new analysis of Federal onshore research that very little publicly owned natural gas is off limits to development, the industry's focus, lobbying focus, may shift to that category of lands in the EPCA report that is called available for leasing with restrictions in oil and gas operations beyond standard stipulations. And there was an earlier discussion about stipulations.

I have a list of the basic categories of stipulations in my written statement. I will not go into those now. But I think a point to keep in mind—and I notice I am out of time here—is that these stipula-

tions are very flexible. And they are frequently waived. The BLM in some field offices actually publishes the record of waivers of protected stipulations for oil and gas leases. And if you look, for instance, on the Pinedale and Rawlins field office web sites, you will find that during the 2001/2002 season, stipulations were granted about 77 percent of the time, in 2002/2003 about 86 percent of the time, et cetera. So those are very flexible stipulations.

In conclusion, in light of the new information from the Department of the Interior's EPCA study that most Federal lands, most Federal oil and gas resources, within the Rocky Mountain region are available for leasing and development, the question policy makers should be asking is not: Are too many Federal oil and gas resources unavailable?

Instead, we should be asking such questions as: Have we adequately protected the scenic, ecological, environmental, air and water resources, wildlife habitat and wilderness values of our public lands and natural forests? Are farmers and rancher with split estate lands being treated fairly when it comes to coal bed methane development? Are we being careful enough to protect the precious surface and groundwater resources of the rural communities where the coal bed methane boom is in full swing?

Should we be more careful in waiving leasing provisions designed to protect wildlife resources? And are reclamation bonds imposed upon operators adequate to the task of assuring post-operation cleanups?

Thank you again for this opportunity to present our views. And I will be pleased to answer your questions.

The CHAIRMAN. Thank you very much.

[The prepared statement of Mr. Alberswerth follows:]

PREPARED STATEMENT OF DAVID ALBERSWERTH, DIRECTOR, BUREAU OF LAND MANAGEMENT PROGRAM, THE WILDERNESS SOCIETY

Mr. Chairman and Members of the Committee, thank you for the opportunity to present the views of The Wilderness Society on the subject of oil and gas development on onshore federal lands. My name is David Alberswerth, and I am The Wilderness Society's Bureau of Land Management Program Director. My statement will focus on the Bureau of Land Management's onshore oil and gas program affecting the public lands of the Rocky Mountain States.

The vast majority of federal oil and gas resources within the Rocky Mountain Overthrust Belt states is currently available for leasing and development, and has been so for a long time. Despite industry claims to the contrary, and earlier assertions by the Bush Administration, the Department of the Interior's recently released "EPCA" report concludes that 85 percent of the "technically recoverable" oil, and 88 percent of the "technically recoverable" natural gas resources underlying federal lands in this region of the country are currently available for leasing and development. Interestingly, if one includes the EPCA estimates of "technically recoverable" oil and natural gas from non-federal lands in the analysis, only 7 percent of natural gas and about 9 percent of oil within the study region are unavailable for development (see attachment).[1,*] The inescapable conclusion to be drawn from the most recent data available is that over 90 percent of the region's oil and gas resources, on federal and non-federal lands, are available for leasing and development.

Oil and especially natural gas development is a robust activity on federal lands within the Rocky Mountain West. For example, according to the Bureau of Land Management, there are currently over 94,000 producing oil and gas wells on the public lands that it manages. In fiscal year 2001, the BLM permitted a record 4,850 drilling projects on BLM lands, up from 3,400 permits issued in fiscal year 2000 (see attachment).[2] The recently released Powder River Basin environmental impact statement projects the development of over 39,000 new coal bed methane wells with-

*All attachments have been retained in committee files.

in the Powder River Basin within the next 10 years.[3] The new "reasonably foreseeable development scenario" published for the BLM's new draft Farmington Resource Management Plan projects the development of 9,970 new wells during the next twenty years within that planning area, which currently has over 19,000 producing oil and gas wells.[4] During the Clinton Administration, leases were issued on 26.4 million acres and 19,310 drilling permits were issued (see attachment).

These facts and trends, and the recent findings of the EPCA report, contradict claims by industry advocates that there are too many "restrictions" or "impediments" that inhibit industry "access" to oil and gas resources on public lands. For example, the Bush Administration's "National Energy Policy" claimed that, ". . . about 40 percent of the natural gas resources on federal land in the Rocky Mountain region have been placed off-limits" to development.[5] However, the EPCA report concludes that, of the 138 trillion cubic feet (TCF) of "technically recoverable" gas resources within its study area, only 15.9 TCF is actually off-limits to development, or 12 percent.[6]

Viewed from another perspective, this 15.9 TCF is about 1 percent of the 1,466 TCF "gas resource base" within the continental U.S. (exclusive of Alaska) identified by the National Petroleum Council in its 1999 study, *Natural Gas: Meeting the Challenges of the Nation's Growing Natural Gas Demand*.[7]

Because it is now established from the Bush Administration's own analysis of federal onshore resources that very little publicly-owned natural gas and oil is off-limits to development, the industry's lobbying focus may shift to that category of lands identified in the EPCA report that is "Available for Leasing With Restrictions on Oil and Gas operations Beyond Standard Stipulations." Just what is the nature of these "special and seasonal stipulations" of such concern to industry?

This category of available lands often encompasses areas where evidence indicates the presence of sensitive wildlife habitats, such as elk calving or winter range areas, or big game migration corridors, or sage grouse leks, or critical raptor habitat where oil and gas activities at certain times of the year could pose severe threats to wildlife. In such cases, the BLM may require that operations only occur at certain times of the year, when such areas are not in use by certain wildlife species. In some cases, the BLM imposes "No Surface Occupancy" leases, whereby the lessee is required to access the oil and gas resource from off-site. Such "NSO" stipulations are also designed to protect wildlife habitats, while making the resource available for extraction. The types of special imposed to protect environmental values can be summarized as follows:

> "Standard Stipulations"—These are provisions within standard BLM oil and gas leases regarding the conduct of operations or conditions of approval given at the permitting stage, such as: prohibitions against surface occupancy within 500 feet of surface water and or riparian areas; on slopes exceeding 25 percent gradient; construction when soil is saturated, or within 1/4 mile of an occupied dwelling. These are generally applied to all BLM oil and gas leases, regardless of special circumstances.
>
> "Seasonal" or other "Special" Stipulations—"Seasonal Stipulations" prohibit mineral exploration and/or development activities for specific periods of time, for example sage grouse strutting areas when being used, hawk nesting areas, or on calving habitat for wild ungulate species. These are often imposed at the request of state wildlife officials, as well as in compliance with U.S. Fish and Wildlife Service requests to protect sensitive species.
>
> "No Surface Occupancy"—NSO leases prohibit operations directly on the surface overlaying a leased federal tract. This is usually done to protect some other resource that may be in conflict with surface oil and gas operations, for example, underground mining operations, archeological sites, caves, steep slopes, campsites, or important wildlife habitat. These leases may be accessed from another location via directional drilling.

Representative of the oil and gas industry have voiced criticism regarding why such provisions are imposed on federal oil and gas leases at all, or why certain areas of our public lands and national forests are off-limits entirely to oil and gas development, when in their view energy extraction is such an important activity on federal lands. The answer is that the federal land management agencies' primary obligation is not to satisfy the wants and desires of the oil and gas industry. Instead, they are statutorily mandated to balance the wishes of the oil and gas industry with the protection of a multitude of environmental, ecological, scientific, and cultural values harbored by our public lands.

For example, Congress mandated in the Federal Land Policy and Management Act that the Secretary of the Interior manage the public lands,

> ". . . in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use." (43 U.S.C. 1701(a)(8))

Similar statutory requirements pertain to the National Forests. The imposition of special, seasonal, or NSO stipulations in certain circumstances is the result of a policy developed in the 1980s by the BLM to balance the industry's desire for access to oil and gas deposits with the BLM's responsibility to manage the other resources and values enumerated in FLPMA. Although characterized as "burdensome" by some industry representatives, these stipulations can—and frequently are—waived at an operator's request.

Attached to my statement are tables published and available on the Pinedale and Rawlins BLM Field Office websites. Both areas are subject to intense contemporary exploration and development activities. What the tables clearly indicate is that wildlife stipulations on oil and gas leases are frequently waived at the request of the operator to accommodate activities not otherwise allowed during the period of the seasonal restriction, or within an area ordinarily set aside from oil and gas activities. For example, the table listing "Winter Range Exceptions 2001-2002" for the Pinedale Field Office indicates that of 40 requests for stipulation waivers, 31 were granted, or 77 percent. During the 2002-2003 season, of 52 requests for waivers received by the Pinedale Field Office, 45 were granted, or 86 percent. Rates of waiver approval are similar from the Rawlins Field Office for fiscal year 2002: Of 128 requests recorded, 103 were granted, or 80 percent (see attachments). Instead of focusing on instances where the BLM may not have issued a particular drilling permit application in a timely manner satisfactory to the operator, it seems to us that the frequency of stipulation waivers in areas where there is intense development raises the question as to the effectiveness of stipulations as a means of protecting key environmental values.

For example, we know that sage grouse populations in the U.S. are in severe decline, in fact, their distribution has declined by about 50%, while estimated population size has declined by about 90%. As a population they are very sensitive to habitat fragmentation. Given the frequency of the waivers indicated on the attachment for sage grouse habitat, it seems to us the question we should be asking is not, "Why does the industry have to put up with seasonal restrictions for sage grouse habitat?" Instead, we should ask, "What impacts are occurring to sage grouse populations as a consequence of the BLM's frequent waiver of stipulations designed for their protection?"

Finally, in our view it is entirely appropriate that some federal lands should be off-limits to oil and gas leasing and development. Lands identified as off-limits in the EPCA Report include National Parks, National Monuments, designated Wilderness Areas, and Wilderness Study Areas. One specific area that has been placed administratively off-limits to future leasing and has drawn especially harsh criticism from the oil and gas industry is the Rocky Mountain Front area of the Lewis and Clark National Forest in Montana. In 1997, following an extensive public involvement process, the Forest Service adopted a Forest Plan amendment for approximately 356,000 acres of the Front that effectively prohibited leasing for the duration of the Plan amendment. The area in question—the spectacular and dramatic uplift of the Rocky Mountains from the Northern Great Plains—is a region of remarkable scenic beauty, and harbors a multitude of extraordinary wildlife, scenic, and recreational values. It has been the focus of preservation efforts by Federal, State and private entities for almost a century.

The Lewis and Clark National Forest Plan adopted in 1986 emphasized management of the area in question for its special wildlife, recreation, and scenic attributes. The Plan Amendment adopted in 1997 implemented that earlier management direction by prohibiting oil and gas leasing for the next 10-15 years. It should also be noted that the 1997 Plan Amendment enjoys widespread support within the State of Montana. Although the oil and gas industry has attempted to characterize the Forest Supervisor's decision as essentially "arbitrary and capricious", the Supervisor's decision has been upheld upon administrative appeal and at the District and Appeals Court levels. As the Bush Administration pointed out in its brief to the Supreme Court in opposition to the industry's request that the Supreme Court review the Court of Appeals decision, ". . . the Record of Decision approving the [1986] Forest Plan acknowledged 'people's apprehension over the effects of oil and gas development and their desire for the land to remain unchanged,' and concluded that 'management of the Rocky Mountain Division should emphasize wildlife, recreation,

and scenic values.'" (Brief for the Federal Respondent in Opposition at 5, Independent Petroleum Association for America v. U.S., 279 F. 3d 1036 (9th Cir.), cert denied, 123 S. Ct. 869 (2003).)

In conclusion, in light of the new information from the Department of the Interior's EPCA study that most federal oil and gas resources within the Rocky Mountain region are available for leasing and development, the question policy-makers should be asking is not, "Is too much federal oil and gas unavailable for leasing and development?" Instead, we should be asking such questions as: Given the extensive availability of our publicly-owned onshore oil and gas resources for development, have we adequately protected the scenic, ecological, environmental, air and water resources, wildlife habitat, and wilderness values of our public lands and national forests? Are surface owners with split estate lands being treated fairly when it comes to coalbed methane development? Are we being careful enough to protect the precious surface and groundwater resources of the rural communities where the coalbed methane boom is in full swing? Should we be more careful in waiving leasing provisions designed to protect wildlife resources, especially when it comes to declining species, such as sage grouse? And, are reclamation bonds imposed upon operators adequate to the task of assuring post-operation clean-ups?

Thank you again for this opportunity to present our views.

END NOTES

1. BLM, January, 2003, *Scientific Inventory of Onshore Federal Lands' Oil and Gas Resources and Reserves*, etc., pp. xii-xiii, xv.

4. Engler, Thomas W., et.al., BLM, July 2, 2001, *Oil and Gas Resource Development for San Juan Basin, New Mexico.*

6. Op. cit., p. 3-5.

7. Domestic Petroleum Council, December, 1999, *Natural Gas—Meeting the Challenges of the Nation's Growing Natural Gas Demand, Volume I.*, Summary Report, pp.7-8.

ADDENDUM

ALASKA'S NORTH SLOPE AND THE ARCTIC NATIONAL WILDLIFE REFUGE

The Congress will soon have before it yet another proposal to open the magnificent Arctic National Wildlife Refuge to oil and gas leasing and development. What has not received much attention, however, is the fact that the vast majority of Alaska's North Slope is legally available to oil and gas exploration and development.

In 1999, Secretary of the Interior Bruce Babbitt opened 4.6 million acres in the northeast section of the National Petroleum Reserve-Alaska on the North Slope. More than 85 percent of this area is open to leasing under this decision. The Bureau of Land Management has just began the process of preparing an Environmental Impact Statement to allow full field development of three successful exploration wells drilled by Phillips Petroleum in the area. The Bush Administration has indicated that it will reopen the Northeast NPR-A plan this spring to consider offering more acreage for leasing.

Last month, the BLM released a draft Environmental Impact Statement on a plan to open 8.8 million acres in the northwest section of the NPR-A. The Administration is expected to open most, if not all, of this vast area for leasing. This would constitute the largest single onshore offering to industry in the history of America's Arctic. A Final EIS is expected in late summer.

Earlier this month, the Minerals Management Service issued a Final EIS for the Beaufort Sea Outer Continental Shelf, off the coast of Alaska's North Slope. This action opened 9.8 million acres to oil and gas leasing—virtually the entire Arctic Ocean off Alaska's North Slope.

The state of Alaska is pursuing an aggressive lease sale program under what it calls "Areawide" leasing on state lands and waters on Alaska's North Slope. Each year the state offers for lease all of the unleased state-owned acreage between the Canning and the Colville Rivers, and state-owned waters offshore between Barrow and the Canning River. On state lands alone, the oil industry has access to an additional 14.7 million acres.

The Arctic National Wildlife Refuge—which constitutes just five percent of Alaska's North Slope—now stands as the only stretch of the North Slope that is closed by law to oil and gas exploration and development. Oil development would severely damage this national treasure. The Arctic National Wildlife Refuge is truly one-of-a-kind. The refuge's diverse wildlife includes significant populations of polar bears, brown (grizzly) bears, muskoxen, caribou, and wolves. Millions of migratory birds nest or feed on the refuge each spring and summer between annual migrations that

bring them through the backyards and nearby parks and refuges of Americans throughout the rest of the country. The area should remain closed to oil and gas development. We will continue to oppose efforts to open this rare and special place to oil and gas development.

The CHAIRMAN. Senator, would you like to lead off with questions of your witness from your State, Senator Talent?

Senator TALENT. Actually, Mr. Chairman, I can afford to stay. So if the other Senators want to go, that is fine.

The CHAIRMAN. Mr. Bayless, let me start off with you. First, let me thank you again for coming and also thank you for the time and effort that your family has put forth in the basin in terms of community activities and being the good corporate citizens that you have been.

Now let me raise an issue that I think cannot be avoided. It was raised by Senator Bingaman briefly in his remarks. There is a growing concern in the San Juan Basis by the ranching community that the issues related to the responsibility of the oil and gas producer on the split estates where the ranchers have surface rights, that you also have the right to go in and use that, produce access, use access and produce wells that the independent producers are not adequately complying with the rules and regulations regarding cleanup, regarding notice, regarding minimizing the damages.

Can you express to us what you know about that and what is being done and by whom to see if these issues can be resolved?

Mr. BAYLESS. Yes, sir. I will address that.

First, let me say you introduced me from Farmington, New Mexico. And although I have lived in Denver for 25 years, I view myself as a New Mexican.

The CHAIRMAN. Right.

Mr. BAYLESS. And I appreciate your willingness to continue to claim me as such.

The CHAIRMAN. You have a lot of family there.

Mr. BAYLESS. Yes, I do. And I still spend a lot of time there. Thank you.

We have also read about the difficulty of the split estates, these issues. But the reality is, in the vast majority of instances, the partnership between the surface owner and the mineral owner works pretty well. The two groups are kindred spirits. They earn their livings from developing the natural resources of the land.

I am also in the cattle ranching business and know that it can be a fragile relationship between mineral owner and the surface owner. It must be approached with sensitivity, honesty, and patience on all sides of the table. And usually there is resolution to be found.

The CHAIRMAN. Mr. Bayless, let me suggest for you, your information is different than mine. And I would suggest that you had better go take a look. Because the kindred spirit is falling apart. It is falling apart very rapidly.

Mr. BAYLESS. Okay.

The CHAIRMAN. And somebody had to put it together. It will either be put together in a friendly basis, or we will have a lot of problems that we do not have to have. So whatever your experience in the field is, I submit to you that you had better be asking some people that are down there and be asking the BLM, because there

are some very ruffled feathers that are about to rupture the kindred spirit that existed between the two groups, to the extent that they are preparing for the ranchers a set of proposals that would generate a different set of rights than have existed heretofore that they are submitting to us, asking that we create more rights for the rancher that should be enforced by new laws.

So I think it is important that people like you know that. I am trying to get the information to the other people in New Mexico. Some of them have it already. But they had better get it very quickly.

Mr. BAYLESS. I appreciate that. I know that there is a problem. The producer inherited the problem. We did not create this split estate. It is something we must live with and we must address and come up with solutions.

The CHAIRMAN. There is no question.

Mr. BAYLESS. And we certainly welcome your help in arriving at those solutions.

The CHAIRMAN. Now, Mr. Bayless, let me just ask two questions. We seem to have some use of language that is creating a situation where something is falling between the cracks here that we are not understanding. Because on the one hand the reports seem to be saying one thing and the independent producers seem to be telling us another thing about the production of oil and gas on the public domain, in terms of how long it takes, in terms of what is really available.

So what we understand is that maybe EPCA does not report the full story when it comes to the impediments and delays associated with oil and gas leasing on the Federal lands. Is that a true statement that I have just stated? And if so, can you for the record supply us with information regarding that?

Mr. BAYLESS. Yes, sir. Your statement is accurate. The EPCA study talks about lands available for leasing.

The CHAIRMAN. Correct.

Mr. BAYLESS. It is certainly accurate. Going back to my earlier statement, when we looked, that 5 percent—and maybe this is where the facts speak for themselves—5 percent of the Federal mineral estate is both leased and currently productive. More than that is leased, is yet to be productive. Hopefully it will be explored, and productive reserves will be found.

There are many impediments for oil and gas development. A big one is the timely processing of APDs that I discussed. The EIS process, the inadequate funding of the EIS process in most instances, although that is a congressional mandate to do an environment impact statement, that ends up being funded by companies that are interested in working in that area, all those delays that Mr. Griles was discussing earlier in the morning.

The CHAIRMAN. Okay. Very good. And if you have any further details on the delays, we would like to know about them. And if there is funding, let us know that there is inadequate resources. If it is the rules and regulations, if you will let us know, either you or through your association, we would like to try to work with the group of people to see if we can expedite them from the standpoint of changing rules or providing more resources so the job can be done better and more expeditiously.

Mr. BAYLESS. I think providing more resources is a key part of it. I think providing some direction to the Department of the Interior that we need to look for, you know, and this is very global, but need to look for ways to say yes, development can be done in an appropriate fashion and get away from the mindset of no, not here, not now, not yet, without more study.

The CHAIRMAN. Yes. Great.

Mr. Leer, let me talk to the Wilderness Society first. Your testimony seems to me to indicate that you express a certain amount of satisfaction with the findings in the EPCA report. Does this represent a new philosophy that accepts leasing and development in those areas already open to oil and gas leasing?

Mr. LEER. Mr. Chairman, we think that that report is a very useful document for the reasons that Secretary Griles said it would be used for as a basis for land use planning. I am not sure that we do agree necessarily that all of the areas that are identified in the report should be available for leasing.

I mean, well, for instance, some of the areas identified as not available for leasing, I do not think there is any dispute about. There are national parks, designated wilderness areas, national monuments. Perhaps there is—I am sure that there is more detail in the background documents about, you know, specific areas that are listed as available for leasing that we might not agree with. But from the written report, we were not really able to tell that. But by and large, as a planning document and as a useful guide, we think that this is a very useful report.

The CHAIRMAN. Thank you very much.

Senator, do you want to go now?

Senator BINGAMAN. If you are through.

The CHAIRMAN. I am finished. Go ahead, Senator.

Senator Bingaman.

Senator BINGAMAN. Thank you very much, Mr. Chairman. I apologize to everybody for having had to duck out for another hearing.

Let me just ask a couple of questions, one on the subjects that I was focused on before with Secretary Griles. Maybe I will ask you, Mr. Bayless, on this issue of adequate personnel with the BLM to actually do the process applications for permits to drill and also to do the inspection work and the enforcement work there in the San Juan Basin, what is your perspective on whether or not they are adequately staffed there in the San Juan Basin to do that, or whether this is an issue that requires more attention?

Mr. BAYLESS. I do not know whether the additional 13 people that you discussed, I do not know whether they are all on board and whether that will be adequate or not.

Senator BINGAMAN. I do not think they are yet.

Mr. BAYLESS. But it is certainly moving in the right direction. The permitting delays in the—out of the Farmington office have not been—are middle of the road, are not as bad as they are in some parts of the Rockies. It certainly takes much beyond the 30 days that is specified to receive an APD to go through that process. But things certainly are moving in the right direction.

Senator BINGAMAN. Okay. Let me ask on the other issue, which I also asked Secretary Griles about. That is, this conflict between

coal leasing and coal bed methane production. He indicated that he had just heard this morning that all those problems have gone away. Is that your impression, Mr. Leer?

Mr. LEER. No.

Senator BINGAMAN. What do you think the extent of the problem is? And what is needed to fix it?

Mr. LEER. I think what the Secretary had been referencing was perhaps that in the latest round of Federal coal leases and methane leases, coal bed methane leases, that there probably have—we probably worked out some arrangement, very difficult. I can speak to my own company. We bid on the coal leases under the old law. The law changed. And all of a sudden found ourselves in conflict with the then-coal bed methane holder. And we had an $800 million coal mine that basically cost $1 million a day that does not run, a little over, actually. And for a $30,000 coal bed methane well, we could stop the coal mine.

And we ended up working out an unfavorable fee to start buying the wells, as we came to them. But nonetheless, that was done.

I would refer back to the Department of the Interior's legislation and testimony back last year, I believe, under H.R., on the House side, 2952, I think, to Congresswoman Cubin's coal CBM bill. And the Department of the Interior testified that it supported legislation to resolve the CBM coal mine conflicts and provide for timely—to provide for timely conflict resolution, where the inability to reach a settlement agreement could result in bypassing vast amounts of valuable coal or possibly even the premature closing of major mining operations.

That testimony was Tom Fulton, Deputy Assistant Secretary of Land and Minerals Management, U.S. Department of the Interior, on October 11, 2001, before the House Subcommittee on Energy and Mineral Resources.

There is another round of major coal bids coming up, bonus bids coming up, in 2004. I think the revenues for the Federal Government will certainly surpass several hundred million dollars for those bids. I will suspect we will go into another major conflict with the coal bed methane producers in those rounds and bids.

And from a very practical point, when we are looking at a bonus bid to the Federal Government and ultimately the State who shares in that, we do a calculation of what we think it is going to cost to mine the coal, what we think that it is going to—what the pricing of the coal might be. And we calculate a value that we think the coal lease is worth. And if we do not think we can get a reasonable number for buying out coal bed methane or resolving the conflict, we will put in a high number. That high number lowers the value we can pay for the bid.

I mean, that is just the reality of how the financing works. And I can assure you our bids are lower under the current setup than they would be under one where we would have a finite resolution mechanism to solve that.

Senator BINGAMAN. Thank you very much, Mr. Chairman.

Senator THOMAS. Let me very quickly—I am sorry. I had to step out, also.

The fact is, however, there is less conflict than there was 2 or 3 years ago.

Mr. LEER. Yes, sir, there is.

Senator THOMAS. And moving in that direction. Let me just very briefly, each of you, what we are talking about, the access, the use, proper use of Federal lands. What is the major issue that you think—what issue would you change, if you were sitting here? Very quickly. Just go down the line.

Mr. ALBERSWERTH. There are a number of areas in the West.

Senator THOMAS. Give your best one.

Mr. ALBERSWERTH. Okay. There are a number of areas in the Western States that we think should be considered for protection as wilderness or other national protective categories that we would like considered in the new BLM planning process.

Senator THOMAS. Okay. Would you also agree that when they have wilderness studies, there ought to be some conclusion to it? It either ought to be made wilderness or get out of the study category?

Mr. ALBERSWERTH. Well, sir, we would very much like those wilderness study areas designated as wilderness.

Senator THOMAS. I agree. But they should not go on the study forever.

Mr. Leer.

Mr. LEER. I would really ask that the amendments, the limited amendments, to the coal leasing act be enacted and clarified, because it covers three or four points. But each point is specifically impacting either Federal revenues or the ability to efficiently mine coal in the most responsible environmental and economic manner.

Senator THOMAS. Thank you

Mr. Bayless.

Mr. BAYLESS. I would ask that you direct the BLM to have greater accountability for management under the multiple use concept.

Senator THOMAS. Okay.

Ms. MORRISON. Senator Thomas, I think that I would have to second Deputy Secretary Griles' request to pass ANWR. I would highlight, however, that our proposal for that Reserve to be open does include funds that would be rolled back into conservation and land and water resources. We wanted to provide for conservation efforts with the funds, the monies, the royalties, the bonus bids that could be had from that area.

Senator THOMAS. Okay. Thank you. Appreciate you all being here. As you know, we are probably in the time when the energy production and so on—we had—all this week we have been talking about that gas, specifically yesterday, the coal, the clean, clear air thing, and so on. And it is going to make a real impact on people in this country and the availability of energy. And at the same time, all of us particularly who live in the West, I think, and live there with the public lands, want to preserve those as well. But most of us are dedicated to multiple use. And we can do that.

Senator Alexander.

Senator ALEXANDER. Thank you, Mr. Chairman.

My question is about clean coal technology and specifically coal gasification. Mr. Leer, let me start with you. But if other shave any comments on it——

Is coal gasification a realistic, as we look toward the future? What are the limits on it? And what are the incentives that you

specifically were referring to in your testimony, that you would suggest we consider for clean coal technology, to encourage clean coal technology?

Mr. LEER. Yes, Senator. Coal gasification is realistic. In fact, if we go back 50 years, we have seen coal gasification processes primarily in Europe and South Africa. We do have demonstration plants currently running in the United States. Now in terms of pure economics, the economics have not been competitive against current coal fired generation or hydro or some of the other generations.

Senator ALEXANDER. How far apart are they? And what would it take to make it competitive?

Mr. LEER. I think it is getting into the technologies. And you are going to get beyond my expertise here pretty quickly. But you get into the technologies of raising the heat efficiencies within the plant itself. The combined cycle natural gas plants, which are the most efficient powerplants in the United States, or currently in the world, have about a 60-percent heat rate, as they call it, or efficiency rating, where a normal single cycle coal plant might be in—a modern one might be in the very low forties.

As we take coal gasification forward, I think we can, with ceramics and some of the other technologies that might be out there, we could raise that. And for each increase in efficiency, you are going to get a tremendous lowering of the total cost.

And again, the demonstration plants, by their very nature, are high cost, high capital, because you are still experimenting. You are still changing and tweaking things as you are going along. But as the technologies develop, I think it is tremendous.

The incentives that I was referencing were really the incentives that were contained in the energy legislation of last year on both the House and Senate side, and the administration, for that matter. The numbers were a bit different, but basically it comes down to a simple fact. And I am an engineer. And I am a pretty simple guy. When I look at the indigenous energy in the United States of known fossil fuels, 85 percent of them are coal. And if I have 85 percent of anything within our company, I want to figure out how to use it better and more efficiently, because I know I have a lot of it.

As we move forward, if we move forward towards a hydrogen economy, I mean, there are two ways to generate hydrogen, basically. There is electrolysis through water, or it is capturing the hydrogen atom that is combined with a carbon atom. Again, it is a fossil fuel. And I think coal is going to play that important role in that process.

So to me it is the public-private partnership to develop these technologies. We, as Arch, support some clean coal technology removal, a group called ZEBCO, which is zero-based emissions powerplant. It is probably 20 or 30 years off. But when you do the math on the math balances, the energy balances on paper, it works.

But gasification exists. It is just the highest cost kind of electric generation before you get to the subsidies of renewals that exist out there, if you rank order. And again, our economy, we are going to see the impact of the energy prices on our economy right now. It

has me concerned that the current energy spike is going to maybe move us in the wrong direction on economic growth.

Senator ALEXANDER. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Murkowski.

Senator MURKOWSKI. Thank you, Mr. Chairman. I would like to direct my comments or questions to Mr. Alberswerth here.

Looking at your written testimony, you have an addendum, which is highlighted, Alaska's North Slope and Alaska National Wildlife Refuge. And I read through it. And quite honestly, I was confused. And if I am confused, and I think I know a fair amount of what is going on with Alaska's resources up there, I cannot imagine what the public thinks.

You stated that, and I quote, "the vast majority of Alaska's North Slope is legally available to oil and gas exploration and development." You further go on to state that more than 85 percent of this area, now we are talking about NPRA, is open to leasing under former Secretary Babbitt's prior decision.

You then go on in the very last statement, as we are talking about ANWR, to state that ANWR, which constitutes just 5 percent of Alaska's North Slope, now stands as the only stretch of the North Slope that is closed by law to oil and gas exploration and development.

So we have a situation. We have 1,000 miles of coastline up there in Northern Alaska. And your statements would seem to indicate that virtually all, or a vast majority, or approximately 85, is open to oil and gas exploration and development. You have used the term legally available. And maybe this is where we are splitting hairs or mincing words. But then you go on to say that only 5 percent is closed by law.

I am more than just a little bit confused. And I think it is these types of statements that do confuse the public in terms of what is open and what it actually means to say that these are open for development. We may have it available for leasing. But leasing cannot take place because of the environmental impact statements, because of the regulations. Statutorily it may be—you can go in there, but in terms of the science, in terms of the environmental impact, and in terms of the regulations, it is not physically possible to do.

We have incredible coal reserves available in the North. We have 120 billion tons of coal in the Northwest Arctic. But we are subject to restrictions and regulations and permitting requirements that say you have to replace the land to its natural condition. We have permafrost. We have ice lands. It is scientifically, physically impossible.

So is that open in terms that you are considering open? Is this what we are talking about when we say legally available?

The information and the word that we are trying to get out to the public is that when you look at that thousand miles of coastline, there is approximately 14 percent of Alaska's northern coastline that is available and is possible to open, and is open currently for drilling and development. 14 percent is a far cry from the 85 percent, or possibly 95 percent, that you have referenced. And I guess I would like to hear your comments when you say that the vast amount of Alaska is open for oil and development.

Before I have you respond to that, I would go down to, again, your last paragraph, where you are discussing ANWR. And you state, "Oil development would severely damage this national treasure."

Now we have had testimony here earlier today. We have had testimony in this room over the past several weeks and years prior to this, talking about the available technology that is out there that does focus on the environment and how we can allow for the drilling in these environmentally sensitive areas.

And I will grant you that all of the North Slope is in a sensitive area. But we have been working on the technology to allow for this in a manner that is not going to severely damage. These are the types of arguments that we are up against consistently. And it is very difficult to get the facts across to a public who has never seen, and most Americans will never see, never have the opportunity to go up there and see firsthand what we are talking about.

So when we are using statistics, when we are using facts, it is important that we do not over exaggerate. And I would state that an exaggeration of the vast majority of Alaskan lands, upwards of 85 percent to 95 percent, open, when in fact what we are talking about is 14 percent, is a far cry.

Mr. ALBERSWERTH. I believe that percentage, that is referring to the Arctic coastal plain, the so-called two areas, which, of course is off limits to development and the whole debate we are having as to whether or not Congress should change that statutory protection or not. So that is what the 5 percent comes from.

In just reviewing the statement that we did enter into the record here, it appears to us that there is a great deal of activity under way in Alaska by the Federal Government to open up large areas of the Arctic Slope.

As to the 14 percent, I am not aware of the basis for that figure. I can get you the 85 percent figure for the record, if you would care for that.

Senator MURKOWSKI. I would. And I will provide you with a copy of our map that shows how we have arrived at the 14 percent.

Let us see. I had another point that I wanted to make here, but——

The CHAIRMAN. You indicated you would supply a copy. What would you like him to do, analyze your copy and comment on it? Is that the purpose for submitting it?

Senator MURKOWSKI. Well, what I would like to submit, and I will give this to Mr. Alberswerth, is our map that details what is open, what is not open. And as you rightly point out, it is the 1002 area that is specifically closed for exploration. That is 5 percent of that coastal area, as we go across. So I will be happy to provide this to the committee for the record, as well as Mr. Alberswerth.

The CHAIRMAN. Thank you very much, Senator.

Senator Talent.

Senator TALENT. Thank you, Mr. Chairman.

Let me start with you, Mr. Bayless. Mr. Alberswerth says in his statement, "As evidence of the fact that oil and natural gas development is a robust activity on Federal lands, in fiscal year 2001, the BLM permitted a record 458 drilling projects on BLM lands, up from 3,400 permits issued in fiscal year 2000."

Now would you agree, if you know, that that statement is factually correct or not?

Mr. BAYLESS. I could certainly—I believe more permits were issued in 2001 than in 2000. Fewer permits were issued in 2002. All of these are a much smaller number than using, just grabbing a baseline at a busier time in the industry, back to the early 1980's, a much, much higher level of drilling activity at that time.

Senator TALENT. So you are saying it could be true, but it is not significant, in your view, evidence of whether robust activity is occurring.

Mr. BAYLESS. That is correct.

Senator TALENT. Now in the appendix, Mr. Alberswerth provided applications for permits to drill going back to like the year 1985, in which it appears—and you may not have this in front of you. But it appears——

Mr. BAYLESS. I do not.

Senator TALENT [continuing]. In this that permit approvals have varied pretty wildly since 1985. You know, 1985, 3,300; 1986, 1,800; 1987, 1,400. Does that shed any light, in your view, on whether this is a significant statistic? I mean, why is it not a significant statistic? I mean, it would seem to me that if they are granting a record number of applications for permits to drill, that is some sign that the activity on Federal lands is pretty robust.

Mr. BAYLESS. I do know the drilling level in the Inter-Mountain West is much less than it was 25 years ago.

Senator TALENT. Okay.

Mr. BAYLESS. Is it robust? It is moderately robust. I think part of what really impacts this, and certainly we have alluded to it before, activity in the Powder River Basin, where there are a large number of very shallow, small, high-density wells. I think that can skew the statistics at times, depending on which year you grab, deleting those or including those.

Senator TALENT. So some of the applications may be for drilling projects that are pretty small in nature and do not affect the—is that what you are saying? That could be it?

Mr. BAYLESS. They certainly have an impact. But some of those permits may be for 300-foot wells. Some may be for 14,000-foot wells.

Senator TALENT. Ms. Morrison, do you have a comment on any of this? Do you want to help clarify this for me at all?

Ms. MORRISON. Thank you, Senator. I cannot tell you offhand——

Senator TALENT. Start with the Chairman. Well, I guess it is okay.

[Laughter.]

Ms. MORRISON. I think I would say in the most recent years what you have seen are coal bed natural gas or coal bed methane wells. Those are more frequently drilled than, say, a conventional oil and gas well.

Senator TALENT. Okay.

Ms. MORRISON. So the numbers may be, as Mr. Bayless has indicated, may be skewed from that standpoint. Because in Wyoming in particular, Colorado, New Mexico, we have seen the coal bed

methane wells increase. You are going to have shallower, more wells than you will with conventional drilling.

That could be one of those items, if you would like the BLM to analyze the numbers that Mr. Alberswerth appended to his testimony, we would be happy to do that.

Senator TALENT. Yes. I think that would be good.

Mr. Alberswerth, do you have a comment? Is that possible, what she is saying?

Mr. ALBERSWERTH. Yes, I think that——

Senator TALENT. There are more permits but actually less significant activity. Is that——

Mr. ALBERSWERTH. Well, I am not sure what she means by less significant activity. There has been a big boom in coal bed methane development in, you know, the Powder River Basin of Wyoming, in particular in the San Juan Basin. I have a speculative answer to part of your question and I think a factual answer to part of it, as well.

I think if you look at the—if you were to track these drilling permit numbers with the fluctuating price of oil and gas, that might tell you something about why that fluctuates so much from year to year. And I think that it is worth looking into, whether or not this is evidence more of price variability for oil and gas or whether it is availability of land for drilling. And I think that is part of the answer.

Senator TALENT. Well, let me get one thing. I do not have time to get all the comparisons I would have liked to. But Mr. Bayless raised an issue, which seems to me to make sense. And I would like you to comment on it. He says that an application for permit to drill, that, according to BLM guide, should take 30 days to process takes on average 137 days to be approved and does not blame BLM leadership, but it says that their performance decreased by 60 percent. Companies seeking to drill waited an average of 137 days and sometimes as long as 370 days for Federal approval.

Now is that a fair statement, in your view, if you know?

Mr. ALBERSWERTH. It may well be. And I do not know, but it may well be.

Senator TALENT. Okay. Now here is the point they are getting at. And I would just like you to comment on this.

And then, Mr. Chairman, I am over my time, but——

The CHAIRMAN. That is fine.

Senator TALENT [continuing]. I just want to follow up on this point.

Would you agree that, in principle, anyway, whether this is actually what is happening now, that in principle this could happen, that land could be open for leasing and development and drilling and the rest of it, in theory, I mean legally open, but in practice the difficulties and delays in getting it permitted and being able to use it are so great that, as a practical matter, it is closed? Would you agree in principle that could happen, whether you think that is happening now or not?

Mr. ALBERSWERTH. I agree in principle that that could well happen. But you should understand that those lease terms are out there. I mean, when you purchase the lease, you know what the

stipulations are that are on them. And so you are going into this deal with the Federal Government, you know, eyes open.

Senator TALENT. Right. And that actually—one of the points you made is that—and I wanted to bring this up with you—you keep focusing on whether it is fair or unfair to these companies, which I guess is, to me, a tertiary-type thing. You say the answer is the Federal Land Management Agency's is not to satisfy the wants and desires of the oil and gas industry, which I think we would all agree with.

But what I want you to see the connect in, and maybe comment on this, is I am not worried about the oil and gas industry, except insofar as they are employing people in my State. I am worried about when business people tell me that one of the big reasons they are thinking of leaving the country is because of high energy prices. Do you see what I am saying?

Mr. ALBERSWERTH. Yes.

Senator TALENT. It is not a question of fair. Well, they knew going in that they should not have tried to lease it, because—you see, I want the energy produced, if we can do it in a way that is environmentally sound. It is in all our interests to do that.

And so maybe you can consider whether what they are saying is not true to some extent, that these long delays are making it financially impossible for them to explore and use this, even though in theory that there is—you see the loss to the country, if that were the case?

Mr. ALBERSWERTH. I can certainly sympathize with the experiencing long delays in getting a drilling permit. The focus of our concern more, though, has been some of the criticism leveled at these stipulations that are imposed on leases to protect wildlife. And it may take awhile in some instances for the BLM to determine whether or not it is a good idea to allow a certain type of operation to take place on sensitive lands like that.

That is all I can tell you. I believe that from the data that we have seen here in this EPCA report that it is really quite clear that most of these federally owned resources are in fact available. There are conditions that attack to Federal leases to protect these other resources that you mentioned.

Senator TALENT. Right.

Mr. ALBERSWERTH. And I think that is fair.

Senator TALENT. I think what we have narrowed this down to, they are in law available. And then the question over which there is obviously disagreement here is whether they are in fact available. Because whether the delays or the other problems puts them, in effect, you know, off reach. And if anybody wants——

Mr. ALBERSWERTH. Well, I would like to draw your attention to another aspect of my statement, which is that those stipulations are frequently waived. Seventy, 80, 85 percent of the time that the companies ask for them to be waived, at least in the three field offices that have published data on their website. Now this may be different in other places, but that is the data that we were able to get.

Mr. BAYLESS. Senator, if I could follow up, not only is it an issue of whether those lands are available, but as you pointed out, the timing, if there is a long delay, it impedes industry. You are not

worried about the industry; you are worried about gas supply. There are signals that come out of the market, price signals, that say we need more gas. We need greater—the price has gone up. Where is the supply?

With these long delays, it creates uncertainty for companies to be able to drill those additional wells, to budget for drilling those additional wells. It really puts a bad filter on those price signals.

Senator TALENT. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much, Senator. Might I say that I think your last line of questions, with a couple more problems added to the approach you have taken, are the essence of the argument. Available as a matter of law versus available in fact. And it is not all just the stipulations that are at issue in terms of whether or not in law and in fact are getting close together or are getting farther apart.

It would appear that in the eyes of the industry which produces the energy for the country it is getting farther apart, not closer. And I think we are going to get to that in terms of the kind of bill we right, the kind of work we do with the BLM, in an effort to get them to solve this problem in a better way, with the environment taken into consideration.

Let me just ask one additional question of the administration. Mr. Leer spoke of the conflicts that have arisen in recent years between Federal oil and gas leases and Federal coal leases. Now I have been in and out a couple of times for other matters. Has this issue of what are the department's plans to resolve this, has that been asked? And have they answered that? Could you answer that, please, either now or for the record?

Ms. MORRISON. Yes, Mr. Chairman. I would be happy to answer that for you, if I can turn to my materials on that. In September 2001, the BLM's policy on the coal versus coal bed methane or coal bed natural gas conflict expired. We are currently, as you had mentioned, with Director Clarke looking at taking a more aggressive stance through our policy on that very issue, working through the lease terms that we can enforce on these properties, that we do know there is a conflict.

We will do everything we can to work with both of those factions of the industry in order to come up with the best policy that the BLM can use to help that situation. I think we can all probably agree that we want to conserve and to promote the production of both of those resources. But it does come at a time when they are in conflict in production.

I think there are ways to do it. I think there are voluntary agreements. What the BLM is looking for is what can we do through our own lease stipulations to encourage that conflict to be resolved in a more amicable way.

The CHAIRMAN. Mr. Leer, is that one of the issues that is around now that must be resolved?

Mr. LEER. I do believe it is, Senator, that the issue—again, there have not been many big fed releases of coal bed methane and coal in the last year. But there is a large number scheduled for next year. And I think it is going to rise and be a major issue in 2004.

So if we can get that resolved this year, it will be a plus to public policy and clearly a plus to the interested parties.

The CHAIRMAN. Very good. Just a couple more.

Mr. Bayless and perhaps Ms. Morrison, what is the reason for the new surge of well activity in the Four Corners area, the new infield drilling? Is that a new rule, a new regulation, a conservation change, or what is it that brings that on?

Mr. BAYLESS. A lot of it is a new rule from the State Conservation Commission allowing a second well in the Fruitland coal formation to be drilled per 320-acre spacing. So essentially, it is down spacing from 320 to 168-acre spacing. This is not—throughout the basin, it is—scientifically it was addressed. And there are different areas of the basin where this makes sense. But that is one of the—that is impetus for some of the drilling. Other is a continued Mesa Verde drilling and down spacing.

The CHAIRMAN. Is the activity in that basin, will it be on an accelerated pace for a number of years, as a result of what you have just described?

Mr. BAYLESS. There is going to be a lot of activity for several years. There are many thousands, as you have pointed out, there are many thousands of wells to drill. That basin produces about four billion cubic feet of gas per day. It takes a lot of continual drilling to maintain that production.

The CHAIRMAN. Well, that is why I repeat it has become very, very urgent, in light of the fact that this drilling will be very close in proximity one well to another, that there be some arrangements made to assure the ranchers that in fact this is not going to be done without regard to their particular interests. Because they are all aware of that, and they are very concerned that that is going to cause environmental degradation, that it impacts on their right to use the ranch land, the surface, in a manner that they have leased it for.

So I urge you again to get started in your community. And we will be doing that, too, to get some people working on it.

Mr. Alberswerth, have you had a change in perspective with reference to more renewable energy development on Federal lands?

Mr. ALBERSWERTH. Have we had a change?

The CHAIRMAN. Yes.

Mr. ALBERSWERTH. If you are referring to the new study that was——

The CHAIRMAN. No. Do you have some concern with wind as a renewable on public lands that you did not have a few years ago, when you were generally in favor of renewables?

Mr. ALBERSWERTH. Well, we think that there are probably places on the public lands where renewable, you know, wind farms are appropriate. I think in terms of an overall direction on this, Senator, that it would be a wonderful thing if our energy policies were to encourage that activity on private lands. I mean, it would be a real win-win situation for agricultural communities. Farmers and ranchers have experienced economic distress——

The CHAIRMAN. How do we encourage it?

Mr. ALBERSWERTH. Perhaps with tax credits. I am not familiar with the current programs, to tell you the truth. But I know that there was a witness here the other day from the gas industry talking about the boon that section 29 gas credits were for the coal bed methane industry. Perhaps you could develop something like that

similar that would benefit private ranchers and farmers in the Northern Plain States and elsewhere.

The CHAIRMAN. One last observation for you and your members. There is a very large and beautiful ranch in northern New Mexico owned by Ted Turner, the Vermejo Ranch. Have you heard of it?

Mr. ALBERSWERTH. I believe I have heard of it, but I am not familiar with it.

The CHAIRMAN. I think it is probably one of the best and most beautiful multiple use ranches in the United States. And the reason it comes to mind is because I heard the testimony, I heard you talking about Alaska and how damaging drilling might be. Do you know that on that rather fantastic ranch there are 1,500 gas wells that have been drilled and are producing on private property that Mr. Turner says has caused no damage whatsoever to this ranch, in terms of its multiplicity of uses?

It would seem to me that somehow or another there is an inconsistency when somebody like that has found a way on private property and—I am almost certain that if that property were Federal, you would be sitting here saying: Do not drill a well on it, almost certain. Not sure, but almost certain. And I think that is—if that is possible, probable, then I think that is very, very discouraging from my standpoint, because I do not think you ought to have a policy that is different than Mr. Ted Turner with reference to preserving his ranch. I think he is preserving it as well as we ever would. And he thinks you can drill gas wells on it. In fact, there may be more than 1,500 before you are finished.

Now we have been at it since 10 o'clock. But I will stay here for a few questions, if you would like.

Senator CANTWELL. Thank you, Mr. Chairman.

The CHAIRMAN. You are welcome.

Senator CANTWELL. I appreciate the opportunity to participate in this hearing. I am particularly interested in this area as it relates to further developing alternative energy supplies, which I believe our State of Washington needs to look at, natural gas specifically. We are very hydro reliant and have had lots of challenges because of that hydro system, both in the short-term as it relates to droughts and supply and complications of the spot market, as well as long-term issues on the environment and impact on saving our wild salmon.

So we certainly want to diversify. And we want to invest more resources in developing natural gas, particularly in northwest areas of Alaska and possibly even Canada. I do want us to think wisely about where we get those resources. And so I have a question as it relates to national forest roadless areas and information that has been published by both the U.S. Forest Service. And I think the Wilderness Society might have published something, too, as far as reports.

I am trying to understand what resources we might actually get out of what has been protected as roadless areas and what amount of natural gas or oil might actually be there. Because when I look at what we have allowed within the roadless area rule, roadless areas accounted for 0.4 percent of the total domestic natural gas production, according to the U.S. Forest Service. So, it was a very small number.

But the roadless area rule obviously allows for existing leases. It allows for continuation or extension of renewal of existing leases. It also allows for lease extensions on previously leased land, if the application for the extension is made before the termination of an existing lease. So there is a lot of flexibility as it relates to current leases, which really has, in my understanding of the issue, been those areas that you would want to most access for gas development.

I want to make sure that we are clear for this hearing what natural gas is available in areas that are protected as part of the roadless area rule.

So Mr. Alberswerth, I think you might know some of that information as it relates to a similar report that the Wilderness Society did that might have similar information to what the U.S. Forest Service has provided.

Mr. ALBERSWERTH. Thank you, Senator. You are correct. The Forest Service's environmental impact statement on the roadless rule indicated there was about .4 of 1 percent of the natural gas resources of the United States in the roadless areas affected by that rule. Existing and, under the rule, exiting leases would be honored. They had valid existing rights.

And we did do recently an analysis of the amount of oil and gas beneath forest lands in the five or actually six-State area of the Rocky Mountain West and came up with the following numbers. Now the analysis was somewhat different than the analysis performed in this recent EPCA report by the Interior Department. So there is probably—and it was based on somewhat different data.

So we could get into an apples and oranges type of discussion here. But the bottom line is that there is not very much gas in those roadless areas. I am not sure how the EPCA report treated roadless areas in its analysis. You might wish to ask the Interior Department how they did so. But the bottom line was that our analysis indicated, based on U.S.GS estimates, that there was only about a two to 2½ month supply of natural gas in those roadless national forest areas.

Senator CANTWELL. Plus they are hard to get to and they lack the current infrastructure. Is that of interest to the other panelists, looking at those particular areas for such a small supply?

Mr. LEER. I am going to address it from a coal perspective. And I think, at least my perception is there is some misunderstanding in what happened in the late 1990's, when the roadless rule was promulgated. Also, even some of the ways it was promulgated, some questions. But when you looked at what was happening, we were aware in the 1990's that the U.S. Forest Service was trying to develop, you know, roadless rules. And the mining industry did ask for what are the maps, where can we go, how is it going to overly? Because, again, most of the western coal is being produced, and a lot of the coal bed methane gas is being produced, from Federal lands.

And we never could get the maps. The maps were never drawn. In fact, the industry ultimately developed its own maps and gave them to the Forest Service. And then the roadless area boundaries were based on a 20-year-old inventory that were never field verified

and established whether there is in question still retained roadless values that the rule supposedly was trying to protect.

I mean, I can speak to one particular mine that we own and operate in Colorado that is a deep mine. In fact, most of the mines in the roadless areas that are affected are deep mines. They do not particularly affect the surface at all, except for when you do have—sometimes you need to run a ventilation shaft to the mine, or if you have a mine accident, you may need access to wherever the mine is under the proposed roadless area.

The area that they have outlined, I have been up on it. There are roads everywhere. But it is in the roadless area. It is not a—20 years ago, perhaps, it was a correct map. Today I would be happy to take any of the Senators and show them at least one little area that certainly was drawn incorrectly.

I am not sure the data on the oil and gas side is reflecting the coal bed methane piece of that, as well. And again, in the roadless areas we are talking more about deep mines. And they do not have a footprint on the surface, except for emergency situations or you can have, if you get far enough away, you do need to run an air shaft down it.

So, you know, to me the whole process, when it was base don 20-year-old data, it needs to be updated. And I think the late midnight promulgation of the rule, it just did not feel right. And I do not think it was right. So it deserves more study than just making a rule. And I think the Forest Service even agreed with that at one point. But then the 9th Circuit obviously overturned that. So——

Senator CANTWELL. Right. I would say probably the tens of thousands of people from my State that wrote in over a year and a half do not exactly think it is a late night rule. I can think of other examples in the Congress where riders were attached to bills that they would define as late night. I do not think that this one necessarily qualifies as such.

So you are saying that it is not so much that you disagree with where the oil and gas supply might be as much as maybe some of the areas might not have been reflecting of what coal supply is. That is your main point.

Mr. LEER. That would be my main point, but that is my experience and what I have followed. And you know, the coal bed methane operations that were seen developed in the West are going obviously into the coal seam. So you do have that from a gas supply. And I do not know if the data that David here has referenced is reflecting that or not. And I will not try to find on that.

Senator CANTWELL. Well, I care deeply about the roadless area rule, because I think it is good natural resource management policy. So I probably will take you up on that offer to go out and see the specific——

Mr. LEER. We will follow up.

Senator CANTWELL [continuing]. Lines and where this was drawn, because I think it is—I think there is much more consensus about what is good forest management in areas that really are not going to give us the gas supply. But maybe we can make some headway.

Mr. Bayless, did you want to comment on that?

Mr. BAYLESS. Yes. Based on the Wilderness Society information, I believe the National Forest Service land under lease today has declined by 85 percent over the last 15 years. So kind of much less of land is really in play. Today less than five million acres of national forest lands are leased. So we are moving away from the direction of oil and gas development on national forests.

Taking your question in a slightly different direction, we have—I have experience on a recently formed national monument where part of the formation of that was that existing and active oil and gas leases would remain valid. This was—this contains a 50-year-old producing oil and natural gas field. Both the BLM and my company were co-defendants in a suit filed by Mr. Alberswerth's organization for trying to develop a shooting seismic survey across those existing leases.

So sometimes there is a jump between what is promised and really how it works out in practice.

Senator CANTWELL. Well, I see the red light is on. I do not want to take up more time, Mr. Chairman. But I do think the issue, when put in the context of the U.S. Forest Service, if it is 0.4 percent of the supply, and yet I look at the National Petroleum Reserve in Alaska, where we might get something like 59 trillion cubic feet of gas or the Gulf of Mexico in the deep water areas, I think why are we focusing on roadless areas.

My State would love natural gas. It would love to diversify off of hydro. We want to get natural gas from Alaska or Canada or various places. But it seems as if this particular supply, as it relates to the roadless areas, is not worth the investment, especially in light of the disruption that it would provide to the environment.

Thank you, Mr. Chairman.

The CHAIRMAN. The only comment I would make, if you cannot do either of the other two, then either of them——

Senator CANTWELL. Well, we certainly want to get that natural gas from Alaska.

The CHAIRMAN. Okay. Thank you.

Senator CANTWELL. Thank you.

The CHAIRMAN. We stand adjourned.

[Whereupon, at 12:42 p.m., the hearing was adjourned.]

APPENDIXES

APPENDIX I

Responses to Additional Questions

NATIONAL MINING ASSOCIATION,
Washington, DC, March 13, 2003.

Hon. PETE V. DOMENICI,
Chairman, Committee on Energy and Natural Resources, Dirksen Senate Office Building, Washington, DC.

DEAR CHAIRMAN DOMENICI: Thank you for the opportunity to testify before the Committee on Energy and Natural Resources on the subject of energy production on federal lands. The following are answers to the questions which have been submitted for the record.

RESPONSES TO COMMITTEE QUESTIONS

Question. How will the coal leasing amendments you suggest benefit the country in terms of new coal production?

Answer. The suggested changes recognize that long lead times and capital investments as high as $1 billion require a predictable but flexible leasing program that allows federal coal lease holders to deal with operational, regulatory and market variables throughout the life of a lease. Uncontrolled increases in the cost of production due to geology, limited labor supply in rural areas, changes in prices for competing fuels, changes in transportation costs, and changes in state and federal environmental regulations which affect either production costs or the ability to customers to use the coal from the lease are examples of occurrences that can chill investment in federal coal resources and new coal production. If the recommended targeted modifications to the Mineral Leasing Act are enacted, investment in new coal ventures will be encouraged with the assurance that operations will be able to adjust to meet these variables.

Question. You have indicated there are problems with the coal industry's bonding requirements. Can you explain why you are suggesting the elimination of financial assurances with respect to bonus bids?

Answer. The limited availability of financial assurances jeopardizes the continuation of existing operations and thwarts development of new operations since bonds are required as a condition to receive permits or other necessary government authorizations.

The Department of the Interior's requirement that successful bidders for federal coal leases post a financial assurance to guarantee the payment of deferred bonus bids is unnecessary and duplicative. The suggested elimination of this particular requirement will free up surety capacity while protecting the federal government by providing that if the successful bidder defaults on a bid installment the Department of the Interior can cancel the lease and the cancelled lease resold to another prospective bidder.

Question. Do the Mineral Leasing Act provisions you are proposing eliminate the diligent development requirement?

Answer. There is nothing in the suggested changes that NMA recommends that would in anyway eliminate the diligence requirement established in the Act.

STEVEN LEER,
Arch Coal, Inc.

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

RESPONSES OF DEPUTY SECRETARY GRILES TO QUESTIONS FROM SENATOR BINGAMAN

EPCA STUDY (STIPULATIONS)

Question 1. As you know, I was one of the authors of section 604 of EPCA, requiring the Department to undertake the oil and gas resource inventory.

The report attempts to quantify leasing stipulations. Does the report take into account the frequency of waivers of leasing stipulations by federal land managers?

Does the report address the fact that directional drilling is a viable option in some instances where no surface occupancy stipulations are in place?

LEASE STIPULATIONS

Question 2. Energy development on our public lands is essential. Yet, these are by law multiple use lands. I understand that many of the oil and gas lease stipulations are timing limitations relating to fish and wildlife concerns, but am I also correct in my understanding that leasing stipulations also can relate to:

- coal mining
- ranching (such as cattle movement)
- recreational use (camping and snowmobile use)
- water quality and quantity
- paleontological and historic resources?

What other matters are covered by leasing stipulations? What are the Department's intentions with respect to existing stipulations? Are there alternative ways of protecting the environment and other land uses, and if so, what are they?

SURFACE USE CONFLICTS

Question 3. What is the Department doing to address the issue of conflict between coal production and coalbed methane production?

What is the Department doing to address the conflicts that can arise between the ranching community and those who seek to develop federal oil and gas resources?

What is the extent of these problems?

COALBED METHANE IN THE SAN JUAN BASIN

Question 4. I understand that the BLM is working on an environmental impact statement relating to oil and gas resource development in the San Juan Basin. Many expect that this document will project a tremendous increase in coalbed methane development. What is the status of the work on this analysis?

FUNDING FOR I&E AND ENVIRONMENTAL COMPLIANCE

Question 5. I have had a long-standing concern over what I consider to be inadequate resources being devoted by the Department to both the Inspection and Enforcement Program and to processing oil and gas applications, including environmental compliance.

I am pleased that the Secretary reiterated the Department's commitment to hire additional personnel for the I&E program in the BLM Farmington field office when she appeared before the Committee recently. Can you give me a status report on that matter?

What else does the Department do to ensure that the BLM has adequate resources to do their job with respect to energy development on federal lands?

ECONOMICALLY RECOVERABLE RESOURCES

Question 6. The EPCA report bases its analysis on U.S.GS technically recoverable oil and gas resources and EIA proven reserve estimates. This is helpful information. However, I was disappointed that the EPCA report did not also address economically recoverable resources, which I believe would also be useful information if the underlying assumptions are clearly set forth. The Department has provided this information for both the Arctic National Wildlife Refuge and the National Petroleum Reserve-Alaska. I have received a letter saying you will provide it for the basins studied in the EPCA report, but not unti1 2005. Is there any way to speed up this work?

RENEWABLE ENERGY

Question 7. I have been concerned that those seeking to develop wind and solar energy on our public lands do not get adequate assistance or information on availability of public lands from federal land managers.

What policies, guidelines and procedures does BLM have in place to facilitate the development of wind and solar energy on public lands appropriate for such development? Please provide a copy for the record.

Under what legal authorities are wind and solar energy on public lands allowed?

What regulations, guidelines or policies do you have relating to such authorizations? Please provide a copy for the record.

ROYALTY RELIEF FOR MARGINAL ONSHORE GAS

Question 8. The Department has a regulation in place providing royalty relief for production of oil from marginal stripper wells. I believe that we need a comparable provision for production of natural gas from public lands. Last Congress, I worked on such a provision during the energy bill conference.

Will you assist us as we continue to work on this measure?

FEDERAL COAL LEASING

Question 9. Do you believe that the Federal coal leasing provisions of the Mineral Leasing Act need to be amended? Please provide the Administration's position on each of the recommended amendments to the Federal coal leasing provisions of the MLA contained in the testimony of the National Mining Association. Provide your rationale and also provide information on the number of leases, lessee and location of the leases that would be affected by the amendment.

Question 10. How many orphaned and abandoned oil and gas wells are there on lands administered by the BLM? Does BLM have a plan to remediate the sites? How much would it cost?

Question 11. What is the processing time for applications for permits to drill? When delays occur, what are the reasons?

Question 12. You indicate that the Department is reviewing right-of-way corridors. Please describe more fully what this review entails and what your timeframe is?

Question 13. The Department has a task force reviewing the issue of bonding. What issues specifically are being reviewed? Is the Department looking at bonding issues related to onshore oil and gas? Offshore oil and gas? Coal? Hardrock minerals? When can we expect to see the recommendations and report of the task force?

Question 14. The oil and gas industry witness testified that oil and gas permitting time has doubled in one year. Is this correct? If so, what accounts for this?

RESPONSES TO QUESTIONS FROM SENATOR BUNNING

Question 1. What is the potential for coal mining on federal lands? How much coal is available to be mined on federally owned land? Is coal on federal lands available for mining in the eastern United States? If so, where is it available where the Federal Government owns the rights to the coal?

Question 2. How do you think federal laws should be changed to best bring about a balanced energy policy that will boost domestic energy production while also promoting conservation?

Question 3. What are some of the obstacles in current regulations that have prevented the United States from boosting its energy production on federally owned lands?

APPENDIX II

Additional Material Submitted for the Record

AMERICAN PETROLEUM INSTITUTE,
Washington, DC, March 12, 2003.

Hon. PETE V. DOMENICI,
U.S. Senate, Washington, DC.

DEAR SENATOR DOMENICI: On February 27, 2003, the Senate Committee on Energy and Natural Resources held a hearing on Energy Production on Federal Lands. The American Petroleum Institute, which represents all sectors of the U.S. oil and natural gas industry, appreciates the opportunity to submit this letter and its attachment for the written record.

IMPORTANCE OF FEDERAL LANDS

The importance of multiple-use federal lands to domestic energy supplies cannot be overestimated. Set aside by Congress to help provide energy to the nation, these lands comprise about 31 percent of total U.S. land area and a large part of the Outer Continental Shelf. According to the U.S. Geological Survey and the U.S. Minerals Management Service, federal lands contain about 77 percent of the nation's estimated undiscovered oil and 59 percent of its estimated undiscovered natural gas. The remainder is on state and private lands.

The federal lands holding undiscovered oil and gas resources lie mostly in frontier areas such as Alaska, the Outer Continental Shelf, and the Rocky Mountain States. Federal lands contain an estimated undiscovered 99 billion barrels of oil and 577 trillion cubic feet (Tcf) of natural gas. Put in perspective, that is enough oil to fuel more than 166 million automobiles for 20 years and heat more than 67 million homes for 20 years. It is enough natural gas to meet the needs of 10 million residential customers for 664 years. These lands can play a vital role in meeting our growing needs for oil and natural gas—if opened to development in a timely fashion.

The Energy Information Administration (EIA) projects that between 1999 and 2020 oil consumption will increase 39 percent in the U.S. and 58 percent globally. U.S. natural gas demand is expected to grow by more than 50 percent by 2025. To ensure both adequate and secure supplies, the United States must continue to diversify its foreign sources of supply, which already provide 58 percent of the nation's oil, and increase domestic supplies through oil and natural gas development activity on federal lands.

The attached paper highlights the importance of federal lands to meeting our energy needs.*

ALL IMPEDIMENTS TO DEVELOPMENT NEED TO BE REVIEWED

A January 2003 study by the U.S. Department of the Interior and other agencies, evaluated oil and gas resources on federal lands and examined the restrictions and impediments to developing oil and gas resources in five important oil and natural gas bearing basins in the Rocky Mountains. The study (*Scientific Inventory of Onshore Federal Lands' Oil and Natural Gas Resources and Reserves and the Extent and Nature of Restrictions or Impediments to their Development*) shows that some lands are not leased because Congress has designated them as Wilderness or National Parks. Administrative actions, such as the Bureau of Land Management designating lands as Wilderness Study areas, have also prevented leasing. Other lands are not leased because requisite federal land use planning or NEPA analysis has not been undertaken or completed. Additionally, many areas are leased but with very restrictive stipulations such as "No Surface Occupancy" or very limited time-

*Retained in committee files.

frames allowed for operations, essentially making them unavailable for development.

However, restricted leasing of public lands is only part of the access problem. Major stumbling blocks arise after a company obtains a BLM lease. After leasing, producers must obtain a wide variety of approvals and permits (federal, state and local) before drilling can commence. The first step is usually to obtain BLM approval of the "Application for Permit to Drill" or APD. To do this, an applicant must first obtain other permits, reviews, and approvals (often called Conditions of Approval). For example, the applicant very likely will have to conduct an Environmental Impact Study, a Cultural Survey, and an Endangered Species Survey. The applicant will also likely have to obtain a Private Landowner Agreement and a Right of Way permit. These permits are often difficult to obtain, and delays—sometimes very significant—are common.

While the EPCA study provides an up-to-date estimate of resource potential and important leasing and pre-leasing impediments, it, unfortunately, does not examine the numerous permitting and other post-leasing problems that can delay otherwise viable projects by many months or years. As noted later in this letter, Congress should require an evaluation of post-leasing impediments in the five basins already studied and require a comprehensive study of pre- and post-leasing issues for all other federal lands.

TECHNOLOGY PROTECTS THE ENVIRONMENT

Because of advanced technology, energy resources on federal lands can be developed with little or no impact on the environment.

Advanced technologies such as 3-D seismic imaging provide the ability to better "see" underground oil and natural gas deposits, greatly improving the ability to find oil or gas. This reduces the number of wells necessary and dramatically reduces the "footprint," or surface disturbance, of the exploration and production activity.

Highly sophisticated directional drilling systems can travel deeper and in various directions—even horizontally—to reach potential oil and natural gas resources more quickly and more precisely.

According to a 1999 U.S. Department of Energy study (*Environmental Benefits of Advanced Oil and Gas Exploration and Production Technology*), innovative technologies have led to environmental benefits. Among them:

- "Smaller, lighter rigs and advances in directional and extended-reach drilling shrink the footprint of oil and gas operations and reduce surface disturbance."
- "Continuing improvements in recovery efficiency per well translate into fewer wells . . ."
- "Resources underlying arctic regions, coastal and deep offshore waters, sensitive wetlands and wildlife . . . can now be contacted and produced without disrupting surface features above them."
- "From coast to coast, innovative E&P approaches are making a difference to the environment. With advanced technologies, the oil and gas industry can pinpoint resources more accurately, extract them more efficiently and with less surface disturbance, minimize associated wastes, and, ultimately, restore sites to original or better condition."

ACTIONS CONGRESS CAN TAKE TO IMPROVE RESPONSIBLE OIL AND GAS DEVELOPMENT

- Mandate an Energy Policy and Conservation Act (EPCA) Phase II study assessing post-leasing impediments to development in five resource basins addressed in 2003 report.
- Initiate EPCA evaluation of resources and both pre- and post-lease impediments to development for other federal lands, including the Outer Continental Shelf.
- Require DOI to act promptly to complete all outstanding resource management plans needed to allow thousands of permitting decisions to proceed.
- Provide specific oil and gas leasing and permitting reform measures as identified by the federal government's Applications for Permits to Drill (APD) Project Team.
- Direct funds to agencies involved in public lands development, requiring timely preparation of necessary environmental documentation for such activities.
- Provide additional funding for MMS/BLM permitting/management activities from bonus bid/royalty stream.
- Codify Executive Orders (EO 13212 and EO 13211) to expedite increased energy supply and availability to the nation by (1) considering the affect of federal regulations on the nation's energy supply, distribution and use, and (2) ensuring "energy accountability" within federal resource management agencies. Accountability may include requiring internal agency audits to establish performance

measures and benchmarks for addressing permit backlogs and Resource Management Plan updates.
- Provide support for pending CEQ-led administration pilot program, Northern Rocky Mountain Energy Policy Program, to foster early collaboration of federal and state decision-making and effective management of energy policy issues on public lands in the northern Rocky Mountains.

We appreciate the opportunity to offer these comments. Please let us know if you have any questions or need additional information.

Sincerely,

CHARLES E. SANDLER,
Vice President.

STATEMENT OF THE GEOTHERMAL ENERGY ASSOCIATION

Thank you for the opportunity to present the views of members of the Geothermal Energy Association (GEA) regarding geothermal energy potential on public lands and the obstacles to developing this important national energy resource. GEA is a trade association that represents 80 companies and organizations involved in the U.S. geothermal industry, from power plant owners and operators to small drilling and exploration companies.

GEOTHERMAL ENERGY'S POTENTIAL

Geothermal energy provides a significant amount of the energy and electricity consumed in the Western U.S. Geothermal heat supplies energy for direct uses in commercial, industrial and residential settings in 26 states. Geothermal resources furnish substantial amounts of electricity in California, Nevada, Utah and Hawaii. Indeed, 6 percent of California's electricity comes from geothermal energy.

There has been renewed interest in geothermal power. A small-scale power facility has started operation in New Mexico, and the BLM reports that there is an active interest in leasing and permitting in eleven western states. In part this is due to the adoption in many states of renewable production standards to ensure a market for new renewable power. We believe it is also due to the interest shown in the Congress in expanding the Section 45 production tax credit to include geothermal energy. Further, the high-level interest shown in expediting the processing of geothermal leases and permits by federal and state governments has contributed as well.

Today, Senators Harry Reid (D-NV) and Gordon Smith (R-OR) will be reintroducing legislation that they sponsored in the 107th Congress to expand the Section 45 production tax credit to geothermal and other renewable energy sources. Many of the Senators on this Committee supported one of several bills in the last Congress that proposed taking this action. We hope that you will again support Senators Reid and Smith in this effort and consider adding you name as a co-sponsor of their bill. This is the single most important measure before Congress to stimulate new investment in new renewable power production in the United States.

Expanded use of geothermal resources will provide additional clean, reliable energy to the West. Thousands of megawatts of new geothermal power, and an equal amount of direct-use energy, could be developed in the immediate future; however, obstacles created by public land agencies must be removed.

Geothermal energy contributes directly to both state and local economies and to the national Treasury. To date, geothermal electricity producers have paid over $600 million in rentals, bonus bids and royalties to the federal government. Moreover, according to an analysis performed by Princeton Economic Research, it would be reasonable to estimate that the geothermal industry has paid more than 6 times that amount in federal income tax, for a combined total of over 4 billion.[1] If the economic multiplier effects were considered, the total contributions of geothermal energy to the local and national economy would be substantially greater.

What is the potential for geothermal energy on public lands? What are the benefits of developing these resources? These questions are difficult to answer, in part because the efforts of the U.S. Geological Survey ("U.S.GS") and the Department of Energy to define the U.S. resource base have not been funded for many years. In fact, as the U.S.GS pointed out in its testimony before the Energy Subcommittee in May, its last assessment was undertaken roughly 30 years ago.

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[1] Princeton Economic Research, Inc., *Review of Federal Geothermal Royalties and Taxes*, December 15, 1998. (Figures expressed in 1998 dollars.)

In order to produce a more current picture of the near-term potential of the geothermal resource base, GEA Executive Director Karl Gawell together with Dr. Marshall Reed of DOE and Dr. Michael Wright of the Energy and Geosciences Institute at the University of Utah, conducted a systematic survey of known geothermal experts from business, academia and government in 1999. The results of this survey were assessed and a brief report was released in April of that year entitled "Preliminary Report Geothermal Energy: The Potential for Clean Power from the Earth."

That report concluded that the U.S. geothermal resource base could support significantly increased production. U.S. geothermal electric capacity, now at about 2,600 MW, could triple and, with expected improvements in technology, could reach nearly 20,000 MW in 20 years.

These figures would appear to be fairly consistent with the estimates presented to the Subcommittee on Energy and Minerals by the U.S. Geological Survey. Their testimony indicated a potential for 22,290 MW of geothermal electricity production (see Attachment #1). As GEA's Executive Director testified before the Energy and Minerals Subcommittee, these figures also concur with the results of the planning workshop that helped produce the current DOE Strategic Plan—an effort that brought together many of the leading experts from industry, laboratories and academia. At that workshop, there was a consensus that, with market support, as much as 10,000 MW of electric capacity could be brought on-line in the West by 2010 by expanding existing resource production and developing new facilities.[2]

Achieving this additional geothermal production would have substantial economic and environmental benefits in the western United States. If the goal of the DOE Strategic Plan could be reached, the cumulative federal royalties from the new power plants would reach over $7 billion by 2050, and estimated income tax revenues would exceed $52 billion in nominal dollars.[3] The state share in these royalties alone would result in an additional investment of $3.5 billion in schools and local government facilities in the western states.

Expanded use of geothermal resources can also contribute to the President's goal of a hydrogen future.Using geothermal resources to drive catalytic processes is ideal for generating hydrogen. In fact, Iceland is expected to be the first country in the world to make a significant transition to hydrogen fuels, which it will achieve by using its geothermal and hydropower resources.

RECENT EFFORTS TO ADDRESS BARRIERS TO GEOTHERMAL ENERGY USE

We were very pleased by the administration's interest in enhancing the use of renewable resources on public lands. Vice President Cheney, Secretary Norton, and Secretary Abraham have all shown a strong interest in promoting renewable energy use, and addressing the problems the geothermal industry has experienced.

Vice President Cheney met with leaders of the renewable energy industry. The National Energy Policy release in May of 2001 by the National Energy Policy Development Group included several key recommendations. The NEPDG recommended that the Secretaries of the Interior and Energy re-evaluate access limitations to federal lands in order to increase renewable energy production. It also recommended that the Secretary of the Interior determine ways to reduce the delays in geothermal lease processing and permitting.

Twelve days after the release of the Vice President's report, the President signed Executive order 13212—Actions to Expedite Energy-Related Projects. This order established the White House Task Force on Energy Project Streamlining, to ensure interagency collaboration.

In response to the Vice President's report, the Secretaries of the Interior and Energy convened at a conference entitled "Opportunities to Expand Renewable Energy on Public Lands" in November 2001. This meeting brought together over 200 senior executives from industry with state and federal agency representatives as well as a wide range of other interested groups.

This interest and initiative from the Administration has been supported by Congressional action. The House Resources Committee and its Energy Subcommittee have held hearings on renewable energy development on public lands, and specifically on geothermal energy issues. The Congress has included funding for key activities by the Bureau of Land Management, U.S. Geologic Survey and Department of Energy.

We appreciate the interest and attention of the Senate Energy Committee, and hope that these hearings will build upon the progress being made. We are pleased

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[2] U.S. Department of Energy, Office of Geothermal Technologies, *Strategic Plan for the Geothermal Energy Program*, June 1998, page21.

[3] Princeton Energy Research Inc., *Op. Cit., Volume I, page 17.*

to say that there is progress being made, although we must report that there are still problems and obstacles to overcome.

GEOTHERMAL ENERGY ON PUBLIC LANDS

Whether and when the economic benefits of further geothermal development are realized will greatly depend upon the action, or inaction, of the federal land management agencies. Today, about 75% of U.S. geothermal electricity production takes place on federal public lands since that is where most of the resource is located. If we expect to see significant increases in geothermal energy production in the United States, we will have to access resources yet to be developed on public lands.

New geothermal development requires the timely and reasonable oversight of federal leasing, permitting, and rights-of-way and environmental reviews by public land management agencies. Unfortunately, the previous administration's management of federal geothermal resources was marked by bureaucratic delay and indecision by public land agencies; as a result, there has been a rapid decline in new geothermal energy development.

To understand the impact that delays can have, it is important to recognize that all of the estimates discussed earlier are nothing more than that—estimates. A company interested in developing a geothermal resource will have to invest millions of dollars in defining the resource before construction of a power plant can even begin. Unfortunately, there are few reliable surface exploration techniques for geothermal energy that can provide any degree of confidence. Confirmation and definition of the resource involves drilling, which means the investment risk is high and may remain high until after several wells have been drilled.

Geothermal wells are more expensive to drill than oil and gas wells, and if successful have a payback period substantially longer than oil and gas wells. They are drilled in hot, hard, fractured, abrasive rocks where problems are frequent and expensive. For "green field" development, resource definition work may account for as much as 40% of the cost of the project, and that considerable expense must be borne before the resource is sufficiently confirmed in order to secure financing for a project—making the risk to the developer even greater.

Companies will not take on such a considerable expense and risk without assurance that if then are successful they will be able to develop a power plant. To begin with, they need a lease to ensure their rights to develop the particular resource identified.

This brings us to bureaucratic problem number one: tens of thousands of acres of geothermal leases were applied for in the West, to which federal agencies failed to respond. Lease applications languished, often for years.

Because this Administration has made renewable energy development on public lands a priority, and with Congress support, we have seen some progress. The de facto moratorium on geothermal development on public lands appears to be lifting. Last year, BLM was able to make substantial inroads on the lease backlog in Nevada, and the Secretary of the Interior has committed the agency to eliminating the backlog entirely.

But while progress is made in some areas, BLM clearly still lacks the resources to eliminate the problem. In addition to a lack of resources to complete lease processing, and the necessary land-use planning and environmental reviews, BLM is still seeking the active cooperation of other agencies, particularly the Forest Service. Lease applications that have been pending for years, some for as long as a decade, still await action in Washington and other states. We understand that persistent pressure from the BLM has resulted in some progress being made on pending lease applications on Forest Service lands, but still, new leases are not being issued.

If you wonder why there are not more geothermal projects being developed in the West, these delays are a big part of the answer. If a company cannot obtain a lease, it will not spend millions of dollars on the exploration needed to determine whether or not there are adequate subsurface geothermal resources to support a geothermal power project.

Furthermore, once a company obtains a lease, the administrative processing of permit applications and environmental reviews can be expected to take years. As GEA testified before the House Resources Committee's Energy Subcommittee, it has been our members' experience that "environmental reviews have been unnecessarily extensive, costly, and repetitive; and in areas where an EIS has been completed, decisions by federal agencies have been subject to years of delay and appeal."

During the House Resources Energy Subcommittee hearing in May of 2001, an official from Calpine Corporation, the largest geothermal energy company in the United States, testified about his company's experience in trying to develop geothermal resources on Forest Service land in Northern California. The area in ques-

tion was leased by BLM in the 1980s, with the approval of the Forest Service, for geothermal development. In fact, the area is situated in the Medicine Lake Known Geothermal Resources Area, one of the first KGRAs to be designated after the Geothermal Steam Act was passed in 1970.

Despite the fact that BLM and the Forest Service encouraged development in this area for more than two decades, and the Bonneville Power Administration supported the project and agreed to buy the electric power, it took over seven years to complete the initial permitting and EIS on the project. The project was approved with some of the most extensive and onerous conditions ever imposed on a geothermal project. Despite approval of the project, the Calpine official declared in his statement before the Subcommittee ". . . if Calpine knew in 1994 what it knows now, it is safe to say that it never would have invested its time and capital in the Fourmile Hill project." He continued: ". . . Unless the situation changes, Calpine is unlikely to embark on a similar project ever again. This should concern this Subcommittee because many of the geothermal resources in the United States are located on federal land. As long as the federal permitting process remains as time-consuming and costly as what Calpine has experienced, private companies will be severely discouraged from developing these resources."

The message is clear: Extensive and expensive administrative processing is having a significant negative impact on geothermal development on public lands. The Years of delay and uncertainty in moving forward at these sites sent shock waves through the geothermal industry. It sends the message to every company considering a new geothermal project on public lands—expect many years of arduous and expensive bureaucratic processing.

GEOTHERMAL ENERGY ON MILITARY LANDS

In addition, there are millions of acres of public land in the West that are reserved for use by the military. These lands potentially hold significant geothermal resources. GEA fully recognizes the importance of the military's use of public lands, and believes that leasing or development should occur on military lands only with their consent, and under such terms and conditions as they deem necessary and/or advisable to meet the military mission.

However, where development occurs, GEA believes geothermal leasing and development on lands subject to military reservation there should be:

(1) Uniform policies on securing and maintaining the leasehold estate;
(2) Uniform royalty structures and consistency with policies affecting development on non-military lands; and
(3) Centralized administration of the lease and royalty programs.

What we are asking for is that standard, uniform policies be developed regarding leasing and royalties on military lands so that a potential developer knows what to expect. The current situation, which allows ad-hoc decisions to be made on a case-by-case basis, deters geothermal development on military lands. Essentially, we believe geothermal resources should receive treatment similar to other oil, gas and mineral activities on military lands.[4]

A NEW NATIONAL RESOURCE ASSESSMENT IS NEEDED

One of the proposals made during the last Congress was to direct a new national resource assessment by the U.S. Geologic Survey, and we strongly support this proposal. The importance of U.S.GS resource assessment was affirmed by the National Research Council, "effective and timely scientific information from [the U.S.GS] programs is needed to help the nation determine its enemy options through the year 2000 and beyond.[5]

The last assessment of the U.S. geothermal resource base was conducted in the late 60s and early 70s. A lot has happened in thirty years, including our fundamental understanding of the earth's geology. The lack of an up-to-date resource assessment is a fundamental barrier to expanded geothermal development in the United States. The U.S.GS has initiated a new assessment for the Great Basin with funding and support from Congress. This assessment should be expanded, and the U.S.GS should be authorized, directed, and funded to complete an entire national resource assessment over the next three years.

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[4] See 43, U.S.C. 158. The Engle Act of 1958 placed mineral resources on withdrawn military lands under jurisdiction of the Secretary of the Interior and subject to disposition under the public land training and mineral leasing laws.

[5] *Energy-Related Research in the U.S.GS.* National Research Council, 1995, National Academy Press. Washington, DC.

UPDATING THE GEOTHERMAL STEAM ACT

While we applaud the efforts made to date by the Administration to promote the development and use of geothermal resources on public lands, industry has begun to recognize that there are some fundamental problems with the Geothermal Steam Act that need to be addressed. The House Resources Committee proposed a series of amendments to the Steam Act during the 107th Congress that have been the basis for an on-going discussion about how to improve the underlying law. Following is a summary of our views on some positive amendments to the Steam Act that would help encourage new geothermal development.

KGRAs and Competitive Leasing

To begin with, the Steam Act was written at a time when government experts were expected to determine where the best resources were located. The federal government would determine what areas would be designated "Known Geothermal Resource Areas," and these would be subject to competitive bidding. This method is not too different from the approach taken by the oil and gas leasing laws prior to their modification by Congress in the 1980s. Similar modifications should be made to the Geothermal Steam Act.

We recommend that KGRAs be eliminated as a criterion for determining where bidding is held on a competitive basis, and that the law should be modified to resemble the current oil and gas leasing statutes where lands are offered first for competitive bidding and then made available on a non-competitive basis. In states where there are expressions of interest in bidding, BLM should hold a competitive lease sale at least once every two years. Prior to scheduling the sale, companies should be asked to submit any nominations they may have for specific lease blocks upon which they wish to bid.

Royalties

The current royalty requirements should be modified to reduce administrative costs and promote new power and direct use development. Instead of the complex and administratively expensive net back formula now used, royalties should be based upon a simple percentage of gross proceeds. We estimate that currently that would be roughly a 3½% gross royalty.To encourage new development, federal royalties could be "stepped," or be set at 2% of gross revenues for the first four years of production with an increase to 3½% for the remaining term of the lease. Recognizing that local governments rely upon royalty payments for essential services, if a stepped royalty is adopted, we would further recommend that the state share of the royalty should be increased to 100% for the initial period.

For direct use operations, there should be no royalty or a simple, nominal fee. Experts on direct use operations believe that the current royalty requirement is perhaps the major impediment to greater direct use of geothermal energy in commercial, mining, ranching and similar operations in the West. Kevin Rafferty of the Geo-Heat Center in Klamath Falls, Oregon states, "The really telling statistic in my opinion is that we now have hundreds of direct use projects in operation across the West and we are only able to identify 3 that use resources on the public lands. The users are out there and so are the Federal resources but no one is using them. It seems pretty obvious that something is wrong." According to Mr. Rafferty, the high cost of direct use royalties was the most commonly cited problem at a recent meeting held to discuss how to expand geothermal energy use in the West.[6]

Similarly, co-production of mineral by-products from geothermal sites should be subject to no royalty or a nominal fee. Mineral production from geothermal sites should be treated the same as mineral production elsewhere on the federal lands. It is sadly ironic that under the existing law a federal lessee producing metals from the fluid used in a geothermal plant would have to pay the federal government a royalty on the mineral (in addition to a royalty on the power), but producing that same metal by open pit mining on the public lands would not be subject to a royalty. There is significant potential to produce minerals from geothermal sites that should be encouraged. Doing so will not only help the economy and national security but will reduce the overall environmental impacts of mineral production.

Royalty Revenues

A fundamental problem facing the federal governments' efforts to promote geothermal production on federal lands is the lack of resources to support the efforts urgently needed by the BLM, U.S.GS, and others. To help address the substantial backlog of leasing, permitting and related environmental and land-use reviews and

[6] Email communication from Kevin Raffert, Associate Director, Geo-Heat Center, Klamath Falls, Oregon, February 24, 2004.

to support a new geothermal resource assessment we would propose that the federal share of geothermal royalties be dedicated to these efforts on a temporary basis.

For the next five years, the federal share of geothermal royalties, bonus bids, and rentals should be used to fund the U.S.GS resource assessment above, to eliminate the backlog in BLM planning, leasing and permitting activities, and to complete targeted environmental reviews for areas with significant new development potential. These environmental reviews should be conducted cooperatively with state and, as appropriate, tribal land authorities and should seek to minimize subsequent permitting and related project delays. For military lands, the share of federal royalties should be dedicated for their geothermal development efforts.

Payments/Due Dates Lease/Reinstatement for Inadvertent Lapses

Again, unlike the oil and gas leasing law, there is no flexibility in the existing geothermal statute for inadvertently late lease rental payments. If a payment if even one hour late, the law would impose termination of the lease. This is not only unreasonable, it can seriously disrupt lease development.

We would recommend that a standard 30-day grace period be applied for all payments due to the BLM, with a penalty as prescribed by regulations, similar to oil and gas.

Lease Consolidation, Unitization/Pooling

For a number of reasons, including efficient development of the resource, a geothermal area should be developed under common terms and agreements. In some cases, this would mean lease consolidation where a single company has multiple leases. In other cases, this could mean unitization or pooling where there are multiple leaseholders or perhaps a mix of federal, state or other leases.

The current law and regulations do not facilitate these developments. For example, the BLM cannot unitize a group of leases unless they have exactly the same lease terms. Also, they do not have the same degree of authority to prompt pooling arrangements or unit agreements as they have for oil and gas leases.

We would recommend that the law be modified to provide BLM the authority to consolidate leases that do not have exactly the same terms (issued same day, same royalty rate, etc. . . .) BLM should be authorized to renegotiate lease terms in order to have common terms for a lease block. BLM should also be given broader authority to initiate unitization or pooling agreements when it would facilitate development of the resource.

BLM as Lead Federal Agency

There continues to be significant problems with leasing and development of geothermal resources where there are multiple agency jurisdictions involved. We applaud the efforts of the BLM to work cooperatively with the Forest Service and the Navy, and encourage all parties to work together. However, the law should be amended to provide BLM greater authority to ensure timely decisions are made.

We would recommend that the Steam Act be amended to make it clear that BLM has lead status for all decisions under the Steam Act. BLM should be authorized to establish, by regulation, specific timeframes for actions by other agencies where their consent or consultation is required.

Agency Appeals Process

Finally, appeals of agency decisions under the Steam Act should be expedited. The U.S. Forest Service has a more expeditious process governing appeals of their actions as compared to the BLM. The BLM should consider modifying its regulations to be more like the Forest Service.

Specifically:

1. The BLM should adopt regulations similar to those of the Forest Service whereby only National Environmental Protection Act (NEPA) decisions can be appealed, such as a Decision Notice or Record of Decision. Implementing actions, such as the issuance of a permit or sundry notice, cannot be appealed. The current BLM regulations allow for the appeal of the NEPA decision, and then for the further appeal of any permit that is issued subsequently. The delays can be endless.

2. Regulations should be modified to set a time limit for the Interior Board of Land Appeals (IBLA) to decide appeals. The regulations should provide that if the IBLA does not make a decision within the time limit, then the appeal is deemed denied. The Forest Service regulations set a 45 day time limit for deciding an appeal. In contrast, an appeal of the BLM Record of Decision for Calpine's Fourmile Hill geothermal project (referenced earlier) took 22 months before a decision was reached to deny the appeal.

TRANSMISSION

Since most geothermal power facilities must be located where the resource occurs, they are often in rural areas. The benefits of this coincidence for rural economic development are substantial and positive. In nearly every county that currently has a geothermal power plant, it is the largest taxpayer in that county and provides substantial long-term employment as well.

However, for the developer this adds a potentially significant problem—the location may or may not be near transmission lines. This obstacle needs to be recognized by the federal agencies, and they need to place a priority on processing rights-of-way and permits for transmission lines. It also raises the need to plan transmission systems to optimize their availability for power production from geothermal and other renewable resources.

Just this week, the Departments of the Interior and Energy issued a report entitled *Assessing the Potential for Renewable Energy on Public Lands.* This is an important and positive step forward for agency land-use planning efforts, and should provide important information for state, regional and federal agencies that are undertaking transmission planning. When the U.S.GS completes a new geothermal resources assessment, we expect its findings will provide even more reliable resource information for transmission planning purposes.

CONCLUSION

Geothermal resources on the public lands can contribute significantly to our Nation's energy supplies. Solid progress is being made through the initiatives of the White House, Secretary Norton and Secretary Abraham to achieve the expanded use of our geothermal resources. Congress' support for these efforts, and for funding these efforts, will be critical to their success.

We urge this Committee to consider amendments to the Geothermal Steam Act that will build upon the Administration's efforts. These amendments could help streamline the existing law, and ensure that the resources are available to eliminate the backlog of leasing and permitting decisions, and to complete a new national geothermal resource assessment.

Geothermal energy can help address the critical energy problems of our Nation. With the tax, regulatory and legal changes we have discussed, there would be a dramatic revival in the use of geothermal energy use for electric power production, greenhouse heating, aquaculture, and other purposes. This would reduce our dependence upon foreign oil, reduce our spiraling demand for natural gas, and provide a substantial and immediate stimulus for the economy.

Thank you.

STATEMENT OF ROGER ZION, HONORARY CHAIRMAN, 60 PLUS ASSOCIATION

In 1973, I served as the Chairman of the House Republican Task Force on Energy and Resources.

I gave a speech on the House floor in which I said: "If we don't make maximum used of domestic energy sources, we will be held up by the Arabs and our National Defense will be threatened." At that time we were importing 35% of our oil. Now it's over 60%.

As the 108th Congress resumes debate on comprehensive energy legislation we believe that the following issues must be addressed:

- The U.S. must increase its domestic production of natural gas.
- Congress should also enact legislation to streamline natural gas pipeline construction to enable gas to enter the mid-continent and Northeastern markets, enhance gas supply and distribution capabilities, and relieve system constraints.

The Inupiat Eskimos of Alaska have this to say, "In 1969, when oil was first discovered on our lands, we sought for self-determination in order to be able to protect our resources. Since then, we have had over twenty years of working with the oil industry here. We enacted strict regulations to protect our land and the oil companies have consistently met the standards we imposed."

The Arctic Natural Wildlife Refuge provides a valuable source of domestic petroleum that significantly enhances the national security of the United States.

Political instability in the oil producing regions of the world, particularly the Persian Gulf area, creates considerable uncertainty regarding the reliability of imported sources of oil. As part of a sound national energy policy, it is imperative for the fed-

eral government to refrain from restricting development of domestic supplies in cases where the necessary resources are amenable to commercial development.

STATEMENT OF DR. ROLLIN D. SPARROWE, PRESIDENT,
WILDLIFE MANAGEMENT INSTITUTE

INTRODUCTION

Mr. Chairman, I write to you on behalf of the Wildlife Management Institute (Institute) to express our concerns regarding the orderly development of energy resources on public lands. Our Institute, established in 1911, is staffed by professional wildlife scientists and managers. Its purpose is to promote the restoration and improved management of wildlife and other natural resources in North America. We commend your Committee for initiating this dialog and for attempting to address the social, economic and environmental impacts of energy development. We are concerned that the seriousness of the impacts energy development may have on wildlife and other natural resources may be underestimated, and we urge your Committee to lay the groundwork that will lead to a plan for long-term and orderly development of energy resources with the least amount of impact on wildlife and other natural resources. We request that our written testimony be included in the record of the hearing to examine issues related to energy production on federal lands held on February 27, 2003 by the Senate Energy and Natural Resources Committee.

Our Institute believes exploration and development of energy resources may seriously impact wildlife and other natural resources. Though many site impacts are not fully understood, it is clear that energy development projects represent a major hazard to wildlife in some of the nation's most imperiled habitats. For example, it is estimated that coalbeds already provide at least six percent of the nation's natural gas, and geologists predict that contribution could double as new fields are developed. Potential coalbed methane (CBM) deposits exist in widespread locations in Alabama, Arizona, Colorado, Indiana, Illinois, Iowa, Kansas, Kentucky, Michigan, Montana, New Mexico, Oklahoma, Ohio, Pennsylvania, Texas, Tennessee, Utah, West Virginia and Wyoming; and there are thousands of proposed CBM development projects across the United States. The process of extracting methane gas from coalbeds involves de-watering the saturated coal beds to reduce pressure that traps methane vapors. Once the pressure is released, well rigs extract the liberated gas. This process results in huge amounts of water of varying quality being brought to the surface at each well site. This massive amount of ground-water removal can negatively influence amount and quality of important underground aquifers. In addition, infrastructure, including roads, pipelines, and electrical power to support CBM extraction, also threatens wildlife habitats and movements among those habitats. Often thousands of miles of roads, pipelines and powerlines are needed to fully develop CBM deposits, which increase the fragmentation of already modified wildlife habitats. We are concerned over the lack of reliable estimates regarding the impacts these proposed developments will have on wildlife and other natural resources.

A responsible approach to energy development must include a more comprehensive program to manage fish and wildlife. Neither the Bureau of Land Management or Forest Service, nor the individual states involved have the data or staff and money to do all the work necessary to take care of renewable fish and wildlife resources, considering the pace and magnitude of proposed and future developments.

We hear from energy companies, the Administration, and many in the Congress that we must remove restrictions on exploration, development and operations and open new areas—without specifying which ones. Please keep in mind that these mule deer, elk, and pronghorn are important wildlife populations that support local businesses and culture, and whose recovery from past over-exploitation at the turn of the century was paid for over the past 65 years by sportsmen's dollars. It is simply unfair to expect American sportsmen and women to foot the bill to recover wildlife populations a second time.

We are not opposing orderly development of energy resources to meet our country's needs. However, not all of the restrictions on energy development are products of last minute decisions of the departed Administration. In fact, many of them occurred over several years, with lots of input from wildlife and fisheries organizations. Neither the Congress nor the Bureau of Land Management should make hasty decisions to roll back processes and procedures currently used to conserve wildlife while development occurs.

Decisions on energy development should be made carefully, based on specific consideration of geographically distinct areas and impacts on wildlife populations and their seasonal ranges. So far, wildlife interests are not at the table as discussions

occur about plans and proposals to open important more exploration. Recent hearings in the Congress on developing our energy reserves have not included invited testimony from any and fish interests. Also, planning for accelerated development with energy producers has not included our interests. Representatives from the Fish, wildlife, ranching and energy communities met in June 2002 to share concerns and began an overdue dialog. The Department of the Interior helped support the dialog, which prompted another meeting on March 5, 2003 to focus on the needs of big game herds. We are hopeful that this dialog will result in specific recommendations for their welfare.

The problems that would be caused by precipitous action on existing protections for wildlife are shared not only by hunters and anglers. For example, rural towns in the Green River Basin of Wyoming tell us that half of their annual income is collected during hunting season to motels, restaurants, grocery stores and the like. The Fish and Wildlife Service's 2001 National Survey of Hunting and Fishing indicates that annually $1.8 billion in retail sales and 43,000 jobs are realized by the states in the Northern Rocky Mountains from hunting alone; add fishing and observing wildlife, and the value is about three times that figure. It is important to note that these are long-term, substantial benefits that accrue regularly to local communities only if wildlife and their habitats are secure. Local people will need to rely on wildlife and fishery resources to sustain their local economy and culture long after energy development is gone.

Accelerated energy development must be done with much more attention to detail, and careful evaluation of costs and benefits, than is evident in much of the recent dialogue. Importantly, organizations representing hunters and anglers have a lot to offer that has not yet been used by government or the Congress. The diverse array of wildlife and fishery organizations can provide evaluation and analysis of important resource values, and we are ready to help. The generalized calls to "open things up" must get back to reality and deal with specific, geographically identified areas to which we can all relate.

We suggest a reasonable platform for the consideration of energy development on public lands: (1) development and production of energy on public lands should be conducted with as much care as such development on private lands; (2) renewable resources such as mule deer and cutthroat trout require equal consideration under law along with mineral extraction; (3) scarce hunter and angler dollars from excise taxes should not have to pay to monitor the effects of development nor fund remedial action, but those tasks must be done and paid for as a required cost of development; and (4) where development occurs, it must be authorized carefully on a site by site basis with specific attention to the fish and wildlife resources.

THE KEY QUESTION FOR THE FUTURE

The real question is: at what cost do wildlife and fish adapt to further intrusions on the landscape? Neither wildlife managers nor the energy industry has the answer, and BLM as the responsible agency for energy development has not been willing to consider the large issues of incremental effects and habitat fragmentation. The issue in most cases will not be that a single road or a single development or a single industry should be blamed for its effects on wildlife. Our mule deer, elk, pronghorn and sage grouse have been affected by roads, fences, ranching and farming, towns, second home development and long-term reduction in habitat quality. Migratory herds in Wyoming live on the National Forest in summer where accelerated development is proposed, and migrate over 100 miles to the sage desert where accelerated development already is underway. Can they persist as we know them with major changes on all parts of their annual range? Herds of elk that previously migrated even further from Jackson Hole to the sage deserts along the Green River can no longer do so because of those multiple influences. At some point the next new activity will be the one that leads to a potential irreversible reduction in the ability of some of these herds to survive and certainly to sustain the current level of public use and local economic benefit.

A critical need for coping with these changes as they occur is for effective, science-based monitoring to answer specific questions. Many of the potential effects of accelerated energy development are subtle, long term in nature, and difficult to measure. This results in a continuing standoff where wildlife managers say "look at those roads, structures and activities, they have to have an impact", and development interests say "look at those wildlife standing around the structures, they don't care at all". Our wildlife and fish resources cannot stand this impasse while development occurs.

Energy and mineral exploration and development involve significant outlays of funds by state wildlife, fish and natural resource management agencies for environ-

mental studies, planning, development, monitoring, mitigation and management of fish and wildlife resources. State wildlife, fish and natural resource management agencies are funded primarily through permit and license fees paid to the states by the general public to hunt and fish, and through federal excise taxes on equipment used for these activities. Revenues derived from sales, bonus bids, royalties, and rentals under the mineral leasing laws of the United States are paid to the United States Treasury through the Minerals Management Service of the Department of the Interior, yet none of these revenues are returned to the states specifically to manage the impacts of energy and mineral exploration and development on the wildlife, fish and other natural resources for which they are entrusted.

We propose a wildlife and fish funding concept for your consideration. Revenues from energy development are substantial and likely to increase, and those already collected from onshore oil and gas producers that go into the U.S. Treasury offer a logical source of funding for wildlife. This wildlife and fish funding concept would not interfere with the revenues that go to the states or elsewhere. The funds designated for wildlife and fish in proportion to the development activity would go back to the states to fund programs designed to manage these wildlife for monitoring and evaluating impacts, and for habitat protection and enhancement of fish and wildlife populations influenced by development. In this manner, the long-term nature of development and necessary active management can be accommodated. All appropriate property rights and other concerns could be dealt with directly in legislation. We envision distribution of funds proportional to the amount of development occurring in each state involved in onshore production.

In conclusion, Mr. Chairman, we urge your committee to provide leadership on this important nationwide issue. A wide array of wildlife and fishery organizations and our hunters and anglers across America have a stake in the outcome of any decision to accelerate energy development on public lands. It is not enough to proclaim that energy development can occur in all areas in an environmentally sound manner. Some areas are so important, and the alternatives for wildlife in harsh climates are so few, that such sweeping statements likely are incorrect. There is not the current knowledge base that will allow such action to be taken and still assure that wildlife will be sustained, unless a long-term investment is made for the welfare of affected fish and wildlife. We suggest that implementing this funding concept would reflect positively on the Congress, Administration and the energy industry. It would bring the solutions back to the states where the issue arose.

Thank you very much for considering our view on this important nationwide issue. We look forward to working with your Committee on this matter, and we are available at your convenience to discuss our concerns and recommendations. I am available at (202) 371-1808, as is Terry Z. Riley, our Director of Conservation.

STATEMENT OF THE LINCOLN HERITAGE CENTER FOR NATIONAL SECURITY STUDIES, EVANSVILLE INDIANA

The Lincoln Heritage Center for National Security Studies urges the United States Congress to approve leasing the Arctic National Wildlife Refuge for commercial production of oil.

SUMMARY POSITION

The Arctic Natural Wildlife Refuge provides a valuable source of domestic petroleum that significantly enhances the national security of the United States.

Political instability in the oil producing regions of the world, particularly the Persian Gulf area, creates considerable uncertainty regarding the reliability of imported sources of oil. As part of a sound national energy policy, it is imperative for the federal government to refrain from restricting development of domestic supplies in cases where the necessary resources are amenable to commercial development.

The role of the federal government should be limited to proper execution of leases, in particular assuring that leases be granted at fair market value, and enforcing existing statutes to assure orderly development and compliance with legal standards for environmental protection.

The accompanying position paper describes the rationale for this recommendation.

This position paper is produced by the Lincoln Heritage Center for National Security Studies (hereafter the Center). It is intended to support the Center's position in favor of opening the Arctic National Wildlife Refuge for commercial development.

INTRODUCTION

The Arctic National Wildlife Refuge (hereafter ANWR) is an area encompassing 19 million acres in northeastern Alaska. Its status as a wilderness refuge wad established in 1980 by the Alaska National Interests Lands Conservation Act. The coastal plain area, encompassing 1.5 million acres, is one of the most promising onshore areas for oil exploration in the United States. Located approximately 75 miles east of the Prudhoe Bay commercial development, the coastal plain is potentially accessible to the Trans Alaskan Pipeline System. Estimates of total ANWR reserves range from 7.0 billion barrels to 13.8 billion barrels. By comparison, the total potential capacity of the Prudhoe Bay operation is estimated to be 10 billion barrels.

In 1987, the U.S. Department of the Interior, in an assessment of ANWR's economic potential, estimated the probability of successful commercial development to be 0.19.[1] The study projected that oil operations would affect less than one percent of the coastal plain area. After determining that development could be managed in such a way that adverse effects on wildlife and the environment would be sustained at acceptable levels, the Secretary of the Interior recommended full scale leasing of the ANWR coastal plain for commercial development. That action requires approval by a vote of the U.S. Congress.

OIL AS A RESOURCE IN THE U.S. ECONOMY

Petroleum and natural gas account for 65 percent of the U.S. energy supply. Domestic production of oil totaled 5.7 million barrels per day as of November 2002, an amount that includes 0.97 million barrels per day from Alaskan production. As a consequence of domestic production, the United States derives approximately 40 percent of its oil supply from American sources. The remaining 60 percent share of imports is distributed as follows: Canada, 10.6 percent; Saudi Arabia, 8.6 percent; Venezuela, 8.2 percent; Mexico, 8.0 percent; United Kingdom, 3.0 percent; Nigeria, 2.9 percent; Norway, 1.6 percent; Russia, 1.5 percent; Angola, 1.3 percent; Algeria, 1.2 percent; and all others (none exceeding 1.2 percent), 12.9 percent. The sum of all Persian Gulf sources accounts for 10.9 percent, and the sum of all sources within the Organization of Petroleum Exporting Countries (OPEC) accounts for 23.7 percent.[2]

These data establish the relative diversification of import sources for American oil. In particular, the U.S. is not strongly reliant on any individual supplier from the Persian Gulf or OPEC. The Centers advocacy of ANWR leasing therefore does not rest on the objective of relieving its "dependence" on any single foreign supplier. Rather, the ANWR development offers potential to further increase diversification in the portfolio of potential energy sources, thereby reducing the risk associated with future supply disruptions. The significance of ANWR is that it will be relatively free of the vicissitudes of geopolitical instability both present (Venezuela, Iraq) and future (Saudi Arabia, Iran) among America's sources of supply.

ANWR LEASING AS A VENTURE OF THE PRIVATE SECTOR

The defining principle of American civilization is its embrace of political and economic freedom. The culture of free enterprise, based on protection of private ownership, restrained government, and the rule of law, has produced the most dynamic and prosperous economy in history. It is the Center's position that the proposed leasing of ANWR should not be an exception. Applied to the ANWR development, the principle of freedom requires developers to pay fair market value for leasing rights, using capital provided by private investors.

Since the 1980's the price of oil has been determined in the world commodity market. Oil prices are the outcome of powerful forces that transcend the influence of any single country. The commercial potential of ANWR, depends on the long-term price. Powell (1991) estimated that the economic success of ANWR would require a price in excess of $20 per barrel.[3] It is the Center's position that the price contingency is for private investors to deal with. An important reality is the relative cost disadvantage of Alaskan oil. Chapman and Khanna (2001) estimate that the average per-barrel production cost of Persian Gulf oil equals $2.50; the comparable cost for Alaskan oil is $15.[4] The best prospect for ANWR development rests on free market forces that determine the market price. The prospect of higher prices appears to be present, due to unstable political conditions among the world's leading producers. Current instability exists in Venezuela and Iraq. Conditions for future unrest exist in Saudi Arabia, where popular resentment of the Saudi royal family is increasing, and Iran, where dissent is mounting against the ruling Islamic theocracy. The possibility of political instability not only increases the prospect of ANWR as

a successful economic venture, but also highlights the need for additional sources of petroleum for the American economy.

In the event that future world events cause disruptions in oil supply, the optimal government policy is to encourage domestic supply. The current restriction of ANWR development constitutes a major obstacle to supply. If development is allowed to proceed, it will mitigate price increases in the U.S. market. However, the extent of ANWR reserves is not sufficiently large to offset major supply disruptions. In that event, the optimal policy is to allow the forces of free markets to stimulate conservation on the part of buyers. There is a history of significant conservation in the U.S. During the past two decades, real Gross Domestic Product has increased 75 percent, while energy consumption has increased 25 percent. The relative decline in energy consumption was occasioned by higher energy prices in the 1970's and 1980's.[5] In addition, significant price increases will have the effect of stimulating development in alternative fuels, such as coal gasification and derivation of petroleum from oil shale and tar sands.[6]

In summary, it is increasingly clear that future episodes in the world oil market will result from powerful forces that defy the control of any individual country. The most rational way to face future is apply the time-honored lessons of free markets. The Center's position is that those lessons instruct us to proceed with private development of the ANWR coastal plain.

ENVIRONMENTAL CONCERNS

The Center shares with all concerned Americans a desire to assure the environmental protection of the ANWR coastal plain. It is in America's best interest to take all reasonable steps to minimize the environmental impact of exploration and drilling. The Center regards environmental protection in all aspects of U.S. energy policy to be an important issue of national security and public health.

Existing federal law requires petroleum companies to protect the environment during oil and gas operations on federal land. An example is the Marine Mammals Protection Act, which protects polar bears in the North Slope area of the Prudhoe Bay operation. Evidence of success in wildlife preservation is found in the population of the Central Arctic caribou herd, which has increased from an estimated 3,000 in the 1970's to more than 23,000 today.[7] The Center's position is that in the case of ANWR development the federal government should enforce existing environmental statutes.

Recent developments in petroleum technology have improved the prospects for environmental protection. Improvements in transportation methods and containment of residuals and wastes have combined to minimize impacts on the Arctic surface and the underlying permafrost. New advances in extraction technology include horizontal drilling, which permits exploration and recovery in subsurface areas that are far removed from the wellhead. Using directional technology, it is possible to develop 80 square miles from a single two-acre drill site.[8] If the Prudhoe Bay operation was developed from inception today, its "footprint" would be 64 percent smaller, drilling impact would be 74 percent smaller, roads would consume 58 percent less surface area, and operating facilities would require 50 percent less space.[9] An illustration of the technical advance is the Alpine field in the North Slope development, which uses 97 acres of surface area to produce 100,000 barrels per day from a field underlying 40,000 acres of surface area.

There is abundant evidence that oil and gas production are compatible with responsible environmental policy and protection of wildlife. For example, the Audubon Society owns the Rainey Wildlife Sanctuary in Louisiana, a preserve encompassing 26,000 acres that provides habitat for an exceptional variety of wildlife. In addition, the preserve contains substantial reserves of oil and natural gas. The Audubon Society has permitted private production of the petroleum in exchange for annual royalties, which in turn support the Society's other activities. These actions of the Audubon Society, one of the foremost advocates of wildlife protection in the United States, clearly indicate the compatibility of petroleum production and environmental interests.[10]

In summary, there is ample reason to believe that ANWR development can proceed without violating the environmental integrity of the coastal plain area. Recognizing that the federal government controls one third of all land in the U.S., including 322 million acres in Alaska, the encroachment caused by development of ANWR is miniscule by any standard of measurement. Opponents of ANWR development might argue that any commercial presence in the coastal plain, however small, is not acceptable. The Center's position is that the benefits in terms of national and economic security exceed the modest environmental costs by a substantial margin.

NOTES

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2. United States Department of Energy, Petroleum Supply Monthly, December 2002.

3. Powell, S.G. (1991) "A Risk Analysis of Oil Development in the Arctic National Wildlife Refuge". *Energy Journal*, Vol. 12, Issue 3, pp. 55-77.

4. Chapman, D., and N. Khanna. (2001) "An Economic Analysis of Aspects of Petroleum and Military Security in the Persian Gulf . . . Economic . . . Vol. 19, No.4 (October), pp. 371-381.

5. Brown, S.P. (1996) "Directions of U.S. Energy Conservation and Independence' *Business Economics* (October), pp. 25-30.

6. Chapman, D., and N. Khanna. (2000) "World Oil: The Growing Case for International Policy". *Contemporary Economic Policy*, Vol. 18, No. 1 (January), pp. 1-13.

7. Lee, D.R. (2001) "To Drill or Not to Drill: Let the Environmentalists Decide". *The Independent Review*, Vol. VI, No.2 (Fall), pp. 217-226.

8. American Petroleum Institute: www.api.org (2003) "Exploring for Oil and Gas."

9. American Petroleum Institute: www.api.org (2003) "Exploring for Oil and Gas".

10. The Audubon Society has adopted a position in opposition to development of ANWR. For a discussion of this point, see Lee, D.R. (2001) "To Drill or Not to Drill: Let the Environmentalists Decide". *The Independent Review*, Vol. VI, No.2 (Fall), pp. 217-226.

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