A NATIONAL ENERGY POLICY

OVERSIGHT HEARINGS

BEFORE THE

COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

March 7, 2001, The Role of Public Lands in the Development of a Self–Reliant Energy Policy; and
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OVERSIGHT HEARING ON THE ROLE OF PUBLIC LANDS IN THE DEVELOPMENT OF A SELF-RELIANT ENERGY POLICY

Wednesday, March 7, 2001
House of Representatives,
Committee on Resources,
Washington, DC

The Committee met, pursuant to notice, at 10:02 a.m., in Room 1324, Longworth House Office Building, Hon. James V. Hansen (Chairman of the Committee) presiding.

STATEMENT OF THE HON. JAMES V. HANSEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF UTAH

The CHAIRMAN. The Committee will come to order. We appreciate your presence. This very important meeting we are having today will be regarding energy policy. Between this Committee and the Commerce Committee, we hope to be coming up with a policy that will determine the energy policy of America for the next few years.

Around the country this winter, Americans have opened their utility bills with dismay to see their costs double and sometimes triple from last year. Many Americans have written to ask, "Who fell asleep at the switch? How can there be an energy shortage in one of the most prosperous and technologically-advanced countries in the world?"

Our current situation is the direct result of the lack of a coherent national energy policy and policies that have restricted the development of our domestic energy resources on public lands, thereby increasing reliance on foreign energy. To keep our economy prosperous and reinforce our national security, we must have reliable energy supplies at a reasonable cost. We have called this congressional hearing to explore how we may structure natural resource policy to help achieve a sustainable and self-reliant energy policy.

Over the last 150 years, the Federal Government retained land to hold in trust for the people. The principle guiding public land policy was multiple use and sustainable yield. Public land was a resource to be used in maintaining our national health, environment, and wealth.

Some time ago, we lost that vision and today we are paying the price. Currently, while national energy costs skyrocket, billions of barrels of oil and natural gas are locked beneath public lands, including the Arctic National Wildlife Refuge. Using public lands responsibly includes environmentally sensitive resource extraction. These two goals are not mutually exclusive. We have produced

more than 13 billion barrels of oil since 1977 from Alaska's North Slope in a manner that has allowed wildlife to thrive and the caribou herds to increase five-fold.

Clean oil remains untouchable in many parts of the United States and hydroelectric generation has been reduced. In one case, generating capacity at a Federal hydropower facility was reduced by one-third to comply with environmental regulations. That is enough energy to power 400,000 homes.

I recall the debate in Utah several decades ago when we first set out to develop resources on the upper Colorado River. After extensive study, the Bureau of Reclamation ultimately identified two sites that were most feasible— Echo Park Canyon, in Dinosaur National Monument, and Glen Canyon.

Once that was done, we went through months and months of additional study and debate. Strong feelings were expressed on all sides. Both sites proposed were beautiful, rugged, and largely unexplored, and yet both sites were unique in that they shared the geological characteristic that made it possible to build one of the largest man-made structures at the time, to harness one of the wildest and untamed rivers in the hemisphere. After a long period of debate and negotiation, Congress ultimately decided that Glen Canyon was the best place to dam the upper Colorado River.

We used to hear former President Clinton say from time to time, "you can't have mines everywhere," and I agree with that. You can only have mines where the minerals and resources are. Likewise with a dam, you can't have dams everywhere. You build dams on sites which are capable of accomplishing the purpose for which they are built.

In this instance, Glen Canyon was designed for three purposes: water storage, flood control, and to generate electricity for the growing population in the Southwest. You know, it has got another one now; it is called recreation. In fact, more people go there for more than one day than probably any other place in our whole park system.

Once the site was proposed, opponents of the project cried out and said, "This dam is too big. We will never be able to use all that power. You will upset the laws of supply and demand," et cetera, et cetera. Besides, why do we need hydropower when we already have all of that great coal in the Kaparowits plateau?

Thirty years later, when former President Clinton designated the Grand Staircase-Escalante National Monument, we were told that the Kaparowits coal would never be used, that markets would never be able to use all that coal, and that there was a glut of cheap power that would make the development of the coal resource uneconomical.

My, how times have changed. Let's not repeat the shortsightedness of the past. We have been given a sacred trust by the people to develop our natural resources wisely and maintain a healthy environment. It is time to return to the original concept of multiple use of access to our public grounds.

I will look forward to hearing from our witnesses.

[The prepared statement of Chairman Hansen follows:]

Statement of The Honorable James V. Hansen, Chairman, Committee on Resources

Around the country this winter, Americans have opened their utility bills with dismay to see their costs double and sometimes triple from last year. Many Americans have Written to ask, "Who fell asleep at the switch? How can there be an energy shortage in one of the most prosperous and technologically advanced countries in the world?"

Our current situation is the direct result of (1) lack of a coherent national energy policy over the past eight years, and (2) policies that have restricted development of our domestic energy resources on public lands, thereby increasing reliance on foreign energy. To keep our economy prosperous and reinforce our national security, we must have reliable energy supplies at a reasonable cost. We have called this Congressional hearing to explore how we may structure natural resource policy to help achieve a sustainable and self-reliant energy policy.

Over the last 150 years, the Federal government retained land to hold in trust for the public. The principle guiding public land policy was multiple use and sustainable yield. Public land was a resource to be used in maintaining our national health, environment and wealth.

Some time ago, we lost that vision and today we are paying the price. Currently, while national energy costs skyrocket, billions of barrels of oil and natural gas are locked beneath public lands including the Arctic National Wildlife Refuge. Using public lands responsibly includes environmentally sensitive resource extraction. These two goals are not mutually exclusive. We have produced more than 13 billion barrels of oil since 1977 from Alaska's North Slope in a manner that has allowed wildlife to thrive and the caribou herds to increase 5-fold.

Clean coal remains untouchable in many parts of the United States and hydroelectric generation has been reduced. In one case, generating capacity at a Federal hydropower facility has been reduced by ⅓ to comply with environmental regulations. This is enough energy to power 400,000 homes.

We have been given a sacred trust by the people to develop our natural resources wisely and maintain a healthy environment. It's time to return to the original concept of multiple use on our public lands.

I look forward to hearing from our witnesses.

I now recognize the distinguished gentleman from West Virginia, the ranking Democrat on the Committee.

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

Mr. RAHALL. Thank you very much, Mr. Chairman. I join with you in welcoming our distinguished Governors of Alaska, Montana, and Wyoming to the Resources Committee this morning for this very important hearing on the role of public lands in the development of a national energy policy.

I approach this issue perhaps slightly differently, perhaps a lot differently than Chairman Hansen and our distinguished panel that is going to be testifying this morning. That is certainly no surprise to the Chairman. We have worked together on this Committee for a number of years, or decades perhaps.

Certainly, Federal lands have a role to play in producing energy for our Nation. For instance, almost 23 million acres of these lands are currently subject to Federal onshore oil and gas leases. Now, this happens to be greater than the size of my home State of West Virginia. It is the size of Indiana and just slightly less than the size of States like Ohio, Kentucky, Tennessee, and Virginia. Now, when you toss in the geothermal and coal leases, well, you start to get to the size of these States.

Acreage aside, energy production from Federal lands, both onshore and offshore, is making a sizable contribution to our energy needs. Oil production from Federal areas account for 27 percent of

the U.S. total, natural gas 38 percent of the total, and coal 23 percent of the total, to the pleasure, I am sure, of the governors from the Powder River Basin.

And here is something I am sure that certain people do not want you to know, but it is worth stating today, and I am going to repeat it. Natural gas and coal production from Federal leases was at an all-time high during the Clinton administration, surpassing the amount produced during the Reagan years, let alone Bush the First. And let me repeat that. Natural gas and coal production from Federal leases was at an all-time high during the Clinton administration, surpassing the amount produced during the Reagan years, let alone Bush the First.

With this noted, I become somewhat puzzled when I hear talk about opening more Federal lands to energy development. Now, which areas are we talking about here? The big production comes from offshore oil. Yet, exploration for new fields is constrained by drilling moratorium bans supported by the President during the campaign, as well as the governors of those coastal States. And when it comes to onshore, certainly a viable energy policy should not include opening Federal park and wilderness areas to new oil and gas drilling.

So does it all boil down to little old Alaska, opening up a national wildlife refuge so that 10 to 15 years in the future oil may begin flowing to the lower 49 States, if it is not first exported to Japan, an undetermined amount of oil at that? Does that represent the hope and the salvation of our Nation's energy security? That, in my view, is quite a roll of the dice approach to addressing our energy needs.

Certainly, Alaska has a role to play. An issue I intend to examine is whether we have fully explored the potential for the 23-million-acre National Petroleum Reserve in Alaska to not only contribute to our energy needs, but to Alaska's thirst for shelling out a $2,000-per-year check out of its $27 billion North Slope oil kitty to every man, woman, child, and infant residing in the State, a State, I might add, with no income tax and no statewide sales tax. I notice there is a little rumbling in the audience. Everybody is trying to find out where to sign up for this check.

But rather than becoming bogged down in controversy over the Arctic Refuge, I also think it would be constructive if we have more dialogue over the potential of constructing the North Slope gas pipeline already authorized by Federal law. We ought to examine more fully the contribution that that can make in providing a more immediate return in meeting America's energy needs.

With that, I again welcome our Governors this morning and look forward to your testimony.

[The prepared statement of Mr. Rahall follows:]

Statement of The Honorable Nick Rahall, a Representative in Congress from the State of West Virginia

Thank you, Mr. Chairman. I would like to welcome the distinguished governors of Alaska, Montana and Wyoming to the Resources Committee for today's hearing on the role of public lands in the development of a national energy policy.

I approach this topic from perhaps a different perspective than does Chairman Hansen and the governors who are with us this morning.

Certainly, Federal lands have a role to play in producing energy for our Nation. For instance, almost 23 million acres of these lands are currently subject to Federal onshore oil and gas leases.

That is greater than the size of my home State of West Virginia. It is the size of Indiana, and just slightly less than the size of States like Ohio, Kentucky, Tennessee and Virginia. Toss in Federal geothermal and coal leases, and you start to get to the size of those States.

Acreage aside, energy production from Federal lands, both onshore and offshore, is making a sizable contribution to our energy needs. Oil production from Federal areas account for 27 percent of the U.S. total. Natural gas, 38 percent of the total. And coal, 33 percent of the total...to the pleasure, I am sure, of the Governors from the Power River Basin.

And here is something I am sure certain people do not want you to know: Natural gas and coal production from Federal leases was at an all time high during the Clinton Administration, surpassing the amount produced during the Reagan years, let alone Bush the First.

With this noted, I become somewhat puzzled when I hear talk about opening more Federal lands to energy development.

Which areas are we talking about? The big production comes from offshore. Yet, exploration for new fields is constrained by drilling moratoriums; bans which President Bush supported during his campaign, as well as by the governors of the coastal States. And when it comes to onshore, certainly a viable energy policy should not include opening Federal park and wilderness areas to new oil and gas drilling.

So does it all boil down to little 'ole Alaska, to opening up a national wildlife refuge so that 10 to 15 years in the future oil may begin flowing to the lower 48 unless it is first exported to Japan? An undetermined amount of oil at that. Does that represent the hope and salvation of the Nation's energy security?

That, in my view, is a roll of the dice approach to addressing our energy needs. Certainly, Alaska has a role to play. An issue I intend to examine is whether we have fully explored the potential of the 23 million acre National Petroleum Reserve-Alaska...to not only contribute to our energy needs...but to Alaska's thirst for shelling out a $2,000 per-year check out of its $27 billion North Slope oil kitty to every man, woman, child and infant residing in the State. A State, I might add, with no income tax and no statewide sales tax.

I notice the audience is getting restless, governor, they want to know where to sign up.

Rather than becoming bogged down in controversy over the Arctic Refuge, I also think it would be constructive if we have more dialogue over the potential constructing the North Slope gas pipeline—already authorized by Federal law can make in providing for a more immediate return in meeting America's energy needs.

With that, I welcome our witnesses and look forward to hearing the testimony. Thank you.

The CHAIRMAN. I thank the gentleman from West Virginia.

As you know, the policy of the Committee is if you are present when the gavel falls, you will be recognized by seniority and after that in the order in which you arrived. But in the interests of time, we are going to go straight to our three distinguished Governors. We are very honored to have you with us at this particular time.

We understand that Governor Knowles, of Alaska, has an airplane to catch, and so we will go to you first, Governor, if that is all right.

Governor Knowles, we will turn to you, sir.

STATEMENT OF HON. TONY KNOWLES, GOVERNOR, STATE OF ALASKA

Governor KNOWLES. For the record, I am Tony Knowles, the Governor of Alaska, and I welcome this opportunity to testify on the vital issue of developing a self-reliant national energy policy and the central role that America's public lands play in that effort. I applaud you and the national administration for focusing on this issue which is so important to America's jobs and families.

I address you today in two capacities, first as Governor of a State which serves as America's energy storehouse. Since completion of the trans-Alaska oil pipeline nearly 25 years ago, Alaska has been supplying a significant portion of this nation's domestic oil production. And now, with development of our natural gas, North America's largest proven reserve, we will continue to help meet America's energy needs.

Second, I represent my fellow governors of oil- and gas-producing States as Chairman of the Interstate Oil and Gas Compact Commission (IOGCC). These 37 States produce more than 99 percent of the oil and natural gas produced onshore in the United States, and are committed to the conservation and maximum utilization of America's oil and gas reserves.

My message today is simple. To continue America's prosperity which I believe is threatened by a looming energy crisis, we must meet our nation's energy needs through a combination of conservation and increased supply. The key to increased energy supply is the environmentally-responsible development of this nation's enormous energy resources, most of which lie beneath our public lands. Our access to those lands obligates us to accept the profound responsibility for enlightened stewardship. No longer can access to public lands be an excuse for environmental destruction.

As this Committee knows well, this country is suffering from a combination of high energy prices and energy shortages. We need to look no further than the news video of senior citizens being pried from stopped elevators during California's rolling blackouts or subsequent plant closures and layoffs to know that.

New energy supplies will come from many sources, but our obligation for jobs and families of Americans is to look at home first. America's public lands hold the vast majority of those new energy resources. In my own State of 375 million acres, one-fifth of the land mass of the rest of America, we have no choice but to look to public lands, as they constitute 88 percent of our land mass.

Mr. Chairman, I submit that we need to look no further than the 49th State for a national model on how to find and produce energy resources on public lands, while protecting the wildlife and the environment. We in Alaska apply a simple standard to development issues, whether producing oil from a newly discovered reserve or harvesting America's best tasting wild organic salmon, and that standard is we do development right.

By that, I mean development must be based on three principles: sound science and technology, enlightened stewardship, and a thorough, open public process. Using that standard, we have in Alaska supplied up to a quarter of America's domestic oil production from the nation's two largest oil fields. We have done so while protecting the nation's most pristine environment inhabited by more caribou, grizzlies, bald eagles, and mosquitoes than the rest of the country combined.

Nationally, the vast majority of our energy resources are on public lands. The U.S. Geological Survey estimated that 67 percent of the nation's undiscovered oil and 40 percent of its undiscovered natural gas resources lie beneath onshore public lands. And along our coastlines, only 2 percent of total Federal offshore acreage, including that in Alaska, has been leased for energy development. At

the same time, the amount of public lands available for oil drilling has shrunk from 73 to 17 percent in the past 25 years.

The best promise for new natural gas development, which we know is the clean-burning fuel of the 21st century, is on the public lands in the Gulf of Mexico, the Rocky Mountains, and Alaska's Arctic Slope. As we seek to develop these energy resources on public lands, I believe those of us from Western public lands States have a special obligation to adhere to the "doing it right" standard, and we are doing exactly that in Alaska.

During my roughnecking days on the North Slope in the 1960's, a drill pad could be as big as 65 acres. Today, they are a tenth that size. In using new technology, up to 50 wells can be drilled from the same smaller pad and tap into oil identified by 3-D seismic technology into oil 20,000 feet deep and 5 miles away, under sensitive areas such as ice-choked ocean or sensitive wildlife habitat. That is like running a well through this Committee room floor to Ronald Reagan National Airport and we could determine which gate the drill bit would emerge from.

With this "doing it right" approach to development, we successfully convinced the Clinton administration to permit exploration and development in a portion of the 23-million-acre National Petroleum Reserve (NPRA), a promising Indiana-sized area to the west of Prudhoe Bay. We did so by imposing the strictest environmental constraints of any oil and gas lease in America or the world.

These 79 conditions are specifically designed to protect caribou, polar bears, and birds particularly during sensitive periods of calving, migration, molting, denning, and hibernation. They were the result of a collaboration of world-class experts in science and engineering from all levels of government and industry. This is the only acceptable way to combine the needs for jobs and energy development with the protection of the land and wildlife we love.

To continue meeting this nation's energy needs, we urge the Congress to permit exploration in America's best prospect for a major oil and gas discovery in the Arctic National Wildlife Refuge (ANWR). Just a small portion of this South Carolina-sized refuge is believed to contain up to 16 billion barrels of oil, enough to produce 2 million barrels a day for at least 25 years, about a third of the current domestic production. In addition, it is believed to hold substantial new discoveries of natural gas.

Environmentally-responsible development in the Arctic Refuge would be good for America, producing thousands of jobs, lessening our dependence on imported oil, reducing prices at the pump, providing environmentally-friendly natural gas to produce our nation's electric supply, improving our nation's trade deficit, and a host of other reasons.

As enlightened stewards, we must and can take special precautions to protect caribou, musk ox, geese, polar bear, and other wildlife that inhabit the Arctic Refuge. As we did in the NPRA, we will work with the industry to mitigate impacts such as limited activity during the 6 to 8 weeks when the Porcupine caribou herd often uses the coastal plain for calving. We must be sensitive to the subsistence needs of Native people on both sides of the border whose culture, nutrition and economy are dependent on the area's healthy wildlife.

To bring oil from ANWR and other North Slope development to American consumers, we are working with the Bush administration to reauthorize the right-of-way lease for the 800-mile trans-Alaska oil pipeline. The Federal right-of-way administered by the Bureau of Land Management expires in 2004, but the environmental review and renewal process is projected to take at least 2 years. I welcome this Committee's oversight and encouragement of that process.

Alaskans are working to continue as the nation's energy storehouse by delivering our enormous natural gas reserve to thirsty American markets. Alaska's North Slope has 35 trillion cubic feet of discovered natural gas, most of which is being reinjected to increase Prudhoe Bay oil production. Yet, geologists estimate we are sitting on perhaps triple what we have already discovered, more than 100 trillion cubic feet.

The most viable way to get that gas to market is through a 1,800-mile pipeline from Alaska's North Slope through Fairbanks and along the Alaska Highway into the North American gas distribution system. This route has already been approved by Congress in 1977 and international agreement. This development would be one of America's largest privately-funded construction projects, creating jobs and delivering environmentally-friendly energy for a generation or more. I am pleased that the nation's governors unanimously endorsed the Alaska Highway natural gas pipeline project at last month's National Governors' Association conference.

In closing, Mr. Chairman, let me note that conservation must be a cornerstone of America's energy policy. It is not purpose here today to describe this critical component in detail, but I note that conservation alone cannot address the challenge before us. We must increase our supply to stabilize prices and prevent shortages. America's energy security depends on access to public lands.

With new technology and strengthening our resolve to protect the environment, we can go beyond the old approach of either development or the environment to the 21st century paradigm of recognizing the necessity and interdependence of both.

On behalf of the IOGCC, I recommend several steps to improve responsible access to our public lands: complete the inventory of oil and gas resources on public lands, as required in last year's Energy Policy Conservation Act; expedite processing of applications to drill and offers to lease; conduct extensive research on the technologies of extraction and alternative energy; repeal roadless plans and new roadless initiatives that should already be a part of comprehensive land use management plans; and streamline the National Environmental Protection Act process.

Mr. Chairman and Committee members, Alaska, my administration, and the IOGCC stand ready to assist you and our national administration in crafting a sensible national energy policy that provides greater access to public land for domestic oil production and natural gas, that encourages conservation and recognizes the important partnership with our private oil and gas industry to get the job done.

Thank you.

[The prepared statement of Governor Knowles follows:]

Statement of The Honorable Tony Knowles, Governor, State of Alaska

Good morning, Chairman Hansen and distinguished members of the Committee. For the record, I am Tony Knowles, Governor of Alaska.

I welcome this opportunity to testify on the vital issue of developing a self-reliant national energy policy and the central role America's public lands play in that effort. I applaud you and the national administration for focusing on this issue so important to American jobs and families.

I address you today in two capacities: First, as governor of a state which serves as America's energy storehouse. Since completion of the trans-Alaska oil pipeline nearly 25 years ago, Alaska has been supplying a significant portion of this nation's domestic oil production. And now with development of our natural gas—North America's largest proven reserves—we'll continue to help meet America's energy needs.

Second, I represent my fellow governors of oil and gas producing states as chairman of the Interstate Oil and Gas Compact Commission. These 37 states produce more than 99 percent of the oil and natural gas produced on-shore in the United States and are committed to the conservation and maximum utilization of American oil and gas resources.

This time of year as the snow continues to fall across most of my state, I have a personal policy to try to stay within about a 10-degree temperature variation from the bulk of my constituents. I was looking forward to a real Alaska-style snowstorm, but am honored nonetheless to join you here in our nation's temperate capital.

My message today is simple: to continue America's prosperity which I believe is threatened by a looming energy crisis, we must meet our nation's energy needs through a combination of conservation and increased supply.

The key to increased energy supply is the environmentally responsible development of this nation's enormous energy resources, most of which lie beneath our public lands. Our access to those lands carries with it the responsibility for sound stewardship. That access can never be considered a green light for the irresponsible destruction of those lands.

As this Committee knows well, this country is suffering from a combination of high energy prices and energy shortages. We need look no further than news video of senior citizens being pried from stopped elevators during California's rolling black-outs to know that.

New energy supplies will come from many sources, but our obligation for the jobs and families of Americans is to look at home first. America's public lands hold the vast majority of those new energy resources.

In my own state of 375 million acres, public lands constitute 88 percent of our land mass, with 40 percent of our state in Federal forests, wildlife refuges and national parks. Development of the resources on public lands in Alaska is a critical part of our economic future.

Mr. Chairman, I submit we need look no further than the 49th state for a national model on how to find and produce energy resources on public lands, while protecting the wildlife and environment.

We in Alaska apply a simple standard to development issues, whether producing oil from a newly discovered reserve or harvesting America's best-tasting, organic wild salmon. That standard is—we do development right.

By that, I mean development must be based on three principles: sound science, good stewardship and a thorough, open public process.

Using that standard, we in Alaska have supplied up to a quarter of America's domestic oil production from the nation's largest oil fields. We've done so while protecting the nation's most pristine environment inhabited by more caribou, grizzly bears, bald eagles and mosquitoes than the rest of the country combined.

Nationally, the vast majority of our energy resources are on public lands. The U.S. Geological Survey estimates that 67 percent of the nation's undiscovered oil and 40 percent of its undiscovered natural gas resources lie beneath on-shore public lands. And along our coastlines, only 2 percent of total Federal offshore acreage, including that in Alaska, has been leased for energy development.

At the same time, the amount of public lands available for oil drilling has shrunk from 73 to 17 percent in the past 25 years. It's worse for natural gas development, which we know is the clean-burning fuel of the 21st century.

A recent report by the National Petroleum Council showed that the most promising regions for future gas production in the Rocky Mountains and Gulf of Mexico are either closed to exploration or have significant access restrictions. And even if we can obtain access to these resources, public lands must be crossed by pipelines or other methods to deliver the energy to homes, power plants and factories.

As we seek to develop these energy resources on public lands, I believe those of us from western public lands states have a special obligation to adhere to the "doing it right" standard.

We're doing exactly that in Alaska. During my rough-necking days on the North Slope in the 1960s, a drill pad could be as big as 65 acres. Today, they're a tenth that size.

And using new technology, up to 50 wells can be drilled from the same, smaller pad and tap into oil identified by 3–D seismic technology into oil 20,000 feet deep and five miles away, under sensitive areas, such as an ice-choked ocean or sensitive wildlife habitat. That's like running a well through this Committee room floor to Ronald Reagan National Airport and we could determine which gate the drill bit would emerge from.

With this "doing it right" approach to development, we successfully convinced the Clinton administration to permit exploration and development in a portion of the 4-million-acre National Petroleum Reserve, a promising Indiana-sized area to the west of Prudhoe Bay.

We did so by imposing the strictest environmental constraints of any oil and gas lease in America. These 79 conditions are specifically designed to protect caribou, polar bears and birds, particularly during sensitive periods of calving, migration, molting, denning and hibernation.

They were the result of collaboration of world-class experts in science and engineering from all levels of government and industry. This is the only acceptable way to combine the need for jobs and energy development with protection of the land and wildlife we love.

To continue meeting this nation's energy needs, we urge the Congress to permit exploration in America's best prospect for a major oil and gas discovery—in the Arctic National Wildlife Refuge. Just a small portion of this South Carolina-sized refuge is believed to contain up to 16 billion barrels of oil, enough to produce 2 million barrels a day for at least 25 years, about a third of the current daily domestic production. In addition it is believed to hold substantial new discoveries of natural gas.

Environmentally responsible development in the Arctic Refuge would be good for America—producing thousands of jobs, lessening our dependence on imported oil, reducing prices at the pump, providing environmental friendly natural gas to produce our nation's electrical supply, improving our nation's trade deficit, and a host of other reasons.

I believe we must, and can, take special precautions to protect the caribou, musk ox, geese, polar bear and other wildlife that inhabit the Arctic Refuge. As we did in the NPRA, we will work with the industry to mitigate impacts, such as limiting activity during the six to eight weeks when the Porcupine caribou herd often uses the coastal plain for calving.

We must be sensitive to the subsistence needs of Native people on both sides of the border whose culture, nutrition, and economy are dependent on the area's healthy wildlife.

To bring oil from ANWR and other North Slope development to American consumers, we are working with the Bush administration to reauthorize the right of way lease for the 800-mile trans-Alaska oil pipeline.

The Federal right of way administered by the Bureau of Land Management expires in 2004, but the environmental review and renewal process is projected to take two years. I welcome this Committee's oversight and encouragement of that process.

Alaskans are working to continue as the nation's energy storehouse by delivering our enormous natural gas reserves to thirsty American markets.

Alaska's North Slope has 35 trillion cubic feet of discovered natural gas, most of which today is being re-injected to increase Prudhoe Bay oil production. Yet geologists estimate we're sitting on perhaps triple what we're already discovered—more than 100 trillion cubic feet.

The most viable way to get that gas to market is through an 1,800-mile pipeline from Alaska's North Slope, through Fairbanks and along the Alaska Highway into the North American gas distribution system.

This development would be America's largest privately funded construction project, creating jobs and delivering environmentally friendly energy for a generation or more. I'm pleased the nation's governors unanimously endorsed the Alaska Highway natural gas pipeline project at last month's National Governors' Association conference.

In closing, Mr. Chairman, let me address two issues: conservation and access.

Conservation must be a cornerstone of America's energy policy. Improved mileage for vehicles, efficiencies in manufacturing and electricity use can substantially expand the efficiency in using our energy supply.

Yet conservation alone cannot address the challenge before us. We must increase our supply to stabilize prices and prevent shortages. America's energy security depends on access to public lands.

With new technology and strengthening our resolve to protect the environment, we can go beyond the old approach of either development or the environment, to the 21st century paradigm of recognizing the necessity and interdependence of both.

On behalf of the IOGCC, I recommend three steps to improve access to our public lands which hold the key to our future energy independence.

First, let's complete the inventory of oil and natural gas resources on public lands required in last year's Energy Policy Conservation Act. The BLM must have adequate resources to complete this study in a timely manner.

Second, let's expedite action in the agency processes that will lead directly to exploration for energy resources, such as applications to drill and offers to lease.

Third, let's better share with independent energy producers and others the results of state and Federal research so that resources developed on public lands are maximized. The Federal government could make a strong commitment to research by reinvesting a part of the revenue received from royalties on gas production.

Mr. Chairman and Committee members: Alaska, my administration and the IOGCC stand ready to assist you and our national administration in crafting a sensible national energy policy that provides greater access to public land for domestic production of oil and natural gas; that encourages conservation; and that recognizes the important partnership with our private oil and gas industry to get the job done.

The CHAIRMAN. Thank you, Governor Knowles. We appreciate your testimony.

I recognize the gentlelady from Wyoming to introduce Governor Geringer.

Mrs. CUBIN. Thank you very much, Mr. Chairman. It is truly an honor for me to represent Governor Geringer. Governor Geringer has excelled nationwide in many, many areas since he has been Governor. He has led the country in many areas, as well, as far as taking his State forward is concerned—telecommunications, the deployment of the infrastructure required for connecting every single school to computers. He has been in the forefront suggesting that we had an energy crisis long before other people recognized that we had an energy crisis.

Governor Geringer represents the least-populated State in the country, but he also represents the only State in the country that has three Senators—they are all men; the Governor is a man—and one Congressman, a woman, but it really only takes one woman to do the work of those three guys.

The Governor has always been on my side, so it is truly an honor to represent a man that I think has been one of the best governors that Wyoming has ever had, Governor Jim Geringer.

STATEMENT OF HON. JIM GERINGER, GOVERNOR, STATE OF WYOMING

Governor GERINGER. Thank you, Congresswoman Cubin, and thank you, Mr. Chairman, Ranking Member, and other members of the Committee for your invitation to address you today.

Mr. Chairman, I ask that my written testimony that has been presented and the attachments that are included be made a part of the record.

The CHAIRMAN. Without objection.

Governor GERINGER. I thank you for that. I will not provide all the testimony that is included there, but I ask that it be considered.

As Congresswoman Cubin mentioned, Wyoming has the least population of all States. We are here as Western governors, and we particularly appreciate your invitation that the Western governors join you because of the mineral resource that is in the West and because so much of the public lands that will be debated and considered during this testimony are in the West. And you have heard a very vivid example of that in Alaska.

In the Western Governors' Association, we have the least populated State in Wyoming; the most populated State is California; the largest States, Alaska and Texas. And as we consider the resources there and the huge numbers that are involved with the oil, gas, coal, hydroelectric power, wind energy, all the variety of renewable and non-renewable resources, we are first to point out that Wyoming had the first National Park in Yellowstone; the first National Monument, Devil's Tower; the first National Forest, the Shoshone.

So we understand the environment and we understand the economy, and we are here to tell you that as we discuss the effect of becoming self-reliant in energy for America, we also understand the balance among environment, the economy, and community, because we as a community cannot ignore the impact that energy may or may not have on our States.

Some of the discussion, I am sure, will center on whether or not something is broken. If it ain't broke, don't fix it, is the common term that is out there. But we ought to recognize that you ought to avoid breaking it. If you do preventive maintenance, you can avoid breaking it and you don't have to recover from a disaster.

The model that we have developed in the West among our Western States is that we work together to prevent the crisis from happening rather than having to deal with recovering from a crisis. We almost didn't make it last year when the fires almost overwhelmed the West, and could possibly again this summer. But we developed a model among ourselves, Republican and Democrat. We don't even use the terms "bipartisan" or "nonpartisan." We just get the job done, as Governor Knowles said, because it is far better to have avoided the problem than to have been engaged in the recovery of a disastrous situation.

Chairman Greenspan has addressed various members of congressional Committees over the last couple of weeks, and even the governors, as to what is happening with our national economy. Our national economy seems to have flattened out and the productivity gains seem to be declining. They don't have to.

One of the things that can dramatically impact that is the availability on time of energy, because energy drives the economy today. The economy in America is referred to as the new economy, and the new economy with its technology base needs the electricity in a reliable, high-quality manner or it will not be able to sustain itself, nor will the productivity gains be able to sustain themselves.

If there is one thing that we very vividly understand, whether you are a Member across the table in your position or a governor in our position, it is that our citizens want economic security. They want jobs, they want opportunity for their children. Their views are intergenerational, so as we debate energy, environment, and community, we deliberate that from an intergenerational perspective.

And if we don't have the jobs in the economy, there will be far less that matters to our public.

We learned from the current crisis that energy solutions involve diverse sources and technologies, varying from fossil fuels to solar, from wind energy to biomass, and that we can work on the demand side as well as the production side. But the new economy needs more energy in order to make it.

On page 2 of my hand-out, there is a graphic that illustrates what is happening today in terms of California and how, because California has roughly 12 percent of the entire population pretty much represented by that graphic, the electricity crisis that began in California just recently has spread and has drained literally the entire Western power grid in many ways because the demand created in California has rippled through the rest of our States.

We need to balance that out with supply, and ironically most of the supply is there. While it is not lying dormant, much of it could if we don't take steps today. The underlying imbalance of supply and demand has been exacerbated by the fact that California did not have a long-term contract approach to their electricity supply. But that is only on electric deregulation; natural gas, of course, has gone through the ceiling.

As Congressman Tauzin said earlier today, with the high energy prices that have come about in natural gas, we are starting to see a rippling through our agricultural economy as well. The very people who put food on the table are going to pay extraordinarily high prices for nitrogen fertilizers this year, or may just choose not to even raise the crops at all, because in the Northwest, in States such as Washington, Oregon and Idaho, it is actually cheaper and more profitable for agriculture to take money to not use electricity to irrigate, to pump their sprinklers and wells, than it is to raise crops because of the high input costs. The same applies to the aluminum manufacturing industry, where selling already committed long-term energy commitments is far more profitable to aluminum manufacturers than it is to produce the aluminum.

But what about the lady in Buffalo, Wyoming, who called her county commissioner who said, "I don't know how to pay my gas bill. It is $500 this month and I only have $600 a month income." This isn't just about the economy and the environment. This is about people in our neighborhoods who don't understand why this developed as it did in the energy crisis.

The Western Governors have worked long and hard to raise citizen awareness to how serious this problem is. We had several meetings, culminating in our Western Governors winter meeting last December where we adopted a call for an energy policy for the Americas. Much will be said about how much of America's energy is imported from other countries, but much of that is viewed as being from the Middle East.

In fact, of the 4 primary countries who supply the United States with energy, 3 of them are in the Western Hemisphere—Canada, Mexico, and Venezuela. We ought to be working with our neighbors rather than somebody so far away that we don't even know who they are or why they exist. With regard to oil from the Middle East, instead of sending our military men and women to die, send

them into the wide-open spaces of the West so that we all might live.

The Western Governors' Association hosted an energy policy roundtable in Portland, Oregon. We had participants from the Department of Energy, from the Federal Energy Regulatory Commission (FERC), from a variety of Federal and State agencies to discuss what we could bring to Vice President Cheney and President Bush to discuss what to do for Federal action. We have attached some of our recommendations to my testimony for your review.

Mr. Chairman, just as you acknowledged in your opening remarks, our neighbors want to know who is in charge. Why didn't somebody wake up sooner so we wouldn't have this uncertainty? Who should be in charge, particularly as it relates to our Federal public lands and how they dominate in the West?

In reality, no one person and no one agency should be in complete charge of production, of access, of distribution or consumption of our nation's energy supply. We are in this together. Partnerships are vital and beneficial. Mr. Chairman, your letter of invitation to me for my testimony asks for my perspective on the role that State governments would have in interacting with Federal land managers. Well, the key word is "interaction." In our view, interaction must be a full, participating partner.

While partnerships in the legal sense may be limited partners or they may be general partners, we are asking for full general partner status. We have common interests, but we also have shared jurisdictions and shared responsibilities. If State government has a committed partnership with Federal agencies, we will produce the domestic supplies of energy in an environmentally safe manner. It is as simple as that.

The history of energy policy in America has been fragmented, at best. The 25-year history of attempting to write an energy policy has been confused. It has been fragmented. Six attempts have been made formally in 25 years. None of them are comprehensive, particularly as it affects public land management, and not just the resource to be extracted but the other resources there as well for recreation, for wildlife, for clean air and clean water, and the amenities that the next generation ought to benefit from as well.

In the past, policy has been more by paranoia than by purpose. We need to develop better management directives that foster cooperation instead of polarization. Much of the debate today will be over who is in favor of the environment and who is in favor of development. That is not the issue, Mr. Chairman. The issue is how will we assure the future not only of today's generation but the next generation.

Over the last decade, management by litigation and intimidation has prevailed over management based on policy goals, and that has had far more impact on our national energy policy than it should have. The previous Chair of the Council on Environmental Quality, Katie McGinty, put in her 25th anniversary report, "Our common ground, the environment, has become a battle ground. Somehow, nearly half of the Environmental Protection Agency's (EPA) work is not the product of our collective will on the environment, but rather it is the product of a judicial decree. Somehow, we have be-

come a country in receivership, with the courts managing our forests, our rivers, and our rangelands."

It goes back even further. The former Chief of the Forest Service, Jack Ward Thomas, said in a speech in Wyoming 5 years ago that he took his appointment as Chief of the Forest Service believing that he was the chief resource manager of the nation's forests. But he said to us, "I have the least control of anyone over resource management and allocation."

So who should manage the land and who does manage the land? If I talk first about the public lands, nearly 75 percent of all Bureau of Land Management (BLM) and Forest Service lands in the United States in total are located in the Western States. Our energy self-reliance through public lands will focus, then, on much of those public lands.

But we, the States, have primary jurisdiction over many of the activities that take place on all lands, Federal, State and private. We have to work together because of those legal obligations, but we should work together because it is for the good of our people. So whether it be wildlife habitat, resource use, mineral extraction, water supplies, flood protection, hunting, fishing, ascetic values, tourism, or whatever, we should be partners. When you tinker with Federal land issues in the West, you affect the economy of all of America, but you particularly affect the livelihood of those people in our communities.

I refer you now to the graphic on page 5 of my formal remarks because it gives a graphic display of the Federal and non-Federal land areas in the lower 48. For whatever reason, and with apologies to my fellow governor from Alaska, it didn't print Alaska's overlay. In Alaska, though, as Governor Knowles has indicated, 375 million acres total; 242 million are Federal. So picture in your mind much of the same pattern of integrated and interspersed and intertwined activities that you see on the rest of that map, but particularly as it affects the West.

Let me illustrate even further the difficulty of management, and what your Committee can most enable all of us to do is graphically illustrated on page 6 of the hand-out, which is a map of the general area of Wyoming. It shows the 15 ownership categories, each of which has a unique set of management procedures when it comes to developing the resources of energy in the West.

I use Wyoming as an example because Wyoming is not as Federally dominated as some other lands, but yet is dominated enough by Federal agencies, many of whom don't even work together, that it will thwart any action that you might take as a Committee to understand how we might appropriately develop the land in the West. Even that band across southern Wyoming that shows rather hazily in the yellow portion—that is because every other section of land is private land originally developed when the Union Pacific Railroad was extended right-of-way across the Western States and offered alternating sections of land for 20 miles on either side of the railroad right-of-way. The message in that map and the message in the previous map is we have to work together.

As far as the environment goes, in Wyoming we produce, process, or transport all kinds of extracted minerals, but we also have renewable wind energy, hydroelectric power, and others as well. Our

water is so clean that we are one of the few States without a fish advisory. We have the toughest clean air laws in the nation. We have proven that a clean environment and a robust energy sector are not at odds with each other because we as governors live where we govern.

As far as the potential, you have heard from Governor Knowles and you will hear from Governor Martz and others about it is not just a matter of the energy that is there; it is how we get from there to where the energy is needed. The huge amounts of coal, natural gas, oil, uranium, and other energy sources that are available in the West are challenged by some of these situations.

For instance, while Wyoming has enough coal reserves that if we were a country we would be the number three country in the world in coal reserves—not a State, a country —92 percent of all coal produced in Wyoming comes from Federal leases. Seventy-five percent of all natural or methane gas produced in Wyoming is from Federal ownership, and 60 percent of our oil. In other words, the Federal resource is a very considerable resource, and as the Ranking Member mentioned, much of that is already being produced.

But today's energy production is not and will not be sufficient. America needs more energy. We are here to help that need be filled, and to produce it not just from our States but to distribute it where it is needed and consumed. Transmission lines, power lines, gas pipelines will be needed to connect supply with demand.

Governor Hull of Arizona is frustrated with the most recent presidential declaration of yet another national monument in Arizona that appears to have eliminated a long-approved power transmission line that was scheduled to connect energy generated in Arizona with consumers in California. Monumental decisions in Washington have created political misery in the West.

As far as the availability of products and energy in the West, we don't need Organization of Petroleum Exporting Countries (OPEC), we need each other. Just the Wyoming resource alone could totally supplant and replace the entire OPEC production for the next 41 years.

The CHAIRMAN. Governor, may I suspend briefly? You may notice on the clock we have got two lights on. We have to run for a vote, and I apologize. Could we quickly have a recess? I would ask all Members to hurry back and then we will conclude with Governor Geringer.

Would that be all right, Governor? I apologize for that.

Let me ask unanimous consent that all opening statements be included in the record.

Is there objection?

Hearing none, so ordered.

[The statements of Mr. Gallegly, Mr. Calvert, Mr. Pallone, Mrs. Cubin, Mr. Radanovich, Mr. Udall of Colorado, Mr. McGovern, and Mr. Rehberg, follow:]

Statement of The Honorable Elton Gallegly, a Representative in Congress from the State of California

Mr. Chairman, I have concerns about the fairness of some of the studies that small hydro power plants have been asked to do in the midst of the current energy crisis.

In my district, the operators of the Santa Felicia Dam and hydroplant near Piru Creek, have been asked to do a number of studies by various Federal agencies, including the Forest Service, before they can relicensed. It is estimated that the costs of the studies outweigh the costs of the hydro facility—the hydro facility cost is $1.2 million, the studies are estimated to cost $2 million. Mr. Chairman, the dam currently provides clean hydro-electric power to an estimated 1,500 homes in my district and operates at a profit of only $6,000 a year.

Although some of the studies are worthy, many are burdensome and unrelated to the hydro facility—a study of noxious weeds, road and trail studies, and an impact study on the Arroyo Frog who's habitat, according to University of California at Santa Barbara Biology Professor Sam Sweet, is located more than three miles upstream from the Dam.

Mr. Chairman, we ought to be aiding small hydro-electric power facilities, not putting them out of business with undue red tape. I urge the Committee to look into the fairness of the relicensing process on these small hydro-electric power plants that provide clean energy to communities throughout the United States.

Statement of The Honorable Ken Calvert, a Representative in Congress from the State of California

The Western States are currently faced with the challenge of striking a balance among the water needs of agriculture growers, urban and environmental communities, industry and hydroelectric power generation. As we have seen with the recent energy crisis in California, our energy and water systems, and therefore our economies, are interdependent.

While hydroelectric generation comprises only 13 percent of the nation's total electricity supply, it is a vitally important component of the Western energy grid. Hydroelectric power is clean, efficient and necessary for maintaining electric transmission reliability.

This important resource is currently being underutilized. For example, Bonneville Power Administration has lost approximately 10 percent of its capacity due to environmental regulations. This is enough electricity to power 980,000 homes. Over the past years, the ability of non-Federal dams to generate power has been reduced by ambiguous mandatory conditions issued by Federal agencies for dam relicensing. Weather related factors have also decreased the Pacific coast hydro-system capacity. Reservoirs have been drawn down to dangerously low levels that may compromise fish flows and water deliveries.

To prevent further erosion of potential Federal power generation, we must assure that any further reductions be subject to good science and peer review. We need to protect state water rights while improving hydroelectric generation capacity and efficiency. We cannot afford to accentuate one need to the detriment of the others. Instead we must strive for a balance that will guarantee a reliable energy and water supply.

Statement of The Honorable Frank Pallone, Jr., a Representative in Congress from the State of New Jersey

Thank you, Mr. Chairman. Let's be responsive to America's energy needs but let's make sure we are responsible when we discuss self-reliant energy policy in the same sentence as public lands.

Our public lands are not our energy solution; our public lands are recreational opportunities for countless families, habitat protection areas for numerous endangered species, and preservation areas for national historic sites, to note only a few. We must not jeopardize the well being of our public lands from the many functions they serve in the hope of solving our long-term energy needs.

As we reexamine our nation's energy resources, we should begin by examining public lands that have already been designated as lease areas. Federal public lands now produce 26.6 percent of total U.S. oil production, and 37 percent of our nation's natural gas production. In the past eight years energy production on public lands has exceeded production levels of both the Reagan and Bush years.

A realistic idea to explore—where we can work together for a common sense solution—is to expand production on Alaska's North Slope. Alaska's North Slope has been open for oil and gas exploration and drilling for years—to the tune of 23 million acres or more. 35 trillion cubic feet of natural gas exist in Alaska's North Slope already available for exploration and development. We should find a viable pipeline route for making these resources available.

Mr. Chairman, if we open new public lands for resource extraction, we run the risk of destroying our nation's greatest natural resources forever. The effects of improperly managed public land resources can be disastrous. We run the risk of surface and subsurface water pollution from toxic metals including mercury, lead and cadmium caused by drilling and mining operations. Contamination of this kind can continue for years without being discovered. Industry's improved drilling technology does not preclude the need for roads, drilling pads, housing, oil processing facilities and other infrastructure that inevitably impact the environment.

It's time to fund common sense programs to conserve energy and develop alternative energy sources to reduce our reliance on polluting fossil fuels and oil imports from foreign nations. Instead of discussing only methods of supplying more fossil fuel energy, we have to develop ways to encourage renewable energy use and energy conservation. In the past thirty years technology has helped us place a computer in the palm of our hand, surely we can find ways for technology to provide us with clean, renewable energy that does not place our open spaces, our environment, our nation's public lands in jeopardy.

Unfortunately, it seems the Republican Leadership is incapable of introducing measures that would conserve energy, promote our long-term energy security, develop alternative energy resources, and protect our environment, without sacrificing our economic growth. Instead, the Republican Leadership wants to drill the Arctic Refuge. They have cut funding for energy efficiency, renewable energy, and alternative fuel programs during the past several years and now want to disrupt the only true wilderness in America.

We should support funding to advance our technological capabilities in the fields of energy efficiency and renewable energy and to advance our economic advantage in exporting these technologies abroad. If we undertake these proactive types of efforts, then we can tell our residents and our children that we're working to protect our nation's pristine resources for them their long-term enjoyment, not our short-term solution.

It's time to stop gutting our environment—time to stop destroying our forests, land, water and air quality. Most Americans want to know why we're not doing more to protect the environment. Most Americans indicate a willingness to pay more for energy efficient appliances and lighting. Most Americans don't want us to drill in ANWR.

I agree that we need to examine the prospect of a more self-reliant energy policy but drilling in the Arctic Refuge will do nothing to increase our energy self-reliance.

Statement of The Honorable Barbara Cubin, a Representative in Congress from the State of Wyoming

Thank you, Mr. Chairman, for holding this important hearing on the role of public lands in the development of a more self-reliant domestic energy policy. Over the past eight years we have seen what amounts to an "anti-energy" policy which has discouraged the exploration for and development of oil, gas, coal, and uranium on our public lands, and made coal-fired electricity generation anathema. At the same time, the past Administration was seeking to dramatically reduce hydroelectricity's function as the "peaking power" of choice.

Collectively, it is a wonder the crisis we have seen in California, and to a lesser extent in the northwest, has not occurred sooner. Perhaps it is the ubiquitous "on-line" computer presence everyone seems to need these days that is the straw that broke the camel's back, but there simply is no doubt that domestic demand for electricity has risen significantly, despite "energy star" ratings on computers and other appliances. And, many experts suggest the real test will be when folks turn on the air conditioners this summer. Rolling black-outs may be back with a vengeance.

Yes, conservation goals are laudable, but efficiency gains alone are insufficient. Our nation must meet the rising demand for energy with new domestic exploration and production. We must produce and conserve all forms of energy in America. And, we can do so in and environmentally sensitive way. Fortunately, we now have an Administration that recognizes our national security depends upon energy security. The Bush Administration, with Vice President Cheney in a leadership role, is working to propose a comprehensive national energy policy for Congress to act upon, as well as to formulate plans for taking administrative action where Congress isn't needed.

My Subcommittee on Energy and Mineral Resources will be examining areas where public land reforms can make a difference in getting domestic energy supplies to market. We kick off this effort next week with an in-depth review of natural gas supplies and constraints. I look forward to working with the Administration and my

colleagues here in Congress to begin the process of developing legislation which will help to set this country on a focused course, both increasing energy supply and increasing incentives for conservation.

Again, Mr. Chairman, I truly thank you for convening this hearing today and look forward to hearing from our distinguished group of witnesses, especially the Governor of my home state of Wyoming, the Honorable Jim Geringer. Wyoming coal, oil, and natural gas (including coalbed methane) and uranium is a treasure trove of energy for our nation. I welcome Governor Geringer's remarks as to how to best utilize these resources.

Statement of The Honorable George Radanovich, a Representative in Congress from the State of California

Thank you Mr. Chairman for holding this hearing on the role of our natural resources in U.S. energy policy. Today, I will focus on two environmentally-friendly energy resources: biomass and hydropower, and discuss how we can better use them to provide more energy for consumers.

My district includes three national forests as well as three national parks, all of which I am proud to represent. Over the past eight years, the previous Administration's policy of closing-off land for roadless areas, designating nineteen new national monuments—comprising five million acres—and adding numerous wilderness areas has led to a decrease in the opportunities to utilize Federal lands to help meet our nation's energy needs.

The Clinton roadless policy to lock-up over 60 million acres of our national forests, for instance, has led to a logging moratorium in many areas of the Sierra Nevada Mountains in California. Such action, combined with the Forest Service's ill-conceived Sierra Nevada Framework plan amendment, has forced the closure of biomass plants in the region. It is true that biomass comprises only about two percent of all energy in California, but amidst our current crisis, every megawatt counts. Biomass is a clean-burning method of producing energy, and it extends the life of our landfills by burning forest waste. I encourage the new Administration to reexamine the roadless policy and the Sierra Nevada Framework plan to allow for extraction of underbrush from the forests to generate green-powered biomass energy.

On the issue of hydropower, I want to work with the new Administration to streamline the cumbersome Federal regulatory process that is denying us of the full use of existing hydro facilities. In the Pacific Northwest, 10 percent in hydro capacity on Federally-owned facilities is consistently lost due to Federal regulations. Also, Glen Canyon dam has lost a 1/3 of its own capacity "enough to supply 400,000 homes—because of strict regulations to protect fish. The Federal government last year released the Trinity River decision in California, which diverts 300,000 acre feet of water annually for environmental uses. This action is a great cause for concern since that water will be lost for hydro generation purposes.

My own congressional district is home to about 2,000 megawatts of hydropower. To give you an idea of what this means, 2,000 megawatts is enough to serve approximately 2.8 million people. Long-term licenses for these privately-owned facilities are so difficult and arduous to complete that some facilities have been operating on yearly permits for over a decade. The tremendous red tape involved in relicensing the hydro facilities in the U.S. results in about an eight percent loss in power each year. Such an amount could provide a safety-net during a Stage 3 emergency and be used to help prevent blackouts like those California experienced in January. I will work with the Administration to facilitate a licensing process that works to benefit both the environment and consumers.

As we all know, the U.S. is in dire need of a national energy policy, and our Federal resources must be managed in a manner to support a national energy policy. The Federal government's eight-year "hands-off" policy regarding Federal land management has led to an increase in the Federal land base and a decrease in opportunities to meet our nation's energy needs. Our Federal lands must be managed in a reasonable, environmentally-sensitive manner that operates in concert with a national energy strategy. Such consistency will prevent various Federal agencies from implementing far-fetched policies that conflict with a national energy plan. I believe we can achieve balanced, common-sense environmental goals as well as provide desperately needed energy for our nation's citizens.

Mr. Chairman, thank you again for holding this important hearing. I look forward to working with you to further develop a role for natural resources in our national energy policy.

Statement of The Honorable Mark Udall, a Representative in Congress from the State of Colorado

Thank you, Mr. Chairman. I appreciate your scheduling this hearing on a most important topic. Unfortunately, the Science Committee is holding its organizational meeting this morning, so I will not be able to stay for the entire hearing.

However, I will review carefully the testimony of all the witnesses, and will be particularly interested in Mr. Judd's testimony regarding biomass, an energy source that is of particular interest to me.

I am not sure just what is meant by a "self-reliant" energy policy, Mr. Chairman, but I assume that it means a policy that would reduce our dependence on imported energy sources—particularly imported petroleum.

I share the goal of reducing our dependence of imported petroleum—in fact, I think we should reduce our dependence on petroleum, period.

That is why, along with nearly 170 other members of the Renewable Energy and Energy Efficiency Caucus, I am working to promote development and use of alternative sources and to reduce inefficiencies and waste in the way we use energy.

So I hope that in the Committee's discussions today there will be a recognition of the importance of agreeing on a long-term energy policy—one that requires us to think beyond today's oil and gas prices.

I hope there will be discussion of the real crisis that will develop ten or twenty years from now when oil prices will probably go up permanently as a result of increasing global demand and of passing the peak in global petroleum production.

We haven't done enough to prepare for this eventuality. We very much need to do more, beginning with the recognition that even opening all the public lands to energy development would not provide a long-term solution—and, in areas that should remain offlimits, like the coastal plain of the Arctic National Wildlife Refuge, the costs would exceed the real benefits.

We cannot just drill our way to a sound energy policy. We need balance. And, in particular, we need to recognize that increased efficiency and increased use of renewable energy are vital if we are to make progress in addressing environmental challenges as well as in reducing our dependence on foreign energy sources.

In fact, by reducing air pollution and other environmental impacts from energy production and use, renewable energy and increased energy-efficiency are the single largest and most effective Federal pollution prevention programs.

And increased development of renewable energy has the potential for creating hundreds of new domestic businesses, supporting thousands of American jobs, and opening new international markets for American goods and services.

We have already come a long way. Solar, wind, geothermal, and biomass technologies have together more than tripled their contribution to the nation's energy mix over the past two decades. But we need to do more, to build on this progress.

All these technologies are very important for our country. But development of biomass-energy through the conversion of cellulosic biomass, which consists of any plant or plant product, is particularly important to Colorado and other western states.

That is because the threat of extreme wildfires in the areas where our national forests are in close proximity to major population centers. To reduce and control this risk, there is a need to thin the fuel build-up. After it is cut, a good part of this underbrush and small-dimension material can and should be left to decompose on the lands. But some will have to be removed from the forests and there is now no effective use or market for much of it.

As you know, Mr. Chairman, last year's Interior appropriations bill established a program for such fuel-reduction projects, and provided funding for it to get underway. That was a substantial appropriation, but the funds could go further and much more could be accomplished if there is a commercial market for this material. The Colorado State Forest Service, the Forest Service Research Laboratory, and the National Renewable Energy Laboratory have all begun to study the possibilities of developing ethanol or other bioproducts economically from this wood fiber.

We need to support those efforts, as well as other efforts to increase the availability and viability of other renewable energy sources and to increase our energy efficiency. That is the best way to go if our goal truly is a "self-reliant" energy policy in the long run.

Statement of The Honorable James P. McGovern, a Representative in Congress from the State of Massachusetts

Thank you, Mr. Chairman. I appreciate the opportunity to offer a statement at today's hearing on the "Role of Public Lands in the Development of a Self Reliant Energy Policy".

In the interest of time I would like to get right to the point and say that I think that the issue of increasing oil and gas production on Federal public lands is a red herring. I honestly do not think that we can have a serious discussion about increasing production without addressing the underlying issue of fossil fuel consumption.

According to the Department of Interior, the U.S. consumes over 19 million barrels of oil a day or 7 billion barrels of oil a year. The Natural Resources Defense Council, using Energy Information Administration data, projects that this figure will almost double over the next 50 years. And yet, the U.S. has less than 3 percent of the world's known oil reserves. It just does not seem likely that we could produce our way to energy independence.

Like most Americans, I am concerned with our reliance on foreign oil. But at the rate we are going, I am frankly more concerned about our reliance on fossil fuels period. Consumption is the long-term issue that we need to address, and I am not yet convinced that increased drilling on Federal lands is anything more than a temporary fix.

The topic of drilling on Federal public lands should not lead the discussion of a long-term comprehensive energy policy. Eliminating the annual freeze on the Corporate Average Fuel Economy (CAFE) law should. If we are going to have tax cuts, lets have tax cuts that will provide incentives for commuters to use mass transit and tax credits to develop alternative energy sources.

The fact is that production levels on Federal government operated oil, gas and coal leasing programs have increased over last eight years. Overall domestic production of oil on Federal lands increased from 13 percent in 1993 to 26.6 percent of all U.S. production in 2000. And Federal lands account over 37 percent of domestic natural gas production. And during that same period, total U.S. petroleum consumption increased by over 2 million barrels a day. Opening up our Federal lands to even more drilling will not solve the long-term national security and environmental problems caused by our reliance on fossil fuels.

Statement of The Honorable Dennis R. Rehberg, a Representative in Congress from the State of Montana

Thank you, Mr. Chairman. I also want to thank Montana Governor Judy Martz for being here this morning. Governor Martz has really taken a pro-active stance in dealing with the energy problems we are experiencing in Montana, and I thank her for her leadership on this issue.

Mr. Chairman, it is no secret to most of us in this room that the United States does not have a coherent energy policy, either long-term or short-term. Today we are more dependent on foreign oil than ever before. In fact, 56 percent of our oil supply comes from foreign sources, which is a 20 percent increase over the 1973 Arab oil embargo levels. And the Department of Energy predicts that in less than 20 years, America will rely on foreign countries for nearly 65 percent of our energy needs. This is not only a threat to our economy, it is a threat to our national security.

Unfortunately, our energy problems are not confined to oil production. Despite growing demand, our natural gas production has fallen 14 percent since 1973. Yet, nearly 40 percent of our gas resources in the Rocky Mountains are off-limits to production and most of the submerged lands under our Federal waters are off-limits to gas leasing until 2012.

The result: natural gas prices are 20 times higher in some parts of the country than they were just one year ago. This dramatic increase, while hitting all consumers, is hitting those of us in ag country particularly hard because higher natural gas prices mean increased fertilizer costs. So I think it's important that we all understand that this energy problem we are experiencing affects virtually every aspect of our nation's economy. We have got to get a handle on this problem.

And, as if to add insult to injury, the water levels in the northwest are low—this frustrates our ability to generate hydropower, which provides enough electricity for 98 million homes. But our hydroelectric operations are facing more problems than just low water. Federal rules and regulations have made the process of relicensing these operations expensive and time-consuming, which in turn contributes to the rising cost of electricity in some areas.

These energy problems have real life consequences. In January, the Bonneville Power Administration announced that it is projecting an average 60 percent rate increase over the next five years. And high energy costs have caused a number of Montana businesses to either shut down or cut back operations, which is costing Montana much needed jobs.

And because of increased power costs, some Montana businesses have been forced to produce their own power in-house by using generators, which costs about 5 times the amount of what they used to pay for electricity, yet is still well below current prices on the open market.

Mr. Chairman, the California situation—which we are all so familiar with and which has sort of become the poster-child for our energy problems—combines a lack of generation and transmission capacity with low water levels, and should serve as a real wake-up call to all of us. Consider this, in California—over the last 10 years—generation capability decreased 2 percent while retail sales increased 11 percent. So the current problem California is experiencing should not come as any great surprise.

In short, Mr. Chairman, we must increase our power generation and transportation capabilities. And if we don't start developing some of our natural resources now, the California crisis of today will become the national crisis of tomorrow.

America has the tools to confront our energy problems, and we must use them. While energy conservation is critical, the U.S. cannot conserve its way out of this energy crunch. It is vitally important that we take steps to increase domestic energy production through access to and exploration of oil and gas prospects such as ANWR, and through new and expanded energy delivery infrastructure, advanced coal technology, nuclear power, and solar and wind power. We also have to explore alternative renewable fuels, such as ethanol, which bums clean and supplies an important market for our agriculture products.

America has huge deposits of natural gas, coal and oil. In Montana alone we have several hundred years worth of natural gas and coal deposits—the eastern front of the Rocky Mountains is rich in natural gas and clean burning coal.

Any national energy policy must include the development of our domestic supplies of oil, such as our oil reserves in the Arctic National Wildlife Refuge, or ANWR. The vast oil reserves in ANWR could replace our Saudi Arabian imports, for example, for the next 30 years. That's why I am a cosponsor of Rep. Don Young's legislation to develop some of this domestic supply in ANWR.

America also has large coal deposits—enough to last us nearly 300 years. And Montana has more coal than any other state, holding approximately one-third of the total strip-mineable coal in the nation. Current estimates place coal resources for eastern Montana at about 50 billion short tons, 34.5 billion of which is low-sulfur, clean-burning coal.

Coal is America's largest and cheapest source of domestically produced energy accounting for nearly 60 percent of our nation's electricity and costing consumers about one-fifth the amount of oil and natural gas. And our abundance of coal includes coal bed methane, which is a source for natural gas. So clean burning coal and the development of coal bed methane as a natural gas resource must play a vital role in any national energy policy. This means we must invest in developing coal technology.

It is also important to remember, Mr. Chairman, that while we need a national energy policy, we must also seek to include input from our state government officials at every step of the way—just like we are doing here today. This is especially important in Montana because of Montana's vast acreage of checkerboard ownership with the Federal government. So it is imperative the Federal government adopt a good neighbor policy that allows Montana to help solve the nation's energy shortage. Montana Governor Judy Martz has taken the bull by the horns at the state level by encouraging new energy production, streamlining regulations and building a better relationship with Federal land management agencies. Hopefully, today's hearing can allow us all to help improve this good neighbor policy so that we can work together with state governments to solve our current energy shortage.

I guess for me, Mr. Chairman, the bottom line is that we have the natural resources to head off this problem before it gets even worse. But that means we need to develop a national energy policy that encourages the development of our resources in an energy efficient and environmentally friendly manner. And with the technological advancements we've made, I believe we can do it. But it is up to us as elected officials to come up with a plan and get the job done, and I thank you, Chairman Hansen, for holding this hearing today, and for your leadership on this issue, because this is an important step in the right direction.

The CHAIRMAN. We will stand in recess.

[Recess.]

The CHAIRMAN. The Committee will come to order.

Governor Geringer, we apologize for cutting you off, but we had no choice. Governor, we will turn to you again, sir.

Governor GERINGER. Let me just sum up with a few quick statements. First, to get our attention back to the issue at hand, much of the discussion today as we deal with energy self-reliance from public lands will depend a lot on the deadlock, the gridlock, if you will, or headlock that pits environmental interests against those who would have economic interests. We don't view them as mutually exclusive; they are not and should not be. The interests are compatible and complementary in every sense. Energy policy cuts across so many different jurisdictions, as we illustrated in the graphics that I pointed out to you in my testimony, and it is time to stop litigating and start cooperating.

The Western States have energy that America needs. As we were conversing during the break here, one of the members who is here from Wyoming made the comment, it is like we have an I.V. container. We have the transfusion that is necessary, but not the line to connect it when it comes to the transmission of the energy, whether it be in raw form or in converted form to electricity.

Just let me illustrate a little bit of the challenge that you will face that we already face in the Western States in trying to deal with access to the energy that is in our public lands.

Back in 1969, the National Environmental Policy Act (NEPA) was enacted with the purpose that we needed to recognize the profound impact that man's activity has on the natural environment. But in the purpose clause in the NEPA, as it is called, the National Environmental Policy Act, it declares that the policy of the Federal Government is to cooperate with State and local governments to create and maintain conditions under which man and nature can exist in productive harmony and still fulfill the social, economic, and other requirements of present and future generations.

What has evolved from that Act, however, has been anything except that harmonious relationship. Implementation of what is a fairly short and relatively simple Act has resulted in such a myriad of regulations and processes that State and local authorities have little or no idea which way the whipsaw of Federal agencies will go next. There is tremendous inconsistency between and among Federal agencies as to how they implement this Act.

What that opens the door to do is allow people to litigate or protest or appeal almost without end an infinite number of methods to avoid or to thwart better planning and better opportunities for energy development. We recommend as Western Governors that streamlining start with the adoption of management principles that we have developed as Western Governors over the years, and that is included as part of the testimony called "Policy Resolution from the Western Governors 99-13," sponsored by Governor Kitzhaber, of Oregon, a Democrat, Governor Leavitt, of Utah, a Republican, and endorsed in full not only by the Western Governors but by the national governors as well.

It lists eight principles of environmental management that can be very effective in resolving the conflict between and among the

advocates of whatever side you might feel that you are on. They reflect a practical, common-sense approach to environmental decisions, much along the lines of our native son, Dr. W. Edwards Deming's principles that were established for quality management that enabled a quality revolution for America on the industrial side.

We have used these principles successfully on several difficult environmental issues, and the call is even greater today because we are in an age of litigation, with the courts not just directly managing our resources, but indirectly managing because of the fear of litigation.

NEPA, in terms of the Act, is not the problem. It is the process. It takes too long; it costs too much; it spawns litigation; it is inconsistently implemented. Every Federal agency requires extra layers of management just for its own unique set of regulations. The difference just between the Bureau of Land Management (BLM) and the Forest Service is dramatic, and yet they are all part of one Government. If you would simply require the Federal Government to be consistent and speak with a unified voice, we would get a long way, and input the States in as partners.

I want to leave you with the message that the current energy crisis is an opportunity to break through the often unproductive deadlock that pits energy needs against environmental protection. They do not have to be mutually exclusive; they should not be.

The current electricity crisis in the West has awakened us as to how much we don't know about the energy resources of our nation and how little we have explored the opportunity to meet the energy needs of a growing economy and still yet protecting our environment. We can have both.

Mr. Chairman, I have included several recommendations. Rights-of-way and transmission lines ought to be looked at. We cannot get the energy out of our States if we don't have the rights-of-way to deliver it, whether it be the pipeline from Alaska or whether it be a transmission line that takes generation from Wyoming to California or to Chicago.

I recommend that this Committee urge the establishment of cooperating agency status for all States that are affected under any environmental policy review as a routine and regular matter, not just on the occasional basis that it has been doled out in the past. We can even generate more through renewable resources. We have tremendous wind generation capacity in Wyoming. Much of that is on Federal lands.

One young lad from California dropped a note one day and said, "You know, you don't have to have all those signs warning about high winds the next 5 miles if you would turn off those giant propellers up on the hillside."

Wind generation, hydroelectric generation; the hydroelectric that we currently have needs to have equipment replaced, replacing 40- to 60-year-old generators with more efficient generation, increasing generation, and certain minimizing the impact on endangered fish when California needs more of Oregon's power. The Bonneville Power Administration, the Western Area Power Administration, the Bureau of Reclamation, and the Corps of Engineers all need to

look at opportunities to enhance electrical production even with existing activities.

Ninety-two percent of all coal is taken from Wyoming lands. Wyoming is so good at reclamation that you are holding $3 million of our money. From energy it came, to energy it should return. We would like to develop more effective ways to deliver energy from the West.

Let me make one quick comment about the fires that occurred last year in the West. Those too, because of the lack of coordinated policy on forest health management, severely impacted, such as fires in New Mexico that knocked out a 500-kilovolt transmission line, to fires in Montana that shut down a similar line going from Montana to Seattle. The implication of additional events this summer, with the drought that is already imminent, could lead to even further shortages of electricity.

Thomas Jefferson maintained the solid belief that the success of our democracy lies in the ordinary citizen being vested with a sense of deep civic responsibility and citizens who would engage each other directly in pursuit of the common good.

We in the American West believe that we should reject the last two decades of bitter debate among environmentalists and resource users that has so polarized us that we have gridlock rather than any public benefit from our public lands. As former EPA Director Bill Ruckelshaus said, ″Business, governments and citizens are frustrated by years of litigation and stalemate. It is time to turn to the common good, and we are turning to that not just out of desperation but more frequently out of hope; hope that our decisions will yield less controversial and more durable results. Jointly-designed decisions will be better and more informed, and the hope that through this process we can actually regenerate public confidence in our institutions, especially government.″

Mr. Chairman, thank you, and I would be happy to answer questions.

[The prepared statement of Governor Geringer follows:]

Statement of The Honorable Jim Geringer, Governor, State of Wyoming

Mr. Chairman and Committee Members, thank you for addressing the subject of how America might and should become energy self-reliant, and in particular what the role of Federal lands might be in that effort. Thank you also for asking for the views of Western Governors. The energy future of this nation is dramatically linked to the energy future of western states. More than that, we consider that the environment, the economy and community are a dynamic balance continually in the making.

Self-reliance is more than energy

America's long term sustained growth in the economy has been jump started by increases in productivity fueled by innovation, risk and perseverance. We risk losing our economic momentum if we cannot literally provide the fuel for the new economy. Rising energy costs have been a major contributor to the recent slowdown in economic growth.

The future of our national economy depends upon our sustainable energy self-reliance. Public lands are at the forefront in providing the potential to provide much in the form of raw energy or access to produce and deliver that energy. The development of the New Economy in America is heavily inter-dependent upon technology and reliable, high quality electric power. Beyond the new economy, agricultural production and processing, manufacturing, renewable resources, protection of endangered species, recreational opportunities all affect our economy and our society and each of them is affected in part by what happens on the resource of our public lands. Our economic and social opportunities are directly linked to energy solutions. We

have learned from the current crisis that energy solutions involve diverse sources and technologies ranging from fossil fuels to solar, from energy production to demand-side management and efficiency.

Energy is affecting everyone, not just California

The electricity crisis that began in California has spread throughout the western power grid, known as the Western Interconnection. See map.

At its core, the crisis is a result of an imbalance of electricity demand and supply. Electricity demand has grown with the growth in population and a growing economy in the West. Few new powerplants have been built in the past decade in the West and energy conservation efforts declined. This underlying imbalance of supply and demand has been exacerbated by the structure of the electricity market in California that put extraordinary reliance on the spot market at the expense of more stable, long-term contracts. High natural gas prices and a drought in the Northwest are further exacerbating the crisis.

This crisis reaches well beyond California. The Bonneville Power Administration is considering a 100 percent rate increase. Many utilities, such as the City of Tacoma, and industries, such as Phelps Dodge, are reeling from extraordinary wholesale electricity prices. From Montana to Arizona, plants and mines have shut down because of the high cost of electricity. The crisis may deepen with summer peak demand and continuing drought in the Northwest.

The reality of the high energy prices was driven home last month when one of our county commissioners in northeast Wyoming received a phone call from an elderly lady who wanted to know how she was going to pay her $500 heating bill when her monthly income was just $600 per month.

Last December when the price of natural gas hit $10 per MMBTU, almost half of the nation's nitrogen industry shut down for several weeks, since natural gas is the feedstock for nitrogen fertilizer. With significantly reduced supply, farmers this spring will be paying unusually high prices for anhydrous ammonia and other nitrogen assuming not only that it is available but that in the event they can get it they can actually afford it. Much of the manufacture of nitrogen has shifted off-shore and America is paying other countries to produce as much as one third of all our nation's nitrogen. The security and affordability of our food supply will be affected.

I need not spend much time recounting the difficulties experienced by California citizens with electricity. Our northwest states of Oregon, Idaho and Washington are experiencing one of the driest winters on record which will manifest itself in lower than usual runoff, less hydroelectric power and serious impacts to endangered fish. This will be further exacerbated by the compounding economic effects caused by the shortage of electricity. Farmers can make more money by being paid for not using electricity than by raising crops and livestock. The same is true in manufacturing aluminum.

Western Governors have worked long and hard to raise citizen awareness to the serious nature of the energy situation. On December 1, Western Governors adopted resolutions on energy policy, coal and natural gas. On December 20, Western Governors held an emergency meeting in Denver with and met with former DOE Secretary Bill Richardson and former FERC Chairman Jim Hoecker. By January 9, nine Western Governors approved a Short-term Energy Conservation Strategy aimed at coordinated action to dampen demand. On February 2, the Western Governors' Association hosted an Energy Policy Roundtable in Portland, Oregon. Joining us were Energy Secretary Abraham, all three FERC commissioners, and leaders from major utilities, natural gas and coal producers, environmental groups, academic experts, and small and large retail customers. We adopted several short- and long-term energy policy recommendations. On February 27, Western Governors met with Vice President Cheney to discuss the items requiring Federal action. We requested that an agreement be developed between Western States and the Cheney energy policy team to provide for collaboration on our mutual energy challenges. (See attached information given to the Vice President.)

Finally, energy policy has become a high priority nationally. I commend you and the rest of the Resources Committee for recognizing that management of and access to our Federal public lands will play a pivotal if not critical role in developing energy self-reliance.

Who's in charge?

Today's power shortages in California may only portend the aftershocks of even greater shortages in other states this summer and compounded next winter. New energy supplies are being developed at only one to two percent per year while energy consumption is forecast to grow at two to three times that rate. Who's in charge of our nation's energy situation? Why didn't someone wake up sooner so that

we wouldn't have this uncertainty? We need to increase supply and an infrastructure to transport that supply. Part of the answer is that we have energy policy by default, not by design, policy that is confused rather than coherent. Who should be in charge? In reality, no one person or entity is or should be in complete charge of managing the production, distribution or consumption of our nation's energy supply. We are in this together. Partnerships are vital and beneficial. Your letter of invitation to me for my testimony asked for my "perspective on the role of state government interacting with Federal land and mineral managers in developing a more self-reliant energy policy for the nation through increased utilization of domestic supplies in an environmentally sound manner." The key phrase in your invitation is "interaction with Federal land managers." Interaction must be as full partners progressing towards common goals. If state government has a committed partnership (or interaction) with Federal land managers we will produce domestic supplies of energy in an environmentally safe manner. It is as simple as that.

History of energy policy

Until 1973, the Federal interest in energy policy and production was centered on the primary principle that energy should be cheap and plentiful. The Arab oil embargo reinforced the notion that energy policy was synonymous with oil policy. Conservation of the resource to prevent waste and environmental protection was left to the states, as it should be. The Federal policy by default today is that Americans should be induced to reduce consumption, especially through higher prices brought on by restricted access to production and distribution. This equates to an internal embargo. The current discussion and research concerning global warming has fostered the policy tenet that we should get rid of any fuel that contains carbon. This approach is certainly disjointed and confusing.

The Federal government in the mid-70's began a series of efforts to write a national energy policy. Six attempts were made in 25 years with none being comprehensive, particularly as it would affect public land management. Any successful new attempt must cut across all resource jurisdictions, public and private, state and Federal. Likewise, any new policy must recognize the balance needed among the economy, the environment and the community. Again, give the states full partnership or "interaction" and we will produce energy.

Policy by purpose, not by paranoia—Develop management directives that foster cooperation, not polarization

Over the past decade, management by litigation and intimidation has prevailed over management based on policy goals and has helped define our national energy policy. As one previous chair of the Council on Environmental Quality put it, "our common ground, the environment, has become a battleground. Somehow, nearly half of the EPA's work is not the product of our collective will on the environment, but rather the product of judicial decree. Somehow, we have become a country in receivership, with the courts managing our forests, our rivers and our rangelands." CEQ Chair McGinty, 1997.

Former Chief of the Forest Service, Jack Ward Thomas, lamented during a speech in Wyoming five years ago, that he took his appointment believing that he was the chief resource manager of the nations' forests. But he said, "I have the least control of anyone, over resource management and allocation. The Fish and Wildlife Service has more say over forest management and health than I, through the Endangered Species Act. Legal challenges consume the majority of my day."

Who should manage the land?—Shared responsibility, concurrent jurisdictions

Energy self-reliance through public lands will focus on the West, since nearly 75 percent of all BLM and Forest Service lands in the United States are located in our Western states, particularly those that are rich in environmental as well as energy values. These lands are managed for the general national public benefit, but the laws, policies and management decisions and judicial direction for public lands most directly impact, both socially and economically, the people who live in the West. Our residents and communities depend upon the total resource for recreation, wildlife habitat, resource use, mineral extraction, water supplies, flood protection, hunting, fishing, aesthetic values, tourism and monuments. When you tinker with Federal land issues in the West, you not only affect the economies of all Americans but also the livelihoods of those people and communities living near and relying on our public lands in the west.

As illustrated in the following figure, Federal land ownership in America is not collected all in one place. Much of it is intermingled with state and private ownership. Regardless of specific ownership, public or private, we must recognize that none of our natural resource decisions can be made exclusively and independently of other managers or owners in the vicinity of our public lands. Again, we must

interact as partners. States and the Federal government have shared or concurrent jurisdictions over activities on our lands. We are both rooted as constitutional governments, the Federal with enumerated powers and the states with reserved and delegated powers. As a result, activities on Federal lands require state as well as Federal permits and permissions to be successful. Both must respect the rights of private property adjacent to or co-mingled with governmental ownership.

States own and manage lands that are near, adjacent to, or intermingled with Federal lands. To illustrate, I refer to the next figure in this presentation that shows land ownership patterns just in the State of Wyoming. There are fifteen categories of land ownership, each with its own approach to resource management.

Where Federal land ownership dominates, partnerships are a necessity, not just a nicety to be doled out by a patronizing Federal government.

Environment

In Wyoming we produce, process and/or transport coal, oil, natural gas, wind generation, and uranium. We have some of the cleanest air in the nation. Our water is so clean that we are one of the few states without a fish advisory. We have proven that a clean environment and a robust energy sector are not at odds with each other.

Potential energy—It's not just a matter of physics, it's location, location, location

Energy in the West isn't just electricity. Energy takes many forms, but is most meaningful in generic terms of heat measurement, such as BTU's, or as electrons. Much of that energy is available in and under our Federal public lands. For example, there are 478 billion tons of Federal coal reserves in undeveloped portions of the Powder River Basin in Wyoming and Montana.[1] There are another 362 billion tons of Federal coal reserves on the Colorado Plateau.[2] Estimated oil in undiscovered conventional fields on Federal lands range from 4.4 to 12.8 billion barrels. Similarly, estimates of technically recoverable gas in undiscovered conventional fields on Federal lands range from 34.0 trillion cubic feet (TCF) to 96.8 TCF. Estimates of technically recoverable coalbed gas 3 on Federal lands range from 13.0 TCF to 19.6 TCF.[3]

Wyoming has enough coal reserves that, if we were a country, we would be number three in coal reserves in the world. Ninety-two percent of all coal produced in Wyoming comes from Federal leases. Seventy five percent of methane gas produced in Wyoming comes from Federal ownership. Sixty percent of our oil production is from Federal lands. But we don't even come close to Alaska in terms of natural gas or petroleum. Highly effective wind generation in the West is situated on Federal lands as is much of the hydroelectric generation. But today's energy production is not and will not be sufficient. America needs more energy. We have the energy but we have a sharp imbalance between where energy can be produced and where it is needed or consumed. Transmission pipelines and power lines are needed to connect supply with demand. Acquisition of rights-of-way is necessary. Governor Jane Hull of Arizona is frustrated with the most recent presidential declaration of yet another national monument in Arizona that will likely eliminate a long-approved power transmission line that was scheduled to connect energy generated in Arizona with consumers in California. Monumental decisions in Washington have created political misery in the West. If we cannot transmit energy it has no utility. If it has no utility we have no incentive. If we have no incentive we have a continuing energy policy based on default.

Over 70 percent of Wyoming's mineral estate is Federally owned. As with many western states, that amount of Federal domination could render us a third-world colony rather than the sovereign states that we are. Wyoming ranks first of all states in the production of coal and uranium. Our natural gas exploration and production has increased our known reserves significantly in recent years so that we now rank fourth, but a distant fourth behind Alaska. Our extractable reserves are equivalent to 374 billion barrels of oil. With OPEC currently producing approximately 25 million barrels of oil per day, Wyoming's energy potential could completely replace the entire OPEC production for the next 41 years.

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[1] 1999 Resource Assessment of Selection Tertiary Coal Beds and Zones in the Northern Rocky Mountains and Great Plains Region, October 1999.

[2] Federally Owned Coal and Federal Lands in the Colorado Plateau Region, USGS Fact Sheet FS–145–99, September 1999.

[3] 1995 National Oil and Gas Assessment and Onshore Federal Lands, USGS Open File Report 95–5–N, January 1998.

We have it, America needs it

With this world-class base of raw resources at our very feet, how come America is in such a critical situation of short supply? The answer is simple: access to the resources has become more difficult and the ability to transport the products in any form remains unpredictable and uncertain. In Wyoming almost any project to develop new production or to transport it to consumers involves a Federal action subject to the processes of the National Environmental Policy Act, or NEPA. The original intent of NEPA was admirable, but the immense body of activities developed in its implementation in particular over the past eight years has elevated process itself over results and has allowed opportunity for political control rather than public disclosure and real protection.

To illustrate, the Bureau of Land Management has been developing an Environmental Assessment for an additional 2500 permits for Coal Bed Methane wells in Wyoming's Powder River Basin. If the wells are not developed on the Federal lands, production on adjacent state and privately owned lands will pull the methane gas out of the Federal ownership. Following its approved procedures, the BLM had completed its work and had given assurances to leaseholders that the additional permits would be available by March 1, 2001. At the last moment the U.S. Fish and Wildlife Service reported that it had not completed its required assessment of impacts and would delay the issuance of permits. The lack of coordination and cooperation between two divisions within the single Department of Interior will delay access to a much-needed supply of gas in a very attractive market. Federal activity is primarily focused on process rather than results and there is no accountability for improper decisions. You have asked for my views on interaction between state government and Federal land managers. One of my views is that as a start "interaction" must begin with and between Federal agencies.

What's a NEPA?—It's not the act, it's the actors

The National Environmental Policy Act was enacted in 1969 with the stated purpose of "recognizing the profound impact of man's activity on the interrelations of all components of the natural environment." Further on in the Purpose Clause, the act declares that "it is the policy of the Federal Government, in cooperation with State and local governments and other concerned public and private organizations . . . to create and maintain conditions under which man and nature can exist in productive harmony and fulfill the social, economic and other requirements of present and future generations."

Implementation of this short and relatively simple act, NEPA, has resulted in such a myriad of regulations and processes, that state and local authorities have little or no idea which way the whip saw will go next. Inconsistency between and among Federal agencies is rampant.

The Act is intended to require Federal, state and private actions that are comprehensive, elicit better planning, are inter-generational in their beneficial effect, and strike a wholesome balance between the environment and the economy.

Federal regulations for the implementation of NEPA, must be streamlined and applied in a manner that reduces costs, eliminates interagency conflicts and inconsistencies, and is more efficient and timely. Western Governors recommend that streamlining start with the adoption of management principles such as the eight Enlibra principles we adopted in 1999. These principles, which are attached to my testimony, reflect a practical, common sense way to approach environmental decisions, just as Wyoming's native son, Dr. W. Edward Deming's principles of quality management enabled a quality revolution. We have employed these principles successfully on several difficult environmental issues.

Earlier I referenced that we are in an age of litigation with the courts directing the management of our resources. But it's not just that the courts are directly managing many of our resources, they are indirectly managing public resources in our states because of the fear of litigation, not just because of actual litigation. Implementation of NEPA is not the problem. It's the process. It takes too long, costs too much, spawns unending litigation and is so inconsistently implemented that each agency requires extra layers of management for its own unique set of regulations. It's not the Act, Mr. Chairman, it's the Actors.

You don't have to amend NEPA, Mr. Chairman, if you would simply require the Federal government to be consistent and speak with a unified voice of management. That should be among the first tasks that your Committee undertakes with Vice-President Cheney in his role as Energy Czar.

Other specific actions that could and should be taken include reallocating Federal resources and personnel to activities that are focused on the near-term need for more energy. For example, Wyoming's Powder River Basin is the nation's largest deposit of clean-burning coal. Over 90 percent of current coal production is developed

under Federal leases. More clean-air-compliant coal could be produced by simply increasing the number of LBA's (Leases By Application) from one per year to two per year. The processes do not need to be changed. What's lacking are the people resources needed for processing the applications. As today's coal prices continue to rise, increasing the pace of LBA's with competitive bidding would enhance bonuses paid as well as production bids. Federal agencies are waiting for direction and necessary resources to engage in strategic planning for the enhancement of energy supplies developed efficiently and in environmentally sound ways on public lands.

Similarly, State resources for participation in and implementation of such activities could be enhanced through the release of the state-share funds, which now total more than $400 million for the western states and energy tribes, from the abandoned mine lands program.

In addition:

- The Clinton Roadless Policy threatens to strand over 55 million acres, some of which include significant potential for energy development, both renewable and non-renewable. Four Western Governors asked to "interact" by being granted cooperating agency status. We were denied.
- The U.S. Forest Service has previously been directed to adopt and revise individual forest plans in an accelerated fashion that is hardly strategic and certainly exclusive of energy development. The fast track plan revision coupled with the Clinton Roadless initiative for 55 million acres is hardly a sound strategy for resource management.
- The projected growth in natural gas demand will necessitate a significant increase in pipeline and distribution systems over the next decade, many of which will cross Federal lands. Best estimates are that 38,000 miles of new gas pipelines are needed. The Federal government will have to facilitate this construction by working with each affected state to coordinate rights of way and production.
- Natural gas is the fuel of choice for the near term, since well over 90 percent of new electric power generation will be gas fired, even though 60 percent of current generation is from coal.
- Alternatives for construction and maintenance of electric transmission grid must be encouraged. Today's problems focus on California, but significant shortages are imminent in the Midwest.
- A myriad of directives and solicitors' opinions which flew out of Washington, D.C. on January 19th regarding multiple use of our BLM lands needs to be reassessed for purpose and benefit.

The recommendation from the West, Mr. Chairman, is that we pursue solutions that focus on results, that symbolize balance and stewardship, that recognize states as partners and, above all, that you resist preempting state laws and jurisdictions. Energy is plentiful within the boundaries of public land jurisdictions.

The opportunities

I want to leave you with the message that the current energy crisis is an opportunity to break through the often unproductive deadlock that pits energy needs against environmental protection. The western electricity crisis has awakened us to how much we don't know about the energy resources of the nation and how little we have explored opportunities to meet the energy needs of a growing economy while protecting our environment. We need to seek out opportunities to promote energy development AND environmental protection.

Below I have outlined several subjects under this Committee's jurisdiction that warrant careful and thoughtful examination. There are undoubtedly other areas where progress can be made in promoting energy development and protecting the environment.

Rights-of-way and permitting

Far fewer new power transmission lines and oil and gas pipelines have been built in the West in the past decade than are needed today. The permitting processes of Federal land management agencies and states are generally rusty and not capable of the rapid action required to meet the energy demands of the West. While some folks may call for the heavy hand of Federal preemption of existing state and Federal agency permitting processes, there is little reason for such draconian action, but much to justify new approaches to integrate and accelerate existing permitting process. For example, in the West we are unaware of any interstate transmission lines that have ever been blocked by lack of a state permit.

We need to revive the permitting process from the past decade of dormancy. This needs to be done in a manner that reduces overall permitting time and improves the quality of project reviews. Tomorrow, members of my staff will be meeting with

Staff of the Western Governors' Association and a major information technology firm to begin exploring how high performance computing can be employed to expedite project assessment and the NEPA review process. This kind of innovative activity needs to become the rule, rather than the exception in the thinking of our agencies: how can we do our jobs better, faster and cheaper without sacrificing the environment or the economy.

I recommend that this Committee:

- Urge Federal permitting agencies to include states as cooperating agencies under NEPA reviews of energy projects whenever a state requests cooperating agency status;
- Encourage the BLM and Forest Service to work with Western Governors to develop a process that coordinates and synchronizes Federal and state reviews of proposed energy projects; and
- Encourage Federal agencies, including the Department of Energy, to work with the states to develop the information necessary for the consideration of alternatives to energy projects that are required under NEPA.

Enhancing electricity production from Federal dams

In the West, two Federal power marketing administrations, the Bonneville Power Administration and the Western Area Power Administration, market electricity generated at dams operated by the Bureau of Reclamation and the Corps of Engineers. We are all familiar with the arguments over the impact of such dams on the environment. The ongoing western electricity crisis is also reminding us how critical the hydro-electric system is to meeting the electricity demand. Let's develop opportunities to use the hydro-electric system to generate more electricity AND protect the environment. For example, a re-regulating dam and reservoir downstream from Glen Canyon Dam could enable greater peak electricity production, protect downstream environmental resources from the problems created by rapid fluctuations in flows and mitigate environmental problems for native species. More effective use could be made of Federal dams for stored generation capacity to even out the power generated by intermittent wind power generation. The BPA in its recent announced solicitation of 1,000 megawatts of wind generation, may use this wind power to balance hydro-electric generation. There are opportunities to replace 40–60 year old generators with more efficient generators thereby increasing electricity generation from the same amount of water (*e.g.,* rewinds and replacements at Bonneville Dam, The Dallas Dam, McNary Dam, Chief Joseph Dam) or build additional power plants at existing dams (*e.g.,* Folsom, Anderson Ranch, Black Canyon, Lewiston, Grand Coulee. We could evaluate opportunities to modify irrigation practices to shift pumping loads off-peak, to use more efficient pumps and to improve the efficiency of water use.

I urge you to direct BPA, WAPA, BuRec and the Corps to seek out opportunities to use their assets to enhance electricity production while protecting the environment. I recommend that you ask them to report in 10 months on measures to achieve this end and to consult with governors throughout their work.

Abandoned mine land funds

In enacting the Surface Mining Control and Reclamation Act of 1977, a bargain was struck between coal producing states and Indian tribes and the Federal government under which the states and tribes would receive at least one-half of the abandoned mine land fee collections from coal mining within their borders. Over the years, this fundamental agreement has been undercut by limits on appropriations of the state/tribal share of AML collections, and diversion of the funds to the U.S. Treasury and the health benefits of retired coal miners. The result is that nearly every coal mining state and Indian tribe is owed significant amounts of money. For example, the latest annual data (12/31/00) from OSM shows: West Virginia is owed $95 million; Kentucky $101 million; Pennsylvania, $47 million; Montana $36 million; Utah $11 million; the Council of Energy Resource Tribes, $35 million; and for Wyoming, the largest coal producing state, the most recent estimate is nearly $300 million.

As part of the bargain struck in 1977, states that completed their clean-up of abandoned mines could use the funds for other public purposes. Wyoming is in this position. So may be other states and tribes. At this point, our own money is being withheld from Wyoming when these needed funds could be put to work expanding our capability to develop our energy and related resources and enhance the environment of our beautiful state.

I urge this Committee to enact legislation that will enable states and Indian Tribes to access and use the State-share monies they are due under the Surface Mining Control and Reclamation Act of 1977.

Energy and fires

Until last summer, few made the connection between our forest and range fires and the reliability of the western electric power system. However, the fires of last summer drove home the connection as fires in New Mexico knocked out a 500 Kv transmission line from Four Comers to Albuquerque causing serious blackouts. In Montana, the major fires resulted in the shut down of a major 500 Kv transmission line that moves coal-generated power from eastern Montana to Seattle. You can imagine the implications of these events if they should recur during this summer's peak load.

Last fall, Western Governors negotiated an agreement with then-Interior Secretary Babbitt and then-Agriculture Secretary Glickman to correct the imbalance in land management decisions. The agreement, which the Congress memorialized in the Interior Appropriations Committee Report, makes the states full partners and requires that local expertise and understanding be incorporated into forest management decisions during the extensive forest restoration activities over the next ten years. While the issues addressed in this agreement extend beyond issues of energy, I commend this agreement to the Committee and urge you to support its implementation as a model of the right way to manage our public lands and resources.

I understand that my colleague Montana Governor Judy Martz will be testifying tomorrow to the Forest and Forest Health Subcommittee on these important issues.

Royalty management and well inspection

I want to thank you and the Congress for acting last year to remove a major irritant limiting state/Federal cooperation on royalty management and well inspection which was the deduction of unsupported Federal agency costs from the states' share of Mineral Leasing Act revenues. With this obstacle removed, we have an opportunity for the thoughtful examination of ways in which the states and Federal government might further cooperate in enhancing the efficiency of how we collect royalties and manage mineral leases, such as by taking royalties in-kind rather than in-cash.

You should encourage new leadership at the BLM and MMS to seek greater efficiencies in the execution of their responsibilities through enhanced collaboration with states. Both BLM and MMS execute responsibilities that parallel those of state agencies. We ought to be able to take better advantage of the synergies between these Federal and state agencies to improve well inspections and simplify royalty management while reducing the burden on lessees.

National parks and gateway communities

Many of the most spectacular lands and waters in the nation are under the jurisdiction of the National Park Service and other Federal land management agencies. The public's interest in experiencing these national treasurers is growing with the resulting increased pressure on the environment and gateway communities.

We need to find and capitalize on opportunities to show how parks and gateway communities can work in harmony with the environment while meeting needs of visitors. We need to use the parks and gateway communities as educational models of our ability to meet our energy needs while protecting the environment.

I understand that there are examples of steps that can be taken in this direction. For example, in the Chairman's state of Utah, the state, the local utility (PacifiCorp), and the National Park Service have collaborated to replace remote and polluting diesel generation at Lake Powell with photo-voltaic. Zion National Park's pressing need to reduce traffic in the inner canyon has been integrated with the transportation needs of the park's gateway community of Springdale. These types of innovations should be the norm, not the exception.

I urge you to direct the National Park Service, the BLM, the Forest Service and the Fish and Wildlife Service to seek out opportunities with gateway communities and states to meeting the needs of visitors and the gateway communities while providing a showcase of how the needs for energy and environmental protection can be met. I recommend that you direct these agencies to come back with a plan in 10 months that identifies the opportunities for collaboration and necessary resources to implement the plan. These plans must be developed in cooperation with gateway communities and states.

Thomas Jefferson maintained a solid belief that the success of our democracy lies in ordinary citizens vested with deep civic responsibility, citizens who engage each other directly in the pursuit of the common good. The American West can and should reject the last two decades of bitter debate among environmentalists and resource users that has become so polarized that we have gridlock rather than any public benefit from our public lands. Former EPA Director Bill Ruckelshaus has said "business, governments and citizens, frustrated by years of litigation and stale-

mate, have begun to turn to the common good, sometimes out of desperation, but more frequently out of hope. Hope that the decisions they yield will be less controversial and more durable. Hope that jointly designed decisions will be better and more informed decisions. And hope that stakeholder processes could actually help to regenerate public confidence in our institutions, including both government and business."

Mr. Chairman, thank you. I would be happy to answer any questions.

Suggested Action Plan to Meet the Westerns Electricity Crisis and Help Build the Foundation for a National Energy Policy

1. Permitting energy facilities.—Direct Federal agencies to partner with Western states to expedite regulatory processes governing the operation of existing powerplants and the construction of necessary new energy infrastructure. This includes:
   - EPA permits governing operation of existing powerplants and new powerplants;
   - Federal interface with states on fish management and hydro operations;
   - Interior Department and Forest Service on the processing rights-of-way;
   - FERC processing of natural gas pipeline applications.
2. Reliability legislation.—Enact before summer Federal electric system reliability legislation, such as last year's Senate bill making reliability standards enforceable.
   - Delegates to the West authority to devise standards and allows Federal deference.
   - Governors create state bodies to advise industry and FERC on reliability standards.
3. Low-income energy assistance.—Increase Federal funding for low-income energy assistance and low-income weatherization.
   - Increased natural gas and electricity prices have caused major hardship.
   - Expected high electricity prices this summer will exacerbate hardship in the West.
4. Energy production and efficiency tax credits and Federal R&D.—Federal action is needed to encourage the development of cleaner, more efficient powerplants and more efficient use of energy.
   - Adopt energy efficiency tax credits to complement the Western state efforts to reduce demand this summer.
   - Extend and expand wind production tax credit to geothermal, solar, and biomass.
   - Adopt tax incentives for advanced coal use.
   - Expand Federal fossil and renewable energy R&D.
5. Federal appliance standards.—Continue development of standards.
   - Standards adopted by DOE in January (for clothes washers, water heaters, residential air conditioning and heat pumps) are a step in the right direction.
   - Grant waivers for stronger state standards, such as California's air conditioner and commercial appliance standards.
6. Administration.—WGA cooperative agreement.—Implement a multi-year cooperative agreement with Western Governors.
   - Agreement enhances Western states' standing with Federal agencies and serve as a vehicle for Federal funding on key energy issues.
   - The cooperative agreement would include: expanding electrical generations, building needed energy infrastructure, and improving the efficiency of energy use.
   - The cooperative agreement would extend to states cooperating agency status for NEPA reviews on energy projects.

Western Governors' Association Policy Resolution 99–013—Principles for Environmental Management in the West

Sponsors: Governors Kitzhaber and Leavitt

A. BACKGROUND

Vision statement

1. The people of the West face a common challenge. The quality of life we cherish is threatened—in part by our own success—as our rapid growth impacts much of the environmental quality and many of the natural resource systems that characterize our region. A number of factors illustrate the change that is occurring.

- Throughout the 1990s, the population growth rate in the Western United States has surpassed that of every other region of the country, in part because of the draw of the Western quality of life and magnificent landscapes. Population mobility and growth and the resulting increased diversity in values are changing both the political dynamics and the region's economy.
- While its historic base of natural resource-related industries, such as farming, fishing, mining, and wood products, remains important, the West has diversified dramatically and now counts telecommunications, tourism, recreation services, transportation, information technologies, software and entertainment companies among its larger employers.
- Globalization of markets, changing preferences, substitute materials, and availability of natural resources have affected the competitiveness and resiliency of many Western communities. Communities must work to retool, adjust and diversify to remain competitive.
- At the same time, the nature of environmental and natural resource problems is changing. As large, easily identified sources of pollution are controlled, the threat to the environment has shifted to diffuse, numerous, and smaller-scale sources. Our sheer numbers and consumption habits make environmental progress increasingly dependent on the daily behaviors and decisions made by every individual.
- Agricultural consolidation and dispersed development have affected land-use patterns resulting in a wide range of economic and environmental impacts. Impacts range from impaired air quality from increasing numbers of commuters and miles traveled, to fragmented habitats and disrupted migration routes for wildlife. Good stewardship born of locally controlled and economically sustainable agriculture may also suffer.
- New computer and communications technologies, as well as new environmental monitoring and characterization technologies, create opportunities for innovative solutions to preserve and enhance the environment and communities of the West.

There is a lot at stake. Westerners enjoy majestic mountains, forests, streams and lakes, as well as beautiful deserts, plains and coastlines. This landscape includes the vast public lands—national parks and forests, wilderness areas and refuges, military bases, tribal lands, state and local public lands—and highly productive private lands. This landscape harbors a wide array of plant and animal life and nurtures a diverse population of people both physically and spiritually. The West's natural resource systems are a source of great wealth and beauty for the region, the nation and the world.

Westerners desire to create a region that will provide our children an extraordinary quality of life. This future embraces a shared sense of stewardship responsibility for our region's natural and cultural assets. It strives to ensure for present and future generations clean water and air, open lands that are beautiful, life-sustaining and productive, and proximity to public recreational opportunities. Equally important is an economy where people of any background or age have opportunities for education and high quality jobs and the ability to contribute to the well-being of their families and fellow citizens.

It must be clear that in implementing this vision, Westerners do not reject the goals and objectives of Federal environmental laws, nor the appropriate role of Federal regulation and enforcement as a tool to achieve those objectives. Westerners respect treaty rights, sovereignty, property rights and other legal rights, and recognize the responsibilities associated with those rights in addressing our common environmental challenges.

Our future includes a belief that we are better off if we can redirect energy away from polarized battles and toward solving our common problems. It is a vision of rebuilding trust, partnerships and community; of better understanding the cumulative effects of our actions; and of enhancing individual and collective environmental understanding and its associated stewardship. It includes individuals being able to pursue their objectives in ways that build community rather than disrupt it, and commitment to looking for win-win solutions sustainable over time.

2. During the 1990s, the Western Governors have experimented with a variety of ways to improve management of the environment of the West through collaborative processes. Valuable accomplishments have been achieved while lessons have been learned from development of the Park City Principles for Water Management, the High Plains Partnership, the Grand Canyon Visibility Transport Commission, The Oregon Plan for Salmon and Watersheds, the Texas Regional Water Supply Planning Process, Trails and Recreational Access for Alaska and the Wyoming Open Lands Initiative. These efforts have built on the collaborative process which has shown repeated promise, and have demonstrated that the environmental strategies

that work best have strong commitment from state and local government, vested local support, and Federal collaboration.

3. In summary, mindful of our rich Western heritage, recognizing the need to sustain a vibrant Western economy, convinced of the importance of protecting and enhancing the environment for the well-being of present and future generations, and acknowledging the benefits of existing and new approaches to environmental management, Governors and other Westerners with diverse experience have agreed to the principles that follow.

B. GOVERNORS' POLICY STATEMENT

1. The Western Governors commit to a new doctrine to guide natural resource and environmental policy development and decision-making in the West. The doctrine is based upon the principles below, each of which is dependent upon the others. The integration of these principles is critical to their interpretation and the success of the new doctrine.

National Standards, Neighborhood Solutions—Assign Responsibilities at the Right Level

There is full acknowledgment that there are environmental issues of national interest ranging from management of public lands to air and water quality protection. Public processes are used to identify and protect the collective values of the nation's public. No existing laws or identified legal rights and responsibilities are rejected. The role of the Federal government is supported in passing laws that protect these values as well as setting national standards and objectives that identify the appropriate uses and levels of protection to be achieved. As the Federal government sets national standards, they should consult with the states, tribes and local governments as well as other concerned stakeholders in order to access data and other important information. When environmental standards have not been historically within the Federal jurisdiction, non-Federal governments retain their standard setting and enforcing functions to ensure consideration of unique, local-level circumstances and to ensure community involvement.

With standards and objectives identified, there should be flexibility for non-Federal governments to develop their own plans to achieve them, and to provide accountability. Plans that consider more localized ecological, economic, social and political factors can have the advantage of having more public support and involvement and therefore can reach national standards more efficiently and effectively.

Governments should reward innovation and take responsibility for achieving environmental goals. They should support this type of empowerment for any level of government that can demonstrate its ability to meet or exceed standards and goals through locally or regionally tailored plans. The Federal government should support non-Federal efforts in this regard with funds and technical assistance. In the event that no government or community is progressing toward specific place-based plans, the Federal government should become more actively involved in meeting the standards.

Collaboration, Not Polarization—Use Collaborative Processes to Break Down Barriers and Find Solutions

The regulatory tools we have been relying on over the last quarter of a century are reaching the point of diminishing returns. In addition, environmental issues tend to be highly polarizing, leading to destructive battles that do not necessarily achieve environmental goals. Successful environmental policy implementation is best accomplished through balanced, open and inclusive approaches at the ground level, where interested stakeholders work together to formulate critical issue statements and develop locally based solutions to those issues. Collaborative approaches often result in greater satisfaction with outcomes and broader public support, and can increase the chances of involved parties staying committed over time to the solution and its implementation. Additionally, collaborative mechanisms may save costs when compared with traditional means of policy development. Given the often local nature of collaborative processes, it may be necessary for public and private interests to provide resources to ensure these processes are transparent, have broad participation and are supported with good technical information.

Reward Results, Not Programs—Move to a Performance-Based System

A clean and safe environment will best be achieved when government actions are focused on outcomes, not programs, and when innovative approaches to achieving desired outcomes are rewarded. Federal, state and local policies should encourage "outside the box" thinking in the development of strategies to achieve desired

outcomes. Solving problems rather than just complying with programs should be rewarded.

Science for Facts, Process for Priorities—Separate Subjective Choices From Objective Data Gathering

Environmental science is complex and uncertainties exist in most scientific findings. In addressing scientific uncertainties that underlie most environmental issues and decisions, competing interests usually point to scientific conclusions supporting their view and ignore or attack conflicting or insufficient information. This situation allows interests to hold polarized positions, and interferes with reconciling the problems at hand. It may also leave stakeholders in denial over readily perceived environmental problems. This in turn reduces public confidence and raises the stridency of debate. Critical, preventive steps may never be taken as a result, and this may lead to more costly environmental protection than would otherwise be required.

A better approach is to reach agreement on the underlying facts as well as the range of uncertainty surrounding the environmental question at hand before trying to frame the choices to be made. This approach should use a public, balanced and inclusive collaborative process and a range of respected scientists and peer-reviewed science. Such a process promotes quality assurance and quality control mechanisms to evaluate the credibility of scientific conclusions. It can also help stakeholders and decision-makers understand the underlying science and its limitations before decisions are made. If a collaborative process among the stakeholders does not resolve scientific disagreements, decision-makers must evaluate the differing scientific information and make the difficult policy choices. Decision-makers should use ongoing scientific monitoring information to adapt their management decisions as necessary.

Markets Before Mandates—Pursue Economic Incentives Whenever Appropriate

While most individuals, businesses, and institutions want to protect the environment and achieve desired environmental outcomes at the lowest cost to society, many environmental programs require the use of specific technologies and processes to achieve these outcomes. Reliance on the threat of enforcement action to force compliance with technology or process requirements may result in adequate environmental protection. However, market-based approaches and economic incentives often result in more efficient and cost-effective results and may lead to more rapid compliance. These approaches also reward environmental performance, promote economic health, encourage innovation and increase trust among government, industry and the public.

Change A Heart, Change A Nation—Environmental Understanding is Crucial

Governments at all levels can develop policies, programs and procedures for protecting the environment. Yet the success of these policies ultimately depends on the daily choices of our citizens. Beginning with the nation's youth, people need to understand their relationship with the environment. They need to understand the importance of sustaining and enhancing their surroundings for themselves and future generations. If we are able to achieve a healthy environment, it will be because citizens understand that a healthy environment is critical to the social and economic health of the nation. Government has a role in educating people about stewardship of natural resources. One important way for government to promote individual responsibility is by rewarding those who meet their stewardship responsibilities.

Recognition of Benefits and Costs—Make Sure All Decisions Affecting Infrastructure, Development and Environment are Fully Informed

The implementation of environmental policies and programs should be guided by an assessment of the costs and benefits of different options across the affected geographic range. To best understand opportunities for win-win solutions, cost and benefit assessments should look at life-cycle costs and economic externalities imposed on those who do not participate in key transactions. These assessments can illustrate the relative advantages of various methods of achieving common public goals. However, not all benefits and costs can be easily quantified or translated into dollars. There may be other non-economic factors such as equity within and across generations that should also be fully considered and integrated into every assessment of options. The assessment of options should consider all of the social, legal, economic and political factors while ensuring that neither quantitative nor qualitative factors dominate.

Solutions Transcend Political Boundaries—Use Appropriate Geographic Boundaries for Environmental Problems

Many of the environmental challenges in the West cross political and agency boundaries. For example, environmental management issues often fall within

natural basins. These are often transboundary water or air sheds. Focusing on the natural boundaries of the problem helps identify the appropriate science, possible markets, cross-border issues, and the full range of affected interests and governments that should participate and facilitate solutions. Voluntary interstate strategies as well as other partnerships are important tools as well.

2. The Western Governors invite state, local and Native American leaders, environmental organizations, the private sector, Congress and the Administration to embrace these principles in their environmental and natural resources policy work and decision-making.

C. GOVERNORS' MANAGEMENT DIRECTIVE

1. The Western Governors' Association (WGA) shall transmit a copy of this resolution to the President; Vice President; the Council on Environmental Quality; the Administrator of the Environmental Protection Agency; the Secretaries of Interior, Energy, Transportation and Agriculture; the chairmen and ranking minority leaders of the relevant Committees of Congress; the Western delegation to Congress; Western tribal leaders; state, municipal and county government associations; leaders of business associations and environmental institutions; and interested CEOs.

WGA shall incorporate these principles into its projects and activities in environmental and natural resources policy development and shall work with the states to identify specific areas where they have been demonstrated and adopted or may be in the future.

3. WGA shall communicate the commitment of the Governors to these principles to organizations, institutions and media concerned with environmental protection and natural resources management.

4. WGA shall report to the Governors annually on input received on the content of the Shared Doctrine for Environmental Management. In conjunction with its Enlibra Steering and Advisory Committees, WGA shall use its limited resources to promote the doctrine, and to engage and evaluate appropriate projects that seek to advance its principles. To carry out these activities, WGA will prepare an implementation plan as part of the annual work plan submitted to the Governors.

Originally adopted as Policy Resolution 98–001 in 1998.

Western Governors' Association Policy Resolution 00–033—Natural Gas

Sponsor: Governor Knowles

A. BACKGROUND

1. North America is dependent on reliable, reasonably priced energy supplies to support its economy.

2. Demand for natural gas is growing faster than any other energy source. Higher than expected recent growth in natural gas use will fully utilize current North American gas production, creating the relatively high prices consumers are paying for natural gas this winter. U.S. natural gas use is currently 21 trillion cubic feet per year and is expected to grow to 30 trillion cubic feet by 2015. More than 90 percent of planned expansion of electric generation capacity in the U.S. is to be fueled with natural gas.

3. Billions of dollars of investment in production, transmission, storage and distribution facilities will be required to ensure that North American natural gas consumers have access to an adequate supply of fuel.

4. The Interstate Oil and Gas Compact Commission's recent Governor's Summit on Natural Gas concluded, with the support of natural gas experts from industry, regulatory and other government officials, that a functional marketplace is capable of delivering natural gas to North America at reasonable prices.

5. The largest single untapped supply of natural gas available to North American is located in Alaska. 35 trillion cubic feet of gas are found in proven reserves. Additional exploration may discover total reserves of more than 100 trillion cubic feet.

6. In the 1970's the United States and Canada agreed to transport Alaska natural gas to the rest of the continent via a pipeline from Prudhoe Bay through Alaska's interior along the Alcan Highway to the existing North American distribution system. This agreement constitutes a treaty-like international arrangement which was specifically authorized by Congress. Key rights-of-way and regulatory approvals are still valid allowing a project to deliver billions of cubic feet per day by 2006 or 2007. A pipeline along the Alcan Highway would parallel an existing highway corridor and would not cross any U.S. national conservation system units. Such a project would be the biggest private construction project in North American history.

B. GOVERNORS' POLICY STATEMENT

1. Consistent with Federal and state environmental laws and with local community values, Western Governors:

a. Believe Federal and state governments should endorse policies that increase the availability of North American natural gas at reasonable prices to residential, commercial, industrial, and electric generation consumers,

b. Call on Federal and state governments to work together to allow for appropriate access to their public-owned lands for natural gas exploration, production and transmission, while protecting environmentally sensitive areas, and

c. Endorse, pending completion of appropriate environmental review, a project to bring Alaska gas to market via a pipeline from Prudhoe Bay along the Alcan Highway through Canada to the North American distribution system. Any such project must ensure full pipeline safety to protect the public and environment.

2. Western Governors also believe that the nation must continue to identify and develop a full range of economic and efficient alternative energy sources, including energy conservation.

C. GOVERNORS' MANAGEMENT DIRECTIVE

1. The Western Governors' Association (WGA) shall transmit this resolution to the President, elect, Secretary of Energy, Secretary of Energy designee, and members of the U.S. House and Senate Natural Resources Committees.

2. WGA staff shall monitor developments related to the purposes of this resolution and report to the Governors as needed.

Western Governors' Association Policy Resolution 00–036—Energy Policy for the Americas

Sponsor: Governor Geringer

A. BACKGROUND

1. The United States enjoys the strongest economy in the world and an increasingly clean environment both of which are made possible by abundant and affordable energy and improvements in clean energy and renewable energy technologies. To assure all Americans access to affordable energy, it is necessary to ensure that diverse energy supplies, including coal, hydroelectric, natural gas, petroleum and renewable resources such as biomass, ethanol, wind, solar, and geothermal, remain available, and that energy resources are used efficiently and in a manner that continues the trend to a cleaner environment

2. Since 1973, the Federal Government has attempted, through at least six plans, to implement an effective national energy policy. Despite the Federal government plans, today we: (a) are increasingly dependent on imported energy supplies, particularly transportation fuels, from unstable regions of the world; (b) do not have in place adequate infrastructure necessary to provide our growing technology-driven economy with reliable, high-quality and affordable supplies of energy; (c) have not adequately improved the efficiency with which energy is used or enabled the demand side of the market to more effectively respond to energy price increases; and (d) have flawed wholesale electricity markets in some areas. These shortcomings are particularly apparent in a year when energy prices dramatically increased and western electricity markets are in the midst of fundamental reforms.

3. In order for the U.S. economy to be sustained and to grow, technologies and policies need to be developed to enable all energy resources to be developed cleanly, efficiently and cost-effectively and to efficiently use energy resources and enable demand responsiveness to energy prices.

4. The West is particularly critical to the implementation of national energy policy because of the significant fossil energy and renewable energy resources of the region. The West already produces almost 65 percent of the nation's natural gas, 64 percent of the nation's oil, more than 50 percent of the nation's coal, and a major portion of the nation's renewable resources.

5. The United States presently relies on fossil fuels (oil, gas, and coal) for approximately 85 percent of its total energy needs and almost 70 percent of its electrical power.

6. Renewable energy should be developed and energy efficiency promoted to provide sufficient affordable and reliable energy as part of a diverse portfolio that includes fossil fuels as sources for electric power, transportation and heating. As efforts continue to develop technologies to enable a transition to renewable energy,

it is important to ensure American consumers can reduce demand and utilize clean burning natural gas, oil and coal.

7. In order for the U.S. economy to maintain sustained growth, all sources of energy should be developed cleanly, efficiently, and cost-effectively through the development of a comprehensive energy policy. To accomplish this, an initiative must be developed and implemented to provide energy security, reliability, diversity, and affordability and to ensure environmental protection. Such an initiative must capitalize on current and future opportunities to improve the efficiency with which energy is used.

B. GOVERNORS' POLICY STATEMENT

1. Western Governors' support a national energy policy that is guided by the goals of secure, reliable, diverse, affordable and environmentally-sound energy for all citizens. The Governors encourage cooperation among states to meet these goals.

2. A national energy policy should be guided by:

a. Effective and functional market-oriented approaches to energy supply and use that enable the above goals to be met;

b. Appropriate government support of energy research in the development of new technologies and commercial applications, with demonstrations by the private sector;

c. Performance-based Federal and state environmental standards implemented by the states;

d. Strategic alliances with our international partners in the Americas; and

e. Conservation by end-users in the transportation, industrial, residential, and commercial sectors.

3. Western Governors believe that an Energy Policy Roundtable is needed to provide a forum for governors, members of Congress, the Federal administration, state agencies, and experts to examine issues, policies and programs necessary to assure secure, reliable, diverse, affordable and environmentally-sound energy into the future.

C. GOVERNORS' MANAGEMENT DIRECTIVE

1. The Western Governors' Association shall transmit this resolution to the President, elect, the Secretaries or Secretaries-elect of Energy, Agriculture, Interior and Commerce, the Administrator or Administrator-designee of the Environmental Protection Agency, appropriate members and Committees of Congress, the National Governors' Association, and the Interstate Oil and Gas Compact Commission and other concerned organizations.

2. WGA staff shall monitor developments related to the purposes of this resolution and report to the governors as needed. WGA and affiliated organizations shall ensure that all WGA programs and initiatives that affect energy development and use incorporate the principles and program of this policy.

3. WGA will work with other interested organizations to convene the first Energy Policy Roundtable prior to the WGA Annual Meeting in order to prepare a detailed approach to implement the policies in this resolution.

Western Governors' Association Policy Resolution 00–037—Coal Policy

Sponsor: Governor Geringer

A. BACKGROUND

1. Coal mining has a long and proud heritage in the western United States with today's coal-fired power plants generating 56 percent of the electricity in the United States and over 70 percent of the electricity generated in Arizona, Colorado, Montana, Nevada, New Mexico, Utah and Wyoming.

2. The West now mines over half of the coal produced in the United States from less than 6 percent of the total coal mines in the United States. Western coal comprises approximately 55 percent of the nation's reserves and over 80 percent of the low sulfur coal reserves (defined as less than 1.67 lbs. SO_2, per million Btu).

3. As the nation's growth in energy demand continues, western coal development is an important part of the fuel mix necessary to assure that U.S. citizens' energy needs are met in an affordable, reliable and increasingly clean manner.

4. Western and national coal-fired power generation is increasingly clean, with significant reductions in SO_2, NO_X, and particulate matter during a period of dramatic increase in the demand for electricity. For example, western coal-fired power

plants currently produce 23 percent of the coal-fired electricity generated in the country but emit only 13 percent of the SO_2 emissions from such plants.

5. The western coal industry is among the safest in the entire world, and has consistently conducted successful reclamation of mined lands.

B. GOVERNORS' POLICY STATEMENT

1. The Western Governors' Association acknowledges the significant contribution of the coal industry to many western states' revenues and local communities' economics. The Governors also strongly support public and private research to reduce emissions from coal-fired generation.

2. Consistent with the Governors' general energy policy resolution 00–036, Western Governors support the concepts for Federal legislation which:

a. Accelerate technology research and development programs for advanced clean coal technology for new and existing coal based electric generating facilities.

b. Encourages appropriate incentives for emission reductions and efficiency improvements in existing coal based electricity-generating facilities.

c. Encourages incentives for early commercial application of advanced clean coal technologies for new generating capacity.

3. Western Governors support the concept of a more comprehensive and coordinated approach to environmental regulation.

4. Western Governors recognize that there are multiple sources of emissions that cause regional haze and an effective emissions-reduction program must treat all sources fairly.

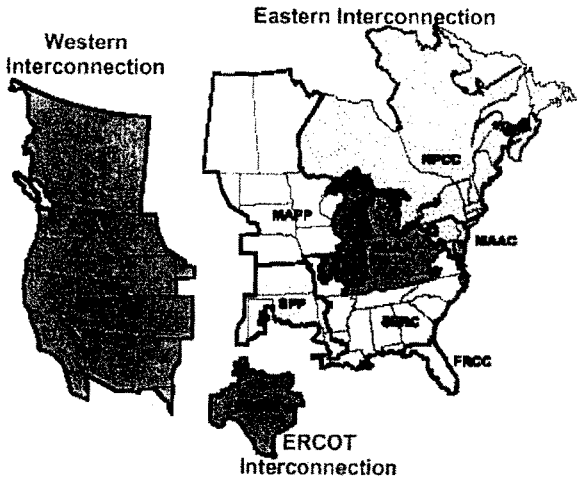
C. GOVERNORS' MANAGEMENT DIRECTIVE

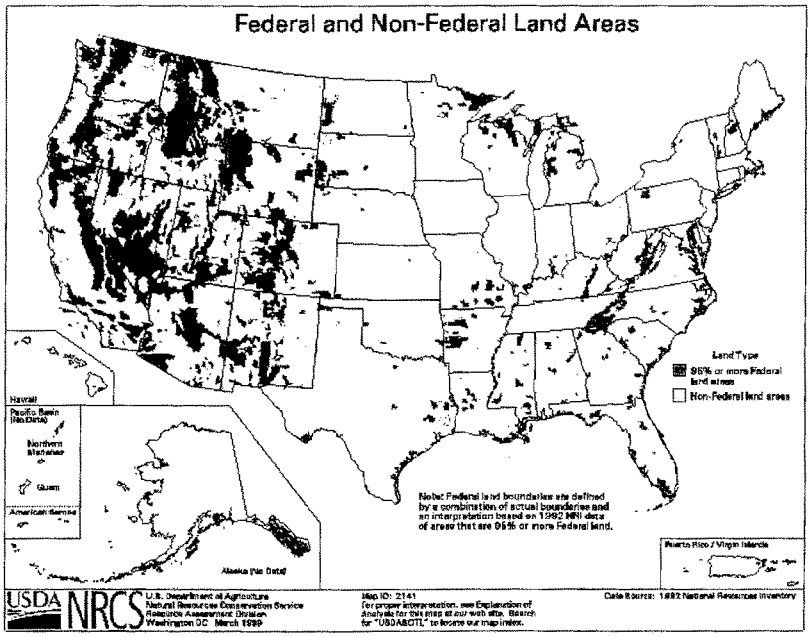
1. WGA staff shall convey to the Administration, Congress and the U.S. Environmental Protection Agency that the Western Governors' Association supports the concepts of Federal legislation as outlined in Policy Statement No. 2.

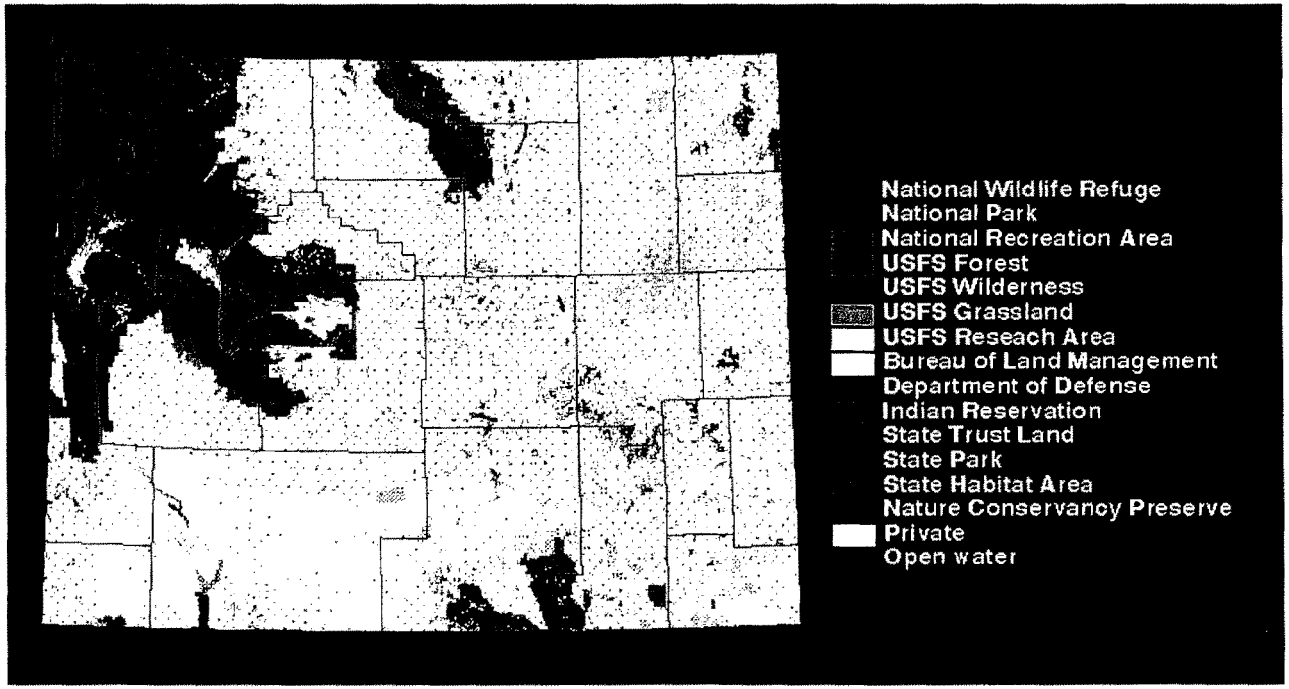
2. WGA staff shall convey to Congress and the U.S. Environmental Protection Agency the need to address the multitude of emission concerns in a comprehensive and coordinated approach.

3. WGA staff shall convey this resolution to Mining Associations within the membership states of the Western Governors' Association.

[Maps referred to in Governor Geringer's statement follow:]


Eastern Interconnection
Western Interconnection
NPCC
MAPP
MAAC
SPP
SERC
FRCC
ERCOT Interconnection


Federal and Non-Federal Land Areas
Land Type
95% or more Federal land areas
Non-Federal land areas
Hawaii
Pacific Basin (Not Detail)
Northern Marianas
Guam
American Samoa
Alaska (Not Detail)
Puerto Rico / Virgin Islands
Note: Federal land boundaries are defined by a combination of actual boundaries and an interpretation based on 1992 NRI data of areas that are 95% or more Federal land.
USDA NRCS
U.S. Department of Agriculture
Natural Resources Conservation Service
Resource Assessment Division
Washington DC March 1999
Map ID: 2141
For proper interpretation, see Explanation of Analysis for this map at our web site. Search for "USDAACTL" to locate our map index.
Data Source: 1992 National Resources Inventory



15 Ownership Categories, each with a unique set of management procedures

The CHAIRMAN. Thank you, Governor Geringer. We appreciate your excellent remarks.

I recognize the gentleman from Montana to introduce the Governor of Montana.

Mr. REHBERG. Thank you, Mr. Chairman. It gives me a great deal of pleasure to draw attention to the last of the three panel members, a woman that I have worked with for many years. Twelve years ago, we began working with Senator Conrad Burns within the State operation.

If the gentlelady from Wyoming were here, I would make some comment like ″My governor can beat up her governor.″ She is a former Olympic speed skating champion. So, Jim, I wouldn't leg wrestle her if I were you; also a small businesswoman, very successful in that right as well. And in the true tradition of firsts in Montana, we were the first State to have a woman Congresswoman, Jeanette Rankin, and we now have our first woman governor, and we so dearly appreciate the things she is going to try and do to build energy independence for this nation.

Montana's motto is "oro y plata," "gold and silver," and it is appropriate now at this time that we talk about coal, natural gas, and oil being able to free us from the dependence on sources of oil oversees.

So without further ado, I want to introduce a very good friend of mine, a new Governor, Judy Martz of the State of Montana.

The CHAIRMAN. Thank you. We appreciate the introduction.

Governor, we will turn to you.

STATEMENT OF THE HON. JUDY MARTZ, GOVERNOR, STATE OF MONTANA

Governor MARTZ. Thank you. First of all, thank you, Congressman Rehberg. We are very proud to have you here representing Montana.

Mr. Chairman, members of the Committee, for the record I am Governor Judy Martz, representing the Big Sky State of Montana. It is an honor to be here today to testify on the role of public lands in developing a self-reliant energy policy. I appreciate the efforts and interest this Committee has shown in our State and in this issue.

As Governor Geringer mentioned, we also experienced last summer those horrific fires. We have closed down our only large aluminum plant, which is now selling back their power and closing their doors for the next year. Mines that produce much-needed resources are at risk of closing because of energy prices, and one of our major cements plants. As we lose jobs at 300 and 350 people a crack, that is a huge impact to the State of Montana.

I ask for your consideration of my prior submission of my complete testimony for the record and for your review.

Now, let me begin by putting into context the size of Montana. Overall, Montana has more than 93 million acres of land. That is more than 145,000 square miles. Of the 93 million acres, more than 19 million acres are managed by the United States Forest Service, 8 million by the Bureau of Land Management, and another 1.1 million by the National Park Service. Thirty-three percent of our land mass is managed by the Federal Government.

We must start to utilize the resources that we have. We should not act surprised that after a decade of stopping natural resource development on public lands that we are suddenly faced with an energy shortage. Natural gas prices will continue to rise if we don't focus on the energy that we can provide as a nation. Electricity prices will continue to climb if we continue to say we can't develop clean coal to burn, we can't develop natural gas, and we have to blow up our hydropower dams. We can expand our natural resource development well into the context of environmental stewardship. This is not a zero-sum game.

Montana has a wealth of natural resources, from vast super-compliant coal fields in the east, to thousands of acres of timber land in the west. Montana can contribute to the economic health of this country through responsible and environmentally-sensible development of our resources.

Unfortunately, the Federal Government has systematically reduced the number of opportunities for reasonable development of our natural resources in the past recent years. At the end of the last administration's term of office, doors were closed on many opportunities to responsible management and development of natural resources. The past President's Roadless Initiative will lock up over 6 million acres of U.S. Forest Service land. Additionally, the Roadless Initiative will prohibit sensible and environmentally-sensitive exploration of natural gas and oil.

Also, just days before leaving office, President Clinton designated nearly half a million acres of land along the upper Missouri River breaks as a National Monument. The past administration permanently set aside one of our State's greatest natural gas reserves due to concerns over a great influx of tourists.

Last year, approximately 420,000 acres along the Rocky Mountain Front were withdrawn from mineral development for the next 20 years. The Rocky Mountain Front has untold reserves of natural gas. In fact, our Canadian neighbors to the north have been responsibly developing natural gas along the Front for years.

But the news for us is not all bad. In fact, despite the previous attempts to lock up the West, we believe Montana still has tremendous potential to meet the demands of a growing nation. Montana anticipates the imminent transfer of Federal mineral rights in super-compliant coal reserves in southeast Montana. This area of land, known as the Otter Creek tracts, is the result of an exchange for the mineral development rights outside Yellowstone National Park.

While I served as Montana's Lieutenant Governor with former Governor Marc Racicot, Montana successfully negotiated a deal with the Federal Government that resulted in a buy-out of mineral rights and an exchange for the lost economic development. Under the leadership of Senator Conrad Burns and former Congressman Rick Hill, H.R. 2107 was signed into law in 1998 (P.L. 105-83), mandating the transfer of Otter Creek Tracts 1, 2 and 3 to the State of Montana.

The former Secretary of the Interior ignored the law, refusing to make the transfer. I am pleased to say that, working with new Secretary of Interior Gail Norton, I am anticipating Montana will receive ownership of these tracts in the near future, a very important

move for Montana. The development of over 533 million tons of super-compliant coal is at stake here. I call it super-compliant because it far exceeds the Federal clean air requirements for high btu values and low sulfur output.

This high-quality coal will be in demand in the Midwest as power generating facilities struggle to improve air quality, as mandated under the Clean Air Act. The development of these tracts is also bringing increased interest from investors who recognize the need for additional power sources in the Western half of our country. We have already have several inquiries about potential coal development, but also coal-fired electric generating facilities that will fuel the power needs of Montana and the West.

Along with the potential coal development, Montana has vast reserves of resources only recently acknowledged as a viable energy source: coal bed methane, or natural gas. Currently, Montana's Department of Environmental Quality and the BLM are working jointly to assess environmental impacts from the proposed development. Wyoming Governor Geringer has had tremendous experience in the development of coal bed methane, and we hope to learn from his efforts in Wyoming.

Today, nearly 57 percent of our energy needs are supplied by foreign nations. Not only is that a national security risk, it takes good-paying jobs away from hard-working Americans, hard-working Montanans. I believe that is unacceptable.

We have the resources to meet a greater portion of our country's energy needs, and we can do it in an environmentally-sensitive manner. As a nation, we need to reevaluate the role of our public lands and how they can play a part in supplying this country with the energy it so desperately needs.

We ask for every consideration to be allowed, with new technologies, to move forward in our State of Montana and the Western States of this country and to assist in the energy needs of this country. We want to be there. We want to see that environmentally-safe maneuvers or management practices will be used in conservation, in transmission lines or pipelines, regulation changes on the State and Federal level, increasing supply for generation plants, and our immediate long-range needs and our short-range needs would be met through those usages.

We want to be a partner with the Federal Government. We want our opinions to be heard, as we have not had them heard, we believe, in the last 8 years. We appreciate the opportunity to be here with you and we appreciate what is going to be happening in the future.

Thank you.

[The prepared statement of Governor Martz follows:]

Statement of The Honorable Judy Martz, Governor, State of Montana

Mr. Chairman, Members of the Committee, for the record my name is Judy Martz and I am the Governor of the great state of Montana. It is an honor to be here today to speak on behalf of my state on the Role of Public Lands in Developing a Self-Reliant Energy Policy. I appreciate the efforts and interest this Committee has shown in this issue.

Let me begin by putting into context the size of Montana. Overall, Montana has in excess of 93 million acres of land. That is over 145,000 square miles. Congressman Rehberg, our states sole voice in the House of Representatives has a big job.

Of the 93 million acres, over 19 million acres are managed by the United States Forest Service, 8 million by the Bureau of Land Management and another 1.1 million by the National Park Service.

Adding these public land figures together, and you see that 33 percent of our land mass is managed by the Federal Government.

Montana has a wealth of natural resources. From vast super-compliant coal fields in the east, to miles of timber land in the west, Montana has the natural resources to help quest the thirst for energy across our nation. Montanans are anxious for the opportunity to contribute to the economic health of this country through responsible and environmentally sensible development of our resources.

Unfortunately, we have seen over the past decade, a continual move away from the responsible development of our natural resources. We have continued to increase our reliance on foreign nations to supply us with our energy needs. The result, foreign dependence on energy has reached all time highs, which in turn has led to rising energy costs and power shortages across the nation.

And while Montana has the potential to help supply this nation with clean, affordable energy, we have seen our ability to responsibly develop those resources grind to a halt through Federal inaction and mismanagement. At the end of President Clinton's term in office, he forced many Federal land grabs through in an attempt to recreate a lasting legacy. In Montana alone, we protested to no avail, President Clinton's Roadless Initiative, which locked up over 6 million acres of U.S. Forest Service land. Never mind the fact that the smoke had barely cleared from devastating summer fires that reduced to ash over 900,000 acres of forest land.

Additionally, the Roadless Initiative will forever prohibit sensible and environmentally sensitive exploration of natural gas and oil.

Also, just days before leaving office, President Clinton designated nearly half a million acres of land along the Upper Missouri River a National Monument. While the state has been promoting tourist activity in Montana in an attempt to replace revenues from resource industries, President Clinton and Secretary of Interior Bruce Babbitt permanently set aside one of our states greatest natural gas reserves due to "concerns over a great influx of tourists".

Last year, approximately 420,000 acres along the Rocky Mountain Front were withdrawn for mineral development for the next 20 years. The Rocky Mountain Front has untold reserves of natural gas. In fact, our Canadian neighbors to the north have been responsibly developing natural gas along the Front for years.

But the news is not all bad. In fact, despite the previous Administration's attempt to protect the west from itself, we believe Montana still has tremendous potential to meet the demands of a growing nation.

Montana is in the process of receiving the Federal mineral rights in super-compliant coal reserves in Southeast Montana. This area of land known as the Otter Creek tracts is the result of an exchange for the mineral development fights outside Yellowstone National Park. While serving as Montana's Lieutenant Governor under former Governor Marc Racicot, Montana successfully negotiated a deal with the Federal government that resulted in the buyout of mineral rights, and an exchange for the lost economic development. Under the leadership of Senator Conrad Burns and former Congressman Rick Hill, H.R. 2107 was signed into law in 1998, mandating the transfer of Otter Creek Tracts 1, 2 and 3 to the State of Montana.

However, always mindful of what was best for the citizens of Montana, former Secretary of Interior Bruce Babbitt refused to follow the Federal mandate and reneged on the Federal government's promise. I am pleased to say that working with the new Secretary of Interior Gale Norton, I believe Montana will receive ownership of these tracts in the near future.

And at stake is the development of over 533 million tons of super-compliant coal. And I call it super-compliant because it far exceeds Federal Clean Air requirements with high BTU values and low sulphur output.

These tracts will most likely be included as part of our school trust land, thus the revenue's from development will add to our state's ability to fund public education.

Additionally, this high quality coal will be in great demand in the Midwestern part of our country as power generating facilities struggle to improve air quality as mandated under the Clean Air Act.

The development of these tracts is also bringing increased interest from investors who recognize the need for additional power sources in the western half of our country. We have already had several inquiries about the potential development of not only the coal, but also coal fired electric generating facilities that will fuel the power needs of Montana and the west.

Along with potential coal development, Montana has vast reserves of a resource only recently acknowledged as a viable energy source. Coal bed methane. Currently,

Montana's Department of Environmental Quality and the BLM are working jointly to assess environmental impacts from proposed development. Wyoming Governor Geringer has had tremendous experience in the development of coal bed methane and we hope to learn from efforts in Wyoming.

In Montana, we have seen increased interest in utilizing traditionally under-valued or no-valued timber byproducts to produce electricity. And this prospect grows increasingly attractive as the United States Forest Service begins to implement The National Fire Plan, a plan that addresses the health of our forests that in part focuses on mechanical treatment of small trees and shrubs that contribute to catastrophic fires. With the General Accounting Office identifying over 40 million acres of interior west forestlands at risk for catastrophic fire, we have a tremendous potential energy resource at our disposal.

We have a tremendous amount of energy reserves on our public lands. From coal to coal bed methane, from natural gas to timber byproduct co-generation, we have the potential to be much more self reliant in terms of energy production.

Today, nearly 57 percent of our energy needs are supplied by foreign nations. Not only is that a national security risk, it takes good paying jobs away from hard-working Americans. It is unacceptable. We have the resources to provide a much greater role in meeting our country's energy needs. And we can do it in an environmentally sensitive manner. As a nation, we need to re-evaluate the role our public lands can play in supplying this country with the energy it so desperately needs.

The CHAIRMAN. Thank you, Governor Martz. We appreciate your excellent testimony.

We will now turn to members of the Committee for questions for the governors. We will limit the members to 5 minutes each. We will start with the ranking member. Mr. Rahall, of West Virginia, is recognized.

Mr. RAHALL. Thank you, Mr. Chairman. I certainly don't anticipate taking my full 5 minutes. I know of the time constraints on the governors, but I want to ask a question of Governors Geringer and Martz before yielding to my colleague from Massachusetts, Mr. Markey, who just came in.

Since I'm from West Virginia, it should come as no surprise that my first question involves coal, and I do direct it to the two governors I mentioned. I take it that you both support private property rights?

Governor GERINGER. Absolutely.

Governor MARTZ. The same, absolutely.

Mr. RAHALL. Okay. That being the case, you may be interested to know that Federal coal leasing activities in the West are beginning to intrude on the private property rights of my constituents. I believe that Federal coal in the West should not be developed for the sole purpose of competing against coal production produced from private lands in the Midwest and the Appalachian region.

Western coal serving Western markets is fine, certainly. But for publicly-owned resources to be produced simply to displace privately-owned resources—well, you can see I have a problem with that. Let me give you an example of what I am talking about.

Recently, Morgan Stanley Dean Witter upgraded the two major Western railroads, Burlington Northern-Sante Fe and the Union Pacific, from neutral to out-perform, based on their potential to expand into new Eastern coal markets this year with Powder River Basin coal.

My question is this: How do you reconcile this Federal intrusion into the marketplace through coal leasing activities that you apparently favor, with the fact that this Federal coal is displacing coal

produced from private lands in electricity markets they have traditionally held?

Governor GERINGER. Mr. Chairman, I am not exactly familiar with the situation that Congressman Rahall is describing, but I would comment in this way. It is not one versus the other; it is both working together. There is enough demand currently today that both ought to be producing coal in an environmentally sound way.

We are not about in Wyoming to dictate to West Virginia how you ought to manage for environmental considerations, or economic, and we would ask the same in return. I indicated that Federal lands are producing most of the coal from Wyoming. I believe you are correct in the statistics that you have used. In fact, Wyoming and the West, in fact, now out-produce the East in terms of total quantity of coal.

Mr. RAHALL. Displacing our traditional markets in the East.

Governor GERINGER. Well, with all respect, I don't believe it is displacing. I believe that the problem is not what Wyoming is doing. It is what is not happening in West Virginia, and I certainly invite your questions to someone who has coal production in both States; that is, Arch Coal. Terry O'Connor is here and will be on the next panel to discuss that. So perhaps he, because he has economic interests in both States, might be able to give you the very practical, common-sense approach to it.

Let me illustrate it in another way. Nearly 60 percent of all generation today is from coal-fired generation. Yet, probably close to 90 or 95 percent of all new power generation going online is natural gas. Coal ought to be in the mix somewhere. We have a national energy policy by default that favors natural gas over coal. Yet, coal can be as energy-compliant, as well as environmentally-compliant.

Congressman Rahall, I would suggest that we ought to evaluate why coal is being displaced by national energy policy, not by Wyoming production on Federal lands. It is that lack of policy. And to give you a cost comparison, you can generate electricity from coal at about 20 percent the cost of generation from natural gas at today's prices. That ought to affect and benefit the members in your district, as well as those who produce the coal.

So the issue is over the lack of a policy that would encourage the use of high-quality, clean-burning coal from whatever State it comes from, and we ought to work together.

Governor MARTZ. Congressman, I am not so sure that I have a lot more to add. Coming from the Western States, we have a need out there and the coal is sitting there to be used. I think it is advantageous for us to do that, and I don't see it as a threat to any other State. This country needs the energy right now.

Sometimes, it is not so popular to talk about the jobs involved, but in Montana it is very popular. We need those jobs. We also need to have the energy coming from the coal beds that are there. Coal beds are one of the least expensive ways to produce energy, in comparison to gas. So for that reason, we will continue to pursue this avenue.

Mr. RAHALL. Thank you. I am aware of the figures you all cited. It is just that overall philosophy that I have a problem with, being

for property rights on the one hand, and yet, allowing Federal help and Federal policy to displace private property rights in the East and the production therefrom.

Governor MARTZ. Could I just address that one time, too? In the particular area that I am talking about, the Otter Creek tracts that we are asking to be transferred as the law says they should be, former Governor Marc Racicot has visited most of the people in those areas and most all of them are amiable to having this kind of enterprise go on in that area. I am sure that a lot of the lands that you are talking about in your State are sitting—I shouldn't say I am sure of that, but I would guess some of that is on private property.

Mr. RAHALL. All of our land in West Virginia is private property.

Governor MARTZ. Sure, and is developed, and that is what we want to do, also.

The CHAIRMAN. The time of the gentleman has expired.

On the Republican side, Mr. Duncan.

Mr. DUNCAN. Thank you, Mr. Chairman, and thank you for holding this hearing and for your great leadership of this Committee.

About 3 weeks ago, in the small town of Englewood, Tennessee, in my district, the mayor there told me that he had senior citizens who were having to choose between paying their utility bills or eating. And I noticed Governor Geringer mentioned something like that in his State.

I can tell you that, first of all, this is not just a Western problem. All over this country, you have groups, usually of very wealthy environmental extremists, who protest anytime anybody wants to dig for any coal, drill for any oil, cut a single tree, produce any natural gas. What I think they are ignoring or they don't care about is that who they are hurting in that process are the poor and the lower-income people because they are destroying jobs and they are driving up prices, and I think it is very, sad.

I read a few years ago that the average member of the Sierra Club had an income over four times that of the average American. And perhaps they are not hurt by some of these policies, but I can tell you a lot of people in my district are. So I certainly appreciate the testimony that each of you has given here today, and I hope that as you pursue these policies—I think people look at a map of the United States on one little page in a book and they forget how big this country is.

I serve on the Forests Subcommittee and I was told that in the mid-1980's the Congress passed a law that was hailed by the environmentalists at the time that we wouldn't cut more than 80 percent of the new growth in the national forests. Today, we are cutting less than one-seventh of the new growth. We are not even cutting half of the dead and dying trees. So what does that do? It destroys jobs and it drives up prices, and people wonder why houses and a lot of other things are costing so much.

Governor Martz mentioned the dependence on foreign oil. That increases with each passing year, and I think money is behind it because I can tell you that the OPEC countries and many shipping companies—there are a lot of people with big money or companies with big money that benefit if we depend more and more on foreign energy.

So I appreciate your coming here today, and with that I will yield back the balance of my time.

The CHAIRMAN. I appreciate the gentleman.

The gentleman from Massachusetts, Mr. Markey.

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

President Bush has made the Arctic Refuge the center of this debate. You can talk about all the environmentally-benign drilling rigs you want. We are supposed to conjure up in our minds Carl Sandburg and little cats' feet on the tundra. But as my mother used to say, the most important question in every situation in life is "compared to what." So when you compare today's rigs to yesterday's rigs, you are missing the point.

Here is the point: today, the Refuge is God-made, unique, roadless, untracked, and undisturbed by man. Nearby is one of the most environmentally-benign oil fields in the world, in Prudhoe Bay. They go as far as to put diapers on the trucks so the amount of oil that leaks from the pans is minimized. Now, that is impressive, but don't tell me it changes the fact that a huge industrial complex has grown up on the tundra on the North Slope that has changed the character of the wilderness forever.

While the diaper catches drippings, the routine operation of the fields results in gallons of toxic fluids being spilled everyday. Exploring, drilling, producing, connecting, hauling, pumping—it is a very dirty business even when you are trying to be clean. Now, let me show you what I mean.

Poster number 1. President Bush says ". . . leaving only footprints." That is what he is talking about. That is Prudhoe Bay. You can just get an aerial view and just keep going in terms of the impact that the drilling has had on that area.

Poster number 2. Here is the existing footprint. It sprawls over 1,000 square miles, permanently scaring the landscape and oozing ever outward. And, again, this is all permissible, all within the law right now. We are not debating this today.

Poster number 3. This is what my mother was talking about. Right now, the black side is Prudhoe Bay. The Canning River is all that separates the protected area of the Refuge from the blight. On the black side, you have 1,000 square miles of development, 500 miles of roads, 3,893 wells drilled, 170 drill pads, 55 contaminated waste sites, 1 toxic spill everyday, 2 refineries, twice the nitrogen oxide pollution as Washington, D.C., 114,000 metric tons of methane and 11 million metric tons of carbon emissions each year, $22 million in civil and criminal penalties, 25 production and treatment facilities, 60 million cubic yards of gravel mined.

On the other side, you have no industrial development, just as Congress declared in 1980, this Committee declared, Mo Udall and all the Republicans, unanimously in 1980, nothing.

Now, there is no such thing as a wilderness oil field. It is an oxymoron. Jumbo shrimp, Chevy Chase night life, wilderness oil field—there is no such thing. The sooner that we declare the Refuge a fully protected unit of the Wilderness Act, the sooner we will turn our attention to producing energy such as natural gas, renewables, clean coal.

Looking automobiles and SUVs, after all, we consume 20 million barrels of oil each day, and 13.5 million of those barrels go into

gasoline tanks. So is it really a great moment when Chrysler announced its Unimog last week that gets 10 miles a gallon, going further backwards in terms of energy efficiency, or do we really want an SUV to get 25 or 30 miles a gallon so that we don't have to drill in that wilderness? Where would we go first, to the God-made, beautiful Refuge or to the man-made problems of automobiles and SUVs and air conditioners and refrigerators, et cetera, that are increasingly fuel-inefficient?

Why doesn't it make sense, Governor, for us first to try to tap the natural gas in Prudhoe Bay and bring that down through a pipeline, to tap the National Petroleum Reserve in a way that it hasn't been yet? Why don't we first tap all the resources that are legally allowed to be tapped by Democrats and Republicans, and partner that with a deal on fuel economy standards and appliance efficiency standards before we take that pristine area and destroy it forever?

The CHAIRMAN. The time of the gentleman has expired, and I assume the gentleman is going to ask unanimous consent that the Governor of Alaska can respond to your question. Is that correct?

Mr. MARKEY. I actually need your permission alone, Mr. Chairman. I would ask that.

The CHAIRMAN. The Governor of Alaska.

Governor KNOWLES. Thank you, Mr. Chairman.

Mr. Markey, in response to your question about why don't we look at other areas first, indeed we are looking at all of those possibilities. The infrastructure of the North Slope in developing oil and gas for America's needs will be utilizing all of the opportunities of where the oil is.

Congress, in 1980, determined that in creating the wilderness, the Arctic National Wildlife Refuge, in creating that area, that there was a certain part of it that was going to be set aside for study because even at that time, with limited technology, they knew that it was probably one of the most promising areas for oil and gas development, and that remains today.

So we do utilize the overhead of infrastructure that is in place as we reach out to the west to the National Petroleum Reserve. I would note that in today's technology, it is estimated there may be 5 billion barrels of oil and maybe 5 to 10 trillion cubic feet of gas in an area that 20 years ago they quit holding leases on because no one was interested because they didn't think there was any more there.

So we know today, just as we have reduced the size of the footprint by one-tenth of what it used to be 20 years ago, that we can go to these areas. We can do so in a way that does protect the environment. Nobody pretends that it would be a wilderness where there is development, but we can protect the environment. We can ensure the health of the wildlife and the fish and we can assure in those areas where we do have development that it is done right.

Mr. MARKEY. But, Governor, it hasn't been economical to drill for the natural gas in Prudhoe Bay for 20 years even though there are 30 to 50 trillion cubic feet of natural gas there. What does that say about the economics of ANWR if the industry can't even figure out after 20 years, with Democrats and Republicans giving you ap-

proval—not giving you, but the industry—to bring down the natural gas from Prudhoe Bay? It has been uneconomical.

Governor KNOWLES. Mr. Chairman and Mr. Markey, if I might respond, that has been a very interesting story because Congress again approved a gas pipeline in 1977 under the belief that at that time it was economical to bring it to the lower 48. The market really wasn't there.

At the same time, the gas was being used to repressurize the field to increase the recovery of oil in Prudhoe Bay, and so it has been hard at work. We reinject 8 billion cubic feet a day, recycle it into Prudhoe Bay to increase our recovery of oil. As that is winding down and as Prudhoe Bay is winding down, it truly is time to come and serve the energy market. The price has increased to where an investment in a $10 billion pipeline is economical and can meet and help stabilize the increased price of gas in America today. So it really works out in a win-win situation.

Mr. MARKEY. I think it would be better for the industry to finish that project first, or at least begin it, and I want to help on that and prove that that is economical before we destroy the Refuge. I think that is something we could probably all agree to work upon, but right now no progress has really been made.

Thank you, Mr. Chairman.

The CHAIRMAN. Governor, if I may, I have got a little question here I am not sure of. According to this map, this area that they would like to drill in is not a designated wilderness area. Is that correct?

Governor KNOWLES. Mr. Chairman, no, sir, that is not. That was designated as a study area which was set aside from the Wildlife Refuge in 1980. It was done as a study area to be determined later by Congress as to whether it would be open for development, and that is the question that we are coming forward with today.

The CHAIRMAN. I appreciate that clarification.

The gentleman from Maryland, Mr. Gilchrest, is recognized for five minutes.

Mr. GILCHREST. I thank the Chairman. I ask unanimous consent for 15. Is there objection?

The CHAIRMAN. Yes, there probably is.

Mr. GILCHREST. Just kidding, Mr. Chairman.

Governor Knowles, I crawled down in a grizzly bear's den one time in Alaska. The Governor from Wyoming, I once got a set of chains for my pickup in Buffalo, Wyoming, in November, in a pretty severe snowstorm. And the Governor from Montana, I used to live in the wilderness in northern Idaho and would come to Missoula once a month for supplies. So it is a beautiful State, it is a beautiful region.

I would like to boil this down, at least in my terms, to something very simplistic, and that is lung tissue and mortgage payments. We all try to make sure we do both, that we have clean air to breathe and we don't exacerbate lung problems, and we provide safe and secure jobs for people to raise their families and live their lives.

The issue of drilling for oil or mining in the West always arouses a division in the country between East and West. I, from Maryland, can recognize the need for employment and for jobs, and when I ride around the Washington Beltway or the Baltimore Beltway, or

I look at places like Tysons Corner, I yearn for the open spaces. It is a necessity for me that I know still exists in the West.

In Maryland, we used to have elk, we used to have wolves, we used to have salmon, we used to have bison, we used to have grizzly bears. We used to have an abundance of otters, of mink, of shore birds. Most of those are either diminished or gone. In Alaska, none of those are diminished or gone or threatened or endangered. They are still there.

So I recognize that people in the West, when someone from the East Coast who drives everyday to work in an SUV on the Beltway and is looking for more jobs, and yet they are opposed to drilling for oil at ANWR—I find it a paradox, almost, if I may, an oxymoron. Even Democratic local elected officials in my district that will change the zoning or land use for an area that is tree-lined or wetlands or open space so they can add an addition to Wal-Mart or another shopping plaza—those people will vote against drilling for oil at ANWR. The governor from my State, the Senators from my State, pursue dredging at all costs, and the reason is for job security, for economic development.

Governor Knowles, you made a comment about we need a combination of conservation and increase in supplies. Now, I would add one other thing to that list, besides conservation —we need to aggressively pursue that—and increased supply. I understand that. I also understand the idea that jobs in a remote area are important for people, but we need to aggressively pursue alternative sources.

It is my judgment that we cannot ever be energy-independent if we continue to rely on fossil fuels in the manner in which we have done under the present conditions. The cost of fossil fuel will probably never go down because the increased worldwide demand for fossil fuel is not at a level point. It is not going to decrease; it is going to dramatically increase. So our dependence on fossil fuel is to a large extent never going to enable us to be energy-independent.

So what are the alternatives? I think we can pursue aggressively alternatives, and many of them were mentioned here today, whether it is nuclear power; solar power; wind power, which we can produce more efficient lines so the resistance is less and you get more of the electricity through; and fuel cells, what we have been powering our Space Shuttle on for decades now.

I have talked to engineers. In less than 20 years, they say most of our automobiles can be running and operating on fuel cells, where the emission is pure water. Our power plants in about 20 years, a majority of them, if we aggressively pursue this, can operate under this technology.

The last comment, Mr. Chairman, lung tissue and mortgage payments, the longing and the necessity for open spaces. And so after all that, Mr. Chairman, and my understanding for the West and the need for jobs, I would still oppose drilling for oil at ANWR.

The CHAIRMAN. Let me ask this. Members of the Majority and Minority side, will you raise your hands if you have questions for the governors? If you do, then we will take you by seniority.

We will go to Mr. DeFazio; on the Majority side, Mrs. Cubin and the gentleman from Indiana, Mr. Souder.

Mr. DeFazio, you are recognized for 5 minutes.

Mr. DEFAZIO. Thank you, Mr. Chairman.

To Governor Martz, I have followed with concern the closing of the aluminum plants in Montana, the threat to the mining industry and forest, lumber and wood products industry because of sky-high electric prices. I would note that those sky-high prices come at a time when your State is generating as much electricity as it ever has. It is just under a different structure where you have deregulated electricity and you have deregulated the price that goes to large industrial consumers.

Do you support a cap or temporary cap on wholesale energy prices in the West? The cause of your plants closing is not a shortage of energy, it is an artificial run-up in wholesale prices caused by the deregulation in California. Do you support the cap?

Governor MARTZ. Congressman, no, I do not support capping them. We need to produce more generation.

Mr. DEFAZIO. Thank you, Governor. Well, if you hadn't allowed Montana Power to sell all its generation to an out-of-state company who is now shipping all the power out of State and marking up the price, you might have enough energy to run your own plants. I am getting tired of people using the energy crisis as an excuse to drill.

There is a real energy crisis in the West. There is an electric energy crisis today. Governor Knowles referred to it, people trapped in elevators. But guess what? It has nothing to do with oil, it has nothing to do with drilling in ANWR. That is being used as a pretty limp excuse to deal with real problems while we ignore the real problem, which is speculative activity going on in California.

California had a price spike and a crisis in their low season. They are a net exporter in the winter, and guess what? This year, they weren't. Guess what? 15,500 megawatts of generation was shut down, not because of clean air, not because of lack of gas, certainly not because of lack of oil, since 1 percent of their energy is generated by burning oil, but because of a market gone nuts, with huge increases in profits for out-of-state energy companies, the same thing that has happened in Montana.

Governor Martz, your own energy commission —you have an Advisory Council on Electricity Prices and they voted on Monday to keep alive a number of options for further study. Your Republican house majority leader has proposed a 3,300-percent—he says here he wants to have an energy transaction tax paid by power companies, and increase the tax phenomenally to raise $116 million a year to help lower the rates for consumers.

Isn't this kind of nuts? We have got a market where you allow speculators to gouge your consumers and then we are going to try and maybe tax them back to get the windfall. We have another proposal for a windfall profits tax of 45 to 50 percent. Yet, you are coming in here and saying we need to produce more energy.

Yes, there is a long-term energy problem in this country and in the Western United States, but today the crisis is artificially created. Natural gas prices followed electricity. I have met with the largest distributors of natural gas in the West and they have the graphs to prove it. The wholesale prices at the Canadian border didn't go up until the electricity prices went through the ceiling. If we don't deal with the underlying cause today—yes, 10 years from now you can have more energy production from fluid methane, or

if Governor Knowles is successful at opening ANWR to add to the production from the National Petroleum Reserve and the natural gas that we can all agree on.

But the point is people are going to go broke in the meantime. Businesses are going to close in the meantime. We need some leadership from Western Governors and other people to deal with this. Now, I know Alaska is not on our grid, so this doesn't directly impact you. But I would ask you to please don't use this and don't use the image of senior citizens trapped in elevators to justify drilling in ANWR. There is no relationship.

Governor Knowles, do you support the continued export of oil from Alaska to China and Japan?

Governor KNOWLES. Madam Chairman and Mr. DeFazio, there is no oil that is currently being exported from Alaska to Asia. At one time, there was a small amount, a relatively small amount, no more than 5 percent, that was exported, just like there is currently crude and crude oil products that are being exported from every other State in the Union.

As this Congress and the administration and I also personally support many of the free trade aspects that have helped our economy, the fact of the matter is—

Mr. DEFAZIO. Governor, if I could, we have documents showing that the major oil companies on the West Coast of the United States have internal documents showing that they only wanted to export oil from Alaska to drive up wholesale prices in the Western United States.

Would you support reimposing a ban on the export of oil in the future from Alaska? If we are going to develop more oil resources in Alaska, would you agree that every drop of that oil should stay home?

Governor KNOWLES. Madam Chairman, Mr. DeFazio, I believe that Alaska should be treated no different than every other State in the Union. There is no ban on oil exports from any State in the Union except for Alaska, and that was done away with, with bipartisan support, signed by President Clinton, sponsored by him several years ago.

The fact of the matter is that there is no oil being exported today because the market clearly is in need of all of the oil that is had. It has never been a significant amount, as I say, never more than 5 percent when it was passed several years ago, as I say, with the support of President Clinton and bipartisan in Congress.

Mr. DEFAZIO. Well, the oil company execs seem to feel that it got them two to three cents per gallon on the wholesale market in the West, which created a few hundred million dollars of illicit profits. So I would urge you to reconsider your position and perhaps we could support a ban on any oil exports from the United States. If we are in an energy crisis, let's put in place a ban before we find new resources and start exporting them.

Thank you, Madam Chairman.

Mrs. CUBIN. [Presiding.] Are there any other Members on the Republican side that have questions?

If not, I just wanted to—excuse me.

Mr. Souder?

Mr. SOUDER. You can go ahead, Madam Chairman.

Mrs. CUBIN. No. I would like you to.

Mr. SOUDER. I thank you. I just have a simple question, but I wanted to make a comment that illustrates some of the frustration of the Western Governors and Western members.

In my hometown, you can go 600 miles east without hitting Federal-owned land. You can go 1,000 miles west without hitting Federal land. You can go 250 miles north or 250 miles south. We don't have much public-owned land. We have lots of opinions on what we should do with your land.

I have some sympathy with the argument that we messed up in the Midwest and the East and we need to figure out how to do a better job of environmentally managing. But sometimes the extremist rhetoric that we hear turns people who are looking for reasonable solutions into armed conflict again.

One of the statements that I heard here—and I just wanted to sort this out for the record—I heard 1,000 square miles at Prudhoe Bay. Governor Knowles, I wondered how many square miles are in ANWR as a whole. Do you have any idea? When we hear a different figure like square miles, square miles is an algebraic number; it is a little misleading.

Governor KNOWLES. Madam Chairman, in response to the question, I am not sure of the square miles. There are about 19 million acres there. I will have to refer to my—

Mr. SOUDER. Of the 19 million, how much is the area that was open for discussion as to whether it could be explored?

Governor KNOWLES. It is approximately 1.5 million acres is the total acres that is left for study.

Mr. SOUDER. So it is approximately—what is that, less than 5 percent, 3 percent?

Governor KNOWLES. Eight percent.

Mr. SOUDER. Eight percent. Is there an argument that in that 8 percent, there isn't enough of a buffer between that and the rest of the 92 percent? In order words, would the development go right up to the edge of the 8 percent?

Governor KNOWLES. Madam Chairman, no, sir. That is the area in the coastal plain that was believed in a broad-brush sense as to what might be the most probable for oil and gas development. Of that, there would be a relatively small part that was developed. But as I say, it would not encompass all of it.

Mr. SOUDER. Is there an argument that the 8 percent, if it were all used—is that 8 percent more—and I apologize for my relative lack of knowledge in some of these questions, but it is hard to tell when people are going back and forth how to get the actual answers to some of these questions.

Is this area more environmentally significant, and if so how did it not get designated in the beginning as wilderness?

Governor KNOWLES. There is no question it is a unique part of the Wildlife Refuge. As the coastal plain, its primary environmental consideration for wildlife is that much of it is considered to be the core calving area of the Porcupine caribou herd. So there would have to be some very careful mitigations made to ensure the continued health of that herd. It goes there for approximately 3 to 4 weeks for calving, insect relief, and prior to their resuming their normal migration habits in the fall and winter.

Mr. SOUDER. And, in general, are there other things in addition to the calving?

Governor KNOWLES. There is polar bear denning which is of interest. There is also the snow geese, migratory water foul, which are also a point of concern. So those are the three primary concerns. There are also some musk ox, but they are not as environmentally sensitive as the polar bear and the snow geese.

Mr. SOUDER. I appreciate that. Those of us who are trying to balance the needs for our energy consumption and environmental concerns are going to be interested in how we can address those types of unique questions, not big numbers that try to scare people, but how we can actually address the real substantive questions underneath that and not potential high-risk variables.

Governor KNOWLES. Madam Chairman, if I might just in response, painting a slightly different picture—and I do appreciate Mr. Markey's attempt to paint a picture of industrial development, but I think, in perspective and in line with the questions that were being asked of proportionality, I would note that in Alaska there are 53 million acres of national parks that will not be developed for oil and gas, and that is roughly the complete size of New York and Ohio combined.

There are some 72 million acres of wildlife refuges, three-quarters the size of the entire State of California, put aside that nobody is asking to be part of any oil and gas development. There are wilderness areas of some 58 million acres. So we are speaking of areas that are truly set aside to encompass the wilderness values that people yearn for to be part of our permanent national assets.

The area that is being looked at in ANWR, the 1.5 million acres, is part of a geological structure that is the same called the Barrow Arch that goes across the entire North Slope from NPRA across there to the Canadian border, and is part of a responsible development of a significant part of our Nation's future. I would note it is not just oil, but there is considerable gas, just as there was in the Prudhoe Bay geological formation.

I would say that the oil and gas development on the North Slope, with the figures that Mr. Markey has put forth, is the most environmentally responsible development anywhere in the world. It is the strictest, and it should be that way and it ought to be that way.

Thank you.

Mrs. CUBIN. Because Mr. Rahall has to leave in just a few moments, I just wanted to make a comment on his behalf, as well as yours. He asked a question of Governor Geringer about Federal coal displacing private coal production. And Geringer, I understand, answered that very well, but there was a point that I wanted to add, also, and that is that that displacement occurred more because of the Clean Air Act Amendments and because of the court's ruling on mountaintop mining and valley fill than it did because of anything that was done Federally.

Then I also know Mr. DeFazio has to go, and then Mr. Markey is moving right over here. President Bush already has the authority to reimpose the export ban.

The Chair now recognizes Mr. Inslee.

Mr. INSLEE. Thank you, Madam Chair.

I want to thank Governor Knowles for coming here. You have, as always, been an articulate, reasonable spokesperson for your State and we appreciate it. But in the spirit of candor, I want to tell you why so many thousands of my constituents are vigorously opposed to drilling in the Arctic Refuge.

They respect and believe that there would be efforts to make small bulldozers that doze the roads and small injection facilities that inject product below ground and small buildings that emit nitrous oxide and the like. But I will tell you the way my constituents feel about it. They feel the same way about putting a small mustache on the Mona Lisa. Even though it was well-trimmed and well-dyed and well cared for, they think it is a major mistake. It is a major mistake because that is an international asset, as is the Arctic Refuge.

Even though those same thousands of people I represent will never come to the Arctic Refuge, never even get close to the Arctic Refuge, may never go to the State of Alaska, they carry a piece in their hearts today, even though they have never been there. They feel so strongly about this that I predict this is not going to go through the U.S. Congress this year, not just in my State, but in all 50 States.

I want to tell you the other reason they feel that way is not just based on emotion. It is based on practicality. I am going to ask you in a minute about the numbers, but as best as I understand it, under the optimistic projections there would be about 300,000 barrels a day, and that is likely not to really become economically productive for about 10 years. My constituents think that is too little and too late.

They believe we need a solution today, tomorrow, and they recognize that if the U.S. Congress will get off the dime and pass some higher mileage standards to improve the efficiency of our vehicles, we can have equivalent savings next year. We don't have to wait 10 years. I am told that even a minimal increase of those mileage standards, of increasing it, say, 2.2 miles per gallon for light trucks and SUVs, will save more this year and next year than what we get in 10 years out of the Arctic Refuge. So they believe that it is not just a value system in question here, but a practical system that we have a better solution today.

So I want to ask all three of you, have you lobbied your Senators and Members of Congress to support higher mileage standards, and if so what has been their response?

Governor KNOWLES. Madam Chair, Mr. Inslee, thank you for your comments. In direct answer to your question, I believe that conservation is an important part of the national energy policy, and certainly the reduction in the fuel use of automobiles is an important part of being able to stretch the efficiency and the use of our fuels. But it doesn't make the use of fuels obsolete; we still need those fuels.

In regard to the question about ANWR, just like there may be controversy over the projection that we are going to have a $5.6 trillion surplus in America, it all depends on who is forecasting it. It is estimated that in the Arctic National Wildlife Refuge coastal plain study area that there may well be up to 16 billion barrels, which would mean approximately 2 million barrels a day for 25

years, which would provide a third of our domestic oil production. That is not an insignificant part and I think is part of what could be carefully weighed in a judgment as to whether we can responsibly develop it.

In reference to the portrait, if I might just note that we have, as I have explained, a vast number of areas as part of our national treasury of lands that are not being questioned for development, open for development. And that certainly can satisfy, just as when you make decisions in your States about what needs to be protected and what not, that balance of development and protected areas that we need to look for.

Mrs. CUBIN. The gentleman's time has expired.

I understand that Governor Knowles—

Mr. INSLEE. The other two governors were not allowed to—

Mrs. CUBIN. I am sorry, Mr. Inslee. Governor Knowles has a one o'clock plane to catch.

Mr. INSLEE. I understand. Could you allow the two other governors to answer that question?

Mrs. CUBIN. That is what I was going to say.

Mr. INSLEE. Thank you.

Mrs. CUBIN. I would like to interrupt at this point and if anyone has a specific question for Governor Knowles, then fine.

Mr. Calvert, do you have one?

Mr. CALVERT. I apologize that I wasn't here earlier. I was at another commitment.

Governor Knowles, regarding the proposed drilling at ANWR, in relationship to the pipeline that already leaves Prudhoe and goes to Valdez, I understand right now there are about a million barrels a day being shipped down to Valdez in that pipeline.

I also understand that at peak production during the Gulf War, they were transporting about 2 million barrels a day oil down to Valdez. Is that a correct number?

Governor KNOWLES. Yes, sir.

Mr. CALVERT. I also understand that because of declining production within existing oil fields in Prudhoe, we may get to the point of marginal costs. In other words, it costs more to keep the pipeline open than it would to continue to move oil out of Prudhoe, and I understand that number is somewhere between 500,000 to 700,000 barrels a day. Is that the right number?

Governor KNOWLES. I couldn't verify that number, but there is a point, yes, sir, that it would not be economical.

Mr. CALVERT. It is true, then, that oil coming out of Alaska has declined by 50 percent because we are unable to find additional supply to get into the pipeline? So at some point in the foreseeable future if additional supply is not put into that line, is it credible that that pipeline would be shut down?

Governor KNOWLES. Yes, sir, it would be shut down and then it would be dismantled.

Mr. CALVERT. And then we would have no resources at all coming out of Alaska in any significant amount, to add to the oil supply of the United States?

Governor KNOWLES. Yes, sir, unless there was a gas pipeline built that would bring that. But in terms of oil, after it would be

dismantled, it would not be practical to ship any oil from the North Slope.

Mr. CALVERT. And at 2 million barrels a day, if we could get that back up, that would be a significant—you mentioned a third of the total U.S. production?

Governor KNOWLES. Yes, sir.

Mr. CALVERT. Thank you.

Mrs. CUBIN. Thank you, Governor, and if the other governors have time, we would appreciate it if they would stay and answer the questions. But if you need to go, Governor Knowles, the Committee certainly understands that. We don't want you to miss your plane.

Governor KNOWLES. Thank you very much, Madam Chairman and members of the Committee. Thank you.

Mrs. CUBIN. Thank you for being here.

Mr. Inslee, would you like to restate your question?

Mr. INSLEE. Yes, just very quickly if the other two governors could let us know—nice to see you, Governor Martz—has your congressional delegation supported increasing our mileage standards for vehicles in America as part of our energy strategy, and if not do you know why not and have you lobbied them to do so?

Governor GERINGER. Let me answer first by explaining what the Western Governors did on February 2nd when we met in Portland at the invitation of Governor Kitzhaber and Governor Kempthorne. We adopted several suggested actions that we asked everyone to consider within our States, as well as the Federal Government, including those activities that would enhance efficiency and conservation; in addition to automobile usage, efficiency tax credits to reduce demand in any form; to shift to any other kind of distributed generation where it could be done on an individual basis; Federal appliance standards such as adopted by the Department of Energy for all kinds of appliances.

In other words, we are pursuing every form of energy conservation, whether it be specifically automotive or otherwise. Our goal is not to increase consumption. Our goal is, given the trends that there are in demand and consumption and the demands that will be placed on our States, that we not be treated like colonies, that we be evaluated as equal sovereign States, as each of your States are.

Mindful of Mr. Markey's comments about Boston, whether it be the Boston Tea Party or the Boston Big Dig, each State does things a little bit differently. So when it comes to consumption, our goal in being here at this panel is to elicit partnerships with the Federal Government as we develop ways to better manage the resources and not waste them. So efficiency was at the top of our list on what actions could be taken by the States, by governors, by the Congress, or whoever it might be, automotive or otherwise. We have strongly advocated those and presented those to the energy task force chaired by Vice President Cheney.

Mr. INSLEE. Has your congressional delegation voted for increased Corporate Average Fuel Economy (CAFE) mileage standards in this country recently? Do you know?

Governor GERINGER. I am not familiar with their voting record on that.

Mrs. CUBIN. What am I, a potted plant?

Governor MARTZ. Congressman, I am not familiar whether ours have voted in that manner, but I am visiting with all of our delegation in the morning and it is something we can talk about. I was at the meeting that we agreed on the same things that Governor Geringer talked about.

I do want to say it doesn't matter whether you believe this is an artificial problem or not. It is real, and to the people that are dealing with it everyday it is very real. So with that, conservation with our entire State right now, we are asking people to conserve. We are coming up with a plan, taking it off of other States' plans who are already in the full mode of conservation to present a plan to entire State of Montana on how we can conserve. That is our first best thing we can do right now. Thank you for the question.

Mr. INSLEE. Do you know if your congressional delegation has voted—

Mrs. CUBIN. The gentleman's time has expired. You can ask the congressional delegation when you see them.

Are there any other questions on the other side?

If not, the Chair recognizes Mrs. Christensen.

Mrs. CHRISTENSEN. Thank you, Madam Chair. I want to say thank you to the governors for spending so much time with us this morning and answering the questions. I know you are very busy. I have one brief question and it was particularly directed to you, Governor Geringer and Governor Martz.

Your testimonies are in support of opening up more Federal lands for leasing and drilling. Yet, the Department of the Interior reports that 95 percent of lands managed by BLM in several States—Colorado, Montana, New Mexico, Utah, and Wyoming—are currently available for leasing and drilling.

You may or may not know, but if you do I am interested in knowing how much of the lands that are already available are leased and being drilled and have they been exhausted. If you don't know specifically, how do you reconcile asking for more Federal lands to be opened up when already 95 percent of the lands are available for leasing and drilling?

Thank you. That is my only question.

Governor GERINGER. Madam Chairman, if I might respond in part, there seems to be confusion over whether we are asking for opening up more access or asking for greater cooperation on how we develop what is already open. The answer is both.

I will illustrate by saying that in the Powder River Basin of Wyoming, which is one area that has been opened up for coal bed methane development, as I indicated, the Federal agencies cannot seem to understand how each other works. So whatever goals we might have for production, because America wants it, we are willing to help enable that. But in the process of doing that, we quite often run into—even though BLM and other Federal agencies might describe how the lands are open for energy production, in fact, they are not by the way the process seems to work out, by the appeals that are made, by the inconsistent regulations that are applied.

The economic interest that we have in our States is that jobs depend on it locally, but so does the environmental appeal. We want to protect both. As we view what is happening in America, the de-

mand is starting to draw on our resources. Our question is what is the best way we can enable that development so that we don't destroy jobs; we don't destroy the environment; we enable that on all sides.

But the statistic that all these lands are open is very deceiving when you look at the practicality of how it is applied. In fact, most of those are thwarted in some fashion by those who, I think, simply for the sake of wanting to discourage any development or consumption, manipulate the system rather than engage in constructive and cooperative approaches. That is what we are asking for.

Governor MARTZ. Congresswoman, I don't know if that 95 percent pertains to Montana that you talked about. I don't know if it is 95 percent that is used in Montana, Federal lands, but I will know next time I see you. We do know we have opportunities there, and we are a State that needs those opportunities, and I think the country needs the opportunities we are looking for.

We do know that we are asking for a say in how those lands are used in the State of Montana, other than just sitting there. With pure coal, very good, compliant coal, it seems unreasonable to not want to bring that out to do generation with that in an environmentally-sound way. So we are here to ask for those considerations and allow our voices to be heard in those considerations, as it has not been in the past.

Mrs. CUBIN. I would like to also ask the gentlelady if she would be willing to meet with me and we could discuss that 95-percent issue of BLM lands because that seems extraordinarily unlikely to me based on the knowledge that I have of access to public lands, whether it is from the Endangered Species Act or the roadless areas in the forests, or whatever.

So I just think that is a very unlikely figure, but we can talk about that.

Mrs. CHRISTENSEN. And perhaps we can ask for more specific information as it relates to the States. Is that 95 percent of all the lands and is it all of it in Wyoming or is it distributed across the States?

Mrs. CUBIN. Right, and I am sure the gentlelady remembers last year the amendment to the Energy Policy Act that asked the USGS to do an inventory of the fossil fuels under the public lands in the lower 48 States, and then do an overlay of all the laws, rules, and regulations that impede production of that energy source. Until we actually know what we are dealing with, I think it will be very difficult to set a figure like that.

I know you governors have been very patient with us and we appreciate it very much. Thank you for your time and for your input. It is truly a pleasure for me to work with Governor Geringer, and I know that with Governor Martz in the future we will have a good working relationship. We really, really appreciate your being here.

Mrs. NAPOLITANO. Madam Chair?

Mrs. CUBIN. Yes.

Mrs. NAPOLITANO. May I have a comment or two?

Mrs. CUBIN. Certainly, Mrs. Napolitano.

Mrs. NAPOLITANO. Thank you. I apologize, like other Members, because we have conflicting Committee meetings.

In listening to the testimony when I walked in of all three governors, but essentially yours—I haven't had a chance to look at your written testimony, but as a former elected official myself, I feel that we have a very grave responsibility that we do not abuse our land, and leave some of whatever treasure we have for the next few decades, for our children and our grandchildren and our great grandchildren.

I am looking forward to that report Mrs. Cubin was alluding to because I think we need to take a good long look at how we can best ensure that we have the ability to have this planet continue on its course and not deplete ourselves of those beautiful natural resources we have within our reach.

Thank you.

Mrs. CUBIN. Mrs. Christensen?

Mrs. CHRISTENSEN. Madam Chair, thank you. I see that the acreage is—there is a table in a wilderness report that was sent to Congressman Hansen. I would like to have it entered for the record because it states specifically how many millions of acres BLM is managing in each State and the areas that are open to leasing and the areas that are closed to leasing. Really, the areas closed to leasing are minuscule compared to the total acreage.

Mrs. CUBIN. Without objection.

Mrs. CHRISTENSEN. Thank you.

[The information referred to follows:]

THE WILDERNESS SOCIETY,
Washington, DC, March 7, 2001.

Hon. JAMES V. HANSEN, *Chairman,*
Hon. NICK JOE RAHALL II, *Ranking Member,*
House Resources Committee, Longworth House Office Building, House of Representatives, Washington, DC.

DEAR CHAIRMAN HANSEN AND REPRESENTATIVE RAHALL:

The House Resources Committee is to be commended for initiating a review of the "Role of Public Lands in the Development of a Self-Reliant Energy Policy." It is our hope that in exercising its oversight role regarding this important matter, the Committee will seek to be as objective as possible in reviewing the nature and extent of fossil fuel resources on our public lands, and the environmental values that also reside on those lands that can be placed at risk by oil and gas exploration and development activities. For although the oil and gas extracted from our public lands are an important component of our nation's well-being, the environmental, wildlife, watershed, and wilderness values of those lands are equally important to Americans. We ask that this letter with attachments be placed in today's hearing record.

One fact of central importance that we wish to draw to the Committee's attention is that the vast majority of public lands managed by the Bureau of Land Management (BLM) in the Overthrust Belt states of Colorado, Montana, New Mexico, Utah and Wyoming are presently open to leasing, exploration and development by the oil and gas industry. In fact, information presented to the Assistant Secretary for Land and Minerals Management by the BLM in 1995 indicated that over ninety-five percent of BLM lands in those states (including "split estate" lands) were available for oil and gas leasing. I have appended to this letter the BLM's synopsis of the availability of BLM lands in those states for oil and gas leasing, exploration and development.

Other recent data made available by the BLM indicates that the agency has been carrying out a robust onshore oil and leasing program for the past decade. For example, the Clinton Administration issued oil and gas leases on more than 26.4 million acres of public lands during the last eight years (see attachment). According to the BLM publication, *Public Rewards from Public Lands,* there are nearly 50,000 producing oil and gas wells on the public lands (see attachment). Thousands of new drilling permits have been issued during the past eight years—3,400 by the BLM in FY 2000 alone.

Criticism by some that in recent years too much public land has been made unavailable for oil and gas activities is simply not supported by the facts. Upon close

examination, industry criticism of "lack of access" really falls into two categories: lands that are off-limits entirely to oil and gas development; and lands available for development if the industry takes special care of the environment. The former areas include wilderness areas, wilderness study areas, and/or areas such as steep slopes, karst areas, and areas where other mineral activities are taking place, in other words, places where oil and gas activities could pose extreme environmental hazards or be incompatible with other values. Currently, such areas comprise roughly 5 percent of BLM-managed lands in the five states.

The latter category often encompasses areas where evidence indicates the presence of sensitive wildlife habitats, such as elk calving areas, or sage grouse leks, where operations 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 or not in use by wildlife. 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. (A fuller explanation of typical special stipulations BLM includes on oil and gas leases is found in the first appended document to this letter.)

The imposition of special, seasonal, or NSO stipulations are an attempt by the BLM to balance the industry's desire for access to oil and gas deposits, while balancing the BLM's responsibility to manage other resources on the public lands. And although industry public relations campaigns frequently emphasize the benignity of contemporary exploration and development technologies, it is apparent that when required by the BLM to utilize these technologies to minimize environmental impacts, the industry is reluctant to do so.

One of the most challenging environmental problems with oil and gas development relates to protection of water quality. Unfortunately there is very little baseline data on water quality in Wyoming, for example, that would allow the responsible agencies to understand the negative impact on water quality for downstream communities from oil and gas development. And since water flows across state lines, ranchers in Montana, for example, are concerned that the water flowing from Wyoming coal bed methane projects does not deteriorate in quality. Given the dramatic increase in drilling permits, the cumulative impacts on water quality have not been, but need to be, examined carefully through long term monitoring. If there is one resource more valuable in the west than oil and gas, it is water.

The national forests currently supply 0.4 percent of total U.S. oil and gas production, half of which occurs on the Little Missouri Grasslands (Forest Service Roadless Area Conservation FEIS, 2000, pages 3–312 and 3–316). The remaining national forest land account for less than 0.2 percent of total production in 1999 (Ibid.). The vast majority of roadless areas on the national forests subject to the new Forest Service roadless protection policy have been open to leasing for decades, and there has been little interest in exploiting potential resources, even though the real price of oil in the past was much higher than it is today.

In conclusion, it is our hope that the Committee's enthusiasm for a "self-reliant" energy policy will be tempered by the realization that a country that consumes 40 percent of the world's oil production, but harbors only two percent of the world's oil reserves, cannot be "self-reliant" in energy—even if we make 100 percent of our public lands available to the oil industry and eliminate all environmental protection requirements on them. Instead, policy-makers would serve our nation's interest best by seeking ways to reduce our dependence, not on foreign oil, but on oil itself We cannot drill our way to "energy independence," and we should not ruin the few remaining pristine wild places on our public lands in a vain attempt to do so.

Sincerely,

DAVID ALBERSWERTH,
Director, Bureau of Land Management Program.

Attachments.

AVAILABILITY OF PUBLIC LANDS

The vast majority of public lands are available for leasing. In the states with considerable production of 116.6 million acres only 2.9 million acres are not open for leasing. In Colorado 16.2 million acres are open and 600,000 closed to leasing; in Montana out of 19 million acres 400,000 are closed; in New Mexico of 29.9 million acres of lands only 1.3 million is not open to leasing; in Utah 900,000 acres are closed to leasing leaving 21.2 million acres open; in Wyoming 700,000 acres are closed out of 28.6 million.

LEGEND

Acreage data are estimates based on best available data.

Categories of stipulations

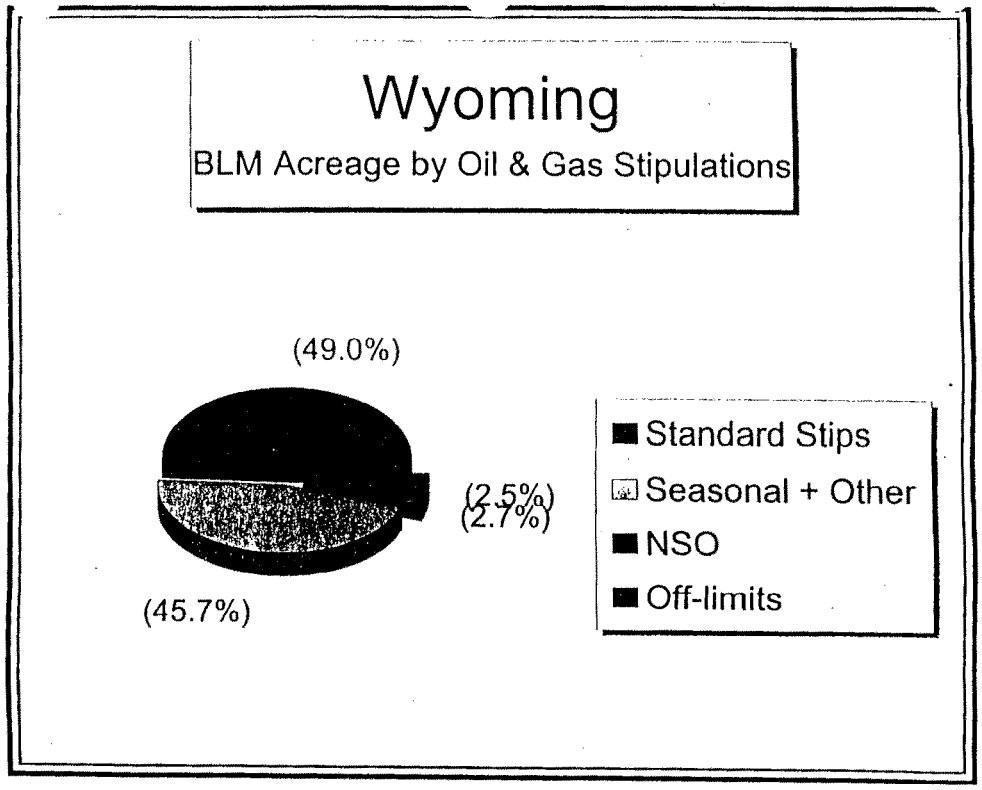
1. Standard.—Lands available for leasing generally have no special stipulations, except any that may be included in standard lease terms regarding conduct of operations or conditions of approval given at the permitting stage such as: prohibitions against surface occupancy with 500 feet of surface water and/or riparian area; on slopes exceeding 25 percent; construction when soil is saturated; within 1/4 mile of occupied dwellings.

2. Seasonal and Other.—Prohibits fluid mineral exploration and development activities for specific time periods, *i.e.,* sage grouse strutting areas, hawk nesting areas or calving periods. These restrictions are generally for specific months during the year.

3. No Surface Occupancy.—Prohibits operations because it has been determined that other resource values present on the lease cannot be managed to coexist with oil and gas operations. Operations may be conducted through directional drilling.

4. Off Limits.—Lands that are statutorily unavailable for leasing, *i.e.,* Wilderness Study Areas and Designated Wilderness Study Areas; lands within incorporated cities, towns, villages, and National Parks and Monuments; and areas prohibited temporarily by policy considerations pending analysis of various factors such as social, economic, environmental (Areas of Critical Environmental Concern—ACECs, Wildlife Refuges) and safety concerns, *i.e.,* special project areas, unstable soils. Some restrictions are discretionary and may be excepted by the authorized officer upon application by the operator.

State	Total Acres (Millions)	Acres Open to Leasing	Acres Closed to Leasing
Colorado	16.8	16.2	0.6
Montana	19.0	18.6	0.4
New Mexico	29.9	28.6	1.3
Utah	22.1	21.2	0.9
Wyoming	28.6	27.9	0.7
Total	116.4	112.5	3.9
Percent		96.6	3.4


Wyoming
BLM Acreage by Oil & Gas Stipulations
(49.0%)
(2.5%)
(2.7%)
(45.7%)
Standard Stips
Seasonal + Other
NSO
Off-limits

Wyoming
BLM Acreage by Oil & Gas Stipulations

	Stipulations				
Resource Area	Standard Stips	Seasonal + Other	NSO	Off-limits	Total oil & gas estate
Buffalo	3,948,900	671,800	80,300	30,100	4,731,100
Newcastle	1,566,284	123,590	126	0	1,690,000
Platte River	7,255,000	1,044,000	180,000	35,160	8,514,160
Great Divide	0	4,959,073	2,070	38,857	5,000,000
Lander	1,349,750	1,135,560	141,990	72,700	2,700,000
Green River	921,600	2,277,160	71,000	365,240	3,635,000
Kemmerer	832,192	681,922	1,701	34,456	1,550,271
Pinedale	437,000	709,000	21,485	21,501	1,188,986
Bighorn Basin	1,165,600	1,393,600	96,100	131,310	2,786,610
Cody	490,000	740,000	264,200	24,570	1,518,770
Total	14,017,426	13,063,905	778,672	723,794	28,583,797
Percent	49.0%	45.7%	2.7%	2.5%	

AREAS OF SPECIAL CONCERN

BLM, the State of Wyoming, the trona industry(UP), and the oil/gas industry are presently working together to find a solution for simultaneous development within the Known Sodium Leasing Area. BLM, the State, and the two industries have contributed over $600,000 to drill two surfaced cased wells for monitoring during underground mining of the trona. BLM has suspended all oil/gas leases within the KSLA for three years to complete the study.

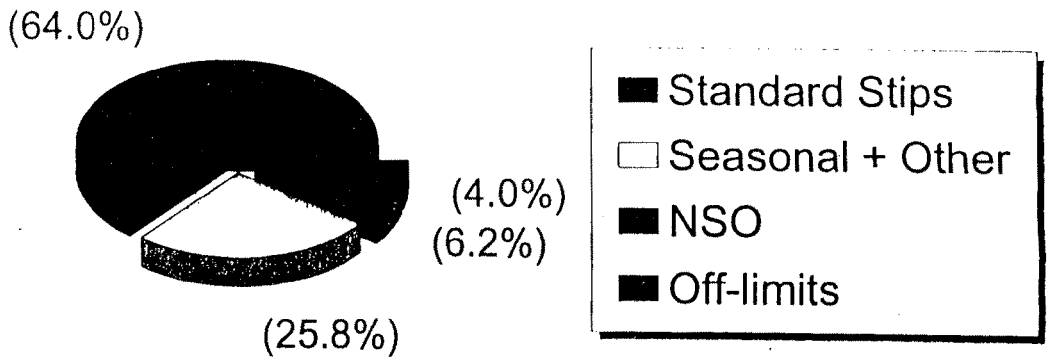
Southwest Wyoming is 40% crucial winter range and 80% winter range which requires numerous stipulations for wildlife, cultural, T&E, and other resourse values. Wildlife stips range from November 15 thru April 30 and from February 1 to July 31 for raptor and sage grouse. In some cases the special requirements last 9 months of the year. The Bridger Tetons are a special case.*

Only one APD has been denied in the past two years for wildlife consideration, while 1131 were approved albiet some with special stipulations.

* See 4/20 memo, attached below.

Utah

BLM Acreage by Oil & Gas Stipulations



Utah
BLM Acreage by Oil & Gas Stipulations

Resource Area	Stipulations: Standard Stips	Seasonal + Other	NSO	Off-limits	Total oil & gas estate
Dixie		28,715	91,304	56,120	
Beaver River		199,625	24,357	0	
Kanab		22,689	127,179	76,133	
Escalante		38,644	66,889	85,713	
Cedar City	4,484,722	289,673	309,729	217,966	5,302,090
Grand		866,170	136,613	60,434	
San Juan		731,008	209,906	189,886	
Price River		874,769	49,038	84,762	
San Rafael		39,829	232,987	156,968	
Moab	2,173,440	2,511,776	628,544	492,050	5,805,810
Henry Mountain		488,867	34,011	61,592	
Sevier River		273,272	19,022	0	
House Range		68,217	105,359	34,416	
Warm Springs		96,028	49,949	5,041	
Richfield	5,686,679	926,384	208,341	101,049	6,922,453
Pony Express		553,996	123,070	0	
Bear River		224,323	5,531	39,705	
Salt Lake	1,563,164	778,319	128,601	39,705	2,509,789
Diamond Mountain		523,255	49,603	17,946	
Bookcliffs		692,283	53,659	15,100	
Vernal	255,784	1,215,538	103,262	33,046	1,607,630
Total	14,163,789	5,721,690	1,378,477	883,816	22,147,772
Percent	64.0%	25.8%	6.2%	4.0%	

Note: Pre-GSENM data

AREAS OF SPECIAL CONCERN

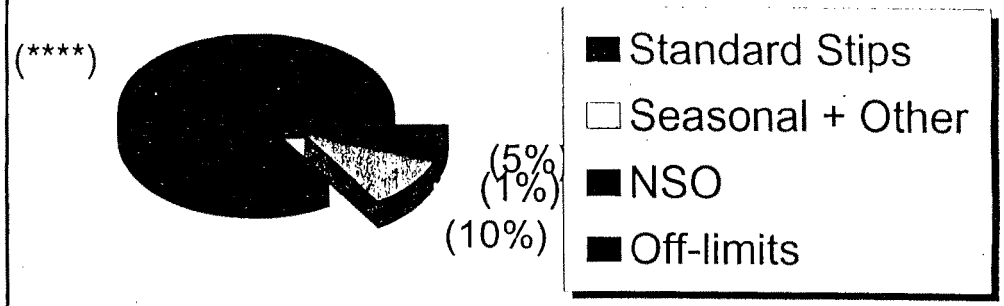
McCracken Extension- This is a Navajo Issue involving 48,000 acres of split federal and Tribal estates. BLM has placed a moratorium on any new leasing until NEPA is completed. The Navajo have asked the Secretary for the Mineral Estate

Kane Spring Horizontal Well Play- Further development of this promising area has been delayed indefinitely because of the need to prepare an EIS.

Combined Hydrocarbon Lease Sale- Industry has expressed increased interest in a combined sale in order to gain access to conventional oil and gas associated with areas identified as Known Tar Sands areas.

New Mexico

BLM Acreage by Oil & Gas Stipulations



New Mexico
BLM Acreage by Oil & Gas Stipulations

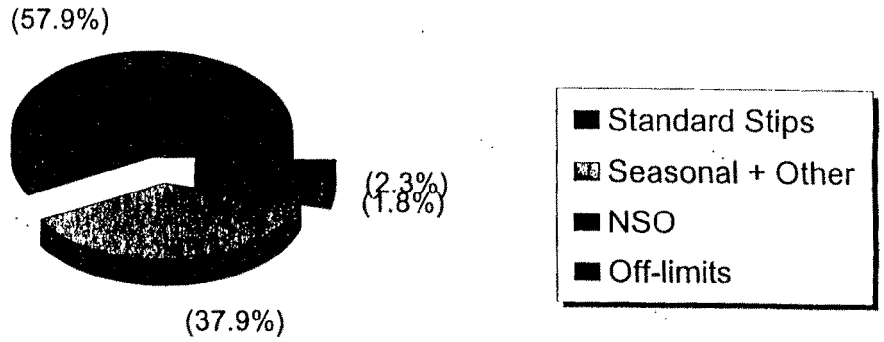
Resource Area	Stipulations: Standard Stips	Seasonal + Other	NSO	Off-limits	Total oil & gas estate
Farmington	1,848,000	314,300	20,700	96,000	2,279,000
Caballo	1,704,800	39,000	8,200	0	1,752,000
Mimbres	3,532,000	262,830	65,000	266,950	4,126,780
Socorro	1,110,000	757,000	36,000	297,000	2,200,000
Rio Puerco	1,526,700	30,000	6,700	310,400	1,873,800
Taos	1,240,500	152,500	17,400	63,200	1,473,600
Carlsbad	3,591,000	315,000	99,000	63,000	4,068,000
Roswell	8,411,000	947,000	4,000	240,000	9,602,000
Total	22,964,000	2,817,630	257,000	1,336,550	27,375,180
Percent	83.9%	10.3%	0.9%	4.9%	

AREAS OF CONCERN

There is controversy over oil/gas development in the Potash area.
105 Applications to Drill (APD) have been denied and are under appeal.
BLM requires directional drilling methods in certain sensitive areas such as the Carlsbad Caverns and other caves in the area. Also, BLM (New Mex) requires mitigation for State and Federally listed T&E species through special use stips. Industry thinks this is bad science. Further, we have been unable to get the oil and gas industries to come to agreement with the potash Industry on a study costing about $300,000. Negotiations are back on track for the study.

Montana

BLM Acreage by Oil & Gas Stipulations



Montana
BLM Acreage by Oil & Gas Stipulations

Resource Area	Stipulations: Standard Stips	Seasonal + Other	NSO	Off-limits	Total oil & gas estate
Judith	252,760	596,081	3,553	15,197	867,591
Valley	486,599	579,920	1,600	66,525	1,134,644
Big Dry	4,658,000	2,600,000	160,000	82,000	7,500,000
Billings, Powder River, South Dakota	2,578,000	1,940,000	98,000	54,000	4,670,000
Havre, Great Falls *	1,227,014			111,000	1,338,014
Headwaters, Great Falls	251,000	315,000	30,000	60,000	656,000
Phillips	735,122	584,425	29,665	36,240	1,385,452
Garnet	112,810	84,076	8,180	520	205,586
North Dakota **	253,583	206,811		0	460,394
Total	10,554,888	6,906,313	330,998	425,482	18,217,681
Percent	57.9%	37.9%	1.8%	2.3%	

* Standard stipulation package includes timing, controlled surface use, and NSO stipulations.

** Includes both timing and NSO stipulations.

Note: Dillon RA covered by MFP. All lands except WSAs open subject to above standard stips.

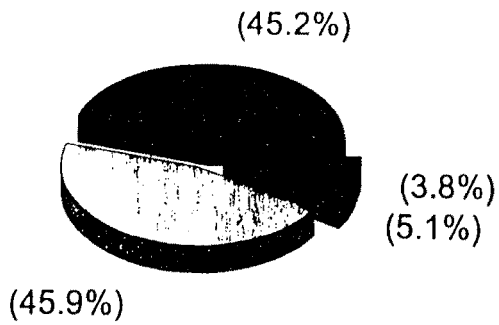
AREAS OF SPECIAL CONCERN

SweetGrass Hills- This area involves protection of a large area considered sacred by Native Americans. The area is not reservation but raises the question of protecting cultural values through NEPA. There are oil and gas interests as well as several mining claims.

Issues in Montana center around the numerous stipulations to protect soils by restricting activities on roads greater than 30 degrees, Sagebrush grouse strutting areas, Elk wintering grounds, cultural values, grizzly habitat, etc. Leasing is perceived by industry as doable but only after exhausting opportunities on State and private land.

Colorado

BLM Acreage by Oil & Gas Stipulations



- Standard Stips
- Seasonal + Other
- NSO
- Off-limits

Colorado
BLM Acreage by Oil & Gas Stipulations

Resource Area	Stipulations: Standard Stips	Seasonal + Other	NSO	Off-limits	Total oil & gas estate
White River *	1,721,470	2,187,280	148,450	83,730	4,140,930
Grand Junction	653,868	545,263	131,340	117,790	1,448,261
San Luis	219,291	384,105	13,855	3,620	620,871
Gunnison	595,344	49,962	35,605	46,007	726,918
Royal Gorge	1,715,897	736,847	37,220	70,984	2,560,948
Uncompahgre	511,074	174,542	80	21,038	706,734
Little Snake	765,610	1,248,870	57,894	35,380	2,107,754
Glenwood Springs	60,300	1,035,290	161,648	27,280	1,284,518
Kremmling	380,200	246,905	27,775	10,120	665,000
Northeast Planning Area	240,000	181,000	125,000	126,000	672,000
San Juan/ San Miguel Planning Area	721,872	910,408	110,128	103,152	1,845,560
Total	7,584,926	7,700,472	848,995	645,101	16,779,494
Percent	45.2%	45.9%	5.1%	3.8%	
* Under proposed RMP					
White River - current	1,721,470	1,423,240	19,730	83,730	3,248,170

AREAS OF SPECIAL CONCERN

The White River RMP is quite controversal as it proposes an increase of 750% in NSO's for protection of mostly cultural values. As in many areas most industry concern involves the time and layering of numerous stipulations attached to leases. Protection for wildlife habitat is a common concern. RMOGA has voiced concern for failure of the plan to consider socio-economic (jobs) values in the proposal.

The Resourse Use and Protection Directorate is evaluating this concern in concert with BLM economists in Denver to pilot a project to better address their issues.

January 4, 2001

Federal Oil & Gas Leases Issued

Calendar Years 1989 to 2000

(includes all O&G leases issued on BLM, FS, and all other Federal lands, except NPR-A shown below)

	Number of Leases	Acres Leased	Bonus Bids Received*
1989	8,344	6,559,544	$62,847,022
1990	6,383	5,121,444	$49,363,154
1991	5,289	4,110,355	$41,493,134
1992	3,654	2,710,843	$18,804,174
1993	3,960	3,060,888	$22,747,870
1994	4,315	3,780,180	$41,430,784
1995	4,418	3,660,764	$47,339,046
1996	3,924	2,780,209	$31,979,336
1997	4,726	3,901,194	$58,494,833
1998	4,591	4,295,852	$77,214,000
1999	2,531	2,346,662	$64,992,064
2000	2,818	2,634,874	$52,359,670

* Bonus Bids Received are by fiscal year rather than calendar year

Oil & Gas Leases Issued in the NPR-A

Calendar Years 1989 to 2000

(National Petroleum Reserve-Alaska)

	Number of Leases	Acres Leased	Bonus Bids Received
1999	132	861,318	$104,598,258

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Year	Lower 48 Competitive Leases Issued				Non Competitive Leases Issued		Total Issued		
	Number	Acres Leased	Bonus Bids	Bid Acre	Number	Acres Leased	Number	Acres Leased	APDs Approved
1980	301	71,623	22,048,947	307.85	10,208	11,184,951	10,509	11,256,574	
1981	527	126,070	103,314,389	819.50	12,038	26,000,116	12,565	26,126,186	
1982	445	991,186	95,304,216	96.15	19,762	54,927,921	20,207	55,919,107	
1983	505	131,702	31,150,106	236.52	11,469	18,247,476	11,974	18,379,178	
1984	879	394,264	49,484,379	125.51	6,714	10,114,669	7,593	10,508,933	
1985	1596	1,585,851	48,671,382	30.69	9,893	16,385,732	11,489	17,971,583	3,318
1986	1263	353,055	26,643,088	75.46	7,746	9,584,437	9,009	9,937,492	1,886
1987	890	211,488	33,345,494	157.67	6,357	7,215,215	7,247	7,426,703	1,486
1988	2464	1,913,023	51,208,738	26.77	6,770	10,302,550	9,234	12,215,573	1,772
1989	4058	2,831,737	62,847,022	22.19	4,294	4,974,040	8,352	7,805,777	1,851
1990	3496	1,723,845	49,363,154	28.64	3,056	5,560,364	6,552	7,284,209	2,617
1991	3140	1,845,365	41,493,134	22.49	2,325	2,591,651	5,465	4,437,016	1,969
1992	2034	1,118,816	18,804,174	16.81	1,956	2,072,447	3,990	3,191,263	1,947
1993	2614	1,744,777	22,747,870	13.04	1,426	1,439,134	4,040	3,183,911	2,222
1994	2887	2,147,415	41,430,784	19.29	1,286	1,677,147	4,173	3,824,562	2,113
1995	3151	2,394,854	47,339,046	19.77	1,369	1,473,920	4,520	3,868,774	1,870
1996	2477	1,589,795	31,979,336	20.12	898	933,763	3,375	2,523,558	1,959
1997	3192	2,265,452	58,494,833	25.82	988	1,201,646	4,180	3,467,098	2,580
1998	3177	2,480,035	77,214,000	31.13	928	1,122,096	4,105	3,602,131	3,148
1999	2509	2,962,094	59,624,005	20.13	566	640,456	3,075	3,602,550	1,923
2000									3,496

Source: Public Land Statistics
Note: APD's not reported in PLS until 1985

National Commercial Use Activity

on BLM-Managed Land, Fiscal Year 1998

Grazing Permits and Leases	18,698 permits and leases, 13,015,303 AUMs
Timber Volume Sold	43.7 million cubic feet/260.6 million board feet
Oil and Gas Leasing	2,363 new holes started, 10.79 million acres in producing status, 49,633 currently producing wells
Geothermal Production	58 producing leases, 4.8 million megawatt hours of energy
Coal Production	125 producing leases, 347.7 million tons produced
Mineral Materials (Salables)	3,030 permits issued, 12.9 million cubic yards produced
Nonenergy Leasables	463,189 acres under lease, 16.99 million tons produced
Exploration and Mining Activity (Locatables)	638 notices reviewed, 247 plans of operation reviewed
Rights-of-Way	2,837 granted

National Wild Horse and Burro Program

Fiscal Year 1998

Animal	Estimated Current Population	Animals Taken Off Range	Number of Animals Adopted*
Wild Horses	39,470	5,983	6,506
Wild Burros	5,025	406	1,337

* Some animals are not adopted the same year that BLM removes them from the range.

With a population hovering around 5,000, wild burros are primarily found in the Mojave Desert in Arizona, California, and southern Nevada.

Mrs. CUBIN. Governors, please feel free to go. Thank you very much for being here.

We do have a vote on the Floor. It is the ergonomics rule. We have 10 minutes left.

The next panel will be Neal Stanley, testifying on behalf of the Independent Petroleum Association of the Mountain States; Jim Bowles, Vice President of Phillips Petroleum Company, who is testifying on behalf of the American Petroleum Institute; and Terry O'Connor, with Arch Coal Company, testifying on behalf of the National Mining Association.

So if those gentlemen would please take their places at the table, we will run over and vote and be back here immediately. Thank you.

[Recess.]

Mrs. CUBIN. I would like to welcome the panel, and I know other members of the Subcommittee will be coming in as they are available.

So, first, I would like to call on Mr. Stanley, as I said earlier, on behalf of the Independent Petroleum Association of the Mountain States.

STATEMENT OF NEAL A. STANLEY, PRESIDENT, INDEPENDENT PETROLEUM ASSOCIATION OF THE MOUNTAIN STATES

Mr. STANLEY. Thank you, Madam Chair, members of the Committee. I am Neal Stanley, Senior Vice President of Forest Oil Corporation, and President of the Independent Petroleum Association of the Mountain States, both based in Denver, Colorado.

I would like to thank this Committee for focusing its attention on the significance of Government lands in developing a sustainable national energy policy. Policies that limit or encourage energy development on Government lands have very real consequences.

The oil and gas industry can supply the nation's growing natural gas needs, but the costs of natural gas will be dependent upon a number of factors, most notably having adequate access to the land in a timely manner. Policies that promote reasonable access to the nation's abundant supplies of natural gas will bring more gas to market quicker, which will lower the price.

Please turn to Exhibit #1 in my written testimony. This is a map showing Government lands. The various represent the agencies with surface management responsibility. Fifty-two percent of the land in the West is Government land.

Exhibit #2 shows the total estimated natural gas resources in the lower 48 with the corresponding percentage of those resources that are subject to prohibitions on access. In the Rocky Mountains, where abundant supplies of natural gas exist, Federal policies limit access to an estimated 137 trillion cubic feet of natural gas. This is 6 years' supply at current rates of use. Also, in the eastern Gulf of Mexico, 24 trillion cubic feet of natural gas is restricted. Lease Sale 181 is scheduled for December 2001 and should stay on schedule.

Impediments to gaining access for natural gas development come in many forms. Recent mining designations, road-building policies, and wilderness reviews prohibit access to some areas. Outdated re-

source management plans and overly restrictive surface use requirements are also preventing access.

A natural starting point for looking at access is with the restrictions that effectively reduce access where oil and gas leasing has already occurred. In order to facilitate the growth of deer and elk herds, land managers prohibit drilling during winter months. My personal experience in over 20 years of sitting on many drilling rigs throughout the Rockies has been that these animals are not in the least bit bothered by our activity. Hundreds of wells could have been drilled this winter alone to help supply natural gas.

For what purpose or benefit do land managers restrict drilling? So that the herd can increase in size, only to be hunted in the fall. So we must decide, should American consumers be paying a higher price for energy to subsidize the elk hunters?

Examples like this point up an important shortfall in land management policy. There has been no clear direction with respect to energy development on Government land. Throughout the gas-rich basins of the Rocky Mountain region, backlogs continue to grow for permits to drill and rights-of-way for pipelines and roads.

Exhibit #3 shows the surface use restrictions on a southwestern Wyoming Federal lease. Please notice the length of time associated with each restriction, and also note the amount of time required to drill an 8,000-foot well. As energy companies explore for natural gas, we have a very short window each year to drill our wells.

My final point is that the employment of advanced technology must occur if we are to reach our goals. Research and development spending by the oil and gas industry has decreased from $10 billion to $2 billion per year over the past 20 years as the large, integrated companies have shrunk in size. We know that past innovations from this R&D such as horizontal drilling and 3-D seismic have provided significant increases in the recovery of oil and gas. Federal efforts to aid the R&D effort by devoting a portion of Federal oil and gas royalties to a research fund would be a win-win program.

In conclusion, it is important to remember that natural gas resources are not uniformly distributed in the landscape. We must be allowed to drill where the resources exist if we are to supply the maximum available energy. I view the balance between energy supply and its price and access to public land like a teeter-totter. If the industry is shut out from public land, then the price of energy will be much higher. If we have access to public land where the resource exists, then the price for energy will be much lower. The American people and this Congress must decide the balance between access to Government land and the supply and price of natural gas to meet the nation's energy needs.

Madam Chair and members of the Committee, thank you for the opportunity to appear before you today.

[The prepared statement of Mr. Stanley follows:]

Statement of Neal A. Stanley, on Behalf of the Independent Petroleum Association of Mountain States and Independent Petroleum Association of America

Mr. Chairman, members of the Committee, I am Neal Stanley, Senior Vice President of Forest Oil Corporation, and President of the Independent Petroleum Association of Mountain States (IPAMS). Both Forest Oil and IPAMS are based in Denver,

Colorado. Today, I am testifying on the behalf of the Independent Petroleum Association of America (IPAA), and IPAMS. IPAA and IPAMS represent thousands of independent oil and natural gas producers across the nation. Independents drill 85 percent of the wells in the U.S., and produce 40 percent of the oil and two-thirds of the natural gas.

I would like to thank this Committee for focusing its attention on the significance of government lands in developing a sustainable national energy policy. Energy policy cannot be developed in a vacuum. Policies that either limit or encourage energy development on government land have very real consequences. As such, I imagine that we all desire land policies that will provide for human needs, contribute to the sustainability of communities, and concurrently help secure the health of the land for the benefit of current and future generations.

Despite our best conservation efforts, electricity demand in the United States will continue to increase as a function of our growing population and the role of computers in our new economy. The role of natural gas in meeting this new demand cannot be understated. Ninety-five percent of all the new power plants now scheduled to be built will run on natural gas. Electricity produced from natural gas fired generation will increase from 15 percent to 40 percent by the year 2020. Reports from the Department of Energy, Gas Research Institute, National Petroleum Council and American Gas Association show natural gas consumption increasing from 22 trillion cubic feet (TCF) this year to 35 trillion cubic feet (TCF) in 2020.

The oil and gas industry can meet the nation's growing demand for natural gas, but the price of natural gas will be dependent upon a number of factors, most notably, having adequate access to the resource in a timely manner. Policies that promote reasonable access to the nation's abundant supplies of natural gas will bring gas to market more quickly and also lower the price of this energy.

Exhibit #1 is a map showing government lands. The various colors represent the different agencies with surface management responsibility. A map showing the Federal government's mineral interest in the western United States would encompass an even larger portion of the West than is depicted on this map. Fifty-two percent of the land in the western United States is managed by Federal and state governments.

Exhibit #2 shows the total estimated natural gas resources in the lower 48 states, with the corresponding percentage of those resources that are subject to severe, if not outright, prohibitions on access.

Developing the substantial domestic natural gas reserves in offshore areas of the Eastern Gulf of Mexico, Atlantic Ocean, and California is prohibited by moratoria. President Clinton extended these moratoria for another ten years in 1998 saying, "First, it is clear we must save these shores from oil drilling." This is a flawed argument ignoring the state of current technology. It results in these moratoria preventing natural gas development as well as oil. In fact, both the Eastern Gulf and the Atlantic reserves are viewed as gas reserve areas, not oil. Those coasts are not at risk. Too often, these policies seem to be predicated on the events that occurred 30 years ago. Federal moratoria policy needs to be reviewed. New policies need to be based on a sound understanding, of today's technology.

Offshore Lease Sale 181 is scheduled for December 2001 and is outside the areas covered by moratoria. The resources contained in this sale area, approximately 7.8 TCF of gas and 1.9 billion barrels of oil, are important to the nation and surrounding coastal states. We strongly recommend the sale stay on schedule. This sale includes much needed gas resources for the Gulf of Mexico to even partially meet this country's natural gas needs.

In the Rocky Mountains, where abundant supplies of natural gas exist, Federal policies prohibit access to an estimated 137 trillion cubic feet of natural gas. Long-term sustainable gas production will be achievable only through the development of frontier areas such as the Rockies. Without access to such areas, industry will not be able to keep pace with steeper decline rates in the mature basins.

Impediments to gaining access for natural gas development come in many forms. Recent monument designations, new policies prohibiting road construction, and continuous wilderness reviews prohibit access to some areas. Administrative withdrawals, inaction, and extensive delays work similarly to restrict access. Outdated resource management plans and overly restrictive surface-use requirements also prevent access. The constraints differ in severity, but in each case, these impediments work individually and cumulatively to prevent the development of natural gas.

A natural starting point for looking at limits on access is with the restrictions that effectively reduce access where oil and gas leasing has already occurred. Take for example a common restriction on drilling during winter months to protect Big Game Winter Range. In order to facilitate the growth of deer and elk herds, land

managers prohibit drilling during winter months. My personal experience of sitting on many drilling rigs throughout the Rockies has been that these animals are not the least bit bothered by our activity. Nevertheless, the impacts of this restriction are significant. Hundreds of wells could have been drilled this winter alone to help offset the expected shortages of natural gas that we will encounter this summer. And for what purpose, or benefit, do land managers restrict drilling? So that the herd can increase in size only to be hunted the next fall. If there is any real tradeoff between closing an area or opening it to development, the tradeoff seems to be between energy development and hunting. And so we must decide, should American consumers be paying a higher price for energy to subsidize elk hunters?

Examples like this point out an important shortfall in land management policy. There has been no clear direction for land managers with respect to energy development on government land. Accordingly, each land manager assigns a relative value to the development of energy with no sense of how his or her actions contribute to or detract from the nation's energy sustainability. Mixed messages and a lack of accountability have led to a situation where land managers focus entirely on process with no apparent regard for the outcome. If left unattended, this lack of direction will become even more disastrous.

Another example that illustrates the BLM's failure to recognize the urgency to develop natural gas can be seen in a recent wildcat well Forest Oil drilled in southwest Wyoming. In this case, the BLM's interpretation of field rules ended up costing Forest Oil $120,000, and even more when you consider the opportunity costs associated with delays. The well site was six miles from an improved road with an existing two-track road that led to the location. The BLM required Forest Oil to design and construct an improved road to the location at a cost of $90,000, even though the well was only going to take 20 days to drill. If drilling proved it to be a dry hole, we would not need to continue to go to that location. Indeed, the well was a dry hole that cost the company $800,000 to drill. After we plugged the well, the BLM required Forest to either maintain the road forever, or reclaim the road to its previous two-track status. It will cost Forest another $30,000 to reclaim the road. The money wasted, $120,000, could have been spent drilling more wells.

Natural gas companies rely on Federal land managers to process their permit requests in a timely manner. Without the necessary environmental studies, permits, and authorizations, access to drill on Federal lands is prohibited. Throughout the gas-rich basins of the Rocky Mountain Region, backlogs for issuing permits to drill and rights-of-way for roads and pipelines continue to grow. Many resource management plans are outdated and revisions are being required before any leasing and development can occur. Staffing is short in many offices and the problem seems to get worse with time. The use of sophisticated mapping tools and other technologies could ameliorate some of these problems but, as with many other issues, addressing agency priorities and goals is a necessary first step.

Exhibit #3 shows the surface use restrictions and seasonal restrictions on a southwestern Wyoming Federal lease. Please notice the length of time associated with each restriction and also note the amount of time required to drill a typical 8,000-foot well and a horizontal well. Companies exploring for natural gas have a very short window to drill wells. If the BLM has not processed the permits in time to meet that window of opportunity, the company will have to release the drilling rig they have contracted and wait another year before drilling. Which brings me to my next point, which is the importance of agency readiness, staffing, and technological sophistication.

Exhibit #4 demonstrates the time requirements associated with operating on private land and Federal land. The right side of the table shows the timeframe, to get a well permitted and drilled. The difference between drilling on private land and Federal lands is 3 months versus 1–3 years.

To further illustrate the pervasiveness of land access problems throughout the Rocky Mountain Region, the following three examples are provided.

Exhibit #5 is a map of the newly designated Canyons of the Ancients National Monument in southwestern Colorado. Canyons of the Ancients encompasses McElmo Dome, one of the Rocky Mountain region's most significant sources of natural gas used for advanced oil and gas recovery in Colorado, New Mexico and Texas. On the map, of the 183,000 acres within the Monument's boundary, there are nearly 155,000 acres of active Federal leases, 141,000 of which are held by production or are included in four Federal production units.

When the monument was designated, the BLM proposed stringent surface use restrictions on 79,000 acres, including a No Surface Occupancy stipulation. Given the BLM's predilection for restricting access, the Resource Management Plan that will be developed for the monument creates even more uncertainty for producers.

Exhibit #6 is a map of Jack Morrow Hills Resource Area in southwestern Wyoming. The Environmental Impact Statement for the Green River Resource Management Plan, which includes the Jack Morrow Hills area, was started in 1989, with the Record of Decision finally issued eight years later, in October 1997. The decision of whether to lease for oil and gas exploration and development in Jack Morrow Hills area was deferred in the ROD until a Coordinated Activity Plan for the area could be completed, which took another four years. When the Draft EIS for the CAP was issued, the preferred alternative was for "staged leasing," effectively postponing leasing decisions indefinitely. On the map, areas designated as potential Wilderness Study Areas (WSA) are shown in light blue stippling. Note that there are active leases and leases held by production within the new WSAs.

The attached map of the Jack Morrow Hills area shows the BLM-managed mineral estate with active oil and gas leases in yellow. Of the 623,000 acres within the red boundary of the Jack Morrow Hills area, there are 239,000 acres of active Federal leases, 36,000 of which are productive. Also note that within the CAP area, there are 137,890 acres recommended as Wilderness Study Areas.

Exhibit #7 is a map showing the entire state of Utah. Current leases are shown in yellow, a total of 3,567 active Federal leases. Also shown on the map are the BLM's 1990 recommendations for three million acres of new Wilderness Study Areas, as well as former Interior Secretary Babbitt's reinventory of an additional three million acres, described in the map's legend as "HR1500 Boundaries". Note that the proposed Wilderness Study Areas include lands that are already leased, making development as difficult as the examples of Jack Morrow Hills and Canyons of the Ancients. Not shown on the Utah map are the nearly 29,000 leases that were previously leased in the past but were not renewed as a direct result of administrative direction from Washington.

These examples are only a few of many examples of the overzealous application of singular surface uses that preclude other resource development. Other examples, some even more egregious, would include the backlog of drilling permits and rights of way applications in northeastern Wyoming; de facto wilderness management of Wyoming's Bridger/Teton National Forest and Montana's Rocky Mountain Front; and excessively stringent application of NEPA planning documents and subsequent delays in Utah, Colorado, Montana, and the Dakotas.

My final point is that the employment of advanced technology for both land managers and industry must occur if we are to reach our goals. Research and development spending by the oil and gas industry has decreased from $10 billion to $2 billion per year over the past twenty years as the large integrated companies have shrunk in size. Yet we know that past innovations from this R&D, such as horizontal drilling and 3–D and 4–D seismic, have provided significant increases in the recovery of oil and gas. Frontier areas like the Rocky Mountain region will require new and sophisticated technologies to develop a large portion of the unconventional gas resources found in the region. Federal efforts to aid the R&D effort by directing a portion of Federal oil and gas royalties to a research fund would be a significant win-win program. Increased R&D spending will increase oil and gas production, resulting in a commensurate increase in Federal royalties.

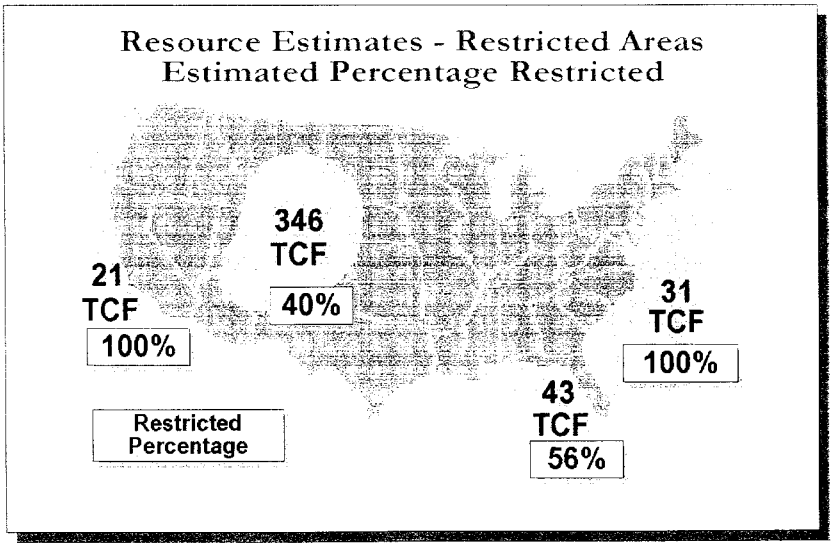
In conclusion, I would remind the Committee that natural gas resources are not uniformly distributed across the landscape. Even so, natural gas development can coexist with other values. We do not need to choose between "this or that" use of public land. Responsible management can allow for "this and that" use. Responsible management can provide for human needs, contribute to the sustainability of communities, and concurrently help secure the health of the land for the benefit of current and future generations.

I view the balance between energy supply, and hence, price and access to government land as a teeter-totter. If the energy industry is shut out from government lands, then the price of energy will obviously be much higher. If we have access to more land where the resource exists, then the price of energy will be much lower. The American people and this Congress must balance the perceived trade-offs of allowing reasonable access to government land with the tangible benefits of securing an adequate supply of natural gas to meet the nation's near-term energy needs.

Mr. Chairman and members of the Committee, thank you for the opportunity to appear before you today.

Exhibit #1

Exhibit #2



6

Exhibit #3 Surface Use / Seasonal Restrictions on a Southwestern Wyoming Federal Lease

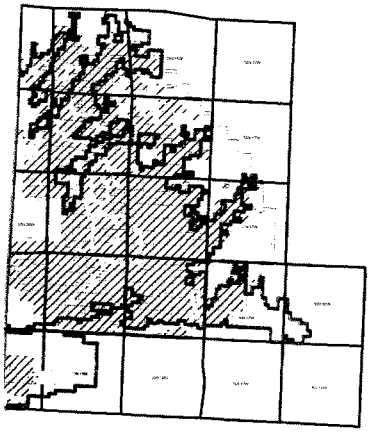
Wildlife Restrictions	January	February	March	April	May	June	July	August	September	October	November	December
Big Game Winter Range												
Sage Grouse Lek												
Sage Grouse Nesting												
Mountain Plover Breeding												
Mountain Plover Nesting												
Raptor Nesting												
a) Borrowing Owl												
Archaeology Weather Restriction												
Section 7 Prairie Dog Avoidance												
Typical 8000' Well												
Typical Deep Horizontal Well												

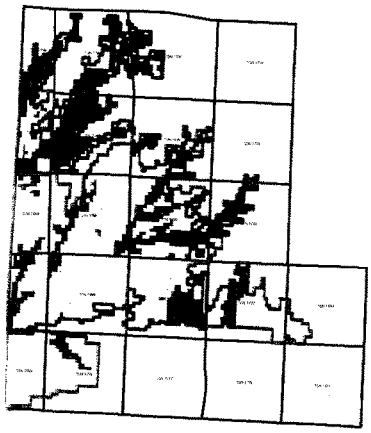
Exhibit #4

Timeframes for Oil and Gas Drilling - Comparison of State & Federal Land		
Access Issue	Government Lands	Private Lands
Nominate Lands	1 month	NA
Clear Listing	3-6 months	NA
Negotiate and Acquire Lease	NA	1-3 months
Lease Sale	6 months	NA
Lease Issuance	2 months	NA
NEPA (EIS or EA)	TBD	NA
- Environmental Impact Statement (EIS)	1-3 years	NA
- Environmental Assessment (EA)	6-18 months	NA
Notice of Staking	1 month	NA
Archaeology Weather Restrictions	11/15 thru 4/15	NA
On-Site Inspection with BLM Official	1 month	NA
Wildlife Restrictions	TBD	NA
- Big Game Winter Range	11/15 thru 3/15	NA
- Raptor	2/1 thru 7/31	NA
- Sage Grouse	3/1 thru 7/15	NA
- Prairie Dogs (Black Footed Ferrets)	3/1 thru 9/15	NA
- Mountain Plover	3/15 thru 8/15	NA
- Burrowing Owl	6/1 thru 9/15	NA
Sensitive Resource	TBD	NA
Rights-of Way	3-6 months	2 weeks
No Surface Occupancy	TBD	NA
Permit Issued	3-24 months	3-4 weeks
Total Time from Drilling idea until 1st Well Drilled	12-36 months	2-4 months

Exhibit #5

CANYON OF THE ANCIENTS
OIL & GAS ACTIVITY IN THE MONUMENT AREA





Federal Oil & Gas Leases

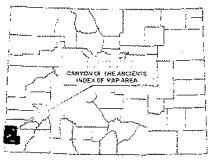
- Leases Held by Production
- Active Federal Leases
- Active Federal Units

CANYON OF THE ANCIENTS National Monument Boundary

- Township Boundaries

Federal Surface Access Stipulations

- No Surface Occupancy
- Controlled Surface Use



STATE OF COLORADO

CANYON OF ANCIENTS WITHDRAWAL	182,875 Acres
ACTIVE FEDERAL LEASES WITHIN AREA	154,702 Acres
LEASES HELD BY PRODUCTION IN AREA	140,732 Acres
NO SURFACE OCCUPANCY IN AREA	65,164 Acres
CONTROLLED SURFACE USE IN AREA	14,039 Acres

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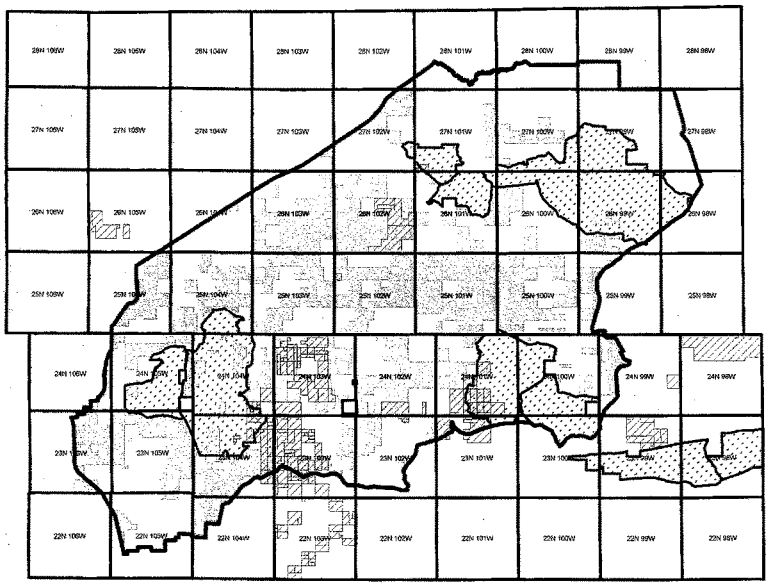
Exhibit #6

JACK MORROW HILLS
OIL & GAS ACTIVITY IN THE COORDINATED ACTIVITY PLAN



JACK MORROW HILLS Coordinated Plan Boundary

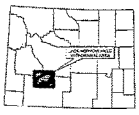
Wilderness Study Areas

Federal Oil & Gas Leases

Leases Held by Production

Active Federal Leases

Township Boundaries



WYOMING

JACK MORROW HILLS WITHDRAWAL 623,000 Acres

ACTIVE FEDERAL LEASES WITHIN AREA 239,000 Acres

LEASES HELD BY PRODUCTION IN AREA 36,000 Acres

WILDERNESS STUDIES IN JACK MORROW 137,890 Acres

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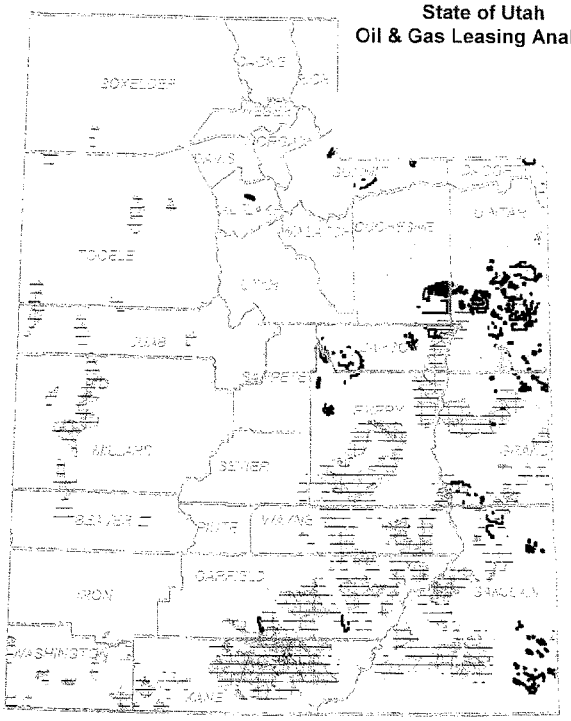
Exhibit #7

State of Utah
Oil & Gas Leasing Analysis



ACTIVE FEDERAL O&G LEASES	3,567 ACTIVE FEDERAL O&G LEASES
FEDERAL O&G LEASES HBP	1,452 O&G LEASES HBP
TRIBAL O&G AGREEMENTS	122 FEDERAL O&G UNITS
FEDERAL EXPLORATORY UNITS	
UTAH WSA BOUNDARIES	
HR 1500 BOUNDARIES	

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Mrs. CUBIN. Thank you, Mr. Stanley.

The Chair now recognizes Jim Bowles, the Vice President of Phillips Petroleum Company, testifying on behalf of the American Petroleum Institute.

STATEMENT OF JIM L. BOWLES, PRESIDENT, AMERICAS DIVISION, PHILLIPS PETROLEUM COMPANY, ON BEHALF OF THE AMERICAN PETROLEUM INSTITUTE

Mr. BOWLES. Thank you. My name is Jim Bowles. I am President of the Americas Division of Phillips Petroleum Company. I represent Phillips and the American Petroleum Institute, which has over 400 members engaged in every aspect of the oil and gas industry in the United States. I appreciate this opportunity to speak regarding access to Government lands underneath which much of the country's known reserves of oil and gas naturally lie. I ask that my full remarks be submitted for the record.

Today, we import some 57 percent of our crude oil. While we cannot eliminate our dependence on imported oil, there are a number of things we can do to encourage greater domestic production. They all have to do with allowing our companies greater access to non-park Government lands to produce the great energy resources we have in an environmentally compatible manner.

Today, I plan to focus on three regions where the access question is of the utmost importance—the Western United States, Alaska, and the Gulf of Mexico. Demand for natural gas in this country has never been stronger, and it will continue to grow along with the demand for electricity. We have a tremendous natural gas resource base in North America. However, since 1983, access to Federal lands in the Western U.S., where an estimated 40 percent of the natural gas reserves are located, has declined by 60 percent.

Despite the industry's record of sound environmental stewardship, the previous administration barred exploration on vast regions of Government lands, including nearly 60 million acres in the forest system. In the lower 48, some 205 million acres of Federal lands in the Western U.S. are under the control of two Federal agencies with broad discretionary powers—the Bureau of Land Management, the BLM, and the U.S. Forest Service. They administer Federal non-park lands. Both are required to manage these lands under the congressionally-mandated concept of multiple use. Yet, both have used discretionary actions to withdraw lands from leasing, and long delayed other leasing decisions and project permitting.

There are vast reserves of natural gas in the form of coal bed methane beneath Western Federal lands. However, BLM's inability to grant timely permits because of understaffing has greatly hindered development of this gas.

In Alaska, a new discovery of oil at Prudhoe Bay on the North Slope in the early 1970's offered a significant new source of competitive domestic supply. However, North Slope production has fallen by nearly 50 percent by the year 2000. Alaska still holds much promise for new energy development, not only in the much discussed Arctic National Wildlife Refuge, but also in NPRA, the National Petroleum Reserve-Alaska, that is west of Prudhoe Bay.

Our industry has made great strides in developing fields in these Arctic areas, with less adverse harm to the environment. One of these areas, the Alpine field, is a great example of how technology has minimized any impacts of Arctic oil and gas development. Only 97 acres, an area smaller than the U.S. Capitol grounds, are needed on the surface to produce from 40,000 acres, an area roughly the size of the District of Columbia.

North Slope exploration takes place during the winter using ice pads and ice roads that melt in the spring, leaving no trace of exploration activity. New technologies developed from our experience in the Arctic have tremendously reduced the so-called footprint of our activities and our operations. Despite these examples of the industry's environmentally-sound operations, Congress has refused to authorize exploration on the small section of ANWR that was specifically set aside by law for exploration in 1980.

In the offshore Gulf of Mexico, production is expected to rise to nearly a third of our domestic oil and gas supply within a decade. There, too, new technologies have driven down the cost of finding oil and gas, with much less disturbance to the environment, and allowed us to drill and produce in deep waters off the Gulf.

However, because reserves are being depleted at an ever-increasing rate, this cannot continue to be offset by future development unless new areas are opened for exploration. We have the technology and the will to explore and produce in these sensitive areas, as is being done in Canada, where oil and gas activities in the Atlantic have been conducted successfully with environmentally-sound development.

America will soon have a great opportunity to augment reserves. Federal Outer Continental Shelf (OCS) Lease Sale 181 in the eastern Gulf of Mexico is slated for December 2001. It was proposed only after comprehensive environmental reviews and consultations with Gulf State governors. The Sale 181 area is estimated to contain 7.8 trillion cubic feet of natural gas and 1.9 billion barrels of oil. Again, these reserves can be produced cleanly with advanced technology.

One potential obstacle to the success of 181 is the Coastal Zone Management Act which has been used by States, contrary to Congress' intent, to cause serious and costly delays to Federal OCS leasing and production that would have no adverse environmental impact on coastal zones. We strongly support Sale 181 to proceed as planned.

To summarize, our industry can explore for and produce our country's reserves of oil and natural gas for national security purposes and family and personal security. We are willing to make enormous investments to meet these ends, but we must have access to our natural resources for exploration and production.

Thank you.

[The prepared statement of Mr. Bowles follows:]

Statement of Jim L. Bowles, President, Americas Division, Phillips Petroleum, on Behalf of the American Petroleum Institute

My name is Jim Bowles. I am President, Americas Division, of Phillips Petroleum. I represent Phillips Petroleum and the American Petroleum Institute, which has over 400 members, engaged in every aspect of the oil and gas industry in the United States.

While the U.S. oil and natural gas industry has long provided a reliable and affordable supply of energy, the Federal government has always played a pivotal role in determining how well our energy needs are met. And the increasing energy demands of our new economy make it imperative that government and industry work to put forth a new national energy policy.

A national energy policy

A successful national energy policy must be comprehensive in order to be effective. It must seek to ensure enough energy to support economic growth by promoting responsible development of both domestic and foreign resources. It should recognize that sophisticated new technology developed by the oil and natural gas industry greatly reduces adverse impacts on the environment by exploration and production, both onshore and offshore.

A successful national energy policy will recognize that there is no quick fix to our energy problems. It must reflect the reality that we need to increase supplies of all forms of energy to fully support our growing economy. It is important to encourage responsible use of energy and increase supplies of all fuels, including fossil fuels as well as alternative fuels.

A successful national energy policy must be flexible to allow companies to adapt to new energy and environmental challenges. It should recognize that our refinery and delivery infrastructure continues to be stretched to its limit, restraining the industry's capability to meet new energy demands. It should remove unreasonable and complex regulations on cleaner energy production and transportation to accommodate growth and the continued high demand for energy—and to meet seasonal or unexpected requirements.

A successful national energy policy must rely primarily on the private sector working through free markets, and it must recognize the value of diversified energy sources. To that end, it should encourage competitive trade practices and international investment.

Finally, a successful national energy policy must create a predictable operating and investment environment for energy suppliers. The Department of Energy projects that producers will have to invest some $650 billion through 2015 to meet the growth in natural gas demand alone. That should tell us that government must work to create a more stable regulatory environment so that producers can invest with confidence that they will be able to get a fair return on their investment.

Access to government lands

I am here today to speak to the Committee about access to the government lands that contain much of the country's known reserves of natural gas and oil.

Today, the U.S. imports 57 percent of its crude oil. Last year's gasoline price volatility was due in part to a cutback in production by foreign oil producing countries. While we cannot eliminate our dependence on imported oil, there are many things that can be done to encourage greater production in this country.

America has vast reserves to help it meet its future requirements. But we must have greater access to government lands to produce this energy in an environmentally responsible manner.

Demand for natural gas in this country has never been stronger. The National Petroleum Council (NPC), a Federal advisory Committee of the Department of Energy, predicts demand, which is now at about 21 trillion cubic feet (Tcf) per year, at about 29 Tcf by 2010. The Energy Information Administration (EIA) now estimates that, due to Clean Air Act requirements, and increased demand for electricity, we will need 35 Tcf annually by 2015.

We have a tremendous resource base of natural gas in North America. Estimates put it between 1,200 and 1,600 Tcf (including resources in coal seams and tight sands formations). But we have a significant problem due to two key factors.

First, volatile energy prices inhibited drilling during the 1998–99 time period. Second, significantly reduced access to some of the most promising areas has suppressed our ability to increase our proven reserves. This has resulted in today's high prices, as demand has continued to grow.

With higher prices this year, oil and gas producers are making good returns on their investments, and plowing additional capital into new exploration. While some increase in supply has taken place, achieving the reserve growth needed to meet expected demand growth over the long term will require sustained growth in drilling activity.

We recognize that this has been a costly and painful year for consumers. It is, therefore, critical to help consumers understand what the United States must do from an energy policy standpoint to ensure that the U.S. maintains and enhances

its long-term supplies. Put simply, increased drilling and stable long-term prices are crucial to future supplies.

Yet, many of the government's multiple use lands have been placed off-limits by the Federal government. Since 1983, access to Federal lands in the western United States-where an estimated 67 percent of conventional onshore oil reserves and 40 percent of our natural gas reserves are located—has declined by 60 percent. Equally important is the fact that discretionary land management policies often unnecessarily restrict or impede efforts to develop resources on public lands. Our ability to search for new domestic offshore oil and natural gas is limited to portions of the Gulf of Mexico and offshore Alaska waters because congressional moratoria have withdrawn most of the rest of our Federal Outer Continental Shelf from consideration.

What is access to government lands? We do not request to drill on parklands or in wilderness areas set aside by Acts of Congress. Rather, we seek access to areas in the American West that have been designated as "multiple use" so that numerous activities can take place there.

Most of these areas are simply vast expanses of non-descript Federal lands. However, because they lack the beauty and grandeur of the Grand Canyon or the Grand Tetons does not mean that we treat them with less respect than we do any other lands entrusted to us by the government, or by private landowners. Most people driving near or hiking in one of these multiple-use government land areas would be hard-pressed to locate one of our facilities once the drilling rig is removed. It has become fashionable for editorialists and others to refer to our industry as a "dirty" or "messy" business. Safety and environmental protection are critical concerns, regardless of their location, and where our contractual lease obligations with the government require us to return the land to its original condition once drilling and production cease.

Yet, despite our record of sound stewardship, President Clinton used his executive powers under the Antiquities Act to bar oil and gas exploration and other activities on vast regions of government lands.

For example, the designation of the Grand Staircase-Escalante Monument in Utah in 1996 summarily withdrew promising valid oil and gas leases on state lands without even notice or consultation with state and local authorities, or affected communities. Likewise, the U.S. Forest Service recently banned our companies from exploring for natural gas and oil on promising government lands when it published rules to bar road building on nearly 60 million acres in the Forest System.

Offshore, the "consistency" provisions of the Coastal Zone Management Act (CZMA), under the guise of due process and consultation, have caused serious duplicative and incredibly costly delays to Federal OCS leasing and production activities that would have no adverse environmental impacts on states' coastal zones. And regulations issued by the National Oceanic and Atmospheric Administration (NOAA) in the last days of the Clinton Administration appear to add impediments to environmentally compatible energy development in the OCS, contrary to the balancing of competing interests directed by Congress when it enacted the CZMA. Both the summary withdrawal of multiple use government lands without stakeholder consultation under the Antiquities Act, and the endless due process used by opponents to block Federal offshore production that does not affect a state's coastal zone are extreme, and must be moderated.

Further, Congress has refused to authorize exploration on the small section of the Arctic National Wildlife Refuge (ANWR) that was specifically set aside by law for exploration in 1980, after a 1987 final environmental impact statement concluded that it could be safely developed.

We respect, and strictly adhere, to all of the nation's environmental laws. However, many government lands offshore and onshore that should reasonably be open for leasing are, in fact, off limits, or severely restricted from responsible development.

Offshore lands

Offshore, the OCS has assumed increasing importance in U.S. energy supply over the past half century. The Federal portion of the OCS now supplies 19 percent of the oil and 27 percent of the gas produced in the United States. Offshore production promises to play an even more significant role in the future. The Department of Energy forecasts that offshore production will rise to nearly a third of our domestic oil and gas supply within a decade.

In recent years, exploration and development of the offshore has been a major factor contributing to domestic energy supplies. From 1993 to 1997, new proven reserves replaced over 147 percent of offshore oil produced, and over 106 percent of

gas produced. In 1997 alone, the Gulf of Mexico accounted for over 79 percent of the new field discoveries of oil in the United States.

The relatively shallow shelf of the Central and Western Gulf was the focus of past development, and is the location of the majority of current oil production and the vast bulk of current gas production. It has been a source of growth in gas production in the United States for nearly three decades.

Technological revolutions, such as 3–D seismic profiling of promising structures, coupled with astounding computer power and directional drilling techniques which allow numerous reservoirs to be accessed from one drill site have driven down the costs of finding oil and gas. And at the same time these technologies allow development with much less disturbance to the environment. Tremendous advances in our ability to drill and produce in the deep waters of the Gulf have also resulted in vast new reserves being added to our resource base. The Deepwater Royalty Relief Act developed by this Committee, and passed by Congress in 1995, has significantly aided that endeavor. Those in the Federal government who are most familiar with our industry have lauded our technological advances.

A 1999 DOE report, *Environmental Benefits of Advanced Oil and Gas Exploration and Production Technology,* stated that, "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. . . . [The industry] has integrated an environmental ethic into its business and culture and operations . . . [and] has come to recognize that high environmental standards and responsible development are good business."

However, there is now accumulating evidence that resource depletion is overtaking the effects of technical advances on the cost structure of OCS development. The volume of reserves added per dollar of capital spent in the OCS has been falling steadily since the early 1990s. Due to increased demand, reserves are being depleted at an ever-increasing rate. Due to more efficient extraction technologies, the decline from new gas wells is now estimated to be as high as 40 percent per year.

This does not suggest the imminent collapse of OCS production, but it does suggest that the drilling and capital expenditures required to replace and augment reserves will become increasingly important. We must increase deepwater development, and access to areas presently restricted. Currently, presidential moratoria, and annual Interior Appropriations bill riders preclude leasing in most of the Eastern Gulf of Mexico, the entire Atlantic and Pacific Federal OCS, and portions of offshore Alaska.

As a result, only 200 million acres out of a possible 1.5 billion Federal OCS acreage is available for environmentally compatible exploration and production.

The National Petroleum Council estimates that more than 76 trillion cubic feet of gas are off-limits in the Federal OCS as a result of the current moratoria. Twenty one Tcf are estimated to lie in the Federal waters beneath the Pacific, 31 Tcf beneath the Atlantic OCS, and about 24 Tcf are projected to lie beneath the Department of the Interior's Eastern Gulf of Mexico Planning Area.

Again, our companies have the technology, and the will to explore and produce in these areas in an environmentally compatible manner. It is already being done in Canada's OCS, where oil and natural gas activities off the Atlantic coast have been conducted successfully in recent years with environmentally sound developments. Those supplies are now becoming available for the energy needs of New England.

America will soon have a great opportunity to augment its reserves. Federal OCS Lease Sale 181 represents a plan for leasing by the Department of the Interior in the Eastern Gulf of Mexico Planning Area. Scheduled since the mid-1990s based on comprehensive environmental reviews, and consultations between former DOI Secretary Bruce Babbitt and then Governors Chiles of Florida and James of Alabama, Sale 181 is slated to be conducted in December 2001. The area available in Sale 181 is estimated by the NPC to contain 7.8 trillion cubic feet of natural gas and 1.9 billion barrels of oil. This means that natural gas from the Sale 181 area could satisfy the current natural gas needs of Florida's 5.9 million households for the next 16 years. Lastly, the crude oil from the Sale 181 area (which is expected to come from the deepwater areas, far removed from the coastline) could fuel 74,000 cars for 20 years.

These potential reserves can be produced cleanly, for advances in technology have made offshore oil and natural gas exploration and production safer than ever. For the 1980–1999 period, 7.4 billion barrels of oil have been produced in the OCS with less than 0.001 percent spilled—a 99.999 percent near perfect record.

Alaska's North Slope

In the early 1970s, as petroleum production from the Lower 48 states entered a decline, a new discovery of oil at Prudhoe Bay on the North Slope of Alaska offered the U.S. the promise of a significant new source of competitive domestic supply on a world-class scale. The discovery was initially estimated to be 9.6 billion barrels of oil, nearly double the size of the largest field ever previously found in North America. Despite high costs, a hostile climate and major environmental challenges, supply from Prudhoe Bay came online in 1977, offsetting much of the decline in Lower 48 production through the mid-1980s.

By the mid 1980s, Alaska's North Slope was supplying about a quarter of U.S. oil production. Meanwhile, as Prudhoe production grew, the estimated resource potential of the North Slope began to grow as well, as other finds occurred. However, North Slope production has been falling. North Slope production peaked in 1988, and by 1998 had fallen by nearly 40 percent.

Phillips and other companies operating on Alaska's North Slope are actively exploring for new sources of oil in the areas that have become available for leasing. This includes the National Petroleum Reserve-Alaska (NPRA) and the Alpine field, located in state lands west of Prudhoe Bay in an incredibly rich and diverse wildlife habitat. The new Alpine field is a great example of how technology has minimized any impacts of arctic oil and gas development. Only 97 acres, an area smaller than the area covered by the U.S. Capitol grounds, are needed on the surface to produce from an area of 40,000 acres, an area roughly the size of the District of Columbia.

This winter Phillips will drill 12–15 exploratory wells. Today's North Slope exploration takes place during the winter using ice pads and ice roads that melt in the Spring, leaving almost no trace of the previous Winter's exploration activities. When oil and gas is discovered, new technologies developed from our experience in the Arctic have tremendously reduced the so-called "footprint" of our activities in our operations to extract these resources.

The U.S. Geological Service estimates there to be more than 10 billion barrels of oil recoverable from the coastal plain of ANWR, and, perhaps as much as 16 billion barrels. That is equivalent to the volumes we would import, at current levels, from Saudi Arabia for the next 20–25 years. If those volumes are found it would be the largest oil discovery in the world in the last 30 years.

And due to technological advances, the "footprint" to develop ANWR, if exploration confirmed the vast reserves predicted there, would be only an estimated 2,000 total acres out of a total area of 19.8 million acres, a tract roughly the size of South Carolina.

The Lower 48

In the Lower 48 states, a 1997 study by the Cooperating Associations Forum found that Federal lease acreage available for oil and gas exploration and production in eight Western states (California, Colorado, Montana, Nevada, New Mexico, North Dakota, Utah and Wyoming) has decreased by more than 60 percent since 1983.

Approximately 205 million acres of Federal lands in these states are under the control of two Federal agencies with broad discretionary powers. The Bureau of Land Management (BLM), whose land management planning authority is derived from the FLPMA of 1976, and the USFS, whose jurisdiction is derived from the National Forest Management Act, administer these Federal, non-park lands.

Both agencies are required to manage lands they administer under the congressionally mandated concept of multiple use. Yet, BLM and USFS discretionary actions have withdrawn Federal lands from leasing, and long delayed other leasing decisions and project permitting.

Congress has directed the BLM and the Forest Service to allocate non-wilderness lands for resource use, identify areas that are available for oil and gas leasing, and identify important wildlife habitat areas, and inventory wilderness candidate lands among other uses. Each agency has completed land use plans for the lands they administer, including lands that are candidates for wilderness designation. Yet, some lands found unsuitable for wilderness designation are, however, managed as "wilderness study areas," effectively removing these lands inappropriately from consideration for resource development. Further, these agencies often dictate lease stipulations as conditions of approval for exploration and production. Stipulations are intended to protect resource values in conjunction with proposed projects, such as exploratory wells, yet many conditions required, such as "no surface occupancy," essentially preclude exploration and production from occurring.

The NPC study on natural gas referred to earlier also points out that vast reserves of natural gas in the form of coal bed methane (CBM) lie beneath Federal lands, especially in Wyoming and Montana. However, BLM's inability to grant per-

mits in a timely manner has greatly hindered CBM development, and may contribute to further shortfalls in necessary future gas production. In some instances we recognize that individual BLM offices may be understaffed and therefore are simply unable to efficiently process permitting requests. We therefore support increased funding for BLM to adequately address these critical permitting backlogs.

We applaud this Committee's involvement in legislation enacted in the last Congress directing the Departments of the Interior and Energy and the Forest Service to conduct an inventory of oil and gas resources on Federal lands and the restrictions that prevent access to these critical resources. We urge Congress to fully fund this inventory in the FY 2002 appropriations process so that adequate information will be available on resource availability.

In conclusion, we must recognize that this industry in the 21st Century has the technologies, and sensibilities to explore for, and produce our nation's vast reserves of secure oil and gas—resources that keep factories and offices running, and our homes comfortable regardless of the weather. Oil and natural gas are the key ingredients in thousands of products that we use, from life-saving medical devices to fertilizers that help feed the world.

I am grateful to the Committee for the opportunity to present our views on a national energy policy for the long-term health and continued prosperity of our nation.

Mrs. CUBIN. Thank you, Mr. Bowles.

Mr. O'Connor?

STATEMENT OF TERRY O'CONNOR, VICE PRESIDENT, EXTERNAL AFFAIRS, ARCH COAL, INC., ON BEHALF OF THE NATIONAL MINING ASSOCIATION

Mr. O'CONNOR. Good afternoon, Madam Chairman. It is good to see you again. For the record, my name is Terry O'Connor. I am Vice President of External Affairs for Arch Coal, the second largest coal producer in the United States. We will produce about 115 million tons of coal this year, we estimate, and about 70 percent of those tons will come from Federal lands in the Western States of Wyoming, Colorado, and Utah.

I am here also on behalf of the National Mining Association, and before commencing my testimony I just want to thank you and ask you to relay to Chairman Hansen our appreciation for both of you scheduling this all-important hearing.

Most of us here in the room today are aware that coal is America's most abundant and reliable domestic energy resource. The coal produced in the United States is used to generate over 50 percent of the electricity generated in this country. We are also probably all aware that coal represents somewhere between 85 percent and 95 percent of the discovered and economically recoverable fossil fuel resources in the United States.

Finally, it is generally known that the Western United States coal fields on Federal lands are blessed with an abundance with some of the lowest-sulfur coal in the United States, if not the world. Western coal, in particular, is quite low in inherent NOx when burned in U.S. power plants.

What may not be quite as generally known is that today a majority of coal production comes from the Western United States. The bulk of that production is actually coming from Congresswoman Cubin's district or a portion of her district, the prolific coal-producing region of northeastern Wyoming and to some extent Montana, called the Powder River Basin, and referred to by many as the Saudi Arabia of coal. If Campbell County, Wyoming, in northeastern Wyoming, were a separate country, it would be one of the

five largest coal-producing nations on Earth, with the United States being number two.

Forecasts show that over 90 percent of expected new coal production in the United States likely will come in the next 20 years from mines on Western Federal lands. However, a group of ominous clouds are on the horizon, in that numerous Federal policies now in effect discourage or in some cases prevent the exploration, development, and investment that will be required to bring additional Federal coal production online. This Congress has a unique opportunity to deal with some of these issues and help us contribute toward the goal of making our country less energy-reliant on unstable foreign sources.

Madam Chairwoman, in the interests of time I will dispense with a discussion of most of the issues that are raised in our written testimony, but I would quickly like to address three of the most serious issues that we hope Congress will take an early look at.

The first issue I would like to address today and take a moment or two on is the U.S. Forest Service Roadless Initiative. In addition to the much publicized restrictions on timbering, as a consequence of this initiative the coal mining industry will also be significantly and adversely impacted.

I refer you to a statement in the Forest Service's own EIS which says that the initiative, quote, "'will preclude further development of leasable mineral resources within inventoried roadless areas, which will result in decreases in jobs, income, and payments to States." My company, our employees, and the consumers of our coal will be ultimately adversely impacted by this Roadless Initiative unless it is somehow amended.

For example, in Colorado we operate the West Elk underground mine, the second largest coal-producing mine in the State, where we employ 360 people with an annual payroll of over $26 million. An estimated 200 million tons of very low-sulfur, high-Btu coal is adjacent to our West Elk mine. If this Roadless Initiative is not somehow changed, this will result in the premature abandonment of the mine and the loss of an over $100 million capital investment that we have made.

Similarly, in Utah, we operate three large underground mines, and actually are the largest coal producer in the State. Our coal represents about 40 percent of the State's coal production. Our coal underlies a large forest service tract. I refer you to a map that is either in the back of the room or back in the Resources Committee room that identifies the enormity of the Roadless Initiative and what it will do.

Ironically, as California attempts to dig out from its energy crisis, one of California's most viable, low-cost, lowest-hanging fruit is the construction of power plants to supply California much-needed electricity. This Roadless Initiative will put in harm's way their capacity to do so. We recommend that Congress, at a minimum, amend this Roadless Initiative somehow to exclude sub-surface leasable minerals, and that includes oil, gas, and coal.

Secondly, and very quickly, an area I would like to address for just a second is an issue you are very familiar with, and I certainly thank you for your past efforts on this—the issue of conflict involving the simultaneous development of coal and coal bed methane in

the Powder River Basin. This issue sits as a potential cloud that can impact far more than the very, very small, isolated areas of conflict, and we urge that Congress move quickly in order to free up the much needed coal bed methane, as well as low-cost, low-sulfur coal.

Third, an issue that I would like to second Mr. Bowles, to my right, is the administrative backlog which is occurring in the Powder River Basin, in his case with regard to coal bed methane. In our case, it is the lease by application process for coal.

Because of the dramatic increase in requirements for low-sulfur coal in the West, BLM is simply not keeping up with the processing of lease by applications. If an application were submitted today, because they are only processing one a year, it would be probably 2009 before a lease sale was held, then another 3 years to permit it, another year after that to move the infrastructure. And we would be looking at 2012 before we could be in production on a new LBA. This cries out for congressional oversight.

Finally, and in conclusion, as important as all of these issues are, the other side of the potentially even more leveraging portion of the energy coin is that as a nation we must authorize the construction of additional coal-fired generation facilities, as well as the equally essential transmission lines to be able to move electricity to places where it is needed.

The United States and the Western United States must escape the banana syndrome, which many of you are familiar with as the next step beyond NIMBY; it is build absolutely nothing anywhere near anything. If the next generation of lower-emitting, higher-combustion-efficiency coal-fired plants are not allowed to be built, constructed and operated, any additional Federal coal which is produced in the West will not be able to help reduce our nation's reliance on unstable foreign sources of energy or to prevent the spread of the California syndrome nationally.

Thank you very much for your time.

[The prepared statement of Mr. O'Connor follows:]

Statement of Terry O'Connor, Vice President, External Affairs, Arch Coal, Inc., on Behalf of the National Mining Association

Mr. Chairman, my name is Terry O'Connor. I am Vice President of External Affairs for Arch Coal, Inc. I am appearing here on behalf of the National Mining Association (NMA) to testify on the important role that energy resources on Federal lands, specifically coal resources, have in the development of strategies and policies to take the United States closer to the goal of being self-reliant for energy supply. Thank you for the opportunity to present the mining industries views on this subject.

Summary

Affordable, reliable energy is a necessity for economic growth. Domestic, affordable and increasingly clean coal provides over 20 percent of all the energy that is used in the United States and is the fuel of choice for over 50 percent of the electricity generated in our nation today. Nearly 40 percent of our coal production is from mines located on Federal lands. Over one-third of the nation's coal reserve is found on lands owned or controlled by the Federal government. Forecasts show that over 90 percent of new production expected to come on line over the next 20 years will be from mines on Federal lands. However, policies now in effect discourage, or prevent the exploration, development and investments that will be required to bring this new production on line. This Congress has an opportunity to change current policy direction to ensure that the vast resources on Federal lands can contribute towards 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, is the second largest coal producer in the United States. In 2000, our operating subsidiaries mined more than 107 million tons of coal—nearly 10 percent of the nation's production—from surface and underground mines in Wyoming, Colorado, Utah, Illinois, West Virginia, Kentucky and Virginia. Arch shipped coal to approximately 140 power plants in 30 states providing the fuel for 6 percent of the electricity used by Americans last year. Arch owns or controls approximately 3.2 billion tons of coal reserves including reserves on Federal lands.

In 2000 our company mined nearly 65 million tons of low-sulfur, sub-bituminous coal from our two large surface mines in the Powder River Basin ("PRB") of Wyoming, Black Thunder and Coal Creek mines. We also produced 3.4 million tons in our West Elk Mine in Colorado and 9.4 million tons in 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. Our production and reclamation experience on our mines on Federal lands are prime examples of the way that our priorities are met.

The National Mining Association represents producers of coal, metals and nonmetal 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 National Mining Association produce over 80 percent of America's coal, a reliable, affordable, domestic fuel choice used to generate over 50 percent of the electricity used in the nation.

A balanced national energy strategy is a basic element of our nation's economic future

Mr. Chairman, we would like to commend you for holding these oversight hearings on the need for 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. Affordable and reliable energy—much of it from coal produced on Federal lands—has made the last decade of expansion possible. The recent sharp increase in the overall cost of energy along with concerns over current and future supplies together remind us of the importance of affordable energy as these factors are, in part, behind the downturn in the economy that is now occurring.

The policies of the past eight years have actively discouraged and even prevented investments in domestic energy supplies and in the energy delivery infrastructure on both public and private lands. As a result no energy source be it petroleum, natural gas, coal or uranium is in a position to quickly increase output, to even to meet the new demands that are forecast. Our energy supply industry has not been able to make the investments or develop and maintain the infrastructure that is necessary for the future. The policies that have discouraged or outright prevented development must be identified and reversed. The United States is fortunate to have a large domestic energy resource within our borders but, to even approach energy self-sufficiency our policy direction must be returned to one that encourages environmentally sound development and use of our nation's vast energy resource base.

Forecasts of future energy demand all consider technological advances, conservation and increased efficiency. But all forecasts also point to an increase in energy demand. For example, the Energy Information Administration (EIA) is predicting that energy use will increase by over 32 percent by 2020. Meeting this demand with reliable affordable energy while maintaining our 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 2000, 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 1.026 billion tons of coal were used to generate over 50 percent of all electricity used in the US. 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 35 percent by 2020 and that coal use for electricity will total at least 1.25 billion tons in 2020, some 250 million tons or 20 percent more than is currently burned. Meeting electricity demands will require construction of new power plants including coal fired power plants. Although beyond the scope of this hearing, a national energy strategy must 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 provides 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 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, with new advanced 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 nearly all this new coal will be from reserves located on Federal lands.

Coal on Federal lands

Coal mined on Federal lands provides a vital portion of the nation's domestic energy supply. In 2000 approximately 405 million tons of coal, 37 percent of national production, were mined on Federal lands. Considering western production only, a full 80 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 85 percent or more of the growing western coal industry depends upon Federal land management policies. Coal mines on Federal lands are found in Colorado (89 percent of production within the state), Montana (46 percent), New Mexico (24 percent), North Dakota (7 percent), Oklahoma (35 percent), Utah (88 percent), Washington (33 percent) and Wyoming (92 percent). Less than 0.1 percent of coal production on Federal lands—365,000 tons—were from lands located in the Appalachian states (Alabama and Kentucky).

Coal produced on Federal lands contributes directly to local economies in a positive way. In 2000, this coal was worth an estimated $3 billion. Production activities provided high paying jobs for over 15,000 workers in 2000, paying wages in excess of $600 million. Considering both direct and indirect economic benefits, coal produced on Federal lands provided employment for nearly 150,000 workers with wages of over $3.5 billion dollars.

Coal produced on Federal lands contributed nearly $400 million to state and local tax revenue. Royalties paid to the Federal Government were an estimated $330 million in 2000.

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. Major destinations outside the western region include generators in Michigan, Minnesota, Illinois, Indiana, Iowa, Wisconsin, Texas, Kansas, and Arkansas with some being shipped as far as Alabama, Mississippi and Georgia. Taken as a whole, coal mined on Federal lands is used to generate nearly 40 percent of all electricity generated from coal, or approximately 20 percent of all electricity produced in the US. This is not an insignificant amount being enough to supply electricity to the entire South Atlantic census region or to all the customers in the East North Central and West North Central states combined or to 3.2 Californias.

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.

It is important to note that the enormous coal reserves on Federal lands include some of the best coal from an environmental standpoint. Many of the reserves, especially those located in Wyoming and Montana, are low in sulfur and also low in inherent NO_X when burned in power plants. These coals are ideally suited to meet

the increasingly stringent emission requirements of the Clean Air Act Amendments of 1990 and the regulations that EPA has promulgated.

Whether viewed as an environmental, an economic or as a domestic energy security and reliability issue, continued coal production from reserves on Federal lands is critically important to the economy and the well being of the United States. Energy, especially electricity would not be as readily available or as affordable if it were not for coal from Federal lands.

Coal from Federal lands is projected to increase over the next two decades. The EIA Annual Outlook 2001 forecasts shows that over 90 percent of the expected 250 million tons increase in U.S. coal production will come from coal reserves located on Federal lands. If this forecast is to be realized policy changes must occur.

Policies should encourage, not discourage or prevent responsible development of coal resources on Federal lands

Interpretations of legislation over a long period of time added to the policies of the previous Administration over the last eight years have acted to discourage or actually prevent responsible development of coal resources on Federal Lands. There are several issues that need to be considered the first of which is access to the resources located on Federal lands for responsible exploration and development activities. Large reserve blocks have already been effectively removed from development by actions by the Federal Government. To cite just two examples:

- According to the U.S. Geological Survey, the unsuitability provisions under SMCRA (the Surface Mine Control and Reclamation Act of 1977) and land use planning policies under FLPMA (the Federal Land Policy Management Act) have removed some 53 billion tons of Federal coal from future leasing which in effect reduces the National surface mineable reserve base by almost 25 percent.[1]
- The previous Administrations use of the Antiquities Act to create National Monument designations removed additional blocks of reserves from development. In 1996, this Act was used to create the Grand Staircase-Escalante National Monument removing 23 billion tons of mineable coal reserves in Utah's Kaparowits coalfield.

Pending actions, such as the Forest Service Roadless Area Conservation Rule will remove even larger portions of the coal reserves located on Federal lands from responsible development.

Forest service roadless conservation areas

This Committee, and its members who serve on the Forest and Lands Subcommittee in particular, know well the history and the effects of the last administration's Roadless Area Conservation rule that was published on January 12, 2001. The lack of available information regarding affected areas of Forest Service administered lands made it extremely difficult for mineral developers to determine the impacts of the rule. Since the Forest Service did not identify or consider mineral resources in its draft environmental impact statement, industry had to create its own maps by identifying proposed roadless areas and areas containing known mineral resources on a forest-by-forest basis. The results of this exercise were particularly staggering, especially for leasable Federal minerals such a coal. In fact, the implementation of this rule could sterilize over 40 percent of the coal production in Colorado and Utah.

According to the Department of Energy:

- The roadless initiative will have an impact on coal reserves in Colorado and Utah, including both the expansion of existing mines and tracts of coal of near-term commercial interest. While these resources are recovered using underground mines, roads are needed to build ventilation shafts and for safety, *e.g.,* to fight underground fires. The mines would not be built or expanded if roads cannot be constructed.
- Existing leases may also be affected . . .[2]

In Colorado, one of the mines in the Grand Mesa-Uncompahgre Forest is my company's, Arch Coal, West Elk Mine where 200 million tons of coal could become unrecoverable because of the rule. This loss of reserves will result in the premature abandonment of the mine and its $100 million infrastructure. The DOE report predicts that over $10 billion economic activity would be lost as a consequence.

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[1] W.D. Watson, Opportunity Costs of Federal Land-Use Restrictions for U.S. Coal Markets (1992).

[2] Department of Energy Report to the Forest Service, William Hochheiser (November 2000).

The Bowie Mine in the Grand Mesa-Uncompahgre Forest will be blocked from developing 50 million tons of high quality coal reflecting over 2.5 billion in economic activity. The Oxbow Mine, adjacent to the Bowie leases is surrounded on the east and north by roadless areas. These roadless prohibitions will thwart future development at this operation.

The Forest Services Final Environmental Impact statement for the roadless rule declares that in Utah's Manti-La sal Forest three tracts alone account for 185 million tons of high Btu coal that are prejudiced by the rule. Further investigations of coal resources in the area indicate the impact could be much greater.

The Forest Service chose to accept these severe prescriptions even though mine roads are temporary and the Surface Mining Control and Reclamation Act (SMCRA) mandates that these roaded areas be reclaimed to a condition as good or better than they were before mining. It should be noted that surface coal mines cannot be permitted on Forest Service administered lands unless the Secretary of Interior "finds that there are no significant recreational, timber, economic, or other values which may be incompatible with such surface mining operations . . ." In other words, the values the rule is supposed to safeguard have already been considered and protected by an existing statute. Yet, millions of tons of low sulfur coal have been sterilized by this needless and unlawful regulation.

Federal leasing

In August 1976, the Federal Coal Leasing Amendments Act ("FCLAA") was enacted. FCLAA's imposed for the first time a series of radically more stringent requirements upon Federal coal lessees, the compliance with which forced such lessees to make a host of major financial and operational commitments, many of which made good policy sense but others were counterproductive. Over the past 25 years, those Federal coal lessees who have managed to stay in business have fully complied with both the rational and the questionable requirements.

Federal coal lessees are not today calling for major reform of the FCLAA program, although over time certain of FCLAA's provisions ultimately may need to be revisited and modified. Even where modifications ultimately may be needed, in most instances, the debate on such modifications can be deferred to a later time when adverse impacts become more focused and imminent. There are two areas that need attention however.

1. Advanced royalty provisions

The first issue that must be addressed is a segment of FCLAA's current "advanced royalty" provisions, which call for early legislative reform by Congress. The current advance royalty provisions provide, among other items, that:

Advance royalties may not be paid for more than an aggregate of 10 years,

Advance royalties paid during the initial 20 year term of a lease may not be carried over past the 20th year, and

The Secretary of Interior may unilaterally cease to accept advance royalties.

With the progressive deterioration of U.S. coal market prices, several Federal coal lessees have been forced temporarily to curtail production or to idle uneconomic mines.

We recommend that narrowly drafted, surgical changes be made to FCLAA's advance royalty provisions which would:

Extend the aggregate entitlement to pay advance royalty in lieu of continued operations from 10 years to 20 years;

Delete the current prohibition on the carry-over of advance royalty payments made during the initial 20–year period of the lease;

Delete the current authorization for the Secretary unilaterally to cease to accept advance royalties in lieu of continued operations; and

Delete the last sentence of Section 39 of the MLLA of 1920 (Section 14 of FCLAA) prohibiting the waiver, suspension, or reduction of advance royalties.

2. Address the need to move expeditiously on lease-buy applications

The Federal Coal Leasing Amendments Act of 1976 ("FCLAA") requires that all leases for Federal coal be conducted by a competitive leasing process. One of the mechanisms for initiating competitive leasing is through a lease-buy application ("LBA") procedure, which allows an existing coal mining operation to nominate a tract for the expressed purpose of prolonging the life of the existing mine. The LBA process has been effectively used in Utah, Colorado and Wyoming for over a decade now. In the Powder River Basin ("PRB") of Wyoming, which is called by many the "Saudi Arabia of coal", since that area is producing in excess of 1/3 of all U.S. coal, the LBA process has been critical to the orderly development of Federal coal reserves.

As pointed out, coal production in the PRB has jumped dramatically since the Clean Air Act Amendments of 1990 primarily because western coals are typically very low in sulfur and also very low in inherent NO_x when burned in power plants. With this dramatic increase in demand for low sulfur western coal has come the need for continued access to Federal coal reserves. Western coal producers clearly recognize this need and make their leasing plans accordingly. Unfortunately, the Bureau of Land Management now is only processing and holding one Federal coal lease sale per year in the Wyoming PRB. Thus, the most recent coal lease applications filed may not be offered for sale for eight years. Permitting requirements will then add another approximately three years. As a consequence, it is readily apparent that there is an excessive backlog of Federal coal lease applications on file and that the timeframe for processing LBAs and issuing leases has become unacceptable to orderly development of this most important domestic energy resource.

There are several administrative opportunities to address this backlog. The first opportunity is to consolidate the NEPA process instead of conducting separate EIS's for each lease application. Several LBAs should be combined into one document. Second, and even more importantly, the Department of Interior expeditiously should evaluate the workload of other BLM offices to determine if there are any personnel available to help work through this backlog. Finally, and of relevance to this hearing, Congress should give favorable consideration to supporting additional Federal funding for the processing of these lease applications in order to short the intolerable backlog.

Coal/coal bed methane conflict in the Powder River Basin

The Powder River Basin of Wyoming and Montana is one of the world' 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 has issued Federal coal leases and Federal oil and gas leases for the same locations in the Basin. In many cases when these oil and gas leases were issues coal bed methane resource development was not contemplated.

In those areas leased both for coal and oil and gas, disputes over timing of mineral development have arisen. The sequence of development frequently becomes a critical issue, because the production of any one of the minerals can result in the loss of another. For safety and operational reasons, concurrent development typically is impossible. No clear statutory direction exist to resolve disputes over the sequence of mineral development in these areas where the Federal government has "double leased' its minerals. BLM has not provided effective guidance or included conditions in its leases that would provide a resolution to these disputes.

In order to achieve optimum recovery of the Basin's energy assets, legislation that would provide the missing statutory direction to resolve these mineral development contests should be enacted. Legislation 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 fail.

Mineral management service administrative appeals process

Under Department of Interior (DOI) rules promulgated in 1973, the Minerals Management Service (MMS) is the only DOI agency with an intermediate appeal to the director of the agency. All other DOI agency appeals go directly to the Interior Board of Land appeals (IBLA). The principal purpose of the MMS administrative appeals process should be the expeditious and independent review of cases involving disputed facts, legal issues, or policy upon request of the adversely affected party. This two-stage process can extend 5 to 7 years, even before the controversy can enter the courts.

In spite recommendations from a Federal Advisory Committee urging Secretary of Interior Babbitt to direct MMS develop a one-stage process for all MMS appeals, the Secretary decided to retain the current two-tier process. He made this decision even though he stated in the decision document that he agreed with the Advisory Committee's report in support of its recommendation.

The current unwieldy appeals process needlessly ties up what may be considerable industry resources with no competing benefit. The Department should revisit Secretary Babbitt's ill-advised decision and implement a streamlined appeal process like that used by all other DOI agencies. This action would save the agency and the industry time and resources.

Revitalizing the abandoned mined lands program

The 1977 Surface Mining Control and Reclamation Act, SMCRA, mandates that lands disturbed by coal mining be restored to their pre-mining conditions. Inactive

mines are addressed through the Abandoned Mine land, AML, provisions which require coal operators to pay at fee to the Office of Surface Mining's AML fund of 35 cents per ton for surface mined coal and 15 cents per ton for underground mined coal. The funds are used to clean up pre-SMCRA abandoned sites. The fee has been extended twice and is currently set to expire at the end of FY–2004.

To date $5 billion in contributions have been paid by the coal industry into the fund but only $1.3 billion in Priority 1 and 2 reclamation work has been completed. Approximately $2.5 billion in work remains to be completed and the AML fund currently has an unappropriated balance of $1.5 billion. This has occurred because annual appropriations have been significantly less than the fees paid by industry and the distribution formula is out-of-date and does not reflect significant increases in western production. Further, the fund is paying for excessive Federal and state administrative costs of approximately $45 million annually.

The coal industry believes that 2001 provides a unique opportunity to reform the AML program. The coal industry would support an extension of the AML program if additional funds are dedicated to clean up of the remaining Priority 1 and 2 areas and IF the current fee structure is reduced beginning in FY–2002. Suggested program reform should include a major reduction in administrative costs and a freeze on the inventory of eligible reclamation projects. These actions would give long-term financial stability to the various state AML programs and would ensure that the Surface Mining Acts original environmental goals are achieved and that reclamation is completed more quickly and effectively.

The Thunder Basin National Grasslands

There is a goal that is stated in the Thunder Basin National Grasslands (TBNG) Draft Management Plan that purports to: "conserve air quality-related values over Class I and Class II airsheds."

The U.S. Forest Service claims additional responsibility and authority with respect to air quality-related values on all Federal lands (Class I and Class II) via broad interpretation of the Organic Administration Act of 1897, Wilderness Act of 1964, the Forest and Range Renewable Resources Planning Act as amended by the National Forest Management Act of 1976. Additionally, The Federal Land Managers' Air Quality-Related Values (AQRV) Work Group (FLAG) published a "guidance document" on December 29, 2000. This guidance seeks to identify AQRV's and define adverse impacts in Class I areas. This document also purports authority for Class II areas under management by USFS, U.S. Fish and Wildlife Service and the National Park Service via broad interpretations of various Acts delegating authorities to the aforementioned Federal Land Managers.

Currently, the Wyoming Air Quality Division does not evaluate the effect of new or expanding surface coalmines on Class I (or II) areas with respect to Air Quality-Related Values. This is mainly because these particular facilities do not meet the criteria of major facilities under the Prevention of Significant Deterioration sections of the state or Federal air quality rules and regulations.

However, the Federal land managers have recently begun to require an evaluation of cumulative impacts to air quality-related values (specifically visibility) in Class I and selected Class II areas as part of the NEPA process for Federal actions such as leasing Federal coal. This action is out of the State of Wyoming's direct jurisdiction, as opposed to the permitting program where the Wyoming Air Quality Division is the lead agency.

This practice is especially concerning in light of the fact that six (6) new "Special Interest Areas" are being proposed as part of the Thunder Basin Grasslands Draft Management Plan. These areas were originally proposed for "Wilderness" designation in the draft plan and are also considered "roadless". These areas are located from six to thirty (6) to (30) miles from five (5) existing surface coalmines. Each of these mines has a history of continued leasing interest for Federal coal reserves located adjacent to the existing operations. The additional leases serve to allow the continuation of these operations. Each of these five (5) mining operations submitted applications for additional leases in the year 2000. Representatives of the USFS Douglas Ranger District have noted in past discussions that these Class II "Special Interest Areas" would likely be reference points in computer modeling evaluations of Air Quality-Related Value impacts during the leasing process. There is very little doubt that significant impacts will be predicted considering the vicinity of the proposed special areas to the mining operations and the highly conservative nature of the modeling tools used for these purposes.

Risks: The possibility exists that predictions of significant impacts from existing and expanding coal mine operations within the general area of these proposed "special" areas could negatively affect the ability to continue leasing Federal coal reserves.

Five (5) large surface coalmines are located either wholly or partially on the Thunder Basin National Grassland, which is located in the southern Powder River Basin and is managed by the U.S. Forest Service. These five (5) mines produce Federally owned coal with the lowest sulfur content of any coal mined within the Powder River Basin and the United States. Of the 316 million tons of coal produced in the Powder River Basin of Wyoming in 1999, 178 million tons or fifty-six percent (56 percent) were shipped from these five (5) mines. In 1999, these five (5) mines provided over sixteen percent (16 percent) of all U.S. produced coal.

In 1999, the average production rate of the five (5) mines on and adjacent to the Thunder Basin National Grassland was approximately 36 million annual tons each. At these production rates, the mines must periodically replenish reserves by applying for and purchasing new Federal coal leases through the Bureau of Land Management's (BLM) Lease-by-Application, (LBA) process. Historically, the mines on and adjacent to the Thunder Basin National Grassland have applied for new Federal coal leases through the LBA process every five (5) years beginning in 1989 to present.

Impacts: Currently, applications for coal leases in the Powder River Basin filed with BLM and pending sales total nearly 2.3 billion tons of mineable reserves. The pending lease reserves represent one-hundred forty percent (140 percent) of the coal lease sales that occurred for the five (5) years of very active coal leasing from April 1995 through the end of 2000. This indicates the strongest interest in coal leasing in the region since initial establishment of extensive mining operations in the late 1970's and early 1980's.

The pending lease reserves represent an amount equal to 86 percent of the total Federal reserves of coal leased in the Powder River Basin from 1991 through 2000. The coal volumes in the pending lease applications represent approximately $560 million in bonus bids alone, to be shared equally by the Federal treasury and the state where the lease is located.

The $560 million in potential bonus bids does not take into consideration 12.5 percent production royalty payments. Another $1.1 billion will be generated (assuming an average prices of coal over time of $4.00 per ton). These royalty payments are fifty-fifty (50:50) between the Federal treasury and the appropriate state.

Five (5) of the pending eight (8) Federal leases will be located on or immediately adjacent to the Thunder Basin National Grassland. Future coal lease applications can and will involve USFS managed surface.

Regional haze

EPA's Regional Haze rule has the potential to impact energy production and generation on Federal lands in several different ways:

Siting—modeling of new state-of-the-art sources can show an impact on Class I Areas (national parks, wilderness areas, etc.). This modeling effort can have the result of denial of a permit and force the abandonment of the project.

The Federal Land Managers will have two bites at the apple under the Regional Haze Rule: the first is regional haze Best Available Retrofit Technology (BART) in which targeted emission reductions are met based upon overall technology assumptions in a region. This approach allows for the regulated community to have flexibility in meeting the reductions by over complying in one area to meet the reduction goals. The second bite is reasonably attributable BART, in which an impact in a Class I area is tied to a specific source (based upon modeling). The dual regulatory program virtually eliminates any flexibility and cost effectiveness achieved through a market based program.

As an example, the western United States is far ahead of the rest of the country in addressing Regional Haze. The modeling analysis showed that throughout the range of potential emission reductions (moderate to extreme), there is no perceptible improvement in visibility.

A review of assumptions made in the western plans needs to be initiated. The plan was developed at a time of low natural gas and oil prices, and at a time when it was believed that virtually all new electric generation plants would be fired by natural gas. Assumptions regarding fuel price and the demand for electricity (growth) need to be reevaluated to ensure that the proposed caps on SO_2 do not inadvertently impact the development of new sources.

Electric power plants built near western coal fields can help solve electricity shortfalls, but changes need to be made in permitting transmission lines

An electric transmission system providing operational and investment certainty is a key element in a coherent and effective energy policy. For companies to invest in new power plants providing affordable energy, there must be significant reform of permitting and siting regulations not only for the plants, but for the transmission

lines and facilities that follow. The lengthy and uncertain permitting process is the problem, not the environmental protection required. We would recommend Federal action reducing the permitting and review timeframes required. We would further recommend a Congressional or Executive directive fashioned along the lines of the Executive Order addressing California's energy needs. That order gave DOE lead responsibility in ensuring priority focus on siting and permitting action by the various Federal agencies involved, and facilitating those actions with the appropriate state authorities. We also encourage the Congress to put in place an expedited and simple permitting and siting processes for the vast areas of Federal Lands in the West, which need to be crossed by transmission lines.

In addition to permitting and siting reform, uniform and enforceable rules governing the operation of the transmission system are needed. Our current and arguably antiquated power grid was designed for localized demand and reliability. Electricity today must be wheeled between states and regions. Given the interconnected nature of the nation's transmission system, it is critical to optimize system reliability and consumer benefit by ensuring that the state and Federal governments enter into an effective regulatory partnership. However at present, it is still uncertain who will own or operate the lines, what rate of investment return will be allowed, and what will be the transmission charge. The absence of uniform and enforceable rules has delayed investment in improvements to the grid. The grid must be operated as an integrated entity, not a balkanized confederation.

Mr. Chairman, this concludes my comments. I would be happy to respond to your questions.

[The response to questions submitted for the record by Mr. O'Connor follows:]

ARCH COAL, INC.

TERRY O'CONNOR
Vice President - External Affairs

March 23, 2001

United States House of Representatives
Committee on Resources
Attention: Michael Twincheck, Clerk
1337 Longworth House Office Building
Washington, DC 20515

Dear Mr. Twincheck:

I am in receipt of the March 14, 2001 letter to Jack Gerard, President of National Mining Association, from Congresswoman Cubin requesting written responses to two questions which Mrs. Cubin would like to have answered relative to the testimony I presented concerning "The Role of Public Lands in the Development of A Self-Reliant Energy Policy" before the Resources Committee on March 7, 2001.

Question 1: "You have heard Governor Geringer's testimony and much of your written statement focuses on problems with the Forest Service's management of the Thunder Basin Natural Grasslands in my state. What do you think of the Governor's approach to State and Federal partnership? Will his ideas work to undo a permitting morass for your coal company or other NMA members?"

Answer: The National Mining Association and Arch Coal, Inc. fully endorse the statements made by Governor Geringer on March 7, 2001 relating to partnerships between Federal and State governments. We agree with the Governor that, in order to increase supply and build an infrastructure to transport that supply, partnerships are vital and beneficial. Interaction with Federal managers is certainly paramount, particularly given the dominant ownership role which the United States has in the Western United States. However, the Federal government cannot effectively operate unilaterally and in the absence of collaborative discussion and decision-making. Interaction both with State and local governments and with various constituencies and affected local groups must take place in order to reach the best possible solution to problems. With the interrelationship of Federal, State and fee lands in the West, all levels of government as well as private constituencies must be empowered to seek out common sense solutions based upon sound science and economic realities.

Unfortunately in the past, and all too often, decisions were made affecting western federal lands without adequate input from State or local entities and without adequate consideration being given to local problems.

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Our industry fundamentally believes that state and local constituencies and governments, which are closest to the ground, are best able to make sound and rational decisions. National, inflexible, "one-size fits all" decisions which come from Washington are more often than not well intentioned, but poorly constructed. No one level of government or constituency has a monopoly on wisdom. Thus, we do agree with Governor Geringer that for the best and most appropriate management of lands, including surface management of Forest Lands in the Western United States, shared responsibilities, concurrent jurisdictions, and mutual empowerment is fundamentally important.

Question 2: "You mentioned problems with the Forest Service's Roadless Rule and transportation policy as well. I am aware of the problem Arch has had with the West Elk Mine in Colorado in this regard. Was there any attempt by the past Administration to interact with your company or NMA about such concerns before the roadless rule was promulgated? If so, how much and did the rule and policy change at all from draft to final recognize this?"

Answer: Development of the U.S. Forest Service's Roadless Rule was one of the most frustrating, difficult issues that Arch Coal has faced in terms of developing an adequate fact base to evaluate a proposed major public policy initiative. From the time the Roadless Rule and its associated EIS were first released in proposed form, Arch Coal on a number of occasions requested (both formally and informally) maps from the Forest Service in order to help us evaluate what, if any, of our properties in the Western United States might be impacted. Without exception, we were advised by the Forest Service at all levels of government that maps were not available and nor were specific property descriptions which could help identify what properties might be impacted. In many instances, local USFS managers attempted to work with Arch Coal and the National Mining Association in an effort to develop a fact base upon which to evaluate the proposed rule, but even these field people in the Forest Service apparently were not privy to the specifics of the rule.

As a consequence, Arch Coal, out of frustration and in desperation, developed its own maps based upon general assumptions and general references contained in the EIS and took these maps back to the Forest Service in an effort to solicit a response as to whether or not our maps represented a correct or incorrect evaluation of the potential impact of the Roadless Rule. It was not until after the rulemaking was completed that we were able to obtain any affirmative response from the Forest Service bureaucracy in Washington that the maps were indeed generally correct. Unfortunately, by that time, the comment period was over.

On another area of frustration, despite the fact that we were advised that the Forest Service had worked personally and closely with various elements of the environmental community in the development of the proposed Forest Rule, Arch Coal and the National Mining Association were never able to have even a single meeting with any senior official within the Forest Service in Washington, D.C. to discuss our

concerns. Repeated requests were made but, in all cases, were either denied or were relegated to lower level officials in the organizational hierarchy.

Once again, Arch Coal and the National Mining Association specifically thank Committee Chairman Hansen, Subcommittee Chairwoman Cubin, and the staff of the Resources Committee for holding the March 7, 2001 hearing concerning the role of public lands in the development of a self-reliant energy policy. It is an inescapable fact that the West has emerged as the principle geographic energy source for the entire United States. A majority of all oil, gas, coal, nuclear, hydroelectric and non-hydro renewables are and will be the majority energy feedstock to the people of the United States. Because public lands represent a majority of all lands in the Western United States, the role of public lands is fundamentally important to our Nation's economic well being.

If you have further questions, I will be happy to provide responses.

Sincerely yours,

Terry O'Connor

TO:cav
cc: Jack Gerard
Congresswoman Barbara Cubin
Governor Jim Geringer
Bill Condit

Mrs. CUBIN. I thank the panel for their testimony. I have a few questions.

Mr. Bowles, in your oral testimony you said that understaffing of BLM was the problem for permitting coal bed methane drilling, and I think you were talking about in the Powder River Basin area. The Congress got special appropriations for funds on permitting coal bed methane production, for wells and for drilling.

It is my understanding, and it could be wrong—we tried to verify this and didn't follow through on it—that a lot of that money that we got to hire personnel to do permits was spent on 12 pickup trucks. Another problem that has occurred, at least in that area, as you know, was the cumulative effects of all of the wells having been built.

So I guess what I want to know is are you saying—I know Mr. O'Connor said that Congress needs oversight of this, and I absolutely agree that we do. Are you saying that the Congress needs to appropriate more money to hire more people to permit this, or are you saying that the administration needs to get involved and make sure that the money is spent the way it is intended to be?

After all, the Interior Department really is one of the only, if not the only agency of Government that produces revenue for the Government, and you have to have the permitting done in order to do that.

Mr. BOWLES. For one, BLM does not have a very responsive way of permitting. Whether or not the money has been made available or they have aggressively tackled the problem head-on, we have not seen permits issued in a timely manner.

I might say that in one State that is outside of Wyoming, in Utah, where we do business, we see a State application going through in 30 to 45 days to drill a new well. That same State in BLM applications is taking upwards of 240 days to drill a well. So there is not only a possible manpower issue that is out there, there is also what might be considered a mandate to the BLM as far as their role in handling oil and gas activities for multiple use.

Mrs. CUBIN. So then your answer would be both?

Mr. BOWLES. Yes, ma'am.

Mrs. CUBIN. Mr. O'Connor, you heard Governor Geringer's testimony, and a lot of your written statement and your oral statement focuses on the problem with the Forest Service's roadless policy and the management of the Thunder Basin National Grasslands.

What do you think of the governor's approach to State and Federal partnerships in that regard? Do you think his ideas will work to undo a lot of the permitting complications that we have now?

Mr. O'CONNOR. Madam Chairwoman, I philosophically and strongly believe that the people closest to the issues are the people who should be empowered and sought out in a collaborative manner to work closely with the State as well as the Federal Government in seeking solutions to these problems.

I think it is inappropriate for the Federal Government to take a one-size-fits-all approach to problems that are regional or local in scope, and I think it is appropriate and necessary and just flat the right thing to do to empower States and to empower communities and the citizens of those communities to be able to work with all

levels of State and Federal Government in order to seek out these solutions.

Mrs. CUBIN. You also referred to the problem that you are having with the Forest Service roadless rule at the West Elk mine in Colorado. I wondered, was there any attempt by your company to work with the previous administration, interact with them, or the National Mining Association about the concerns before the rule was promulgated?

Mr. O'CONNOR. One of the major difficulties we had was when the roadless environmental impact statement and the rules came out last fall, they were so vague and so difficult to comprehend that we had a hard time really identifying with any specificity what areas in the Western United States would be impacted and which areas would not be.

On a number of occasions, we formally as well as informally requested maps of areas in order to make a determination of potential areas of impact, and we were told by the Forest Service that no maps existed. It was not really until the very end of the process, really when the comment periods were over and the initiative was about to be implemented, that we were able to go back and on our own initiative put together maps based upon indirect data that we had gotten through the EIS that would be able to identify specifically what lands would be covered.

We have asked the Forest Service to advise us if they believe that these maps that we have done have been incorrect, and so far all indications are that in almost all cases what we have done appears to be correct. But we had to put it together ourselves. There were no maps by the Forest Service done, and we think that this really did a disservice to the potentially impacted citizens around the area who were not able to really identify during the comment period what might or might not be happening in their areas.

Mrs. CUBIN. So it sounds to me like the rules and regulations—that input didn't really happen or they just rushed it through without considering fully input from the public and from you and from other folks as well.

Mr. O'CONNOR. I agree.

Mrs. CUBIN. My time is up, but I do have one other question that I wanted to ask Mr. Bowles.

What is the Cooperating Associations Forum? I wonder, is it possible to make a copy of their study available to the Committee?

Mr. BOWLES. We would be pleased to do that.

Mrs. CUBIN. Would you tell me what it is?

Mr. BOWLES. Well, that was a group that—I think you see that in written testimony that listed 7 States that actually did a study to look at what has happened in land access over the course of years. That is one of the unfortunate things that we have in many of our Western State resources, is really getting our hands around what kind of available resource is there. This group did take a stab at that and I would be pleased to make it available to the Committee.

Mrs. CUBIN. Thank you. I would like that for the record.

Mrs. CUBIN. I have quite a few other questions that I wanted to ask the panel, but time is wearing on and I do need to go to an-

other meeting. So I will submit the questions in writing, if you would be so kind as to answer them.

Mrs. CUBIN. At this time, I recognize Mrs. Napolitano for questions.

Mrs. NAPOLITANO. Thank you, Madam Chair.

This question is for Mr. Stanley, and one of the things you referred to in your hand-out, in the map, was the Rocky Mountain area, that it is closed to industry. I wonder if you can provide a more detailed explanation of what you mean by the restricted areas.

The Department of the Interior has given us information that shows 95 percent of the those lands have been open, and you indicated on this map only 40 percent, because it is restricted. Could you explain or even give us in writing what your industry is referring to so that we can better understand specifically what you are referring to, and also to see how we can understand your claim from the industry that this is happening?

Mr. STANLEY. Yes. The 40 percent is the total restriction from many different sources of restrictions. There are roadless policies, there are the restrictions during the year, there are—

Mrs. NAPOLITANO. Of what kind, sir?

Mr. STANLEY. We are not really talking about national parks and wilderness areas. We are talking about other general restrictions within this. I will be happy to submit in writing the documentation for this. I don't have that with me.

Mrs. NAPOLITANO. Would you, please, sir? I would really like to have it entered into the record so that we have that clarification.

Mr. STANLEY. Yes, ma'am.

Mr. CALVERT. [Presiding.] The Chair will keep the record open for any additional information to satisfy the gentlelady from Southern California.

Mrs. NAPOLITANO. Thank you.

[The information referred to follows:]

Mr. CALVERT. Any additional questions?

Mrs. NAPOLITANO. No, thank you.

Mr. CALVERT. I just have one quick question for Mr. Bowles, representing API. I understand you are also with Phillips Petroleum.

Mr. BOWLES. Yes, sir.

Mr. CALVERT. For the interest of the Committee, at what capacity are the West Coast refineries operating right at present? I know that is not your—

Mr. BOWLES. It really is not my area.

Mr. CALVERT. Do you have any information that leads you to believe that are operating pretty close to 100-percent capacity? That is what I understand.

Mr. BOWLES. Generally, in the U.S., refinery capacity is running at or close to maximum capacity.

Mr. CALVERT. At maximum capacity?

Mr. BOWLES. Yes, sir.

Mr. CALVERT. This is really outside the jurisdiction of this Committee, but it does have an interrelationship to supply because as we increase the supply of domestic production in the United States, obviously we want to move that domestic production to refiners. If we increased our domestic production by a particular amount, say

10 percent—and oil is a fungible commodity—what we don't produce domestically we will import, and vice versa.

Do you foresee additional refining capability coming online in the foreseeable future to take care of that increased supply?

Mr. BOWLES. Well, I would say in the near term more likely what you would see is the displacement of the import of foreign crude into the West Coast markets.

Mr. CALVERT. Now, are more and more of the imports coming into the United States refined elsewhere prior to entry into the United States?

Mr. BOWLES. I don't have any good statistics on that, Congressman.

Mr. CALVERT. I bring that up because obviously the energy issue is beyond just the supply issue. I know in our State of California a significant amount of the refining capability went away when we put in a clean air standard to lower sulfur content in oil, which is a good thing. And now we are doing it nationally. In my previous Committee Chairmanship we wanted to make sure we maintained refining capability in order to make sure we don't have an increase in gasoline prices nationally as we have seen in California. So that is the reason I brought that subject up for the Committee's edification.

Mrs. Napolitano?

Mrs. NAPOLITANO. Mr. Chairman, thank you for recognizing me. There was one question that I neglected to ask.

Mr. CALVERT. The gentlelady is recognized.

Mrs. NAPOLITANO. Thank you.

I believe it was Mr. O'Connor who made the statement that somehow California would be hurt in its ability to recover. I wonder if you would elaborate on that statement. I think you mentioned something to the effect that if production is curtailed, it would hurt California's recovery.

Mr. O'CONNOR. I am sorry that I am unfamiliar with what your reference is. Could you restate it?

Mrs. NAPOLITANO. There was a statement earlier, I believe, when I walked in that you were speaking to it. I unfortunately didn't continue to make notes on it because I was trying to catch up.

Mr. O'CONNOR. Perhaps it was reference to a large underground coal mine that we have in Colorado that could be adversely impacted by the Roadless Initiative. It is called the West Elk mine. It is the second largest coal mine in Colorado. It is a very high-Btu, very, very low-sulfur coal that is supplying energy into the Midwest.

The Roadless Initiative stands the prospects of preventing us from moving our existing operations into an adjacent 200-million-ton reserve that is adjacent to our existing reserves. And if we are not able to do so, the 360-some employees, the $100 million investment, and the annual payroll of $26 million, as well as the major impacts that would occur in west central Colorado, would be drastically impacted as a result of our premature closure of this mine because of our inability to move into an adjacent reserve.

Mrs. NAPOLITANO. How would that affect or impact California?

Mr. O'CONNOR. Now, I understand the question.

Mrs. NAPOLITANO. That is what your statement included.

Mr. O'CONNOR. I am sorry for the redundancy.

With all of the controversy and publicity that has occurred in California in the last 6 months involving high energy and high electricity prices, ironically there is a small island within the southern part of the State that is enjoying inexpensive electricity and very reliable electricity, and it is 6 million people in the Los Angeles area.

The reason they are is because the Los Angeles Division of Water Power many years ago went to Utah and built a large coal generation plant and they are bringing in their electricity from Utah to California. That electricity is very inexpensive. It is reliably priced and reliable long term. Mayor Riordan has called for the construction of an additional power plant in Utah in order to meet Los Angeles' long-term needs.

The point of my testimony was that because of this Roadless Initiative, as much as 40 percent of the unleased Federal coal in this area will not be able to be developed, and that puts into harm's way the city of Los Angeles' ability, and in a broader sense California's ability to be able to pluck out this very low-hanging energy fruit and take advantage of it because of its growing electrical needs.

Mrs. NAPOLITANO. Okay, I get your point. The thing that puzzles me, though, is that the city of Los Angeles is fueled by the California Department of Water and Power, which so far has not been impacted because they stayed out of the deregulation. They have apparently been able to supply enough to its over 11 million customers so that they are staying afloat very well.

I just did not correlate what you were talking about because Los Angeles is being taken care of. It is the northern part of California, and to some lesser degree the rollouts are starting to affect mid-California and Southern California. So it just does not correlate. I think it is kind of stretching it a little bit to say that our ability to be able to produce in that area is going to have a tremendous impact or will be a significant change for us in California.

Mr. O'CONNOR. Certainly, the impacts are not going to be immediate. But in the longer-term scheme of things, not just for the city of Los Angeles but for California itself, these Utah coal reserves stand available to be a major low-cost, reliable and affordable energy supplier, and this Roadless Initiative is a major impediment to that potential.

Mrs. NAPOLITANO. Well, hopefully, California will be found in a situation where it will not have to rely on outside help. The fact that the governor has promoted 6 new generation plants and has—actually, 3 being built, 3 on the books, and 6 more or 7 more, should be able to take care of the futuristic needs of California without having to rely on outside interests of any kind, and I am looking forward to that.

Mr. O'CONNOR. I honestly hope you are right.

Mrs. NAPOLITANO. Well, add to that the use of other kinds of power producers that are beginning to become more viable. At one time they were dormant and now they are becoming more interested in providing energy for those of us in California. So while I understand and I thank the State for its interest and for being

there when we need them, I don't think that our reliance is going to be something they can count on.

Mr. CALVERT. I am going to wrap it up.

I am just curious. The coal that was mentioned in Utah is the cleanest coal that is available in the continental United States, as I understand it, or amongst the cleanest coal in the United States?

Mr. O'CONNOR. It is among the cleanest coals.

Mr. CALVERT. Right. How many megawatts is that power plant that you mentioned producing in Utah?

Mr. O'CONNOR. I don't recall exactly, but I think it is about 3,500 megawatts.

Mr. CALVERT. 3,500 megawatts.

Mr. O'CONNOR. There are three units there and Mayor Riordan has called for a fourth unit.

Mr. CALVERT. And the expansion is for an additional 1,000-megawatt plant?

Mr. O'CONNOR. Yes.

Mr. CALVERT. So bringing that up to 5,000, which is about 10 percent of the total load in the State of California. Is that a correct statement?

Mr. O'CONNOR. Yes.

Mr. CALVERT. Thank you, and this panel is excused. Thank you for coming out and attending today.

We are going to bring up our last panel as the gentlemen are leaving. I would like to recognize the people we have on our panel: Mr. Leland Hogan, a rancher from Utah; Mr. Chris Hocker, President of the National Hydropower Association; Mr. Robert Judd, Director of the USA Biomass Power Producers Alliance; and Ms. Leslie James, Executive Director of the Colorado River Energy Distributors Association.

With that, I would recognize Mr. Hogan for 5 minutes. Please limit your testimony to 5 minutes so we will have some time for questions.

Thank you.

STATEMENT OF LELAND J. HOGAN, STOCKTON, UTAH

Mr. HOGAN. Thank you very much. It is a pleasure to be here, Mr. Chairman and Committee members. I am a rancher and a farmer from Stockton, Utah, which is about 50 miles west of Salt Lake City.

My other credentials are in my written statement. I won't take the time to go through that and I will try and talk about things that are pertinent to our specific operation rather than to reiterate those things that are in the written comments.

My brother and I run a diversified farm operation, as I said, about 50 miles west of Salt Lake City. We have to pump our water in order to gain the water that we need in order to irrigate our crops. We are about fourth generation in this country. We came from the Scandinavian countries to this country, and we have been in agriculture back as long as our history records.

We are in agriculture for the long term, and our contracts that we sign or the indebtedness that we take on indicates that we are there for the long term. In order to accomplish that, we need power

that is affordable and also available in order to continue farming as we have in the past.

The data that has been collected by a magazine that is circulated through the industry called Irrigation magazine that gathers data from land grant colleges across the country indicates that a continued rise in irrigated crop land is happening across the country. In order for us to continue to be as productive as we have in the past and increase our production, irrigation seems to be the way that it is headed. With irrigation comes more consumption of power.

Where we live, it seems as though coal-fired power plants have produced power the most economically; it produces the most economic power that is available. If there is a better economic way to do it—and some of those things have been discussed today—I hope that those things are explored and that we insert them into our national energy policy.

I have seen and participated in this cycle as it has gone on over the past 30 years—an abundance of power, a shortage of power, a decrease in prices, an increase in prices. That really hurts us as individuals being on the farm. Our net income is affected directly. We are a taker of prices and not a setter of prices. Because our markets are national and international, we take prices that are set a long way away from where we produce. We have to fit within those categories or we go out of business. As prices escalate and we see these things happening, it is very disturbing to us.

With the stroke of a pen, the Grand Staircase-Escalante National Monument was created, engulfing approximately 2 million acres of land. Under that land lies a great coal reserve; no one knows exactly, but perhaps enough coal to last the area that it is producing for for maybe hundreds of years.

As I said before, an affordable and available, consistent, readily usable amount of electricity is so important. Our production cycle is very short. We produce what we produce in approximately 6 months of the year. If we miss any portion of that time, our production decreases. Our ability to stay financially viable also decreases. So we are locked into a situation where we can't change things too much. We have to use the power.

It was alluded to this morning in some of the discussion that large users of power in the agricultural industry will not produce this next year. Well, that break-off is about at 4 megawatts. I don't think there is a producer in the State of Utah that uses 4 megawatts. There are those in Idaho, and there probably will be some who won't produce this year, but they will take a payment instead of production. That will cause a ripple effect throughout the whole agricultural industry because the feed or the commodities that would have been produced by those people will be minus from the equation this next year. Therefore, we are going to see ripple effects through the whole agricultural economy because of this isolated situation that is taking place this year. It will be very interesting to watch.

As a farmer, as a former elected official, a parent and as a grandfather, I plead with the members of the Committee to move toward a national energy policy that puts us in a position that we do not find ourselves today, a position where we have what we need in

order to continue the standard of life that we have set for ourselves.

I thank you very much for the opportunity to be here today.

[The prepared statement of Mr. Hogan follows:]

Statement of Leland J. Hogan, Stockton, Utah

My name is Leland J. Hogan. I am a fourth generation farmer. My brother and I operate a diversified ranch and farming operation, which includes 600 acres of alfalfa hay and grain crops in Stockton, Tooele County, Utah. In my area, as is true with much of the farmland in the West, crops must be artificially irrigated by pumping underground water or pressurizing surface water for sprinkler systems. I have served as a member and chairman of the Utah Committee of Consumer Services, an agency of Utah state government responsible for analyzing economic impacts of utility pricing on consumers. I have also served as chairman of the Tooele County Commission, a member of the Utah Quality Growth Commission, vice president of the Utah Farm Bureau Federation, and chairman of that organization's irrigation pumpers' committee. I am particularly pleased to appear before this Committee, because Chairman Hansen is my congressman.

Energy costs comprise a major, and rapidly growing segment of the cost of producing food and fiber for America's consumers. From the fuel for our farm implements, to the irrigation pumping costs, to the processing and transportation of this food and fiber, the impact of these skyrocketing energy costs is placing farmers in a serious economic squeeze.

The agriculture industry's ability to directly pass on these increases in energy costs is limited or non-existent. Due to the highly competitive national and international market for agricultural products, the price for our products is set by market forces and not by producers. As "price takers," producers and processors must absorb increased costs resulting in the higher threat of widespread business failure. Moreover, in the long-run, increased energy costs to agriculture producers will ultimately be passed on to American consumers through higher retail pricing of goods.

There are roughly 3,500 agriculture producers in Utah who rely on electricity to irrigate crops. Approximately 1,300 of these irrigators are customers of Utah Power, Utah's only investor-owned electric utility company. Last June, these regulated customers used 54 megawatts of power on the company's peak load, which, to put in perspective, is enough power to provide electricity for 30,000 homes for one month. The collective annual cost for electricity to these 1,300 irrigators was $7.2 million. However, these irrigators, along with all customer classes of the company, will be facing a 9.5 percent increase in their utility rates due to a recent interim rate adjustment ordered by our Public Service Commission. A rate case recently filed by Utah Power to adjust rates even higher is also pending.

To top it off natural gas pricing to Utah retail customers is up 50 percent from a year ago. While natural gas generally does not play as big a role in the cost of production for agriculture in Utah as electricity, it still takes a significant toll on residential cost of living.

So what can be done about these rapidly rising costs? While conservation and more prudent use of the energy we have is always a good idea, the current situation cries out loudly for the Bush Administration, working with congress, to develop a sensible energy policy. May I assure the Committee that this comment is not a call for nationalization of our energy production in any form. Rather it is a call for a new commitment to development of existing known reserves of crude oil, natural gas and other fuels in the carbon-based family. It is also a plea for the United States government to devote far more funding and other incentives to foster development of alternative energy sources, including plant-based sources.

As a Utahn I cannot fail to again point out that in our state there is a vast supply of high grade, low sulphur coal. And perhaps hundreds of years' supply of it was locked up with the sweep of a presidential pen when the 1.7 million acre Grand Staircase-Escalante National Monument was declared in Southern Utah four years ago. Indeed, there are within that monument some important and apparently rare plant species and some rare, even spectacular scenery. As a farmer I am vitally interested in identification and preservation of endangered plants species. Future commercial agriculture plant genetics may depend on it. But there are vast acreages of that monument underlain by this high quality coal that could be harvested with very little surface disturbance. Isn't it time that we start to make the connection between the light switch on the walls of our houses and the coal mines of America?

In Utah most of the natural gas wells are on land managed by the Bureau of Land Management. The permitting process to gain access to these lands for energy

development is daunting. Although I will defer to those who are experts in this area, surely this process can be streamlined and our government can encourage energy production rather than impede it. These are public lands. The resources they hold should benefit the public—all the public! We have learned much about more environment-friendly energy exploration and restoration of disturbed areas. I urge this Committee to move our government back towards multiple use of these lands.

Some of my farm and ranch colleagues have visited Alaska's Prudhoe Bay oil fields. Then, after flying directly over the Arctic National Wildlife Refuge while in that area, they came back convinced that with modern technology and the existing commitment to environmental protection while harvesting energy, there is no real reason to deny ourselves the vast quantities of recoverable high quality crude oil available within that refuge.

As a citizen, farmer, former elected public official, a parent and a grandfather, I plead with the members of this Committee to move this nation away from an ever-growing dependence upon foreign sources of energy supplies. I believe we can do it, and I believe we must do it. If the recent escalations in energy costs, including the manipulated oil prices by the cartels don't make us understand this, I am at a loss as to what will.

[Mr. Hogan's response to questions submitted for the record follows:]

Utah Farm Bureau Federation

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March 21, 2001

The Honorable James V. Hansen, Chairman
House Resources Committee
1328 Longworth House Office Building
Washington, D. C. 20009
VIA Facsimile – 202-225-3554

ATTN: Nancy Laheeb, Committee Clerk

RE: Follow-up Questions By Committee Members

Dear Chairman Hansen:

I hereby acknowledge your letter dated March 16, 2001, requesting that I respond to follow-up questions from committee members, related to my testimony before your committee on Wednesday, March 7, 2001.

First, I want to thank you again for the opportunity to appear before your committee to present testimony on energy sources from the nation's public lands. On behalf of Utah's farm and ranch community, I express appreciation for your committee's interest in developing more domestic energy sources, particularly from public lands. The growing energy shortages have the potential of severely impairing America's dominance in agriculture production for both U.S. consumers and for export.

Question # 1 – *Please comment on the direct and indirect effects of new National Monument designations (including Grand Staircase-Escalante) on the agriculture community.*

Comment – It is a well-known fact that the major remaining domestic sources of fossil fuels are located on publicly owned land. The consequences are upon us from past actions that deny exploration for and development of these fuel sources through monument designation of ever-increasing segments of public lands. Fossil fuel sources such as crude oil, natural gas, etc. are the foundation building blocks of virtually every nitrogen-based fertilizer. Here are some examples of these higher costs:

1. Nitrogen-based fertilizer costs have skyrocketed to at least a 70 percent increase over last year, with some costs reported to be a 100 percent increase over last year;
2. Natural gas energy costs for all Utah customers have increased at least 50 percent over last year;
3. Diesel fuel and gasoline on-farm costs have increased about 10 percent, with more increases obviously coming.

The Grand Staircase-Escalante National Monument is a known source of high quality, low sulfur coal, with a potential for relatively low-impact development. This coal could provide energy for great increases in electrical energy, according to a report by the Utah Division of Oil, Gas and Mining.

Moreover, livestock permittees who have long-held grazing permits on the Grand Staircase-Escalante Monument are experiencing more and more restrictions on grazing. A study by Utah State University Department of Economics some years ago indicated that a reduction of every animal unit month of grazing on public lands results in a loss to the local and state economy of about $14 annually. An earlier Colorado study found the economic loss to be much higher, in the range of $40 per AUM.

Question # 2 – *How much of your overhead is attributable to energy costs?*

Answer – For my personal operation it would be about 28 percent. However, I use less fertilizer than many others. When the energy element of fertilizer is included, the overhead cost of energy for most farmers would now be closer to 33 percent, given the recent price increases.

Question # 3 – *How will energy rate increases affect your production capacity and your bottom line?*

Answer – My partner and I have already decided to not farm about 20 percent of our land this year due to the energy cost increases. Thus, we will suffer a loss of about 20 percent of our gross income. After deducting input costs on those acres not farmed, I estimate my bottom line income will be reduced at least 15 percent, recognizing that some maintenance is necessary even on the non-farmed ground.

In a broader sense, the production of that 20 percent of land not farmed will no longer be available for the market-place, thus increasing prices to my customers, with a domino effect on operating costs for my customers. Ultimately, and collectively, these kinds of forced volume reductions will impact consumers with higher prices and will add to the deficit in America's foreign trade deficit. **A significant amount of Utah-produced, high quality alfalfa hay has traditionally been exported.**

Question # 4 – *In light of our current energy crisis and rising costs, will Western agriculture's ability to compete in national and international markets be affected?*

Answer – Definitely. And adversely. As cited above, Utah's high mountain valley climate produces the nation's highest quality alfalfa hay (proven in national tests, with a Delta, UT producer having won the top quality award two years in a row). Much of this hay is exported to Japan at premium prices.

Much of our Utah hay is also exported to California. A key competitor is Canada. Higher energy costs make us less competitive.

The same is true for our fruit producers. Due to competition from China, many Utah apple growers are currently removing apple trees to plant another tree crop. This process is very energy-intensive, requiring heavy equipment, etc. and a delayed income from that re-planted acreage. While Utah has a particularly favorable climate for tart cherries, for example, these higher energy costs will likely discourage many fruit growers from expanding.

Similarly, the Western U.S. is where the nation's highest quality wheat is produced. Again, our biggest competitors are Canada, Australia, and Brazil. Our failure to develop domestic energy sources makes us vulnerable to lost markets due to our inability to compete with these countries.

Question # 5 (Rep. Ken Calvert) - *You mentioned irrigation electricity load buy-backs in Idaho and their effects on the agriculture economy. Could you be more specific in what these potential impacts might be, which sectors would be impacted the most, and the potential effect on consumer food prices?*

Answer – As of now there is no confirmed data on just what the power company will offer on load buy-backs. In Idaho, I believe the potato industry will be the primary target of such buy-backs. It is an energy-intensive crop, planted annually. However, that crop requires a crop rotation program. Thus, any lay-by of potato acres could impact other rotation crops.

In Utah, the hay industry will be the primary target for buy-backs. The ripple effect of a buy-back program will have significant impact on hay pricing, and in turn, increase costs of production for dairies and other livestock enterprises which purchase hay for their animals.

A significant point: Unlike potato or grain growers, an alfalfa hay grower cannot just not harvest without jeopardizing the future viability of this crop. It must be harvested when ready.

There are many factors involved in consumer food prices, but a significant reduction of Idaho potato production will eventually be felt nationwide in both market potatoes and in the numerous other food products that use potatoes in their formulation. Additionally, the processing, marketing and distribution industries for these products will be adversely impacted.

I sincerely hope this information is helpful to your committee in consideration of legislation that will increase energy production on the nation's public lands. We need action from the Congress now. Thank you again for the opportunity to present this information.

Sincerely,

Leland Hogan

Leland Hogan, Member
Utah Farm Bureau Irrigation Pumpers Committee

Mr. CALVERT. I thank the gentleman for his testimony.

Next, Mr. Chris Hocker, President of the National Hydropower Association.

STATEMENT OF CHRIS HOCKER, PRESIDENT, NATIONAL HYDROPOWER ASSOCIATION

Mr. HOCKER. Thank you, Mr. Chairman. My name is Chris Hocker. I am President of the National Hydropower Association, and I appreciate this opportunity to talk about hydropower, which is the number one renewable resource in the U.S.

Hydropower is the leading renewable. It represents about 10 percent of the nation's electricity overall and about 80 percent of its renewable energy overall. 98,000 megawatts of clean hydropower is produced, which is enough for about 98 million homes. But as was alluded to earlier today, hydro's contributions are beyond energy. They include irrigation, water supply, and recreation. They also contribute to clean air and a safe, reliable transmission system.

Despite all that, I would like to call your attention to two troubling facts. First, hydropower is on the decline. Second, there is quite a large amount of untapped hydropower that is being ignored. At a time when hydro should be most valuable, it is waning, and this is due to a regulatory scheme and actions by resource agencies who hold the upper hand in the licensing process. These are the same problems, frankly, that play a large part in why the development of new hydro capacity is being neglected. These problems can be fixed, but the time to do so is running short.

Hydropower is losing capacity due to FERC's hydro licensing process. We strongly believe the process is broken and badly in need of repair. In fact, the Energy Information Administration (EIA) said for the first time last year that hydro capacity will decline due to regulatory constraints. This demands urgent attention, as half of the licensed capacity in the U.S. must be relicensed in the next 15 years, and over half of that is located in the West, where the energy crisis is paramount.

The licensing process is exceedingly complex, needlessly fragmented, excessively costly, and frustratingly inefficient. It fails to fully weigh the benefits of hydropower and often results in extended litigation, which costs both the project and the environment.

What can be done to fix this? Enact legislation this Congress which requires a more balanced review by resource agencies such as the Departments of Interior, Commerce, and Agriculture in their mandatory conditioning authority. We support legislation action because we honestly believe that our largest concern, which is balancing energy and non-energy values, can be achieved only through legislation. Administrative reform efforts that have already taken place have been helpful. We encourage them to continue, but we don't believe that administrative reform alone is enough. The problem must be addressed legislatively.

We must develop a process that permits agencies to consider non-resource issues in their review and conditioning authority. They should also be required to consider the economic effects of resource protection and bring balance and certainty to the process. Otherwise, we will continue to lose hydropower.

We must also act to encourage undeveloped hydropower. We have an impressive amount of potential. A Department of Energy (DOE) study shows that there are 21,000 megawatts of potential at existing dams. There are over 4,000 megawatts available at existing hydro facilities, and again much of this potential capacity that is being undeveloped is in the West.

Again, this is undeveloped because of the complex regulatory scheme, and also because there are no incentives for producers to bring new generation online. Therefore, we strongly support production incentives that would encourage new hydro capacity at existing sites; that is, without the need to build new dams.

As I conclude, I want to leave you with a few final thoughts. First of all, the hydro industry takes very seriously its role as stewards of the rivers that we are privileged to use. We strongly believe that healthy rivers and hydropower can coexist. Resource agencies need to develop a better understanding that we can do both. We can achieve both environmental and energy goals, and we should all be in the direction of pursuing policies that recognize this.

Second, as we look for solutions to our energy problems, it is without question in our greatest interest to expand the use of our domestic renewable resources such as hydro. It is important for fuel diversity, energy security, reliability, and clean air.

Finally, I want to emphasize that the time is running short, with 20,000-plus megawatts being relicensed in the next 15 years. As we look to self-sustaining energy strategies, now is the time for policymakers to better incorporate hydro into the nation's energy mix. We can no longer afford to encourage energy policies that ignore this extremely valuable resource. We should no longer contribute to its decline.

Thank you, and I look forward to your questions.

[The prepared statement of Mr. Hocker follows:]

Testimony of Chris Hocker, President, National Hydropower Association

Good morning Mr. Chairman, members of the Committee. My name is Chris Hocker. I am the President of the National Hydropower Association (NHA). I appreciate the opportunity to appear today to talk about hydropower—the nation's most valuable domestic renewable resource—and its relationship with Federal resource agencies.

As you may know, hydropower is the nation's leading renewable. It represents about 10 percent of the nation's electricity and about 80 percent of its renewable energy. Overall, 98,200 Megawatts (MW) of clean and efficient power is produced from hydro facilities—enough electricity for 98 million homes.

While these are impressive facts, hydro's contributions go well beyond energy. These benefits include irrigation, transportation, water supply, recreation, and invaluable contributions to cleaner air and a safe, reliable transmission system. De spite these benefits, today I bring to your attention two troubling facts I believe deserve policy consideration.

First, hydropower is on the decline. And second, there is a large amount of untapped hydropower that has been ignored for too long. I find it somewhat ironic that at a time when hydro should be most valuable, it is waning due to an arcane regulatory scheme and actions by resource agencies who hold the upper hand in the licensing process. These problems also play a large part in why development of potential new capacity is neglected. These problems can be fixed, however, but we need your help, and that of the Administration, to resolve them. And quite frankly, time is running short.

Hydropower is losing capacity and operational flexibility due to the Federal Energy Regulatory Commission's (FERC) hydropower licensing process. We strongly believe the process is broken and badly in need of repair. In fact, the Energy Infor-

mation Administration (EIA) said for the first time last year that hydro capacity will decline due to "regulatory constraints."

This problem demands urgent attention as half of licensed capacity—28,784 MWs—must to be relicensed by 2016, and over 52 percent of it is located in Western states where energy supply and reliability issues have already reached a critical stage, and water resource issues are paramount.

The licensing process is exceedingly complex, needlessly fragmented, excessively costly and frustratingly inefficient. Further, it fails to fully weigh the benefits of hydropower and often results in extended and contentious litigation, costing both the project and the environment.

Attached to my written statement, you will find a document that shows case after case where the process has failed, strongly highlighting the need for reform. I encourage you to carefully review it.

What can be done to fix a process all stakeholders agree needs improving? Enact legislation this Congress which requires a more balanced review by resource agencies such as the Departments of Interior (DOI) and Commerce (DOC) in their mandatory conditioning authority under Section 18 of the Federal Power Act, as well as the Department of Agriculture (USDA), under Section 4(e). We support legislative action because we honestly believe our largest concern, balancing energy and non-energy values, can only be achieved through legislation.

This is not to say that administrative reform efforts over the last 18 months have been useless. They have been very helpful, in fact, and we encourage these efforts to continue. We hope Congress will provide support and encourage agencies to continue efforts devoted to administrative solutions in the areas that are most appropriate. We also commend the resource agencies for their efforts as progress has been made. The fundamental problems with licensing, however, must be addressed legislatively.

We must develop a process that permits agencies to consider non-resource issues in their review and conditioning authority. By requiring agencies to consider the economics effects of resource protection on other project values, we will bring balance and certainty to the process that is desperately needed. In addition, we ask that the process allow licensees to review and comment on mandatory conditions during the process, limit conditions to project-induced impacts, enforce process deadlines, and improve the collaboration amongst agencies and stakeholders. Otherwise, we will continue to lose clean, reliable hydropower.

While we must act to stop the bleeding of lost hydro capacity due to licensing, we can also act to encourage undeveloped, environmentally-sound hydropower. The U.S. has an impressive amount of new hydropower potential. A Department of Energy (DOE) study shows there are approximately 21,000 MWs of potential capacity at existing dams. Over 4,300 MWs are available at existing hydro facilities alone. More importantly, much of this potential—over 10,000 MWs—is located in the capacity-hungry west.

This hydro capacity sits unused largely because of the complex regulatory scheme I already mentioned. But, it is also undeveloped because there are no incentives for producers to bring new generation on-line, a process that is more expensive and complicated than ever.

Providing production tax credits for new hydropower capacity at existing sites will help resolve this problem. Production credits already exist for wind and biomass, why not hydro? Several proposals have been circulated this Congress to extend the credit to other renewables. NHA strongly supports the tax credit expansion to include hydro at existing facilities and non-hydro dams. Without it, development will not occur and we will fail to gain the benefits of additional hydro. Further, we will fail to replace capacity already lost.

Before I conclude my remarks, I want to leave you with a few final thoughts I hope you will remember as you examine policies regarding our natural resources and energy strategies.

One, the hydropower industry takes very seriously its role as stewards of the rivers we are privileged to use. We strongly believe that healthy rivers and hydropower can coexist. Resource agencies need to develop a better understanding that we can achieve both and they should be directed to pursue policies that recognize this.

Our attempts to reform the licensing process will not remove the conditioning authority of the agencies or undermine existing environmental laws designed to protect our resources. NHA believes in both resource protection and the pursuit of effective and meaningful energy strategies that include hydropower.

Two, as we look for solutions to our energy problems, it is without question in our greatest interest to expand the use of our domestic renewable resources such as hydropower. It is important for fuel diversity, energy security, reliability and clean air.

Finally, time is running short. As we look to self-sustaining energy strategies, now is clearly the time for policymakers to better incorporate hydropower into the nation's energy mix. It behooves us all to craft energy policies that embrace this extremely valuable resource, not further contribute to its decline.

Thank you. I look forward to your questions.

What's Wrong With the Hydropower Licensing Process?

Real-Life Examples

Roughly half of all Federally-regulated hydroelectric capacity—240 projects in 38 states, representing 28,784 megawatts of electricity generation—is due to be relicensed by FERC in the next fifteen years. An inefficient licensing process that is time-consuming, arbitrary, and costly places all of these projects, and the future of hydropower as a clean, renewable energy source, at risk. The following examples, taken from hydro projects around the nation, illustrate some of the many problems associated with the current hydropower licensing process.

ARBITRARY AND UNILATERAL EXERCISE OF MANDATORY CONDITIONING AUTHORITY

On February 23, 2000 FERC rescinded a license previously issued for the 4.1 MW Enloe Dam Project in, Okanogan County, Washington. Although FERC was in the process of engaging all parties in addressing fish passage issues at the dam, the National Marine Fisheries Service (NMFS) challenged that process as encroaching its unilateral conditioning authority under Section 18 of the Federal Power Act. NMFS insisted on imposing a fish passage requirement in the project license despite (i) opposition to such passage by the Washington Department of Fish and Wildlife, the Okanagan Indian Nation, and the Canadian government; and (ii) the desire of the Congressionally authorized Northwest Power Planning Council to assign financial responsibility for fish passage at Enloe Dam to regional entities.

NMFS had stated that its preferred position in the proceeding was license denial and dam removal. By insisting on fish passage as a condition of the license and at the licensee's expense, NMFS not only acted, in the words of FERC Commissioner Massey, "out of sync with regional planning," but ultimately prevailed in gaining denial of the license application. As FERC Commissioner Hébert explained in his concurring opinion:

> Unfortunately, the Commission's hope that this protracted dispute could result in a mutually-acceptable agreement has been undermined by the recalcitrance of a single agency. . . In today's order, the Commission states that it no longer has the discretion to continue to resist NMFS' overtures. . .
>
> One party, carrying mandatory conditioning authority, and focusing myopically on its own particular interest, can upset the collaborative process if so inclined. To a party opposing licensing, stalemate may mean victory for one party and defeat to the rest of America. . .
>
> I view this process, where some participants, bearing veto power, have more negotiating authority than others, if indeed inclined to negotiate at all, as absurd. As a result, I am encouraged by pending legislative efforts to rationalize this process, by requiring a greater level of cooperation among Federal and state resource agencies. Such reform would benefit consumers by forcing all parties to the table in an effort to resolve such disputes in a fashion that is best suited for the benefit of all Americans.

ARBITRARY NATURE OF PROCESS/INAPPROPRIATE APPLICATION OF AGENCY AUTHORITIES

PacifiCorp is currently seeking a new FERC license for its eight-dam, 185 MW North Umpqua project in Douglas County, Oregon. PacifiCorp initiated the process in 1992 and went far beyond the normal requirements for public involvement and science collection in the hope that the North Umpqua licensing process would become a model of how a utility could work collaboratively with all stakeholders.

After submitting its relicense application in 1995, PacifiCorp initiated the North Umpqua cooperative Watershed Analysis to identify and address specific resource concerns that emerged during the relicensing process. The watershed analysis was the first-of-its-kind for a hydro project and involved PacifiCorp, Federal and state resource agencies, academic institutions and interested members of the public. PacifiCorp and other interested parties then entered detailed settlement discussions in 1997.

After two years of discussions, yielding little consensus, the U.S. Forest Service (USFS) insisted—without providing an adequate scientific explanation—that Soda

Springs Dam (one of the eight dams on the project) be removed as a condition of settlement to meet objectives contained in the President's Forest Plan. This, despite the fact that removal of Soda Springs Dam would put the viability of the entire project at serious risk, from both an operational and economic standpoint, and despite there being other mitigation alternatives available. This also represents the first time that the Forest Service has indicated it intends to use its 4(e) conditioning authorities under the Federal Power Act to require a dam removal. This would create a broad, adverse precedent for other hydroelectric projects in the West located wholly or in part on Forest Service lands.

PacifiCorp had recently agreed to remove its Condit Dam in south central Washington because compelling reasons existed. By contrast, no compelling reason exists for removal of Soda Springs. Citing an unreasonable bargaining position by USFS, and concerns over the precedential nature of the removal requirement, PacifiCorp walked away from settlement negotiations in November, 1999.

PacifiCorp remained interested in achieving a settlement that balances the need to mitigate for project impacts with the need for cost-effective renewable resources. The company and other stakeholders have been able to restart settlement negotiations and those discussions continue. But the North Umpqua experience points to significant flaws in the current law. If the Federal Power Act required conditioning agencies to take a balanced approach in setting their demands and included some accountability over them, the settlement negotiations might have been conducted more smoothly and efficiently in this case.

EXCESSIVE LENGTH OF PROCESS/JUDICIAL CALL FOR LEGISLATIVE IMPROVEMENTS

In March, 1997, the Eugene Water & Electric Board (EWEB) received a new FERC license for two projects (23.2 MW combined) on the McKenzie River in Oregon. In the license, FERC incorporated certain fishery conditions prescribed by Federal resource agencies under Section 18 of the Federal Power Act (FPA)—at a cost to EWEB of $14,000,000—but rejected several conditions because they did not meet the requirements of the FPA for "fishway prescriptions."

Despite the $14,000,000 of project improvements, several interest groups and agencies requested an administrative rehearing of the license before FERC; upon denial of the requests, the parties challenged the license before the U.S. Court of Appeals for the Ninth Circuit. Among other claims, the parties contended the FPA does not authorize FERC to refuse to accept any condition prescribed under Section 18. In other words, the parties asked the court to rule that the resource agencies had absolute power to dictate license conditions under the FPA whether they met the intent of the FPA for a fishway prescription or not.

In its August, 1999 decision, the court did just that—concluding the FPA denied FERC the authority to modify, reject, or reclassify prescriptions submitted by resource agencies under Section 18, even while noting FERC's observation that the resource agencies "do not concern themselves with the delicate economic versus environmental balancing required in every license." The court went on to acknowledge Congressional "failure" to require agencies to develop improved "regulations, procedures or standards for implementing Section 18." The court noted that, absent Congressional action, the court was powerless to rewrite the statute. "Our task," the opinion stated, "is to apply the statute's text, not to improve upon it." The court's decision means that currently only a Federal court of appeals has the authority to determine whether a fishery condition offered by a Federal resource agency and required to be included in a license meets the requirements for a "fishway prescription" under the FPA.

With its hands thus tied, the court's decision will mean a remand of the license back to FERC to be re-written once the appeal is completed—8 years after EWEB first submitted its license application; with only the Ninth Circuit then having the authority to decide whether any condition prescribed by a resource agency meets the FPA requirements for "fishway prescriptions."

CONDITIONS MAKING PROJECT UNECONOMIC/ARBITRARY NATURE OF PROCESS/ INSUFFICIENT IMPACT ANALYSIS

In 1996, during the relicensing of the Edwards Dam near Augusta, Maine, the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) prescribed a fishway system on the dam to safeguard a few species of fish. The fishery agencies estimated this fishway system would cost approximately $9 million while the licensee estimated the cost at $12 million—both of these estimates effectively rendered the project uneconomic. Lacking the authority to amend the prescription or otherwise balance it against the energy or other resource values of the project, FERC instead ordered the removal of the dam in November 1997.

During the relicensing process, the USFWS and NMFS also recommended that flows of 4,500 cubic feet per second be released annually in July into a deep hole below the dam they determined was a spawning and nursery habitat for the Atlantic sturgeon. This flow recommendation had severe economic implications on the project since it would force the project to forgo power generation completely in July most years. This deep hole was located just below the area where the dam was eventually breached and this once-important spawning and nursery habitat is now assumed to be filled with rubble.

The U.S. Department of Interior and segments of the environmental community have hailed FERC's decision as a means of restoring a 17-mile stretch of the Kennebec River to its "natural condition". Moreover, certain environmental groups are now claiming that the simple act of removing the dam has successfully restored this section of the river yet no comprehensive studies are being planned to actually measure the success of this dam removal on the restoration of the river ecosystem.

ARBITRARY NATURE/EXCESSIVE LENGTH OF PROCESS

In an ongoing relicensing of a 35.5 MW facility in New York State, arbitrary fishway prescriptions have been proposed by the USFWS, at a cost of over $2 million. Why arbitrary?

The blueback herring, the primary species on which the prescriptions were premised, is not native to the river where the project is situated.

With an 80-foot waterfall, blocking upstream fish passage, there would be no migration without the man-made lock system adjacent to the project.

The project (and other hydro facilities on the river) have operated without fishways for several decades and during that time the fish population has grown to over 100 million annually.

Pre-filing consultation started on this project in 1986, and a final license order still has not been issued. If the fishway prescription is included in the license along with other resource protection measures, the project would become economically unviable.

ARBITRARY NATURE OF PROCESS/FERC APPROVAL OF INAPPROPRIATE CONDITIONS

In a recent relicensing of a Western project, the U.S. Forest Service imposed numerous conditions, including one that required the project owner to annually send the Forest Service a set payment, expected to cover all operation and maintenance costs associated with existing campgrounds in the project vicinity. The owner pursued an administrative appeal of this condition at the Forest Service, arguing that the Forest Service failed to demonstrate that most of the campgrounds' use was related to the project. Furthermore, the Forest Service did not attempt to justify the amount of the annual payment for the operation and maintenance costs it sought from the licensee.

Nonetheless, FERC included the condition in the project license, concluding that it lacked the authority to even consider if a relationship between the condition and the project justified the Forest Service condition. Similarly, FERC was unable to reject an instream flow release imposed upon the project by the Bureau of Land Management, even though FERC summarily dismissed as inappropriate and unsupported the same exact amount of instream flow release recommended by the California Department of Fish and Game.

After FERC issued the new license for the project, containing the contested condition, the owner challenged the condition at FERC and took the case before the U.S. Court of Appeals. Just prior to the case being heard and five years after the first of the two administrative appeals were filed with the Forest Service, the Forest Service decided that the operation and maintenance costs were indeed inappropriate and accepted an owner-proposed method for reimbursement of only those campground operation and maintenance costs related to the project—approximately 1.25 percent of the amount originally demanded by the Forest Service.

FERC APPROVAL OF CONDITIONS THAT RESULT IN "NO QUANTIFIABLE BENEFIT"/ EXCESSIVE LENGTH OF PROCESS

After FERC asserted jurisdiction over a 70 year old, 1.2 MW project in New England, the project owner reached agreement with one state agency on the level of minimum flows to be released from the project. However, a resource agency from an adjacent state and the USFWS prescribed a minimum flow that was nearly twice the agreed upon level. In its final environmental assessment for the project, FERC concluded that the owner's minimum flow could be provided with existing project equipment and that there was no "quantifiable benefit" from requiring the USFWS flow level rather than the level proposed by the owner.

However, because the recommendation was made under section 10(j) of the FPA, and because the recommendation appeared "consistent with the FPA," FERC incorporated the higher minimum flow requirement in the license. FERC's rubber stamp approval of the USFWS 10(j) recommendation, along with other conditions imposed on the project, had the effect of reducing net revenue from the project by 60 percent, making the project economically marginal at best. (Note: Issuance of the license for this small project took more than 8 years.)

DUPLICATIVE NATURE OF PROCESS

The Energy Policy Act of 1992 specifically prohibits Federal land managing agencies from requiring an existing hydropower project to obtain a Special Use Permit. However, in a number of licenses, the Forest Service has taken the standard Special Use Permit terms and included them in the conditions submitted to FERC under section 4(e) of the Federal Power Act. In turn, FERC has had no choice but to impose these conditions on the project license. These Special Use Permit conditions are designed to allow the Forest Service to regulate the project in the same manner that FERC administers the licensed project. Thus, despite the Energy Policy Act prohibition, the Forest Service is duplicating FERC's legislative mandate to administer Federally licensed hydropower projects.

CONDITIONS MAKING PROJECT UNECONOMIC

In 1997, six years after the licensee filed its initial plan, FERC issued an order approving a mitigation and management plan for the 170 MW Kerr Project in Montana. The FERC plan incorporated conditions submitted by the Department of the Interior requiring a variety of non-operational measures, including: a fish and wildlife implementation strategy to be funded through a one-time payment of $12.5 million and annual payments of $1.27 million, a fish stocking plan, the acquisition of 6,800 acres to serve as replacement wildlife habitat, the construction of five islands to serve as waterfowl habitat and construction of erosion control structures.

The FERC environmental impact statement (EIS) on the mitigation and management plan concluded that the conditions imposed by Interior would "eliminate the project's positive economic benefits." The EIS found that the project's current annual net benefits were approximately $9 million, but that with Interior's conditions, the annual net benefits would be a negative $2.7 million. Not even Interior disputed that the conditions would reduce the project's net annual benefits by many millions of dollars. However, the Commission noted that "any economic analysis of the impact of Interior's conditions is of at best tangential relevance to our decision," since FERC was obligated to impose the Interior conditions.

CONDITIONS MAKING PROJECT UNECONOMIC/INSUFFICIENT IMPACT ANALYSIS/ARBITRARY NATURE OF PROCESS/LITIGATION AS ONLY RECOURSE

The 700kW Yaleville project in upstate New York is one of the smallest hydro facilities operated by Niagara Mohawk Power Corporation. In pre-filing consultation in connection with the 1988 licensing of the project, the USFWS raised the issue of fish passage. The agency recommendation was to provide for downstream passage of freshwater non-migratory resident species, namely bass and walleye. This, despite:

Spillage over the dam provided natural passage of fish at least 85 percent of the time;

Despite decades of hydro project operation, an abundance of bass and walleye was evident on the river both above and below the project; and

The $400,000 price tag for the agency-recommended fishway was prohibitive for such a small project.

Niagara Mohawk disputed the agency recommendation in its license application and FERC, in its 1991 draft Environmental Assessment (EA) for the project, agreed with the owner and recommended a lower cost fish protection alternative. USFWS, after failing to sway FERC away from its position in dispute resolution proceedings, responded by prescribing the downstream passage fishway under its Section 18 mandatory conditioning authority.

FERC denied the fishway prescription in its 1992 license order because it did not meet the day's definition of "fishway" [at the time, a fishway had to serve the purpose of passing fish whose life cycle depended entirely on migration past the hydro facility—which was not the case with the Yaleville bass and walleye]. A broader "fishway" definition was established with the passage of the Energy Policy Act of 1992; accordingly, FERC had to rescind its prior denial and require Niagara Mohawk to install the fishway—despite the lack of biological basis and the fact that its cost would negate the economic operation of the project.

Niagara Mohawk promptly appealed the FERC order. Negotiations with USFWS ultimately led to an agreement to install a less expensive fishway design (at a cost one tenth of that originally prescribed). If the owner had not pursued an aggressive litigation action, USFWS would likely never had agreed to negotiate. Litigation, in this case, spawned reason; but only after more than 8 years of licensing process and a cost to the owner of nearly $300,000.

CONDITIONS MAKING PROJECT UNECONOMIC

In 1997, FERC issued a license for a 70 MW project in Washington state. In the text of the license itself, FERC noted that the prescribed resource agency conditions would result in a yearly operating loss of over $6.5 million for the project owner. Indicating that the project as licensed would not be "economically beneficial", FERC issued the license with the conditions, leaving it to the owner to "make the business decision whether [to operate the facility] in view of what appear to be the net economic costs."

National Hydropower Association—Sustaining Hydropower: How Policymakers Can Reverse the Decline of America's Leading Emissions-Free, Renewable Resource

Hydropower is our largest renewable resource—accounting for about ten percent of the nation's electricity and over 80 percent of its renewable energy. It is an emissions-free, clean, reliable source of domestic energy which possesses many valuable benefits beyond power supply. Among its benefits are transmission system reliability, water supply, irrigation, flood control, recreation and transportation. More importantly, as an emissions-free power source, hydropower helps our nation meet its clean energy goals and reduces the number of health problems associated with air pollution.

Supply of hydropower is waning, however, and America is in danger of losing significant hydropower capacity at a time when it is most needed. As we face rising energy prices, increased levels of pollution, energy shortages and reliability concerns, now is clearly the time for policymakers at the Federal level to better incorporate hydropower into the nation's long-term energy strategy.

As we devise a clear long-term energy strategy, there are steps policymakers can take now to address the decline of hydropower. What's more, steps can also be taken to encourage development of additional hydropower capacity at existing sites, allowing the country to increase its use of renewable, emissions-free generation and strengthen the reliability of the transmission system.

What can be done to reverse the decline of hydropower and bring new growth to an industry that is crucial to the nation's energy strategy? The National Hydropower Association (NHA)[1] suggests the following:

Hydropower relicensing reform

First and foremost, the hydropower relicensing process needs to be reformed. Over the next 15 years, two-thirds of all non-Federal hydroelectric capacity—nearly 29,000 MW of power (enough to serve six million retail customers)—must undergo the Federal Energy Regulatory Commission's (FERC) relicensing process. This includes 284 projects in 39 states, much of it in western states where power supply is a major concern.

While there are many perspectives, all stakeholders agree that the relicensing process is in need of improvement. A multitude of statutes, regulations, agency policies and court decisions has made the process time-consuming, costly, contentious, duplicative and generally frustrating for all. Federal agencies are allowed to set conditions on licenses without regard to their effects on project economics, energy benefits and values protected by other statutes or regulations. Many times, agencies fight agencies and conflicting demands are issued. Worse, conditions are placed on a license that have little to do with project impacts.

Hydropower licensees have no recourse to appeal, or even question, the basis of mandatory conditions set by the agencies, except through litigation. Further, a typical hydropower project can take eight to 10 years to weave its way through the process—some have taken more than 20 years—and cost up to a million dollars a

[1] NHA is the only national trade association committed exclusively to representing the interests of the hydroelectric power industry. Our members represent approximately 60 percent of domestic, non-Federal hydroelectric capacity and nearly 80,000 megawatts overall. Its membership consists of more than 140 companies including public utilities, investor owned utilities, independent power producers, equipment manufacturers, engineers, consultants and law firms.

year. The end result of this broken process is the loss of operational flexibility and generation capacity—on average 8 percent per project—possibly putting at risk system reliability and clearly resulting in the loss of clean, renewable power.

Enacting legislation, such as bills offered in the 106th and 107th Congresses—Congressman Joe Barton's substitute amendment to Congressman Ed Towns' H.R. 2335, or Senator Larry Craig's S. 71—would give Federal resource agencies the responsibility to consider and document the power, economic, and other impacts of their mandatory conditions before imposing them on a hydro license. The bills would also impose deadlines on Federal resource agencies for submission of final conditions. Reform legislation will not change or modify any existing environmental laws, nor will it eliminate mandatory conditioning authority of Federal resource agencies. What legislative reform will do is bring a much needed balance and certainty to the relicensing process and help stop the decline of hydropower, all while protecting the river resource.

Properly developed and implemented administrative remedies can certainly help on a number of fronts and should be encouraged as well. Taken alone, however, administrative reforms can not fully address the substantive problems with the process. In some instances, administrative reform can actually complicate matters. For example:

In January of 2001, the U.S. Departments of Interior (DOI) and Commerce (DOC) proposed a new policy regarding Section 18 fishway prescriptions. The proposed policy serves to define "fishways" broadly to include virtually any project structure or operational measure related to fish and would redefine the term "fish" to include virtually every form of water-related animal life other than mammals and birds. Further, it would give the agencies virtually unbounded authority to prescribe new or modified fishways, throughout the term of a license. This will result in further overlapping and conflicting Federal roles in the relicensing process and will exacerbate the uncertainties for licensees and other stakeholders that currently plague the relicensing process.

Also in January, DOI and DOC implemented a new policy for administrative review of mandatory conditions and prescriptions developed by the departments under the authorities in sections 4(e) and 18 of the Federal Power Act. Despite agency intention to "improve" the hydro licensing process, the new policy fails to define substantive standards for review of mandatory conditions and to detail procedures for the development of an administrative record. While the proposal does represent a good faith effort to improve the process within the confines of current law, it does not resolve industry's concerns and it fails to address the fundamental problems with the process.

Again, NHA believes that legislative fixes are necessary to reform the relicensing process in a manner satisfactory to most stakeholders.

Market incentives for hydropower development

Although maintaining a strong and viable hydropower industry is a critical component of the nation's long-term energy strategy, hydropower development has been stagnant—almost nonexistent—for a long period of time. Yet, most legislative proposals that address renewable energy ignore hydropower and its increasingly marginal economic state due to regulatory costs and capacity restrictions. This misguided omission threatens to jeopardize our country's most successful renewable energy resource as competition, and serious concerns over reliability and power supply, comes to the electric power industry.

NHA forecasts that 21.3 GW of additional power from hydroelectric resources could be developed by 2020—none of which would require the construction of a new dam or impoundment. In terms of greenhouse gas reductions, this would equal displacing 24 million metric tons of carbon emissions. Of the 21.3 Gigawatts (GW), over 4,000 Megawatts (MW) can be developed at existing hydroelectric facilities alone.

Bringing new hydro generation on-line, however, is increasingly difficult and expensive. While not the same disadvantages as those encountered by other renewable industries, hydro's disadvantages hold equal merit and demand similar countermeasures in policies designed to encourage the development of renewable sources of power. Providing financial incentives for hydro producers—such as those proposed in the 106th Congress by Congressmen John Shadegg and Albert Wynn, or proposals in the 107th Congress that expand the Section 45 production tax credit to include all renewables, including hydropower—will encourage hydropower development at existing sites, allowing the United States to rely more on a clean, domestic resource.

In the west, for example, 45 percent of hydro capacity in California, and 73 percent of Northwest capacity, faces the gauntlet of relicensing in the next 15 years. Given the current trend in relicensing, California and the Pacific Northwest might

retire 1,200 or more megawatts of generation capacity. On the other hand, with changes to the process, and the proper financial incentives described above, another 8,800 MW of new capacity could be developed without building a single new dam. Given the current state of affairs in this region of the country, it is hard to imagine why we would not pursue policies to encourage additional clean, renewable hydropower capacity.

Dam decommissioning and removal

Hydropower dams have been a rich and vital part of our American history and continue to be an important part of our American landscape. Many of their benefits play a crucial role in regional economies and in national energy policy. Dams are not simply a remnant of our past, they continue to play an important role for our future.

Despite this importance, there are some dams that have outlived their usefulness when considered within the context of rigorous new environmental standards. NHA recognizes the fact that maintaining some hydro dams, once their full public benefit is weighed against environmental and other social needs, may no longer be prudent. In these cases, decommissioning and removal may be the most appropriate course. However, we believe that when all benefits are considered, dam removal will occur only in rare instances. The real issue in dam removal is whether all of the benefits of a dam are appropriately weighed against the real, not subjective or hopeful gains.

There is a movement, mostly an ideologically driven one, to remove many of the dams in the country. As we consider all the aspects of dam removal, we must remember that this infrastructure is not easily replaced. Smart policy dictates that dam removal should be considered as a last resort when there is no other means to address the environmental consequences of the impoundment and all of the project benefits have been appropriately considered. Obviously, the growing interest in dam removal stems from our common concern over the health of our nation's rivers. The fact remains, however, that dams and healthy rivers can coexist. As a nation, our goal should be the preservation of both.

In those cases where prudence dictates removal, the hydropower industry believes that all stakeholders must be in common agreement. Removal should be a collaborative effort. FERC does not have the authority to unilaterally order removal of a facility, and the owner of the facility must be made whole in the process.

Hydropower owners and operators are good stewards of our waterways. Dam removal is a major issue of concern, not only to the industry, but also to the nation. Working with all stakeholders, policymakers can develop a rational national policy that can both protect and preserve our waterways and the infrastructure within them.

Actions needed in the 107th Congress

1. Enact hydro relicensing reform legislation as soon as possible and continue to pursue administrative reform efforts where helpful.
2. Enact incentives legislation such as tax credits or incentives payments for capacity upgrades and efficiency improvements at existing hydroelectric facilities, and for new development at existing dams.
3. De-politicize the debate over dam decommissioning and dam removal and pursue national policy based on sound science with full consideration of all project benefits.

By focusing on the three areas NHA has discussed, Federal policymakers have an opportunity to not only protect our hydropower resource, but to also promote modest growth of a clean, renewable, domestic energy resource that is crucial to meeting long-term energy strategies.

National Hydropower Association—Hydropower Licensing Improvement: A Balanced Approach to Preserving Our Nation's Leading Renewable

Overview

In the wake of ongoing energy supply shortages and reliability concerns in California, the Pacific Northwest and throughout the nation, it is crucial that existing sources of energy—especially those that are clean, low-cost, reliable and efficient—remain in abundant supply. Yet, domestic generation of hydropower, our nation's leading emissions-free, renewable energy resource, is waning as a result of a Federal Energy Regulatory Commission (FERC) licensing process that all parties agree is in need of repair. It is indeed ironic that our nation's hydro supply is in decline when our nation needs it most.

Hydro licensing improvement legislation introduced in the 106th Congress (H.R. 2335/S. 740) gained strong bipartisan support in both Chambers and was approved

by the House Commerce Subcommittee on Energy and Power. With energy policy concerns taking center stage in the 107th Congress, Congress has an opportunity to build on this momentum and enact meaningful hydro licensing process improvements this year to ensure that crucial megawatts (MW) of hydropower are preserved for current and future generations.

Background

Since 1986, FERC has been required, under the Federal Power Act, to give "equal consideration" to a variety of factors when issuing hydro project licenses and relicenses. This balancing authority requires FERC not only to consider the power, economic, and development benefits of a particular hydro project, but also to consider energy conservation and the protection, mitigation of damage to, and enhancement of fish and wildlife. In other words, under Federal law, FERC has the responsibility and authority to strike a balance between power and environmental values.

The courts, however, have interpreted the Federal Power Act so as to prevent any balancing from taking place. The courts, in effect, have given Federal resource agencies the authority to set "mandatory" conditions on FERC licenses—conditions that are automatically attached to a final license. This means that FERC has no opportunity to question the basis of mandatory conditions set by the agencies.

This would not be a problem if Federal resource agencies, when imposing a mandatory condition, considered the various factors that FERC is required to examine pursuant to the Federal Power Act. However, this is simply not done. The net result is that no one is balancing. No one has the authority to look at the big picture of how hydro fits into our national energy policy.

The implications are significant. Hydro project owners are facing higher costs, loss of operational flexibility, and lost generation due to new constraints imposed on operations. A typical hydro project can take from eight to 10 years to weave its way through the licensing process, at an average cost of $1 million per year. In its Energy Outlook 2000 Report, the Department of Energy's Energy Information Administration (EIA) for the first time forecasted decreased hydroelectric capacity as "regulatory actions limit capacity at existing projects."

The urgency

Over the next 15 years, more than half of all non-Federal hydroelectric capacity (nearly 29,000 MWs of power—enough to serve six million retail customers) must go through the FERC licensing process. This includes 284 projects in 39 states. What's more, 45 percent of hydro capacity in California, and 73 percent of Northwest capacity faces relicensing in the next 15 years. Given the current trend in relicensing, California and the Pacific Northwest might retire 1,200 or more MWs of generation capacity—enough power for 1.2 million homes. Given the current state of affairs in this region of the country, it is hard to imagine why we would not pursue policies to improve the licensing process.

Congress must do its part to ensure that this important renewable resource continues to operate in a cost-effective and environmentally compatible manner. If current trends continue, the nation could lose a number of hydropower projects and, with them, enormous clean energy, reliability, drinking water, flood control, irrigation, transportation and recreation benefits. Moreover, consumers could face increased energy replacement costs with polluting sources.

Summary

Hydropower has been a rich and vital part of our American history and continues to be an important part of our American landscape. Many of its benefits play a crucial role in regional economies and in national energy policy. Hydropower is not simply a remnant of our past, it continues to play an important role for our future. Working with all stakeholders, policymakers can develop a rational national policy that can both protect and preserve our waterways and environment, as well as the infrastructure within them.

The hydro relicensing debate has, for years, been a search for balance: can the nation balance the benefits of hydropower with environmental protection and mitigation? A growing number of members of Congress from both parties believes it can. Given the enormous role that hydro plays and must continue to play in our national electricity grid, the time for balancing—and the time for Federal policymakers to better incorporate hydropower into the nation's long-term energy strategy—is clearly now.

National Hydropower Association—Forecast for Hydropower Development Through 2020

Two Federal agencies have estimated large potential capacity from hydroelectric facilities in the U.S. But the National Hydropower Association (NHA) expects that the existing licensing process will prohibit realizing any new capacity in the future. In fact, NHA is currently predicting a loss of renewable hydroelectric power in the U.S. without legislative changes to hydropower regulations.

The Federal Energy Regulatory Commission's (FERC) river basin studies show a potential of 73,200 MW of additional U.S. hydroelectric capacity.[1] Emphasizing engineering feasibility and some economic analysis, but no environmental considerations, the FERC estimate is the likely "upper limit of conventional water power potential in the United States".[2]

The U.S. Department of Energy (DOE) has undertaken an assessment of hydropower resources using FERC's river basin analysis while also screening for environmental, legal and institutional constraints at potential sites including threatened or endangered species, national designations, cultural values and other non-power issues.[3]

DOE's results show there are 5,677 undeveloped hydropower sites with a potential capacity of about 30,000 megawatts.[4] Of that amount, 57 percent (17,052 MW) are at sites with some type of existing dam or impoundment, but no power generation. Another 14 percent (4,326 MW) exists at projects that already have hydropower generation, but are not developed to their full potential. Only 8,500 megawatts or 28 percent of the potential would require new dams.[5]

NHA anticipates that, given the regulatory burden associated with the Federal licensing process—the cost, delay and duplication—none of this new capacity will.be developed by 2020. And worse, with no changes in the current licensing process, studies show an average eight percent 6 loss of hydroelectric generation in relicensing.[6] Furthermore, considering the uncertain future of some Federal projects, the potential loss of generation from our nation's hydroelectric system could be very significant.

However, there are factors that could change NHA's bleak forecast:

The need for greenhouse gas reductions that would drive domestic policy to again encourage hydropower development;

The hydro licensing process is improved so that it increases investor certainty and recognizes the unique energy characteristics and environmental benefit of hydropower; and

The resulting licensing rules fairly balances environmental and energy needs.

Under these circumstances, NHA forecasts that 20,915 MW of additional power from hydroelectric resources could be developed by 2020—none of which would require the construction of a new dam or impoundment. In terms of greenhouse gas reductions, this would mean displacing 24 million metric tons of carbon emissions from coal.[7]

Hydroelectric generating capacity would rise to 99,478 MW—a 27 percent increase from current levels—and this nation's use of hydropower resources would rise to 4.9 quads.[8]

Other factors that could further stimulate the development of hydropower capacity are:

The development of commercially viable advanced turbines that further improve biological conditions for fish (fish friendly turbines);

Greater efficiency from these advanced turbines;

The trend in the growing deregulated market to value hydropower's ancillary benefits—its unique ability to stabilize the electric grid.

Increased acceptance of green power programs that charge a premium for the delivery of clean and renewable electricity in a deregulated market.

FOOTNOTES

[1] Hydroelectric Power Resources of the United States; Developed and Undeveloped, FERC, Washington, DC, January 1, 1992, p. xi.

[2] Id. p. xxxv.

[3] "Identification of Undeveloped Hydropower Resources in the United States, Based on Environmental, Legal, and Institutional Attributes", Table 2, J.E. Francfort and A.M. Conner from Waterpower '97 Proceedings of the International Conference on Hydropower, Volume 2, ASCE, New York, NY, p. 1307.

[4] Hydropower Resource Assessment program draft report U.S. DOE Hydropower Program, Idaho National Engineering and Environmental Laboratory, <www.inel.gov/national/hydropower/index.html>, November 1998.

[5] Interview with Jim Francfort, Hydropower Resource Assessment program, September, 1998.

[6] "Scenarios of U.S. Carbon Reductions: Potential Impacts of Energy Technologies by 2010 and Beyond", Office of Energy Efficiency and Renewable Energy, U.S. DOE, September 15, 1997, p. 7.21.

[7] According to "Impacts of the Kyoto Protocol on U.S. Energy Markets and Economic Activity," prepared by the Energy Information Administration, October, 1998, Table 17, p. 75, coal fired technologies emit 571 pounds of carbon per MegaWatthour.

[8] In 1996, total hydropower consumption was 3.911 quads. Hydropower capacity in 1996 was 73,129 MW. The ratio of quads consumed to capacity is .0000491.

[Responses by Mr. Hocker to questions submitted for the record follow:]

Question 1 submitted by Representative James Hansen, Chairman of the Committee

In the early 1990's, the Advanced Hydropower Turbine Systems (AHTS) program was initiated by industry with a request to DOE for matching funds. The goal was to develop advanced turbines and other systems to improve safe fish passage while maintaining the operational efficiency. DOE responded positively, focusing its attention—and its hydro R&D funding—on the program. In some cases, interested parties in the hydropower industry also supported specific research items important to the AHTS program when funds were not available from DOE. Completion of the program would: minimize environmental impact to aquatic life; increase facility efficiency—savings that can be passed along to the consumer; improve relicensing negotiations; lower government's regulatory enforcement costs; increase government revenue from idled Federal projects that will benefit from this new technology; and encourage cooperation over conflict between industry, government and environmental advocates.

The Advanced Hydropower Turbine System program is important to industry and should be fully funded to its completion, including field verification. The focus of the research should be broadly conceived to include the transfer of technology to smaller applications at a variety of sites, as well as potentially contributing to salmon restoration in the Northwest.

Currently, the majority of the DOE's AHTS funds are being directed to Alden/NREC turbine laboratory pilot testing. To minimize the elapsed time between laboratory and field tests of the new Alden/NREC turbine, it is important to establish criteria for site selection, to select a site(s) for field testing, and to design features needed for the turbine installation, all while the turbine is being evaluated in the laboratory. The selection process should be defined and one or more field sites should be selected. Due consideration would be given to the need for owner participation, site characteristics and changes, construction methods, design of the turbine for the site head and flow, means and scope of the fish testing, and cost and schedule.

The other focus of the AHTS program is devoted to the Voith Siemens Hydro AHTS design which is based on enhancing current turbine designs. A modified Kaplan turbine has been developed based on improved flow conditions and supported by field testing of existing turbines. Some of the advanced design features were included in the Bonneville Dam Minimum Gap Runner (MGR). Fish injury/survival tests were conducted at Bonneville Dam on the new MGR and on an existing turbine through a collaboratively funded project of DOE, U.S. Army Corps of Engineers, Bonneville Power Administration and Grant County PUD. To demonstrate that improvements have been made, it is essential to install and test a full size machine to prove these concepts.

An improved AHTS concept Kaplan design has been developed to replace existing turbines for a site on the Columbia River and is ready for testing. Additionally, industry-developed technology for advanced control systems to optimize fish-passage survival is also available for field verification in conjunction with the advanced Kaplan design. Further opportunities exist for collaboration with industry in the field verification phase.

The hydropower industry has demonstrated its commitment to a competitive and environmentally sound future for hydroelectric generation. The industry's partnership with DOE and its willingness to contribute funds and resources to the AHTS program should be seen as the foundation for a new cooperative era between industry, government, and the public in addressing our nation's energy and environmental needs.

Industry urges that Federal water development agencies, principally the U.S. Army Corps of Engineers, the Bureau of Reclamation, and the Tennessee Valley Authority better coordinate their hydropower R&D efforts among themselves, with the DOE and with the private sector. In addition, Federal executive branch offices with science, technology and natural resource portfolios must pay closer attention to hy-

dropower R&D as they examine their respective disciplines and coordinate R&D across Federal agencies.

Most importantly, industry stands ready to collaborate with the DOE in the expansion and coordination of R&D related to hydropower. Basic research of water-related environmental issues must receive greater attention across multiple DOE offices and its laboratories where it is mission-appropriate (*e.g.,* Office of Basic Energy Sciences, Office of Biology and Environment, and the Office of Policy).

While much progress has been made already in devising new approaches to generating hydroelectricity while supporting healthy fisheries, much more work remains to be done. Now, DOE must expand its focus and devote attention and resources to other areas of hydropower R&D, while continuing to fund the AHTS program.

Research and development efforts in the private sector tend to focus on meeting short-term objectives and, increasingly in the restructured electricity sector, must be justified by a short-term return on the investment. Only the Federal Government can take a longer-term, higher-risk approach to research that addresses strategic national interests.

The hydropower industry proposes that the DOE should take a "three track" approach to hydropower R&D. One track should continue the efforts to improve hydropower systems that support safe fish passage. The second track should be focused on laboratory and field verification projects that optimize hydro operations, increase efficiencies, and enhance environmental performance. The third track should focus on policy issues affecting hydropower. This final track would include, but not be limited to, stimulating hydro upgrades and new development, valuing hydro's role in electric reliability, assessing hydropower's environmental performance, and expanding hydro's contribution to avoiding greenhouse gas emissions (please see attachment on specifics of NHA's recommendations to DOE).

Funding for hydropower research has never reached the 1997 President's Committee of Advisors on Science and Technology (PCAST) Report recommended levels. Because of the lack of support for hydropower, and the Advanced Hydropower Turbine specifically, the program is behind schedule and possibly in jeopardy. The millions of dollars that have been spent, and the progress that has been made, may all be for naught if the program if the program is not fully funding in 2002 and beyond.

NHA strongly encourages Congress to appropriate finances for the turbine program that are much closer to the recommendations of the PCAST report. The program is at a critical stage and needs the appropriate financing to move to the next stage.

For 2002, NHA recommends $16,000,000. The amount provided is for cost-shared research and development of the AHTS. The amount is also for research to examine hydropower mitigation efforts; develop biological criteria for mitigation efforts; research and testing on the effectiveness of hydrokinetic energy systems; the development of consistent methodology for lifecycle analysis and total valuation of hydropower, including contributions to clean air; and to study the ancillary electric benefits of hydropower.

Question 1 Submitted by Representative Ken Calvert

During the last 18 months, industry has been primarily involved in two non-legislative processes to address and resolve hydro relicensing issues—the Federal Advisory Committee (FACA) to the Interagency Task Force to Improve Hydroelectric Licensing Processes (ITF) and the National Review Group (NRG) headed by the Electric Power Research Institute (EPRI). Both of these administrative reform working groups produced a very helpful and positive dialogue concerning many of the relicensing issues and brought some helpful process-related improvements. The ITF and FACA completed their work for the most part (an implementation plan of the groups' recommendations is occurring but there is some concern regarding the level of implementation) while the NRG will continue into 2001 and focus on a few key issues. Industry will continue to play a very active role in those discussions and looks forward to working with the broad range of hydro stakeholders.

Properly developed and implemented administrative remedies can certainly help on a number of fronts and should be encouraged. Taken alone, however, administrative reforms cannot fully address the substantive problems with the process. In some instances, administrative reforms (in these cases, led by the Clinton Administration) can actually complicate and worsen matters. For example:

In January of 2001, the U.S. Departments of Interior (DOI) and Commerce (DOC) proposed a new policy regarding Section 18 fishway prescriptions. The proposed policy serves to define "fishways" broadly to include virtually any project structure or operational measure related to fish and would redefine the term "fish" to include virtually every form of water-related animal life other than mammals and birds.

Further, it would give the agencies virtually unbounded authority to prescribe new or modified fishways throughout the term of a license. This will result in further overlapping and conflicting Federal roles in the relicensing process and will exacerbate the uncertainties for licensees and other stakeholders that currently plague the relicensing process.

NHA strenuously objects to the Proposed Interagency Policy on the Prescription of Fishways and has asked that it be immediately rescinded and all processes related to this proposed policy be halted. Section 1701 (b) of the National Energy Policy Act of 1992 rescinded the Federal Energy Regulatory Commission's (FERC) definition of fishways. The Act clearly defers to FERC to redefine fishways by rulemaking with the concurrence by the Secretaries of Commerce and Interior. Quite simply, the Departments' proposed policy attempts to evade the express intent of Congress.

In addition to the serious concerns over the process of the Departments' proposed policy, we also stress that the proposed policy is premature, flawed and unbalanced. Moreover, contrary to the Departments' assumptions, the proposal could have serious economic impacts and should undergo review required by the Regulatory Flexibility Act.

As we face rising energy prices, increased levels of pollution and greenhouse gases, energy shortages and serious reliability concerns, this is the least opportune time, when viewed from the public interest perspective, for the Departments to mount a campaign for unbounded advocacy for their prescriptive powers. Now is clearly the time for policymakers at the Federal level to better incorporate hydropower into the nation's long-term energy strategies, not to devise policies that further diminish a waning resource that is so vital to energy adequacy, diversity and security.

Also in January, DOI and DOC implemented a new policy for administrative review of mandatory conditions and prescriptions developed by the departments under the authorities in sections 4(e) and 18 of the Federal Power Act. Despite agency intention to "improve" the hydro licensing process, the new policy fails to define substantive standards for review of mandatory conditions and to detail procedures for the development of an administrative record. While the proposal does represent a good faith effort to improve the process within the confines of current law, it does not resolve industry's concerns and it fails to address the fundamental problems with the process. Again, NHA believes that legislative fixes are necessary to reform the relicensing process in a manner satisfactory to most stakeholders.

Question 2 Submitted by Representative Ken Calvert

The industry is committed to exploring options and keeping the dialogue open as we move forward on a reform bill. As a matter of fact, we are currently involved in such discussions in both the House and the Senate. Progress has been made in certain areas and that is largely due to the fact that a productive discussion with all stakeholders occurred. It is not in the interest of industry (nor is it likely) to jam a bill through Congress while ignore other stakeholders' concerns.

We understand that a bi-partisan approach is best and achievable. In fact, we feel ultimately that relicensing reform is a bi-partisan issue and we look forward to working in a bi-partisan environment. A few years ago, industry decided that taking a moderate approach to relicensing reform was best and we continue to believe that.

We made tremendous progress last Congress and hopefully that will pay off in the 107th Congress with a bill that is signed into law. We want to work with the resource agencies and other stakeholders so long as a bill that brings balance and certainty to the licensing process is achieved.

Question 3 Submitted by Representative Ken Calvert

The primary reason for lost hydro capacity is due to a relicensing process that is badly in need of repair. This problem demands urgent attention as half of licensed capacity—28,784 MWs—must to be relicensed by 2016, and over 52 percent of it is located in Western states where energy supply and reliability issues have already reached a critical stage, and water resource issues are paramount (please see attachment for specific state-by-state numbers).

The relicensing process is exceedingly complex, needlessly fragmented, excessively costly and frustratingly inefficient. Further, it fails to fully weigh the benefits of hydropower and often results in extended and contentious litigation, costing both the project and the environment.

While there are many perspectives, all stakeholders agree that the relicensing process is in need of improvement. A multitude of statutes, regulations, agency policies and court decisions has made the process time-consuming, contentious, duplicative and generally frustrating for all. Federal agencies are allowed to set conditions

on licenses without regard to their effects on project economics, energy benefits and values protected by other statutes or regulations. Many times, agencies fight agencies and conflicting demands are issued. Worse, conditions are placed on a license that have little to do with project impacts.

Hydropower licensees have no recourse to appeal, or even question, the basis of mandatory conditions set by the agencies, except through litigation. Further, a typical hydropower project can take eight to 10 years to weave its way through the process—some have taken more than 20 years—and cost up to a million dollars a year. The end result of this broken process is the loss of operational flexibility and generation capacity—on average 8 percent per project—possibly putting at risk system reliability and clearly resulting in the loss of clean, renewable power.

Enacting legislation, such as bills offered in the 106'" and 107'" Congresses—Congressman Joe Barton's substitute amendment to Congressman Ed Towns' H.R. 2335, or Senator Larry Craig's S. 71—would give Federal resource agencies the responsibility to consider and document the power, economic, and other impacts of their mandatory conditions before imposing them on a hydro license. The bills would also impose deadlines on Federal resource agencies for submission of final conditions. Reform legislation will not change or modify any existing environmental laws, nor will it eliminate mandatory conditioning authority of Federal resource agencies. What legislative reform will do is bring a much needed balance and certainty to the relicensing process and help stop the decline of hydropower, while protecting the river resource.

Question 4 Submitted by Representative Ken Calvert

Although maintaining a strong and viable hydropower industry is a critical component of the nation's long-term energy strategy, hydropower development has been stagnant—almost non-existent—for along period of time. Yet, most legislative proposals that address renewable energy ignore hydropower and its increasingly marginal economic state due to regulatory costs and capacity restrictions. This misguided omission threatens to jeopardize our country's most successful renewable energy resource as competition, and serious concerns over reliability and power supply, comes to the electric power industry.

NHA forecasts that 21.3 GW of additional power from hydroelectric resources could be developed by 2020—none of which would require the construction of a new dam or impoundment. In terms of greenhouse gas reductions, this would equal displacing 24 million metric tons of carbon emissions. Of the 21.3 Gigawatts (GW), over 4,000 Megawatts (MW) can be developed at existing hydroelectric facilities alone.

Bringing new hydro generation on-line, however, is increasingly difficult and expensive. While not the same disadvantages as those encountered by other renewable industries, hydro's disadvantages hold equal merit and demand similar countermeasures in policies designed to encourage the development of renewable sources of power. Providing financial incentives for hydro producers—such as those proposed in the 106th Congress by Congressmen John Shadegg and Albert Wynn, or proposals in the 1071" Congress that expand the Section 45 production tax credit to include all renewables, including hydropower—will encourage hydropower development at existing sites, allowing the United States to rely more on a clean, domestic resource.

In the west, for example, 45 percent of hydro capacity in California, and 73 percent of Northwest capacity, faces the gauntlet of relicensing in the next 15 years. Given the current trend in relicensing, California and the Pacific Northwest might retire 1,200 or more megawatts of generation capacity. On the other hand, with changes to the process, and the proper financial incentives described above, another 8,800 MW of new capacity could be developed without building a single new dam. Given the current state of affairs in this region of the country, it is hard to imagine why we would not pursue policies to encourage additional clean, renewable hydropower capacity.

Question 1 Submitted by Representative Ed Markey

The National Hydropower Association does not advocate any particular formula or structure for fees charged for the use of Federal lands. As recognized for decades in the Federal Power Act, the production of electric energy from our nation's waterways is considered to be in the public interest, and licenses are granted based on the determination of a hydro project being in the "public interest, convenience, and necessity." So long as hydropower is determined to be in the public interest, we believe that fees should not be so high as to threaten the viability of a hydro project.

To suggest, as the question does, that hydropower owners may "abandon their projects or leave a mess behind" is purely speculative and has no basis in historical fact. NHA advocates the responsible use of the nation's waterways and takes very

seriously its role as stewards of the rivers we are privileged to use. We strongly believe that healthy rivers and hydropower can coexist.

Question 2 Submitted by Representative Ed Markey

See answer to Question 1.

Question 3 Submitted by Representative Ed Markey

Again, the NHA does not advocate a particular fee structure or formula, nor do we take a position on the allocation of funds for water projects. Such allocation is currently been made in accordance with certain public policy decisions made by Congress, and it is Congress who properly should decide whether a change is necessary and if so, what the change should be. If such changes are considered by Congress, NHA will respond to the issue at that time.

Question 4 Submitted by Representative Ed Markey

We do not have specific information at this time comparing oil and gas leasing with hydropower fees. Even if such information were available, such a comparison would likely be inaccurate and incomplete, since hydropower is an emission-free renewable resource that is not subject to depletion. As far as mitigation efforts to reduce hydropower's impacts, industry has spent hundreds of millions of dollars to lessen its impacts.

Question 5 Submitted by Representative Ed Markey

The principle of scarcity applies universally, not just to hydropower. Again, a hydro project is recognized as being in the public interest by virtue of its holding a Federal license. NHA would be prepared to respond to specific proposals that modify the existing structure or formula for fees, and would be pleased to work with Congress to arrive at a fee structure that is reasonable and fair. In addition, NHA is pursuing polices that would maximize the power and non-power benefits of existing projects. While there are a substantial number of undeveloped sites where hydropower dams could be placed, NHA is more concerned with increasing the efficiencies and capacity at existing sites.

Question 6 Submitted by Representative Ed Markey

NHA believes there is merit in shifting money collected from the FERC fees to the agencies participating in the relicensing process instead of allowing the money to be deposited into the general treasury. NHA has been discussing this issue with agencies and other stakeholders as the reform debated has moved forward. It is often pointed out by agencies and NGO's that resources for agency involvement in relicensing efforts are insufficient. We believe it is important for agencies to have appropriate resources available so a constructive and efficient relicensing process can occur with their full participation.

Question 7 Submitted by Representative Ed Markey

The question could just as aptly be reversed: How can FERC, which is charged with balancing the broad spectrum of power and non-power interests in the licensing of a hydro project, be expected to do so when other agencies have unrestrained authority over aspects of a project that represent only narrow interests? What NHA supports is balance—the recognition that power and non-power considerations should be treated equally.

We are not advocating a removal of mandatory conditioning authority or attempting to weaken the authorities of resource agencies. We are advocating a process that permits agencies to consider non-resource issues in their review and conditioning authority. By requiring agencies to consider the economics effects of resource protection on other project values, we will bring balance and certainty to the process that is desperately needed.

Again, our attempts to reform the licensing process will not remove the conditioning authority of the agencies or undermine existing environmental laws designed to protect our resources. NHA believes in both resource protection and the pursuit of effective and meaningful energy strategies that include hydropower.

Question 8 Submitted by Representative Ed Markey

The Forest Service does have a review process but it is rarely used and is mostly ineffective. Hydropower licensees have no recourse to appeal, or even question, the basis of mandatory conditions set by the other agencies, except through litigation. A review process established by reform legislation can hopefully avoid the costly and lengthy litigation that is often the result of the current process, costing both the project and the environment. In addition, a review process within the licensing process would establish an administrative record, allow licensees to offer alternative suggestions for resource protection and greaten stakeholder involvement. Please see

the attached comments NHA filed in response to DOI and DOC's Notice for Comments on a Proposed Policy For Review of Mandatory Conditions.

Question 9 Submitted by Representative Ed Markey

Again, what NHA seeks is balance, not a guarantee of profitability. We believe that a fair balancing of power and non-power interests will result, in an overwhelming majority of cases, in hydro projects that are both economically viable and protective of environmental resources. Under the current licensing system, however, the balance has been upset by the unrestrained mandatory conditioning authority of certain agencies who presently are not required to take economic viability into account. It's a stretch to suggest that the Federal Government is guaranteeing the hydropower industry's profitability. Industry's goals and the government's goals should not be mutually exclusive.

Question 10 Submitted by Representative Ed Markey

I believe your question is attempting to ask how many projects have failed to acquire a new license because of actions by resource agencies. While there are projects that have not been relicensed, it's more important to focus on the overall effects of a broken relicensing process—the significant loss of clean, renewable generation capacity, and more importantly, the loss of operational flexibility which is extremely important from a transmission system reliability standpoint. Please see the attached paper that was included with my statement at the hearing for specific cases of agency involvement that has caused significant problems.

Mr. MCINNIS. [Presiding.] Thank you, Mr. Hocker.

Mr. Judd, Director of the USA Biomass Power Producers Alliance.

STATEMENT OF ROBERT L. JUDD, JR., EXECUTIVE DIRECTOR, USA BIOMASS POWER PRODUCERS ALLIANCE

Mr. JUDD. Thank you, Mr. Chairman, and Mrs. Napolitano. I come to you this morning fresh from the heartland of America's energy crisis, from Sacramento, California, where issues of energy supply and pricing and imports are front and center on the daily agenda there.

I serve as Executive Director of the USA Biomass Power Producers Alliance. This is an association of the owners and operators of the nation's biomass power facilities. You need to know that the biomass power industry, as one of the alternative energy producers referenced earlier, converts environmental liabilities into clean electricity. Under carefully controlled conditions, our industry combusts more than 20 million tons of cellulosic residues per year, primarily wood waste from forest-related activities, into clean electricity.

To give you an example, in all of California and in an entire year, only 40 million tons of material go to the all of the landfills in the State. So, in effect, the biomass power industry is also a massive waste management system. There are currently 85 operating biomass power facilities in America, and there are 15 that are operable but idle because of market conditions at present.

Decisions concerning the locating, the siting of these power facilities were primarily determined by the proximity of a sustainable fuel supply. The reason is simple. The biomass power facilities purchase the waste materials they use as fuel in the form of wood chips. The principal component of our fuel cost is transportation of materials from the point of origin, the forest, to the point of use, the facility. To minimize fuel costs, many of our facilities were located near their source. Now, they travel up to 100 miles to gather their materials.

The materials used as fuel by the biomass industry are residual wastes that remain after all other economic value has been extracted from a product. We recycle materials that would otherwise be discarded into a product that has societal value. The materials we use from forests include slash and brush, tops, branches, bark, excess sawdust, et cetera. We buy this. It is delivered to us. We, in effect, are the garbage man for the forestry industry. We give a productive use to those materials that are worthless to someone else.

There is a recent DOE study which we will submit for the record that monetizes the value of the benefits of U.S. biomass policy, in addition to the electricity that they produce. It turns out that the value of the environmental and economic benefits are more valuable than the electricity we produce itself.

Our facilities in the past, in those instances where they are proximate to public lands, have taken substantial materials from public lands and converted them into electricity. In the future, that capability exists and should be expanded. However, in recent years we have obtained less and less material from public lands because there has been less and less commercial activity on public lands. We consequently now get material from the urban waste stream which has a much lower societal value than materials that might be thinned from the forests to reduce forest fire risk and severity.

Facilities in our industry are dropping like flies. Our production is down 20 percent in 5 years, and in the past 3 months alone 5 facilities, including 3 in Montana, 1 in Idaho and 1 in California, have gone down because of the unavailability of fuel from adjacent public lands.

Looking ahead, in my final moments here, biomass facilities can and should be integrated into the implementation of the National Fire Plan. They can also help fulfill the promise of the Herger-Feinstein Quincy Library Group legislation, which will test large-scale progressive strategies for land management and fire risk reduction. Additionally, there is need and justification for the construction of new biomass power facilities in many regions.

We have further recommendations in our comments here. The primary recommendation we have is that at a time of need for domestic electricity, we have to stop the bleeding first and foremost in the existing power facilities to allow them to serve the public need and then develop a plan to construct more facilities to provide a greater level of electricity output from this resource.

Thank you, sir.

[The prepared statement of Mr. Judd follows:]

Statement of Robert L. Judd, Jr., Executive Director, USA Biomass Power Producers Alliance

Mr. Chairman and Members: Thank you for the opportunity to address the Committee today. My name is Robert Judd. I serve as Executive Director of the USA Biomass Power Producers Alliance. Based in Sacramento, California, we are a nation-wide association of owners and operators of biomass power facilities.

The existing biomass power industry

The nation's existing biomass power industry is in the business of converting environmental liabilities into clean electricity. Under carefully controlled conditions, our industry combusts more than 20 million tons of cellulosic residues per year—primarily wood waste from forest-related activities—to produce steam which drives a

turbine that generates electricity for transmission and distribution to homes and businesses.

Prompted by Federal policy and incentives put in place in the late 1970's, what we now recognize as the biomass power industry emerged into its current form between 1985 and 1995. No new facilities have been placed into operation since that time, and electricity output from existing facilities has declined by nearly 20 percent since 1995, due primarily to declining availability and increasing prices in our fuel supply.

The industry is currently comprised of approximately 85 power plants located in 14 states across the nation. In total, they have the capacity to generate 1,600 megawatts of electricity—or, looked at in another way, enough power to serve the needs of 1.5 million households. These facilities represent a capital investment in excess of $7 billion and they provide significant levels of rural employment and property tax revenues in the jurisdictions in which they are located.

In addition to the 85 operating facilities, there are approximately 15 facilities that are operable but currently sit idle due to local market conditions.

For clarification, I would note that the facilities described in my testimony were constructed for the sole purpose of generating clean electricity from the combustion of certain organic residues. They are distinct from other facilities that generate electricity from the combustion of municipal solid waste or from residues within the pulp and paper manufacturing sector.

Decisions concerning the siting of the existing biomass power facilities were primarily determined by the proximity of a sustainable fuel supply. The reason for this is a simple one. The biomass power facilities purchase the waste materials they use as fuel, and the principal component of fuel cost is transportation of materials from point of origin to point of use. In order to minimize fuel costs, the facilities were located as close to their fuel sources as possible. Some facilities are actually located directly at the source of their fuel—at a lumber mill, for example—while others are stand-alone facilities that obtain fuel from a variety of sources within a radius that usually does not exceed 100 miles. Given the decline in mill operations in recent years, few if any of the operating facilities are self-sufficient. All have the need and capacity to derive fuel from external sources.

The fuel supply

Materials used as fuel by the biomass power industry are the residual wastes that remain after all other economic value has been extracted. In effect, the industry recycles material—that would otherwise be discarded—into a product (electricity) that has societal value.

One can view the biomass power industry as a massive waste management system that generates electricity as one of a number of valuable by-products.

Our fuel supply is derived from three major sources. The first and principal source is forest-related activities, which account for roughly 75 percent of our total supply. Within this category, materials include slash and brush from commercial timber harvest operations (we use the branches and tops after the tree has been sent to the mill), bark and excess sawdust from timber processing, and materials derived from thinning of overly-dense vegetation in order to reduce the risk and severity of forest fires. The biomass power industry is, in reality, the "garbage man" for the forestry sector. We gather and use only those materials that are worthless to someone else. If a certain material has more value as a pulp chip or as an input to another commercial product, the market will drive it in that direction rather than to us.

Our second source of fuel is agricultural residues, which comprise approximately 15 percent of our total supply. These materials include orchard tree prunings and removals, as well as residuals from sugar manufacturing and rice milling.

Our third and final source of fuel is urban wood waste diverted from landfill disposal. Included here are broken pallets and shipping containers, leftovers from construction and manufacturing activities, and selected other materials. Fuel specifications provided to our fuel brokers require the exclusion of paper that is commonly recycled and materials that are toxic or hazardous. Our industry simply cannot afford to find hazardous chemicals in our air emissions or our ash, so we take all necessary precautions to exclude them at the front end of the process.

Public benefits of biomass power generation

The biomass power industry has a number of unique characteristics that are germane to the subject of this hearing and are particularly relevant as our new President develops and introduces a national energy policy within the next few weeks.

In late 1999, the U.S. Department of Energy published an independent research report entitled *The Value of the Benefits of U.S. Biomass Power,* which compared

the impacts of biomass energy production with that of the most probable alternative fate of the residues we use as fuel. The report also attempted to quantify (monetize) the value of the nonelectric benefits of biomass power production in terms of criteria air pollutants, greenhouse gas emissions, landfill capacity use, forest and watershed improvement, rural employment and economic development, and energy diversity and security.

The findings of this report are notable and important. In an industry where the average cost to deliver a kilowatt-hour of electricity is 6½ cents to 7 cents, the report concludes that "Based on a base-case, conservative analysis, the value of the environmental services (described above) associated with biomass energy production in the United States is 11.4 cents per kilowatt hour." In other words, the environmental benefits are 63 percent more valuable than the electricity itself or, alternatively, each unit of electricity produced delivers a substantial environmental bonus that is not reflected in the price of the electricity itself. This bonus reflects the public "externality" value of biomass power and forms the basis for its inclusion in a sensible national energy policy.

Further, the report cites recent research which estimates the savings in ultimate cost, on a net-present value (NPV) basis, of using mechanical thinning for forest treatment versus a regime of prescribed burns that must be carried out over a number of years to achieve the same degree of forest improvement. The mechanical thinning, followed five years later by a prescribed burn, has a cost (NPV) of $432 per acre. The alternative of three prescribed fire treatments during a 20-year period has a cost (NPV) of $560 per acre for a net savings of $128 per acre using the mechanical thinning and fuel production alternative. These savings do not include the reduction in air emissions during the various burns, the reduction in residual stand damage, or the diminished risk of prescribed burns flaring out of control. Moreover, there is an immediate value of benefits realized from the mechanical thinning/fuel production option versus the delayed benefits from multiple prescribed burn testaments.

The public benefits of the biomass power industry are derived from the gathering, processing, and delivery of its fuel supply rather than from its generation of electricity. This characteristic distinguishes the biomass sector from all other energy technologies. As mentioned earlier, the biomass power industry pays to acquire its fuel. Consequently, an entire infrastructure has been established to provide the services needed to obtain and deliver the fuel to us, and this infrastructure is funded and sustained by the substantial per-ton payments we make to acquire our fuel. Our purchases support contractors who undertake pre-fire thinning in the public and private forests, with appropriate permits, to reduce forest fire risk and to remove excess biomass that depresses forest health and productivity and degrades the functioning of watersheds. Our purchases also support similar services in the agricultural sector to chip and deliver orchard prunings and other materials that would otherwise be a major source of air pollution when they are burned in the open field.

It is widely recognized that the level of direct and indirect rural employment is higher in the biomass power industry than in any other renewable energy technology.

Biomass power and public lands

In those instances in which biomass power facilities are located in relative proximity to public lands, they have the capability to play an important role in generating electricity from wood waste derived from those lands. The biomass facilities provide a destination and a productive use for removed materials that otherwise would be an environmental liability. The facilities have the capacity to utilize a high volume of materials on a continuous basis, and the availability of fuel beyond current levels would optimize electricity output at a time when many states, particularly in the West, are faced with distressing shortages.

It is fair to note, however, that the correlation between the location of biomass power facilities and the location of public lands is less than perfect. In some parts of the country—from northern California up through Oregon and Washington and into Idaho—there is excellent correlation. Elsewhere, in Maine, for example, there is none. In northern Michigan, there is a good match.

Due to constraints on commercial timber harvesting and modest efforts so far to implement mechanical thinning of overly dense woodlands, our facilities—even when they are proximate to public lands—have obtained a diminishing percentage of their fuel from these lands in recent years. When possible, our operators have replaced public-lands fuel with materials from private lands and, increasingly, with fuel derived from the urban waste stream. This is an unfortunate economic necessity if we are to maintain our electricity generation levels.

Perhaps a few examples can illuminate the difficulties our facilities have faced in obtaining fuels from public lands. You may be aware that the U.S. Forest Service imposed a moratorium on all commercial activities in California's Sierra Nevada, effective December 11, 2000. Its intent was not focused on the biomass industry, but an inadvertent consequence of its action was to abort fuel supply contracts that were already in place. This action unexpectedly disrupted power production at our facilities and forced our managers to scramble for replacement fuel on the spot market where they had no choice but to pay top dollar. Sixteen of California's 28 operating biomass power facilities depend, to a greater or lesser degree, on fuels derived from public lands. These facilities generate over 250 megawatts of electricity, a critical supply in an energy emergency. One of the California facilities—Honey Lake Power—terminated its operations due to a lack of fuel and will not reopen until this May at the earliest.

Numerous other examples exist. The Boise-Cascade biomass power facility at Emmet, Idaho just announced permanent closure due to inadequate fuel supplies from Federal lands. Two of the other three biomass facilities in Idaho are also out of service at present. Additionally, the absence of activity on public lands in northern Michigan has limited fuel availability and constrained normal output.

In sum, there is an unmet potential to use biomass from public lands for electricity production purposes. While some facilities proximate to public lands can maintain high output by using alternative fuels, others do not have that option. The point to be made is that Federal policy should encourage the biomass power facilities to use as fuel those materials that would otherwise present the highest level of environmental risk. Certainly the overly dense vegetation that increases forest fire risk on public lands meets this criterion. The opportunity to convert these undesirable materials into a productive use, however, is quite limited under current conditions.

Pricing and economic considerations

Briefly, it is worth noting that biomass power facilities are increasingly sensitive to fuel costs. In order to compete in deregulated electricity markets, which reward the lowest-cost provider and give no value to external benefits such as those described earlier, the biomass power facilities must reduce their fuel costs to the lowest possible level.

For example, many biomass power facilities pay in the range of $40 per ton for wood chips delivered to their facilities as fuel. Each $10 they pay for fuel equates to 1 cent per kilowatt hour on the cost of their electricity. At $40 per ton (an average price for a ton of forest-derived fuel) the facilities are paying out approximately ⅔ of their income (4 cents out of 6½ cents) for fuel alone. Going forward, the remaining income of 2½ cents may be inadequate to cover the costs of operations and maintenance, labor, debt service, and administration. Many facilities now need to reduce fuel costs if they are to maintain full productivity and continue to provide the environmental and economic benefits that serve the public good.

This issue is pertinent here because the cost of biomass fuels removed from public lands will have to be measured against the cost of all other available fuels. Just because public land fuels may be available, there is no certainty that they will be utilized unless they are competitively priced. An opportunity exists here to shape Federal policy, perhaps in the form of priority fuel use incentives, to ensure that biomass power facilities turn first to residuals from public lands.

Looking ahead

There is a solid case that can be made for optimizing the electricity output of the nation's existing biomass power facilities, including those that are operating at present and those that are currently idle. They generate clean renewable electricity and, as an inherent bonus, remedy a range of environmental and economic problems. This industry could provide a worthwhile service—and a higher level of service—to Federal land managers if certain policies were enacted. Biomass power facilities can and should be integrated into the implementation of the National Fire Plan whenever possible. They can also help fulfill the promise of the Herger-Feinstein Quincy Library Group legislation which will test large-scale, progressive strategies for land management and fire risk reduction.

Additionally, there is a demonstrable need for the construction of new biomass power facilities in many regions of the country that are currently unserved or under-served. In light of the millions of acres of public lands in states like Alaska, New Mexico, and Montana, it is surprising that no biomass power facilities exist there at all. Other states like Oregon, Washington, and New York have only a handful of facilities.

In order to move ahead with new projects, developers need certainty about long-term fuel availability at affordable contract prices and they need to know that they will receive a reasonable price for their electricity over an extended period of time. The rest is mostly engineering. The Federal government could accelerate the construction of the next generation of biomass power facilities in those locations where they are most appropriate and needed by reaching out with encouragement and assistance to the private sector.

Biomass materials from public lands can also be co-fired in existing power plants that use coal as a primary fuel. By substituting a certain percentage (5 percent–10 percent) of biomass materials for coal, certain criteria air pollutants can be reduced without diminishing electrical output. There may in some instances be a locational match between public lands and coal-fired power plants that make this an attractive option.

Finally, there is an emerging opportunity to use biomass materials from Federal lands as a feedstock for ethanol production. While ethanol and its tax credit are not without controversy, evaluation of its merits in a scenario in which an ethanol distillation facility is co-located with an existing biomass power facility is underway at a number of sites. Attractive engineering and fuel efficiencies appear to be within reach.

Recommendations

To ensure the availability of the nation's existing biomass power facilities as a productive-use destination for materials removed from public lands for fire risk reduction or other commercial purposes, our primary recommendation is to provide the industry with a much-needed production tax credit similar to the one that has been provided to the wind energy industry since 1992. Our industry is in turmoil now as fuel supplies contract and electricity markets are radically reshaped. The production tax credit would increase the electricity generated by the industry and would stabilize its operations at a time when many fear reductions or closure in the near future. Legislation which includes this production tax credit is known as the Energy Security Act of 2001 and has recently been introduced in the Senate.

From a broader perspective, the nation also needs an articulated biomass management policy as a context for future decision-making. None exists now, even though we have an abundance of biomass waste materials that are a latent source of products, wealth, and environmental benefits. Intelligent utilization of our biomass resources is the cornerstone of self-reliance for electricity production and other desirable purposes.

Mr. CALVERT. [Presiding.] I thank the gentleman.

Mr. McInnis, you are outnumbered. We have three Southern Californians here, and we like it, too.

Our last panelist is Ms. Leslie James, Executive Director of the Colorado River Energy Distributors Association.

You may begin.

STATEMENT OF LESLIE JAMES, EXECUTIVE DIRECTOR, COLORADO RIVER ENERGY DISTRIBUTORS ASSOCIATION

Ms. JAMES. Mr. Chairman, members of the Committee, I am Leslie James. I am honored to have been asked to speak with you today regarding environmental and market impacts on the Federal Colorado River Storage Project and its customers.

CREDA is a non-profit organization representing consumer-owned utilities in the six Western States of Arizona, New Mexico, Nevada, Utah, Colorado, and Wyoming. For Mr. McInnis, our members include Tri-State GNT, Platte River Power Authority, and Colorado Springs Utilities.

Formed in 1978, our organization members serve nearly 3 million electric consumers in these States. They have all entered into long-term, cost-based contracts with the Western Area Power Administration, or WAPA, for purchase of Federal hydropower produced by the Colorado River Storage Project, or CRSP.

CRSP contractors have been ensuring repayment of the Federal investment in that project for 30 years. The rates charged under these contracts are subject to frequent adjustment in order to repay all of the Federal investment, with interest, in the CRSP, including generation, transmission, operation and maintenance, and environmental costs. In addition, the contractors are paying over 95 percent of the cost of the irrigation features of the CRSP.

CRSP generating resource capability has been severely restricted. Let's start with Glen Canyon Dam. Glen Canyon is the largest feature of the CRSP, located near Page, Arizona. In 1996, after many years of study and a $104 million EIS, which was also paid for by CRSP power revenues, Glen Canyon operations were changed. Approximately one-third of the generating capability has been lost.

The EIS identified the annual financial cost to CRSP customers at about $89.1 million per year, but that was in 1991 dollars. Today, it is probably 3 to 4 times that cost. To date, over $134 million has been spent on Glen Canyon studies and paid for by CRSP power revenues. This figure does not include the nearly $8 million a year spent for the adaptive management program.

Just last summer, due to the requirements of a 1994 Fish and Wildlife Service biological opinion, a low-flow experiment was undertaken. The experiment includes low flat flows all summer, which meant reduced generation and no ability to follow load. The low flat flows and dry hydrology, along with the increase in energy market prices in the West, had a severe impact on costs. It required WAPA to purchase $55 million worth of replacement power during that period last summer. The cost of the experiment alone for research and manpower was over $3.5 million, also paid by CRSP power revenues.

Let's move up to the upper basin, Flaming Gorge Dam. Flaming Gorge is on the Green River, located near Vernal, Utah. A 1992 Fish and Wildlife Service opinion has reduced Flaming Gorge generation by about 17 percent. Two years ago, the estimated impact of that reduction was about $2.87 million per year. There is also a current new potential for impacts to Flaming Gorge due to an ongoing EIS on Flaming Gorge flows. The cost of this EIS is estimated to be about $3 million, and it should be completed within the next 18 months.

Let's move to the Aspinall Unit. The Aspinall Unit includes three dams and generating plants along the Gunnison River near Gunnison, Colorado. Since 1988, the Upper Colorado Endangered Fish Recovery Program has been performing studies and installing capital features to benefit four endangered species of fish, but no studies have been completed to address the impacts on power generation.

The Fish and Wildlife Service has drafted a flow recommendations report which has yet to be finalized. Our concern is, once again, there will be efforts to re-operate these dams in favor of endangered fish and to the detriment of power generation. These facilities are basically the last remaining peaking units in the CRSP.

Another impact to these facilities comes with the filing on January 17th of this year by the National Park Service of a proposal

to quantify reserved water rights for the Black Canyon of the Gunnison National Monument.

Now, I will talk briefly about the Western energy market and the effects on the CRSP and our members. This energy market crisis you have heard a lot about today is affecting all CRSP contractors and WAPA. Reduced generation at CRSP facilities has required our members and WAPA to be out in the market buying power to replace lost generation. This is the same energy market from which California entities are buying.

Our members are potentially facing a rate increase from WAPA. As originally proposed, it could have increased the CRSP rate 67 to 187 percent. WAPA is considering alternatives to this rate adjustment, however. But just to give you an idea of the market impact, in a normal operating year WAPA would spend $6 million during the whole year on purchased power. Just this last winter, they spent $71 million.

Additionally, the CRSP resources marketed by WAPA are pursuant to law and marketing plans. They are within a legally defined marketing area and on a long-term contractual basis. However, on September 18th and February 15th this year, WAPA was directed to ramp up Glen Canyon to help California avoid blackouts. Although sympathetic to the energy issues in California, CREDA has serious operational, legal, and financial concerns with the requirement that CRSP resources be made available to California.

In summary, our view is that in any self-reliant, comprehensive energy policy the unique roles, obligations, and contracts of the Federal power marketing agencies must be recognized and maintained.

Secondly, Federal generating facility agencies should be encouraged to maximum production from those facilities, recognizing existing legal constraints.

Third, Fish and Wildlife flow recommendations for Federal hydropower facilities must be based on peer-reviewed, sound science, in consultation with all relevant stakeholders, and should take into account elements of Federal energy policy and economic impact. There must be a balance between costs and impacts.

Lastly, CRSP contractors must not be held responsible for operational, legal, or financial impacts associated with the Federal Government's assistance to California during this time of crisis.

Thank you for the opportunity of appearing before you today.

[The prepared statement of Ms. James follows:]

Statement of Leslie James, Executive Director, Colorado River Energy Distributors Association (CREDA)

Mr. Chairman, members of the Committee, I am Leslie James, Executive Director of the Colorado River Energy Distributors Association (CREDA). I am pleased to have been asked to talk with you today regarding the Colorado River Storage Project, its role in the development of a self-reliant U.S. energy policy, and recent impacts on this Federal project.

CREDA members (contractors) have entered into long-term, cost-based contracts with the Western Area Power Administration (WAPA), a power marketing administration of the Department of Energy, for purchase of Federal hydropower resources of the Colorado River Storage Project (CRSP). These contracts provide for frequent rate adjustments in order to ensure repayment of the Federal investment in the CRSP. Our purpose today is to provide some background on the facilities of the CRSP, to discuss the costs included in the CRSP rate, and to describe environ-

mental and energy market impacts on both the Federal government and CRSP contractors. First, a description of CREDA and its membership.

CREDA is a non-profit organization representing consumer-owned electric systems that purchase Federal hydropower and resources of the CRSP. CREDA was established in 1978, and serves as the "voice" of CRSP contractor members in dealing with resource availability and affordability issues. CREDA represents its members in dealing with the Bureau of Reclamation (as the generating agency of the CRSP) and WAPA (as the marketing agency of the CRSP). CREDA members are all non-profit organizations, serving nearly 3 million electric consumers in the six western states of Arizona, Colorado, Nevada, New Mexico, Utah and Wyoming. CREDA members purchase over 85 percent of the CRSP power resource. Attached is a listing of current CREDA members. At the time CREDA was formed, the key issue for its members was the continuing increase in CRSP rates. CREDA members felt it would be more effective and efficient to have a single organizational "voice" for them in regard to rate, Federal legislative and environmental issues impacting the CRSP.

CRSP contractors have been ensuring repayment of the Federal investment for 30 years, by entering into long-term contracts to purchase the CRSP resource and by paying all of the Federal investment in generation and transmission facilities (with interest), all power-related operation and maintenance costs, and environmental costs. In addition, the CRSP contractors are paying over 95 percent of the cost of the irrigation features of the CRSP (beyond the ability of the irrigators to pay). In fact in the current CRSP rate, 35 percent of the total annual revenue requirement is due to irrigation assistance! It is important to note that the cost-based nature of the CRSP rate includes costs beyond simply those associated with generation of the hydropower resource. A further example is the cost of the Glen Canyon Adaptive Management Program (AMP) and the Upper Basin Endangered Fish Recovery Implementation Program (RIP). More, detail on these costs will be provided below. Next, a description of the CRSP.

The Colorado River Storage Project (CRSP) was authorized in the Colorado River Storage Project Act of 1956 (P.L. 485, 84th Cong., 70 Stat. 50), as a multi-purpose Federal project that provides flood control; water storage for irrigation, municipal and industrial purposes; recreation and environmental mitigation and protection, in addition to the generation of electricity. This testimony will focus on the major generation features of the CRSP, although there are several irrigation projects included in the Project. The CRSP power features include five dams and associated generators, substations, and transmission lines.

Glen Canyon Dam

Glen Canyon Dam is located near Page, Arizona and is by far the largest of the CRSP projects. Glen Canyon Dam began operation in 1964. The water stored behind the dam is the key to full development by the Upper Colorado River Basin states of their Colorado River Compact share of Colorado River water. The Glen Canyon power plant consists of eight generators for a total of about 1,300 MW, which is more than 70 percent of total CRSP generation. The ability of the Bureau to generate, and WAPA to market, the total generating capability of Glen Canyon Dam has been impacted over a period of many years, by various processes and laws. In 1978 the Bureau began evaluating the possibility of upgrading the eight generating units at Glen Canyon. This was possible primarily due to design characteristics of the generators and improved insulating materials. This upgrade was completed, and the generation was increased from about 1,000 MW to 1,300 MW. To fully utilize the unit upgrades would require the maximum release of water from Glen Canyon to be increased from 31,500 cubic feet per second (cfs) to about 33,200 cfs. The Bureau also studied the possibility of adding new units on the outlet works to provide additional peaking capacity. The possibility of increasing maximum releases from Glen Canyon raised concerns with downstream users. After discussion with stakeholders, the Secretary of the Interior initiated the first phase of the Glen Canyon Environmental Studies.

In 1982, the Bureau began Phase I of the Glen Canyon Environmental Studies. These studies were primarily to analyze the impacts of raising the maximum release from 31,500 cfs to 33,200 cfs on the transport of sediment downstream from the dam, recreation (including fishing and rafting), endangered species (including the humpback chub in the Lower Colorado River), and the riparian habitat along the river banks. The studies proceeded during the early 1980's and were concluded in 1987. The general conclusion of the Glen Canyon Environmental Studies Phase I was that the dam had blocked much of the sediment coming down the Colorado River and therefore beaches were not being replenished with sand. Many questioned the results of the Glen Canyon Environmental Studies Phase I because the process

did not in all cases follow good scientific practice. For instance, the impact on power and water economics was not fully explored.

After reviewing the Glen Canyon Environmental Studies Phase I and a review by the National Academy of Science, the Secretary of the Interior determined that the Glen Canyon Environmental Studies should be continued to address the economic impacts, particularly as they relate to power, and also to collect additional data to substantiate some of the conclusions in the Phase I report. Flooding during 1983–85 exposed Native American cultural sites in the canyon, so an inventory was necessary to identify these sites and recommend appropriate protection.

The Glen Canyon Environmental Studies Phase 2 was initiated in 1989. The Bureau of Reclamation decided to hire a Senior Scientist to assist with the development of the Phase 2 studies to assure an appropriate scientific process. The Bureau and the Senior Scientist developed Phase 2 studies, which included a series of test flows to evaluate the impact of different operating conditions and to develop response curves for various conditions. Many interested parties, including water, power, recreation, environment, and Native American interests participated in the process.

In July 1989, the Secretary of the Interior announced the start of an environmental impact statement (EIS) on the operation of the Glen Canyon Dam. No specific Federal action was identified for study. Meetings were held during 1990 to seek input into alternatives that should be considered, and the Bureau determined the nine alternatives (including a "no action" alternative) to be studied. Meanwhile, in 1992, the Grand Canyon Protection Act (106 Stat. 4672) was signed into law. Section 1804 of the Act required completion of the EIS within two years. The EIS was completed and the Record of Decision (ROD) signed in October 1996. The result was that Glen Canyon operations were changed to reflect a revised flow regime; approximately one-third of the generating capacity was lost (456 MW). The EIS identifies the annual financial cost to CRSP power contractors at $89.1 million per year. But this figure is in 1991 dollars and is probably 3–4 times greater today, given energy market conditions. The cost of the Glen Canyon EIS was approximately $104 million, and was funded by power revenues collected from the CRSP contractors. To date, over $134 million has been spent on Glen studies, and paid by CRSP power revenues. This figure does NOT include the nearly $8 million per year spent for the Adaptive Management Program.

The Act also recognized that with the changes in operation that resulted from the EIS, there ought to be a new look at how the costs of the Dam are assigned for repayment. Section 204(e) of the Act requires the Secretary of the Interior to implement a new allocation of costs, which would relieve power from some of those obligations commensurate with the loss of generating capacity. The new operating criteria were implemented in 1996, but the Secretary has yet to produce a cost study or to reallocate the costs as required by law.

In April of 2000, it was determined that, due to hydrologic conditions and requirements of a 1994 Fish & Wildlife Service biological opinion, a low flow summer experiment would be undertaken. The experiment included high spike flows in May and September, with low flat flows (8,000 cfs) all summer. The purpose was to gain information regarding endangered humpback chub conditions. The low, flat flows and hydrology, along with western energy market prices, had a severe impact on power generation, requiring CRSP customers, and WAPA, to purchase replacement power to meet their resource needs. The cost incurred by WAPA (and to be recovered from CRSP contractors) for this replacement power was $55 million, just for the summer. Twenty-four million dollars of this total is attributed to the low steady flow environmental experiment; the remainder is attributed to wholesale energy market prices. The cost of the experiment alone was over $3.5 million, funded by CRSP power revenues. These figures do not include additional costs to CRSP contractors who had to purchase or supplement their CRSP resource with purchases from the energy market.

Adaptive Management Program

CREDA participates on the Federal Advisory Committee charged with making recommendations to the Secretary of the Interior as to operations of Glen Canyon Dam pursuant to the Record of Decision and underlying laws. Funding for the program (Adaptive Management Program) is through CRSP power revenues. Proposed funding for next year's program will exceed $10 million. On October 27, 2000, President Clinton signed the FY 2001 Energy and Water Development Appropriations Act which includes language (section 204) capping the amount of CRSP power revenues that can be used for the Adaptive Management Program at $7,850,000, subject to inflation. Without this cap, the annual program costs would have continued to increase, with power revenues being the sole funding source. Now, the program will

need to seek appropriated dollars in order to maintain increased funding levels. CREDA supports seeking other sources of funding for this program. CREDA also participates on the Technical Work Group through our consultants, to ensure that good science and efforts to increase power production are considered.

CRSP contractors have paid, and continue to pay, the majority of costs at Glen Canyon, even while the Glen capacity has been depleted by about one-third, and there are significant operating constraints on the remaining available capability, as required by the 1996 ROD. CREDA is optimistic, however, that additional capability may become available to the CRSP contractors while still in compliance with the operating restrictions.

Flaming Gorge Dam

Flaming Gorge Dam is on the Green River, a major tributary of the Colorado River, and is located near Vernal, Utah. Flaming Gorge has three units producing about 152 MW of generation. In 1992, the Fish & Wildlife Service issued a Biological Opinion on the operation of Flaming Gorge Dam. Two years ago, the estimated impacts to power generation since implementation of the Biological Opinion was $2.87 million per year. Approximately 26 MW have been lost to date due to changed operations to benefit endangered fish. During summer of 2000, the Bureau began the process of completing an EIS on proposed flow recommendations for endangered fish. The Bureau is attempting to keep a narrow scope on the recommendations, but some environmental groups are advocating the inclusion of an alternative to tear down the dam Two CREDA members from Utah are "cooperating agencies" and, thus, are able to participate in the meetings with the Federal agencies. The cost of the Flaming Gorge Dam EIS is expected to be $3 million, and could be completed within the next 18 months.

Aspinall Unit

The Aspinall Unit includes three dams and generating plants along the Gunnison River near Gunnison, Colorado. Blue Mesa is the first darn on the river and has two units producing about 97 MW. Morrow Point is the second dam in the series and consists of two generators producing a total of 146 MW. Crystal is the final dam and has one 32 MW generator. Morrow Point and Crystal Reservoirs allow some regulation of the river flow so that releases from Crystal can be used to regulate downstream flows as necessary. Since the early 1990's as part of the Upper Colorado River Endangered Fish Recovery Implementation Program, or RIP, studies have been undertaken to determine fish needs in this region. But NO studies have been completed to determine impacts on power generation! CREDA's interpretation of the Fish & Wildlife Service's flow recommendations is that they advocate a return to "natural", or almost pre-dam flow patterns. In our view, this goal is unattainable and unrealistic. The dams are there, the environment has changed, and efforts to recover fish should recognize those facts. The Fish & Wildlife Service's draft flow recommendations report has yet to be finalized.

Another looming impact on power generation on the Gunnison River comes with the filing by the National Park Service of a proposal to quantify reserved water rights for the Black Canyon of the Gunnison National Monument This filing was made in Colorado Water Court on January 17, 2001. (Case No. W–437, District Court, Water Division No. 4, Colorado.) CREDA has not yet completed its analysis of the impacts to power generation, but our preliminary indications are that the proposed flows associated with the water right quantification are unachievable and will have a severe impact on power generation and existing water rights within the State of Colorado. Statements of opposition in this matter must be filed by March 30, 2001 in Colorado Water Court.

Upper Colorado River Endangered Fish Recovery Implementation Program (RIP)

The RIP was established through cooperative agreements among States and Federal agencies in 1988 for a 15-year period to help recover four endangered fish in the Upper Colorado Basin. Power revenues currently fund about 60 percent of the base research/study program, which until recently required about $2. 1 million per year. Authorizing legislation was passed in October 2000, which authorized a $100 million capital improvements program. CREDA testified in support of this legislation in both House and Senate hearings. The legislation provides matching funds for the capital program so that, in the event State funding for the program ceases, so too does power revenue funding. The legislation had the support of the Upper Basin States, CREDA, Federal agencies and some environmental groups. Why did CREDA support it? (1) It caps CRSP cost exposure; (2) unlike in the Grand Canyon, the States are contributing funding; and (3) also unlike in the Grand Canyon, the authorization expires in 2011 and the program will have to be reauthorized by Congress.

The legislation requires CRSP power revenue funding for monitoring and research of up to $6 million per year, with credits toward repayment. In addition, the Upper Basin States and CRSP power revenues will each contribute $17 million toward capital features. The legislation recognized that changes in operation of Flaming Gorge and Aspinall generation as a result of Biological Opinions cost CRSP contractors $2 to $5 million per year. Notwithstanding the passage of authorizing legislation for the RIP, CREDA still has concerns regarding ongoing impacts to operation of the Federal facilities. In addition, CREDA is concerned that there should be specific recovery goals established as soon as possible. Recovery should be achieved through the capital features of the RIP, not rely solely on dam operation adjustments.

The western wholesale market

The power systems throughout the western United States are all interconnected and thus operate as one large integrated system. Electricity is the ultimate in "just in time delivery, but this delivery creates a problem because large quantities of electricity cannot be stored for later use. Any time the load increases or decreases, a regulating generator must sense that change and immediately respond appropriately. The system has been designed to allow certain units to be "base" loaded, while a few of the units are allowed to "follow load" or regulate. This system has provided a very stable and reliable electric system. To enable reliable moment-by-moment system control, it is necessary to have contractual arrangements to address how the various entities will interrelate and account for the power and energy. These contractual arrangements can be very complex, but they provide a means of reconciling the system after the fact. Therefore, contractual arrangements may not necessarily follow the actual operation on a moment-by-moment basis, but the contracts allow the entities to operate within agreed upon guidelines so business can continue.

Hydro projects are ideal for "load following" and meeting peak demand because they can be easily and quickly adjusted to meet changing load. The Federal hydro system historically has been used to follow the load within the region, while the larger, less flexible nuclear and coal-fired plants provide the base load requirements. It has also been possible for the output of the hydro projects to be reduced to a minimum at night to "save" the water in the reservoir for use the following day when peak loads require it. This integration of hydro and thermal resources provides the most efficient operation of the electric power system. Historically, WAPA has been able to reduce its hydro resources to the minimum level in the middle of the night (when most users are asleep and industrial loads are low) and use thermal resources, and then increase the hydro generation in the daytime to provide the peaking requirement and defer the addition by the customer of additional peaking or less efficient coal-burning resources. If the hydro resource is constrained by maximum and minimum flow and ramp rate releases, this flexibility and diversity is reduced. This also reduces the value of the hydropower, necessitates additional coal burning, possibly requires additional resources to be built, and raises the cost to consumers due to the need to replace unavailable resources.

CRSP rates and marketing program

When the Federal reclamation projects were begun, they were designed, constructed, operated, and maintained by the Bureau. The Bureau also owned the transmission system and marketed the power from the projects. When WAPA was formed under the Department of Energy Organization Act in 1977, the design, construction, operation, and maintenance functions remained with the Bureau, and the transmission system and marketing responsibilities were moved to WAPA. Construction and capital projects are funded through the Federal Treasury at the interest rate determined by Congress or at the time construction starts. These projects go through a budgeting process associated with the Federal budget, and money is appropriated for these projects with congressional approval. As revenues are collected for the sale of Federal power, there is a priority assigned to payment of obligations. The priority of repayment of the projects is that O&M expenses for WAPA and the Bureau are paid first and then repayment of the highest interest loans is made to the Federal Treasury. The components associated with the power features are paid first, including the appropriate interest, and then the power revenues are used to pay the irrigation projects at no interest.

Each year WAPA compiles a "power repayment study" which estimates expenses of both the Bureau and WAPA, and is the basis for the CRSP rate. After WAPA has completed the power repayment study and if a rate adjustment is necessary, a public process is begun. This process includes a notice in the Federal Register that a rate adjustment is necessary, public information and comment meetings, and then the proposed rate is filed with the Federal Energy Regulatory Commission (FERC)

for review. The rate can be put into effect on an interim basis while FERC reviews the rate, and if FERC concurs, the rate becomes final. FERC may also choose to remand (or send back) the rate.

In July 2000, CREDA was pleased to learn that through our 1992 Work Program Review process (a contractual arrangement among CREDA, the Bureau and WAPA), WAPA would defer a rate increase until 2001. However, as indicated in a November 8, 2000 Federal Register notice (65 FR 66995) due to low hydrology, high purchased power costs and the impacts of the Glen Canyon low flow experiment, WAPA announced it is in a severe cash flow situation and would have to consider a rate "adder". CRSP financial obligations are paid from the CRSP Basin Fund, a revolving fund in the United States Treasury, which is greatly impacted by high purchased power prices. The replacement and firming power purchased by WAPA on behalf of the CRSP contractors is paid for from this Fund. Clearly, the significant increase in energy prices over the past 9 months has had a severe impact on the Basin Fund cash flow. The proposed "adder" would have amounted to a 62 percent increase in the CRSP rate. Under other, "worst case" hydrologic scenarios, this increase could have been as high as a 187 percent increase in the first year. As proposed, the increase would have translated to an approximately $57 million impact to CREDA members in the first year alone. WAPA is currently exploring alternatives to the "adder". The effects on the CRSP rate from the western energy market are staggering. For instance, in a "normal" operating year, WAPA purchases approximately $6 million worth of purchased power to firm up the CRSP resource commitments. This winter season, however, WAPA's purchased power requirements for CRSP are $71 million!

The original CRSP contracts expired on September 1, 1989. WAPA completed an Environmental Impact Statement (EIS) on the Post-89 Marketing Criteria. Contract amendments were executed which reflected changes in the operation of the CRSP facilities, and provided options for the CRSP contractors in terms of whether they desire to make up the "shortfall" themselves, or whether they desire to have WAPA purchase on their behalf and pass through the associated costs.

Changes to the amount of CRSP resources available to CRSP contractors began again in April 1998. The changes were made in the contracts to reflect the changed operating conditions at Glen Canyon Dam. In addition, in late 1998, the Department of Energy (DOE) was asked to begin the process to extend the CRSP and Central Valley contracts beyond 2004. Following this process, at the direction of newly appointed DOE Secretary Bill Richardson, a public process began to determine how much of the existing CRSP resource should be "set aside", primarily for Native American allocations. In June, 1999, WAPA published a Federal Register notice (64 FR 34414, June 25, 1999) indicating that in the post-2004 CRSP contract extensions, CRSP allocations would be reduced up to 7 percent to create a pool of power to be allocated to Native American and new customers. Preceding this decision, departing DOE Secretary Elizabeth Moler posed a series of questions for public comment regarding allocation of and use of Federal hydropower resources by preference entities in a deregulated environment (63 FR 66166, December 1, 1998). Ultimately, DOE found no change was required of WAPA's marketing criteria, which to CREDA reaffirmed the concept that the cost-based rates and marketing criteria associated with the CRSP are still relevant, possibly even more so, in a deregulated environment. WAPA is currently negotiating the "post-2004" contracts with new applicants for the CRSP resource. In essence, CRSP contractors have experienced a reduction in the amount of CRSP resource available to them through both operational and administrative processes. They are now facing significant rate impacts due to the effects of hydrology and energy market conditions in the west.

The "California" crisis and CRSP

The western energy market "price crisis" is affecting all CRSP contractors and WAPA. Reduced operational levels at CRSP facilities, due to environmental constraints, have caused WAPA and the contractors to be out "in the market" having to purchase resources to meet contractual obligations and to serve load. This is the same energy market from which California entities are buying.

The CRSP resources are marketed by WAPA pursuant to law and marketing plans within a legally defined marketing area, on a firm basis to preference entities. And yet, by Presidential and DOE directives issued during 2000, WAPA was called upon on September 18, 2000 and again on February 15, 2001, to "ramp up" Glen Canyon to assist the California Independent System Operator avoid blackouts. Although sympathetic to the energy situation in California, CREDA has some serious concerns with a requirement that CRSP resources be made available to California. CREDA's concerns are operational, legal and financial. Current hydrologic conditions in the Colorado Basin indicate the potential for another dry summer. Water

released this spring may not be recoverable when so desperately needed to meet summer peak demands. CRSP resources are committed under long-term, cost-based contracts with a legally defined group of contractors, who are located within a legally established geographic marketing area. From a financial standpoint, the CRSP contractors are the "guarantors" of Federal repayment investment in the CRSP. Given the current financial situation of California power purchasers, CREDA believes the CRSP contractors must be provided protection from financial impacts which may result from Presidential or Administration directives which require WAPA to sell into the California market.

Conclusions and recommendations

1. In any self-reliant, comprehensive Energy Policy, the unique roles and responsibilities of the Federal power marketing administrations must be recognized and maintained. CRSP resources are marketed under long-term, cost based contracts and guarantee repayment of the Federal investment in power facilities as well as its very sizable investment in irrigation projects.

2. CRSP contractors must not be responsible for operational, legal or financial impacts associated with the Federal government's assistance to California.

3. The Fish & Wildlife Service recommendations for flows to Federal hydropower operations in order to benefit endangered fishes must be based on peer-reviewed, sound science, in consultation with all relevant stakeholders, and should take into account elements of Federal energy policy and economic impacts. There must be a balance between costs and impacts.

4. Federal hydropower facility operating agencies should be encouraged to maximize production from those facilities, recognizing existing legal constraints.

CREDA thanks the Committee for the opportunity of providing this information and appearing today.

Colorado River Energy Distributors Association (CREDA) Membership

Arizona:
Arizona Municipal Power Users Association
Arizona Power Authority
Arizona Power Pooling Association
Irrigation and Electrical Districts Association
Navajo Tribal Utility Authority (also New Mexico, Utah)
Salt River Project

Colorado:
City of Colorado Springs
Intermountain Rural Electric Association
Platte River Power Authority
Tri-State Generation & Transmission Cooperative (also Nebraska, Wyoming and New Mexico)
Yampa Valley Electric Association, Inc.

Nevada:
Colorado River Commission of Nevada
Silver State Power Association

New Mexico:
Farmington Electric Utility System
Tri-State Generation & Transmission Cooperative
City of Truth or Consequences

Utah:
City of Provo
Strawberry Electric Service District
Utah Associated Municipal Power System
Utah Municipal Power Agency

Wyoming:
Wyoming Municipal Power Agency

Affiliate Member:
Navopache Electric Cooperative (Arizona)

Mr. CALVERT. I thank the gentlelady.

I have a few questions. Certainly, we do have an energy crisis. I don't want to just refer to it as a California energy crisis. I believe that we have an energy crisis that may be systemic through-

out the United States, especially in the West, and California is just the first evidence of what may occur in other areas. Certainly, it already is occurring in other areas.

Glen Canyon Dam. There are probably two people who could answer this question, Mr. Hocker and Ms. James. How many megawatts have been lost to production because of the new requirements that have been set forth in operations of that dam?

Ms. JAMES. Approximately 456 megawatts, of a total potential capability of 1,300 megawatts.

Mr. CALVERT. Close to 500 megawatts. California, can only use power out of Glen Canyon, as a last resort. I guess we have used it a couple of times here in the last few months. Is that correct?

Ms. JAMES. Mr. Chairman, yes, that is correct. On September 18th of 2000 and on February 15th of 2001.

Mr. CALVERT. For spike energy needs.

Ms. JAMES. And you are right. Basically, it was the understanding of WAPA that it was a resource of last resort.

Mr. CALVERT. A resource of last resort.

Since the new order came in effect limiting the amount of power out of Glen Canyon, has there been any effect on the species that they were trying to protect downstream? Was that the chub fish?

Ms. JAMES. Mr. Chairman and members, yes, the EIS addressed multiple downstream resources. But you are correct; it is the humpback chub. The habitat of the humpback chub is basically the lower Colorado River, which feeds into the main stem of the Colorado.

The summer flow experiment that was undertaken this year—the test results are not entirely in. The primary purpose for that experiment was The biological opinion that required them to do these type of flows for the humpback. So in terms of what was the impact, the jury is still out.

Mr. CALVERT. We don't know?

Ms. JAMES. That is correct.

Mr. CALVERT. And how long has this been going on?

Ms. JAMES. The record of decision was signed in October 1996, and the experimentation in Glen Canyon through the adaptive management program has been going on since then. The low flow experiment this summer for the chub started in May and concluded in September.

Mr. CALVERT. Has there been any more discussion out of this administration about piercing dams in the West? Have you heard anything from the Department of the Interior recently about that?

Ms. JAMES. Mr. Chairman, no, I have not.

Mr. CALVERT. That has kind of stopped?

Ms. JAMES. We hope so.

Mr. CALVERT Mr. Hocker, in your statement you briefly discussed administrative reform efforts with resource agencies and other stakeholders. What were these processes and how have these processes helped?

Mr. HOCKER. Well, it has been helpful to have dialogue with the various agencies. There was an interagency task force. There has been a national review group put together by EPRI. We encourage this sort of effort between dam owners, hydro project owners, and the resource agencies.

But there have also been disappointments, most recently when the Department of the Interior just before the change of administrations put forth a proposed fishway policy that essentially would have defined virtually anything as a fishway and virtually anything as a fish. It was discouraging to us because we felt it went against the National Energy Policy Act of 1992, and again shows why we think ultimately our search for balance and fairness in the licensing process is going to have to be legislative rather than administrative.

Mr. CALVERT. Mr. Hogan, you mentioned that there are folks selling power. I assume they have long-term power contracts.

Mr. HOGAN. No, they weren't long-term power contracts. They take an average over the past 5 years on usage and they calculate the payment to the producer on that usage.

Mr. CALVERT. So they pay you not to produce, in effect?

Mr. HOGAN. That is correct.

Mr. CALVERT. So by doing that, that obviously has a domino effect on the local economy, the people driving the trucks, the people in the stores. The only people who benefit from that obviously are the people who own the land.

Mr. HOGAN. Absolutely.

Mr. CALVERT. So that could be an ongoing effect if we don't get a hold of this problem pretty quickly.

Mrs. Napolitano is recognized.

Mrs. NAPOLITANO. Thank you, Mr. Chair.

I hate to bring California up again, but this still bothers me. Ms. James, I noticed in your testimony, and actually you referred to it, that the members of your distributors association include everybody except California. Can you explain why?

Ms. JAMES. Yes. The resources of the Colorado River Storage Project, or CRSP, are marketed pursuant to a Federal marketing plan. The marketing plan is restricted geographically to exclude California. It was a marketing plan that was developed at the time the CRSP resource was developed and has been renewed every time the long-term contracts are up for renewal. California is not part of the geographic scope of that Federal project, unlike Hoover. Hoover is marketed into California, but Hoover is an entirely different law and marketing plan.

Mrs. NAPOLITANO. What is the reason for the exclusion?

Ms. JAMES. Well, I guess you would have to ask the Congress at the time the CRSP Act was passed and the marketing plans were developed.

Mrs. NAPOLITANO. I just had to clarify that.

One of the questions that I have is will it be possible to upgrade the existing generation or otherwise increase generation capacity in your projects and still comply with the environmental and Endangered Species Act requirement?

Ms. JAMES. Yes. We believe that to a certain extent there is the ability to increase generation within the confines of the record of decision at Glen Canyon. The Glen Canyon adaptive management program is a program of experimentation. What we continue to try to stress in that program is that power production is a downstream resource as important as sediment, vegetation, fish, et cetera.

So we believe within the confines of the operational constraints, there is the ability, working with the Bureau of Reclamation as the operating agency, to make some adjustments to generation patterns to increase some of the output of Glen Canyon.

Mrs. NAPOLITANO. And is the Bureau also evaluating the improvements to project the generating capacity?

Ms. JAMES. That is a good question. I understand Section 105 of Mr. Murkowski's bill has a provision that would require those agencies to look into that. I think at this point the Bureau is considering how are they going to respond, but that is something we would also encourage, that they look at the ability to increase and enhance flexibility within existing legal constraints for all the CRSP facilities.

I might also add as to the Flaming Gorge and Aspinall Unit facilities, later this month we believe some recovery goals will be published in the Federal Register. Those recovery goals will also cover the humpback chub. There may be some ability through the recovery goals to ease restrictions at Glen in terms of experimentation for humpback chub.

Mrs. NAPOLITANO. Thank you. I will pass on further questions.

Mr. CALVERT. Mr. McInnis?

Mr. MCINNIS. Thank you, Mr. Chairman. As you know, we are down to our vote, the final few minutes. Otherwise, I would like to spend some time.

Ms. James, I found your testimony fascinating. One reminder that Black Canyon is no longer a monument. My bill in the House, with the support of my colleagues, made it a park.

But that aside, I think you are pointing out very clearly what our difficulty is with this energy problem in this country. We have got the capability; we have got capacity in place ready to produce this. But because of these other considerations, we can't flip the switch, and literally in some cases that is all that is necessary.

I wanted to, Mr. Chairman, submit for the record a statement from Tad Mason. He is Vice President of TSS Consulting.

Mr. CALVERT. Without objection.

[The prepared statement of Mr. Mason follows:]

TSS CONSULTANTS,
Rancho Cordova, CA, March 5, 2001.

Hon. JAMES V. HANSEN,
Chair, House Committee on Resources,
1324 Longworth House Office Building, Washington, DC.

DEAR CHAIRMAN HANSEN:

As the Resources Committee deliberates on issues related to development of a comprehensive national energy policy consideration should be made for the support of renewable energy sources.

The advantages of utilizing renewable sources of energy—especially biomass energy are numerous, and include:

—Restoration of healthy forests
—Alternatives to open burning
—Reduction of greenhouse gas emissions
—Landfill diversions
—Beneficial economic impacts to rural counties
—Community protection
—Energy diversification

Attached is a short paper describing the positive experiences that we have experienced in the West as a result of supporting biomass energy projects.

Please contact me if you have any questions.

Sincerely,

TAD MASON, *Vice President.*

Statement by Tad Mason, Vice President, TSS Consultants

THE OPPORTUNITY TO DEVELOP BIOMASS ENERGY IN THE WEST

Introduction

This paper addresses the opportunity to develop biomass energy as a renewable energy source in the 11 Western states. As this paper is being composed the West is experiencing a very serious energy shortage, one that will impact this region for years to come. Significant opportunities exist to both improve the health of our Western forests and create more electricity to help solve an energy crisis.

Advantages of biomass energy

In the early 1980's California enacted statewide initiatives targeting the development of alternate energy projects. These, coupled with Federal legislation provided motivation for the almost overnight development of numerous biomass fired power generation facilities. By the early 1990's over 60 plants with an output of 800+ megawatts of power were on line and operating. These plants consumed over 10 million tons of waste wood annually. Not only did these plants generate electricity for an energy hungry region—they also provided significant societal benefits including the disposal of unwanted and underutilized wood waste.

Today, California has 29 biomass to electricity plants operating with an output of just over 550 megawatts. A number of factors contributed to the downsizing of this industry, but the primary reason was concern over the long-term viability of these facilities in a deregulated electricity market. Today, as the state attempts to address the deregulated power generation market, there are ongoing discussions on how to best bring more power generation on line—including more biomass power. Currently the California legislature is considering a number of bills that provide incentives for the development of additional biomass plants.

The California legislature is highly motivated to support the biomass energy sector due to the wide array of societal benefits that this state has experienced since the first plants were built and began operating in the early 1980's. These benefits include:

Restoring Healthy Forests.—Almost a century of successful fire suppression has allowed unnatural accumulations of small trees and brush to grow into very dense thickets. These unnatural and very dense thickets fuel more intense and catastrophic forest replacing wild fires. Last season, over 7 million acres of Western forests were damaged by wild fire. By removing the overcrowded trees and brush, the forests are restored to a more natural condition—one that allows for the re-introduction of fire. Once thinned these forests support critical habitat for a wide variety of sensitive animal species and help assure the long-term health of entire watersheds.

Alternative to Open Burning.—Until the advent of the biomass energy sector, large amounts of woody biomass were disposed of by open field burning. From agricultural byproducts such as orchard pruning material to forest derived byproducts—prescribed burning of small trees, brush, etc., large amounts of wood waste were open burned as a means of disposal. Now that a market exists for this material millions of tons of this waste is consumed in power generation boilers equipped with sophisticated emissions control devices rather than burned in the open with uncontrolled air emissions. The net impact is cleaner air and a move towards meeting new EPA air standards addressing particulate matter of 2.5 microns (down from 10 microns) in size.

Greenhouse Gas Emissions.—Healthy forests have the ability to actively store a major greenhouse gas—carbon dioxide (known as carbon sequestration). As forests are thinned and become more efficient at growing and at carbon sequestration there is a relative reduction of this greenhouse gas. The biomass retrieved from forest thinning operations not only improves forest health (and therefore carbon sequestration) but also represents a power generation alternative to the burning of fossil fuels for power. Fossil fuels combustion releases CO2 that was stored away in long-term geological storage, while biomass combustion actively promotes improved carbon sequestration as in the case of newly thinned, healthy forest. Wild fires are also large producers of CO2 emissions. As more forests receive forest fuels reduction treatments, there should be a net decrease in wild fires, resulting in a net reduction of CO2 emissions.

Landfill Diversions.—It has been estimated that wood waste in the form of crates, pallets, yard trimmings, demolition wood, etc. comprises over 25 percent of the waste stream going into landfills. Diversion of this wood waste to power generation extends the useful life of landfills, reduces waste handling costs and saves municipalities the cost of new landfill development. Less space devoted to landfills means more space for other uses such as parks, habitat conservation easements, etc.

Economic Impacts.—Employment associated with biomass energy plants is significant—especially in the rural areas where these plants are typically sited. Activities such as harvesting, collecting, processing and transporting wood waste to the power plants requires skilled workers that earn relatively high wages. Highly skilled technicians are required to operate and maintain the power plant. The plants also contribute to the local economy through payment of property taxes. In many rural counties the biomass energy plants are among the largest taxpayers.

Community Protection.—Communities located in forested regions of the United States are at significant risk due to the unnatural accumulation of forest fuels over the past century. In fact, this is such a high priority issue that currently, the U.S. Departments of Agriculture and Interior are maintaining a list of Urban Wildland Interface communities that are at high risk from wildfire. The establishment of this document, which now lists hundreds of communities, was in direct response to last seasons' catastrophic wild fire season. The proactive treatment of forest fuels around communities at risk will reduce the chance of catastrophic wild fire. Unfortunately many communities that experienced wild fire last year know only too well how fire can impact the long term economic well being of the areas primary employment sectors—forestry, recreation, agriculture, etc.

Energy Diversification.—Biomass energy provides a renewable energy alternative to the use of non-renewable energy sources such as oil, gas and coal. Use of renewables represents a move towards energy independence, in support of national and international security. Currently, we as a nation import significant amounts of oil from highly unstable regions of the world. This dependence on finite energy resources from insecure regions places the United States at significant risk. Biomass energy, as with other renewable energy sources, represent opportunities to diversify our energy portfolio.

Recommendations

As the House Resources Committee reviews alternatives to address energy policy, consideration should be made to address some hard targets:

Set a renewables portfolio standard goal that mandates that the nation's energy be sourced from at least 25 percent renewables: wind, solar, geothermal and biomass by 2005.

Provide energy tax credits for development of renewable energy projects.

Provide tax incentives to forest landowners that proactively treat forest fuels through removal of biomass that is then used for power generation.

Encourage utilities to enter into long-term power purchase agreements with renewable energy plants at rates that take into account the societal benefits (for example, biomass: improved forest health, clean sustainable energy, reduced open burning, reduced waste to landfills, etc.) which these plants have to offer, at rates that allow the plants to operate at a profit over the long term.

Support the long term funding of the National Fire Plan. Implementation of the NFP will address the long term health of our forests, long term employment in rural communities and provide incentives for the development of biomass energy projects.

Support pilot project funding for biomass to ethanol facilities. As the demand for ethanol in the West increases there is a growing need to produce more ethanol from a wider variety of feed stocks including biomass.

Conclusions

The clear opportunity to address the long term health of this nation's Western forests and, at the same time generate power with a clean renewable energy source exists right now. The technology is proven, and the benefits from existing biomass plants demonstrates the potential for a West wide program.

Mr. McINNIS. Mr. Judd, I wanted to ask you a couple of quick questions. Mr. Mason in his remarks that we have just submitted for the record recommends we establish hard targets for renewable energy sources—he suggests about 25 percent by 2005—and pro-

vide tax incentives to forest land owners who treat fossil fuels through the removal of biomass for power generation.

Do you agree with those recommendations, and how do they tie into the National Fire Plan?

Mr. JUDD. Mr. Mason's first recommendation in terms of incentives is a good one. We have an industry of power producers and an industry of fuel suppliers on the forestry side that are standing still when they should be moving forward. Incentives for the private sector landowners to supply fuel would be useful for the facilities themselves. To keep them operating at full capacity, there needs to be a production tax credit for the existing facilities, and that will be proposed again in legislation this year.

Mr. MCINNIS. Mr. Chairman, in consideration of the time, I will conclude my questioning.

Mr. CALVERT. I thank the gentleman, and I would again like to thank the witnesses for their valuable testimony and the Members for their questions. We may have some additional questions for you. We have several votes. We will be gone for half an hour, so I am going to adjourn this hearing, but please expect some additional questions that we will send to you. Hopefully, we can have some written replies. Again, we thank you.

This Committee is adjourned.

[Whereupon, at 1:50 p.m., the Committee was adjourned.]

OVERSIGHT HEARING ON THE NATIONAL ENERGY POLICY

Wednesday, June 6, 2001
U.S. House of Representatives
Committee on Resources
Washington, DC

The Committee met, pursuant to call, at 10:00 a.m., in Room 1324, Longworth House Office Building, The Honorable James V. Hansen [Chairman of the Committee] presiding.

STATEMENT OF THE HONORABLE JAMES V. HANSEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF UTAH

The CHAIRMAN. The Committee will come to order.

Good morning. As usual members come dribbling in through this, so we will start on time as we normally do. We are pleased to welcome the Honorable Gale Norton, Secretary of Interior to this full Committee hearing on energy policy.

On May 17th, the administration released a National Energy Policy Report designed to identify and implement an energy policy that addresses the needs of the United States over the next three decades. It couldn't have come at a better time. The California problem has spread to other Western States. Consumers are putting a greater percentage of their hard earned paychecks toward electric and gas bills. Agriculture is being hit particularly hard, as is the manufacturing sector and transportation sectors. Clearly after 8 years of neglect, we need to develop a comprehensive long-term energy policy.

The Committee on Resources has jurisdiction over energy policy as it relates to Federal lands. As you know, a significant portion of the U.S. energy reserves are located on Federal lands and in the Outer Continental Shelf. Roughly 15 percent of all hydropower generated and transmitted in the United States is owned and operated by the Department of Interior. This Committee also has responsibility to ensure that all Federal statutes are followed closely so we might protect our public lands while allowing development of these valuable energy resources to go forward in a responsible and environmentally sensitive way.

There are a number of regulatory and legislative tools at our disposal to allow us to address the pressing energy needs of our country. As the Committee begins the legislative process, we should look to ways to improve the implementation of NEPA, streamline

the permitting process and improve coordination among Federal agencies.

Numerous hearings have been held in the Energy and Minerals and Water and Power Subcommittees on the energy resources and issues on Federal lands and facilities. Those hearings have been very informative and I believe have provided a strong foundation from which we can begin the legislative process. The administration has also provided the Committee a good blueprint to begin as well.

Unfortunately, the administration's report has been broadly criticized for placing too much emphasis on development of existing resources and not relying enough on conservation or emerging technologies. In that criticism, some extremist environmentalists have even gone so far as to deny that there is an energy crisis at all. I differ with that view. All evidence points to the fact that there is an energy crisis in the United States, from continued lagging economic reports to rolling blackouts to record high gasoline prices.

Despite our best efforts at times, Congress will never be able to repeal the laws of supply and demand. The current energy crisis is a result of too much demand and not enough supply. Demand for energy has grown by 30 percent in the last decade. This is the cost we must pay for powering the engine of the United States economy. That same economic engine has also powered the rest of the world toward tremendous economic growth the past decade.

Unfortunately, it is politically easier to stand on the sidelines and criticize those who have rolled up their sleeves and gone to work, rather than join them in working toward a solution. It is easier to hide behind the cloak of promises of future payoffs in alternative energy sources and conservation rather than to admit that difficult decisions must be made.

We are told that all we have to do is conserve and apply energy efficient technologies and the problem will go away. That philosophy ignores the need to address the very immediate demands for increased supply today, not just 10 years from now.

In the last decade our economy has grown by more than 30 percent without a correlating increase in energy supplies or generation. This is most evident in California, which has benefited more than any other State from the high tech boom of the nineties. I know that my colleagues from California are proud that their State has the most intensive and rigorous conservation programs in the country. Californians also have the lowest per capita energy consumption in the Nation, and I congratulate them for that accomplishment. And yet as they sit in the dark un-airconditioned offices each afternoon, many Californians are learning that conservation alone does not constitute a sound energy policy. Try as we might, we simply cannot conserve our way out of our current problems.

I recently read where the President of the Sierra Club, one of the most vociferous critics of the Administration, referred to the energy blueprint as a cesspool of polluter giveaways. That makes for a good sound bite but provides no insight as to how we end blackouts or bring down high gas prices.

There are no solutions offered by the critics of the President's energy policy. All we hear from the critics are vague promises of quicker, cleaner, cheaper, safer solutions like energy efficient tech-

nologies, renewable power like solar and wind. Rarely is it mentioned that these technologies are years away from implementation. They would have us believe that simply waving a magic wand, all of these technologies can be put into place immediately.

Rarely is it mentioned, for example, that it will take 15 to 20 years to turn over the existing fleet of gas guzzling SUVs to more efficient vehicles. Fifteen years is a long time to wait when we need more production now. Even if a dramatic transformation was to take place within 5 to 10 years, we do not have the generation capacity to accommodate millions of new electric vehicles. To do so we have to rely on existing fuel supplies.

More coal-fired plants? People say way too dirty. Think of all the terrible greenhouse gases. How about natural gas? Oh, no, that would allow for exploration on sensitive Federal lands and offshore, and think of all the pipelines that would have to cross forest roadless areas. How about increased nuclear power? I don't want a Chernobyl or Three Mile Island in my backyard. Solar and wind, but wait 20 years until the technology can be applied on a large scale. In the meantime how about mass transit? But don't count on light rail because that takes electricity.

Isn't it time that someone said the emperor has no clothes. We cannot wish away our energy problems. There are no easy and painless solutions to this. There are no short-term fixes and I don't know who has got the magic wand. If someone has it, please come forward.

It is time that we all begin to take this problem seriously. We have to first admit that ours is a fossil fuel based economy and will be for a long, long time to come. While there are indeed promising new technologies on the horizon, they are still on the horizon. We cannot conserve our way out of this current situation nor can we afford to do nothing until energy efficient technologies become fully implemented 15 to 20 years from now. Given that, we must make the most of the technologies we have.

I am sure today's hearing will be very lively. I look forward to hearing what suggestions the Secretary has for the Committee and what actions we should take, and I look forward to the testimony.

No one is taking away from the idea we should conserve. Of course we should. Everyone should conserve energy. Still, let's be realistic on what the President has offered.

I understand the Secretary is under some time constraints this morning. So I request the opening statements be restricted to Mr. Rahall and myself. I would encourage members of the Committee to use their allotted 5 minutes for statements and questions. I also want to remind Members that this hearing is about national energy policy and encourage them to keep their remarks and questions focused on that issue. If time allows, we will try to have a second round.

Mr. Ranking Member, Mr. Rahall.

[The prepared statement of the Chairman follows:]

Statement of The Honorable James V. Hansen, Chairman, Committee on Resources

Good morning. We are pleased to welcome the Honorable Gale Norton, Secretary of Interior to this Full Committee hearing on Energy Policy. We look forward to hearing your testimony this morning.

On May 17th, the Administration released the National Energy Policy report designed to identify and implement an energy policy that addresses the needs of the United States over the next three decades. It couldn't have come at a better time. The California contagion has spread to other western states. Consumers are putting a greater percentage of their hard earned paychecks toward electric and gas bills. Agriculture is being hit particularly hard as is the manufacturing sector and transportation sectors. Clearly after eight years of neglect, we need to develop comprehensive long-term energy policy.

The Committee on Resources has jurisdiction over a portion of this energy policy. A significant portion of the U.S. energy reserves are located on federal lands and in the Outer Continental Shelf. Roughly 15 percent of all hydropower generated and transmitted in the United States is owned and operated by the Department of Interior. This Committee also has responsibility to ensure that all federal statutes are followed closely so we might protect our public lands while allowing development of these valuable energy resources to go forward in a responsible and environmentally sensitive way.

The Administration's report has been broadly criticized for placing too much emphasis on development of existing resources and not relying enough on conservation or emerging technologies. In that criticism, some extremists have even gone so far as to deny that there is an energy crisis at all. I beg to differ with that view. All evidence points to the fact that there is an energy crisis in the United States, from our lagging economic indicators to rolling blackouts to record high gasoline prices.

Despite our best efforts at times, Congress will never be able to repeal the Laws of Supply and Demand. The current energy crisis is a result of too much demand and not enough supply. Demand for energy has grown by 30 percent in the last decade. That is the cost we must pay for powering the engine of the United States economy. That same economic engine has also powered the rest of the world toward tremendous economic growth the past decade.

Unfortunately, it is politically easier to stand on the sidelines and criticize those who have rolled up their sleeves and gone to work, rather than to join them in working toward a solution. It is easier to hide behind a cloak of promises of future payoffs in alternative energy sources and conservation, rather than to admit that difficult decisions must be made.

We are told that all we have to do is to conserve and apply energy efficient technologies and the problem goes away. That philosophy ignores the need to address the very immediate demands for increased supply today, not just ten years from now.

In the last decade, our economy has grown by more than 30 percent without a correlating increase in energy supplies or generation. This is most evident in California which has benefited more than any other state from the high-tech boom of the nineties.

I know that my colleagues from California are proud that their state has the most intensive and rigorous conservation programs in the country. Californians also have the lowest per capita energy consumption in the nation. I congratulate them for that accomplishment. And yet, as they sit in dark, un-airconditioned offices each afternoon, many Californians are learning that conservation alone does not constitute a sound energy policy. Try as we might, we simply cannot conserve our way out of the current situation we are in.

I recently read where the President of the Sierra Club, one the most vociferous critics of the Administration referred to the Energy Blueprint as "a cesspool of polluter giveaways." That makes for a good sound bite but provides no insight as to how we resolve the current problem.

What solutions are offered by the critics of the President's energy policy? None. After soundly denouncing the Administration's plan, all they have to offer are vague promises of "quicker, cleaner, cheaper, safer solutions like energy-efficient technologies renewable power like solar and wind." They also admit that we are in a crisis but it can be resolved by "responsible additions to supply."

They would have us believe that simply waving a magic wand, all of these technologies will be put into place tomorrow and our problem goes away.

Rarely is it mentioned for example that it will take 15 to 20 years to turn over the existing fleet of gas guzzling SUV's to more energy efficient vehicles. Fifteen years is a long time to wait without a short-term solution and even if a dramatic transformation was to take place within five to ten years, we do not have the generation capacity to accommodate millions of new electric vehicles. To do so, we have to rely on existing fuel supplies.

More coal-fired plants? "Too dirty. Think of all the terrible greenhouse gases." How about natural gas? "Oh no, that would allow for exploration on sensitive federal lands and offshore. And think of all the pipelines that would cross Forest

roadless areas." Increased nuclear power? "I don't want a Chernobyl and Three Mile Island in my backyard." Solar and wind? Yes, but wait twenty five years until the technology can be applied on a large scale. In the meantime, just rely on mass transit. But don't count on light rail systems because they run on electricity.

Maybe we should go back to wood-fired steam trains but since so many are opposed to logging that is not an option. Maybe we should light a candle and just curse the darkness.

I don't intend to be flippant but isn't it time that someone says "The Emperor has no clothes." We cannot wish away our energy problems. There are no easy and painless solutions. There are no short term fixes and no magic wands to wave.

It is time that we all begin to take this problem seriously. We have to first admit that ours is a fossil-fueled-based economy and will be for a long, long time to come. While there are indeed promising new technologies on the horizon, they are still on the horizon. We cannot conserve our way out of the current situation, nor can we afford to do nothing until energy efficient technologies become fully implemented 15 to 20 years from now. Given that, we must make the most of the technologies and the energy supplies we currently have in place.

I am sure that today's hearing will be a lively one. I look forward to hearing what suggestions the Secretary has for the Committee as to what actions we should take. I look forward to your testimony.

I understand the Secretary is under some time constrains this morning so I request that opening statements be restricted to Mr. Rahall and myself. I would encourage Members of the Committee to use their allotted five minutes for statements and questions. I want to also remind Members that this hearing is about national energy policy and encourage them to keep their remarks and questions focused on that broader issue. If time allows, we will try to have a second round of questions.

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

Mr. RAHALL. Thank you, Mr. Chairman. Secretary Norton, on behalf of the Committee Democrats we welcome you to the Committee this morning to discuss the administration's National Energy Policy Report and specifically proposals it contains which are in this Committee's jurisdiction. The administration's energy policy report contains several proposals that would require legislation from this Committee. The one of course receiving the most attention involves the opening of a portion of the Arctic National Wildlife Refuge to oil and gas drilling.

The question of whether or not Congress opens that area to development is a direct one. It can be debated and it can be dealt with one way or another. But frankly, what concerns me more are certain proposals which are either hinted at by the report or which have been alluded to by the President, yourself, Secretary Norton, as well as others within the administration and certain Members of this body as well. What I am referring to is this mantra we have been hearing that one way to salvation is to open more public lands to energy development. Let's open more public lands to energy development.

The administration and others are actually suggesting we drill in our national monuments, to mine in pristine wilderness areas and lift bipartisan bans on oil and gas leasing in environmentally sensitive offshore areas. News flash, folks: Hey, big oil is just licking its chops. They are so happy. Sky rocketing gas prices, record profits, a beleaguered American public, and a chance to just rip, rip into areas they have been hankering and licking at their chops to rip into after many, many years.

Yet apparently monuments and wilderness areas are not enough. The last few months when it comes to the issue of Federal lands

I have posed the question within this Committee and in other forums what Federal lands are you talking about? What more do you want?

Just recently we have been given the answer. There is a place in Montana that native Americans call the Valley of the Chiefs. It contains rare rock art. It has cultural and religious significance, so much so that the Bureau of Land Management designated it an area of critical environmental concern. Exploring for oil in this place has been described as being akin to placing a drilling rig in the Sistine Chapel, but not to this administration, and this dismays me, Secretary Norton. Just 12 days after the inauguration of President Bush, the BLM gave the green light to a company owned by one of the wealthiest persons in America, Philip Anschutz, to explore for oil in this sacred place, and in the process running roughshod over NEPA, the National Historic Preservation Act, and our trust responsibilities to Native Americans, let alone our responsibilities of good stewardship to the Nation.

Are we really that desperate? Are we really that greedy that we as Americans are willing to squander the remaining vestiges of our national heritage to quench our thirst for energy, leaving nothing for our children and our future generations to come? I do not think so, nor am I certain do the vast majority of Americans.

Secretary Norton, I am this morning imploring you to stop the drilling in the Valley of the Chiefs. This is within your power. If the President wants another photo op to show his concern for the environment, this would be the perfect, perfect place. There will be no alligators hungrily eyeing him as they were in the Everglades the other day, but there would be many people, many of whom are in this room, that would express their profound thanks.

Thank you, Mr. Chairman.

The CHAIRMAN. I thank the gentleman from West Virginia. Madam Secretary, it is indeed a pleasure to have you with us today as your first time in front of this Committee. Many of us here have sat through a lot of Secretaries, I was just checking off Watt, Clark, Hodel, Lujan and Babbitt that we have gone through. And all of it was interesting. And we appreciate you being here with us today and we will now turn the time over to you.

STATEMENT OF THE HONORABLE GALE A. NORTON, SECRETARY, U.S. DEPARTMENT OF THE INTERIOR

Secretary NORTON. Thank you very much. Mr. Chairman and members of the Committee—.

The CHAIRMAN. Is the power on? Could you check that out? We are not in California. We still have power here.

Secretary NORTON. Mr. Chairman and members of the Committee, it is a pleasure to be here today to discuss the National Energy Policy Report and the Department of the Interior's role in carrying out the President's policy.

In my short tenure as Secretary, I have spent a substantial amount of time studying the issues surrounding our Nation's energy policy. I have been concerned by the seriousness of the long-term energy problems facing our country and also amazed by the ingenuity of U.S. citizens and companies that allow us to produce energy with minimal impact on our environment and wildlife.

What has become clear is that each of us is striving to attain the same goal, a secure energy supply, while protecting the environment. I believe the President's energy plan will increase energy production while we also improve our environment. Both goals can be achieved and sustained.

More than half of the domestic recommendations in the National Energy Policy Report are targeted to conservation, environmental protection, renewable and alternative energy, and to measures aimed at helping consumers deal with rising energy prices. The national energy policy promotes the use of new 21st century technologies to increase energy efficiency and conservation.

The executive branch is beginning its conservation efforts close to home. Although the Department of the Interior has had programs in place to reduce its energy consumption since 1985, we must do better. Last month I issued a directive to all Interior bureaus asking them to take steps to promote energy conservation. I am going to continue to push the Department to become a more efficient energy consumer. This commitment extends to all of our facilities.

In addition to standard conservation practices, we are also exploring some innovative approaches. For example, the Green Energy Parks Program, a successful partnership between the National Park Service and the Department of Energy, has fostered over 200 energy and water conservation projects, saving the American taxpayers millions of dollars.

Last week I saw one of those projects. It was in Yellowstone. We have a number of vehicles there that operate on alternative fuels. We have buses and maintenance trucks that operate with biodiesel, which is a combination of diesel energy, traditional diesel energy plus alternative energy sources. We also have one truck there that operates entirely on biomass fuel, and that is a truck that is essentially powered by potato scraps. I was even told that the exhaust from that smells something like french fries. Now, I don't anticipate that the Department of the Interior fleet is going to be running on vegetable scraps, but these are the kinds of innovative approaches that I think are worth pursuing, and I think it is worthwhile to make the Federal government a model for the types of practices that might some day become commonplace.

In addition to reducing demand, we must also consider strategies to augment the Nation's energy supplies. Renewable and alternative energy supplies not only help diversify our energy portfolio, but they are sources of clean energy for current and future generations. The current contribution of sources such as wind, biomass, solar and geothermal to America's total electricity supply is small, less than 10 percent. Nevertheless, the renewable and alternative energy sectors are part of our comprehensive energy plan.

The President has directed the Departments of the Interior and Energy to reevaluate access limitations to Federal lands in order to increase renewable energy production. The identification of potential locations for wind, geothermal and solar energy production on Federal lands will assist in the planning and development of alternative energy resources. Interior's lands already produce 48 percent of our Nation's geothermal energy. The Department will look for ways to reduce delays in lease processing to encourage more

geothermal energy production. Most geothermal plants are located in California, Nevada, Utah and Oregon. An expeditious leasing process can play a small but helpful role in meeting the energy needs of California and the West.

Now I would like to turn to more traditional energy sources. The Department of the Interior manages oil, natural gas and coal that underlie all of our Federal lands, including Department of Agriculture and Department of Defense lands. We also oversee all Outer Continental Shelf oil and gas production. We work closely with Indian tribes regarding energy resources on their lands.

The Cabinet Energy Policy Development Group recognized the growing gap between production and consumption. And I would like to first point you to the chart that on the right is headed U.S. oil consumption.

The CHAIRMAN. Can I get you to move that out so the members can see it, please?

Secretary NORTON. What this chart indicates are two things. First is that the projections are that our oil consumption in the United States will continue to rise, and that is indicated of course by the red line. The green line indicates oil field production in the United States. And this is a part of the equation that I think is often missed, and that is that under our current situation our oil production in the United States is continuing to decline. The United States has the most mature oil production areas within the world; that is, we have been tapping our oil reservoirs for longer essentially than anyone else has, and as a result those initially rich reservoirs are beginning to be tapped dry. And so our production continues to decline unless we find new sources.

The gray area is the projected shortfall. That is how far we come from meeting our oil needs. The gap has largely today been filled by imported oil. And that percentage has risen from 35 percent in 1973, which at the time certainly seemed alarming to us, to 52 percent today. So over half of our oil is imported today.

One of the choices that the Energy Policy Development Group felt needed to be presented to the American public is whether we want to continue on that pathway toward increasing imports or whether we want to analyze our own sources and return ourselves to more energy independence.

The Interior Department is responsible for approximately a third of all oil, natural gas and coal produced in the United States. This percentage is increasing. And that is what is shown on the other chart. Perhaps you want to move that one around a little bit.

That chart, the lowest area there, the pink area, is oil production, the cream colored area is natural gas production, the brown area above that is coal, and then the blue line is hydroelectric. And these are essentially indications of our domestic production. But what this chart shows is the increasing public land portion of that. As our private land resources are being depleted, those areas where we began production decades ago, we are seeing more and more reliance on public lands. The current estimates are that 68 percent of all undiscovered U.S. oil resources and three-fourths of our natural gas resources are on public lands. And that is why our discussion has tended to focus on utilization of our public lands.

Also included, as I noted on that chart, is hydropower capacity. The Department of the Interior also owns and operates about 16 percent of all hydropower capacity in the United States. All of those facilities are located in the western United States.

The National Energy Plan asked Interior to continue the study begun under last year's Energy Policy and Conservation Act, which asks us to study impediments to Federal onshore oil and gas exploration and development. Essentially we will be identifying the location of the most promising energy resources, then examining surface land use restrictions. We can then determine whether surface restrictions should be altered to allow access to the resources.

Some areas such as parks or wilderness areas would stay undisturbed. However, in other areas the surface use may be reexamined so that energy resources become available. Such changes would ordinarily occur through administrative land management planning processes or rulemaking, and public involvement in the decision-making process would be expected.

In some cases congressional action might be necessary to allow access. This is the case in the most well-known potential energy area, the Arctic National Wildlife Refuge. The 1002 area of ANWR is expected to be one of the Nation's largest sources of oil, enough to equal or exceed our current imports from Iraq.

I am sure we will discuss this proposal further. For now let me point out that the National Energy Policy Development Plan calls for creation of a Royalties Conservation Fund. This fund would earmark potentially billions of dollars in royalties from new energy production in ANWR to fund land conservation efforts. This fund would also be used to help eliminate the maintenance and improvements backlog on Federal lands.

We have recently done an analysis to try to compare production in ANWR in comparison to the lower 48. So many people ask why have you targeted the ANWR area, and that is in large measure because of the size of the potential reserves that are there. We compared production in the North Slope of Alaska, the existing production, with the statewide production totals from Wyoming, which is the largest oil producing State with substantial Federal lands. Wyoming has something over 9,000 producing wells while the North Slope has about 2200 producing wells. The existing Alaskan wells produce about 24 times as much oil per well as those in Wyoming. At this rate it would take about 219,000 wells to produce as much oil in Wyoming as is produced from the North Slope if there were that much oil available. The point is that in order to produce oil domestically that would equal what we have potentially available from ANWR, we would have to produce perhaps 20 times as many wells here, 24 times as many wells from this example in order to have a similar amount of production from other areas of this country.

Interior's other significant energy-related issue deals with infrastructure for energy transport. Rights-of-way for electric transmission lines and new gas pipelines will often require siting across some of the one out of every four acres of this country owned by the Department of the Interior. Such infrastructure is one of the fastest ways of mitigating California type energy shortages. Pursu-

ant to the energy plan we will be streamlining our processes for handling these types of proposals.

Mr. Chairman, while the challenges facing us are significant, they are not insurmountable. By building on new 21st century technologies, this country can produce ample domestic resources while enhancing and protecting the environment. I look forward to working with this Committee and others in Congress to implement Interior's portions of the President's national energy policy, and that concludes my statement.

[The prepared statement of Secretary Norton follows:]

Statement of The Honorable Gale Norton, Secretary of the Interior, U.S. Department of the Interior

Mr. Chairman, members of the Committee, it is a pleasure to be here to discuss the "National Energy Policy" report and the Department of the Interior's role in carrying out the President's policy.

In my short tenure as Secretary, I have spent a substantial amount of time studying the issues surrounding our Nation's energy policy. I have been concerned by the seriousness of the long-term energy problems facing our country, and also amazed by the ingenuity of U.S. citizens and companies that allows us to produce energy with minimal impact on our environment and wildlife. What has become clear is that each of us is striving to attain the same goal—a secure energy supply while protecting the environment.

I believe the President's energy plan will increase energy production while we also improve our environment. Both goals can be achieved and sustained.

Background

The need for a national energy policy becomes clear when you look at the numbers. Over the next 20 years, U.S. oil consumption is projected to grow by over 6 million barrels per day. If U.S. oil production follows the same historical pattern of the last 10 years, it will decline by 1.5 million barrels per day. U.S. natural gas consumption has been projected to grow by over 50 percent in the same time period while production will grow by only 14 percent if it grows at the rate of the last 10 years. Our U.S. energy production is not keeping up with our growing consumption, creating an ever-increasing gap between domestic supply and demand.

A large portion of the United States' energy reserves are contained in the lands and offshore areas managed by Federal agencies. The Department of the Interior manages energy production on all Federal lands, both onshore and the Outer Continental Shelf (OCS). These Federal lands provide nearly 30 percent of annual national energy production. In the year 2000, 32 percent of oil and 35 percent of natural gas were produced from Federal lands. In addition, Federal lands produced 37 percent of coal and 48 percent of geothermal energy in 2000. Federal lands are also estimated to contain significant undiscovered domestic energy resources. Estimates suggest that these lands contain approximately 68 percent of all undiscovered U.S. oil resources1 and 74 percent of undiscovered natural gas resources.

The Department also owns and operates about 16 percent of all the hydropower capacity in the United States, all of which is located in 17 western states. Since a vital portion of our energy development occurs on Federal lands, I am going to tailor my remarks today to Interior's energy policy implementation plans on Federal lands.

Improving and Accelerating Environmental Protection

More than half of the domestic recommendations in the National Energy Policy report are targeted to conservation, environmental protection, renewable and alternative energy, and measures aimed at helping consumers deal with rising energy costs. The National Energy Policy promotes the use of new, 21st century technologies to increase energy efficiency and conservation.

In the implementation of this energy plan, our Department will strive to focus efforts among the Interior agencies on priority setting, resource allocation, and jointly focusing on the recovery and restoration of particular species or habitat types to improve the environmental baseline.

There are also a number of existing Federal programs that can assist in restoring habitat on private lands, such as the FWS Partners for Fish and Wildlife and Coastal Programs and various Department of Agriculture programs. These and other private landowner incentive programs could be used to contribute to the conservation

of important environmental resource values. Actions on Federal lands could also be coordinated with activities undertaken on non-Federal lands to increase their effectiveness. Another possibility is a Federal/state coordinated effort using grants to stabilize the status of a listed species through the conservation of important habitat by acquisition or regulatory control.

Our Department has worked to develop new and innovative ways to manage our national treasures in our parks and on other Federal lands. To bolster funding for land conservation efforts, the National Energy Policy Development Group has recommended that the President direct Interior to work with Congress to create a "Royalties Conservation Fund." This fund would earmark potentially billions of dollars in royalties from new oil and gas production in ANWR to fund land conservation efforts. This fund would also be used to help eliminate the maintenance and improvements backlog on Federal lands.

The Department of the Interior has reduced its energy consumption in buildings and facilities by about 10% since 1985. However, we need to do better. I am going to continue to push the Department to strive to become a more efficient energy consumer. This commitment extends to all of our facilities. For example, the Green Energy Parks Program, a successful partnership between the National Park Service and the Department of Energy, has fostered over 200 energy and water conservation projects saving the American taxpayers millions of dollars. We hope to use this effort as a model for establishing additional partnership efforts within Interior.

REGULATORY AND LEGISLATIVE TOOLS

Improving the Implementation of the National Environmental Policy Act

The NEPA process is often perceived as lengthy and arduous. The fundamental premise of ensuring that public decision makers have good information that is scrutinized by the public before decisions are made must always be maintained. However, we can seek to improve the process in a variety of ways. For example, the process could be streamlined through better use of joint agency documents for environmental reviews for proposed energy developments. This may be especially applicable when projects, such as transmission lines and pipelines, cross jurisdictional boundaries and require approvals from more than one Federal agency, State, or Tribe.

Expedited Permitting

Permitting for energy-related projects is often a lengthy multi-agency process. The President has issued an Executive Order directing Federal agencies to expedite the review of permits and other Federal actions necessary to accelerate the completion of energy-related project approvals on a national basis. The Administration will work to establish a task force to ensure that Federal agencies set up appropriate mechanisms to coordinate Federal, State, tribal, and local permitting activity in particular regions where increased activity is expected.

Improving the Endangered Species Act Consultation Process

The Endangered Species Act (ESA) Section 7 consultation process is also an important component of reviewing projects for their potential adverse effects. The FWS has recently implemented several initiatives to increase the efficiency and effectiveness of the Section 7 consultation process. Interior is also considering a number of other actions to improve the Section 7 consultation process.

Ensuring Diverse Domestic Energy Supplies

At the core of any long-term national energy policy are strategies to increase the Nation's energy supplies. The President's plan lays out a road map for meeting our future energy demands from diverse fuel sources through the use of 21st century technologies. The United States has significant domestic energy resources, and remains a major energy producer. Between 1986 and 2000, production of coal, natural gas, nuclear energy, and renewable energy increased. However, these increases have been largely offset by declines in oil production. If we wish to maintain a large measure of energy independence, our Nation must rise to meet this challenge.

Federal Onshore Lands

The Congress, in the Energy Policy and Conservation Act, directed the Department to study the impediments to Federal onshore oil and gas exploration and development and then review the results with full public consultation. The Department will expedite completion of this study. As appropriate, Interior will consider making changes to land use plans based on the findings of the study.

The Outer Continental Shelf

The Outer Continental Shelf (OCS) encompasses 1.76 billion acres. As you know, Congress has designated about 610 million acres off-limits to leasing on the OCS, which has been extended by Presidential action through 2012. For available OCS areas, it is imperative that the variety of Federal and State statutes, regulations, and executive orders are clear to ensure effective and efficient environmentally sound development. For this reason, the President has directed the Departments of the Interior and Commerce to re-examine the current Federal, legal and policy regime surrounding energy-related activities in the coastal zone and on the OCS to determine if any changes are needed.

Although significant technological breakthroughs have allowed for more deepwater production, substantial economic risks remain. The Deep Water Royalty Relief Act of 1995, which granted variable royalty reductions for new leases in deep water, contributed to much of the increase in deepwater leasing in the central and western Gulf of Mexico over the last five years. Similar incentives could help spur development in other technological frontiers, such as deep natural gas, or make possible continued production from both offshore and onshore fields near the end of their economic life. The President has directed us to continue to explore opportunities for royalty reductions, consistent with a fair return to the public, in areas where production might not otherwise occur.

The Alaskan North Slope

I had the opportunity to go to Alaska in March to visit the North Slope, talk to the local citizens and learn about current and potential future energy and environmental issues in the region. I would like to take a few minutes to discuss four Department of the Interior initiatives specific to the Alaskan North Slope.

NPR–A

Let me turn first to the National Petroleum Reserve–Alaska, or NPR–A. Leasing was reinitiated in NPR–A a few years ago. The President's National Energy Policy calls for the Department of the Interior to consider additional oil and gas development, based on the best available environmentally protective technology, through further lease sales in the NPR–A, including areas not currently leased in the Northeast sector of the Reserve. In support of the President's policy, Interior will take a number of steps, including: conducting additional leasing in the northeast sector of NPR–A on a biennial basis; preparing to hold lease sales in other NPR–A sectors; initiating environmental analysis for a full field development; completing and publishing updated estimates of the undiscovered oil and gas resources of the NPR–A; completing unitization, suspension, and extension regulations for NPR–A;and, if necessary, promulgating regulations to issue rights-of-way in NPR–A to cover potential NPR–A and OCS oil and gas development.

ANWR

Next, let me discuss the Administration's position on energy activities in the Arctic National Wildlife Refuge (ANWR). The President is proposing to open a small fraction of the 19 million acres in ANWR for oil exploration using the most high-tech, environmentally responsible methods. The President and I both believe that oil and gas development can successfully coexist with wildlife in Alaska's arctic region.

ANWR is located in the northeast corner of Alaska. The Refuge is about the size of South Carolina; however, the portion of the Refuge known as the 1002 Area is only about 6 percent of the total Refuge. We expect that no more than 2000 acres will be disturbed if the 1002 Area is developed. The 1002 Area was excluded from wilderness designation and Congress specified that it be studied further through a comprehensive inventory of its fish and wildlife resources, and the potential for oil and gas production. Estimates of substantial resources in the 1002 Area based on nearby drilling results and seismic data have made it one of the most promising prospects for oil and natural gas in the United States.

In 1998, a USGS assessment of petroleum resources of the 1002 Area estimated the expected volume of technically recoverable oil beneath the 1002 area to be 7.7 billion barrels, with a 95 percent chance of 4.2 billion barrels and a 5 percent chance of 11.8 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. Congressional action would also open up Native-owned lands. The overall mean estimate of technically recoverable oil for the 1002 region, including Native and state offshore areas is 10.4 billion barrels.

The Refuge provides a variety of arctic habitats supporting fish and wildlife species. The wildlife most associated with the 1002 Area is the Porcupine caribou herd,

named after its wintering grounds along the Porcupine River of northwest Canada. Currently numbering nearly 130,000 caribou, the herd migrates each year across the Brooks Range to arrive in early summer on the North Slope's coastal plain in the 1002 Area and eastward into Canada.

Contrasting with the migratory nature of the Porcupine caribou herd, muskoxen are year-round residents on the 1002 Area. According to the Fish and Wildlife Service, to survive the long winter, approximately 250 animals in scattered groups carefully conserve their energy reserves by minimizing their activities until summer.

In the fall, polar bears from the Beaufort Sea region visit the area along the coast and barrier islands to forage, rest, and wait for the sea ice to form. Later toward winter, pregnant females enter dens either on the sea ice or on land and give birth to their young.

One hundred forty-six bird species are known to visit the 1002 Area. Approximately one-third of these nest and raise broods during the brief summer while the remainder use the refuge as a resting stopover during spring and fall migrations. The 1002 Area, including its lagoons, support 8 species of marine mammals, 62 species of coastal fish, and 7 species of freshwater fish of which the Arctic grayling and Arctic char are common. Several of these species are important as subsistence food resources.

The Inupiat Eskimo Village of Kaktovik is located on the northern border of the Arctic Refuge coastal plain. Their subsistence resources include marine mammals, fish, caribou and muskoxen. The Kaktovik Inupiat Corporation (KIC) owns 92,000 acres of private land within the Refuge boundary. This land cannot be developed for oil and gas unless Congress authorizes leasing of the 1002 Area. On the whole, Kaktovik residents support oil and gas development in the 1002 Area.

South of the 1002 Area and on the other side of the Brooks Range, the Gwich'in Athabascan people live in villages in Alaska and Canada. Gwich'in rely heavily on the Porcupine caribou herd for subsistence, and caribou figure prominently in their cultural heritage. Because of their concern over the potential impacts to the herd, the Gwich'in villages of this region oppose oil development in the 1002 Area.

Our support for enactment of authority to lease oil and gas resources in ANWR is a prime example of the Department's dual commitment to energy development and environmental conservation. We recognize that the ecological resources of the Refuge are unique and precious. We must respect and conserve this wealth for future generations of Americans. However, because of advances in technology and in our enhanced understanding of the ecology, we are now able to proceed with exploratory work with very little long-term effect.

If this exploration discovers as much oil and gas as we hope, we will proceed cautiously with development and production. To achieve this goal under our proposal, lessees will be required to use directional drilling and ice road technologies to reduce the extent of surface alteration. We will require lessees to operate in a no discharge, no litter mode. All materials and fluids brought into the Refuge will be taken out or injected into deep wells. We will require monitoring of wildlife populations and habitat conditions so that unexpected degradation is identified early and actions are taken to prevent and restore. We will require restoration, both as activities proceed and when production is shut down at the end. Our goal must be to have no significant alterations in wildlife populations or the environment after oil and gas production are finished.

The President and I know that there is a long history of debate surrounding opening ANWR to energy development. However, we believe that new technologies enable us to conduct environmentally safe oil and gas exploration and production. Any legislation must contain adequate safeguards to protect wildlife and other environmental values.

Arctic Outer Continental Shelf

The third part of a comprehensive North Slope package involves the Arctic Outer Continental Shelf. The Beaufort Sea Planning Area encompasses approximately 65 million acres. Active leases in this area represent only 0.4 percent of the total acreage, and only 5 percent of the leased acreage is being actively pursued for development and production. The Northstar project, scheduled to come on-line later this year, will yield the first Federal OCS production from offshore Alaska. The Chukchi Sea Planning Area encompasses approximately 63.7 million acres, none of which is currently leased. Both of these areas are under active consideration for the next 5–Year Plan for 2002–2007.

Infrastructure

The fourth component of the North Slope strategy concerns infrastructure. The right-of-way permit for the Trans–Alaska Pipeline System (TAPS) must be renewed

by January of 2004. The President has directed our Department to work with Alaska to ensure an expeditious process for the renewal of the lease and right-of-way for TAPS.

One of the largest known reserves of natural gas in the United States has been found in the Arctic. The existing production areas of the North Slope contain large amounts of gas that have been reinjected rather than marketed. The President has asked Departments of Energy and State, along with the Department of the Interior, to work with Canada, the State of Alaska, and other interested parties to expedite the permitting process for construction of a pipeline to deliver natural gas to the lower 48 states once an application is filed. In addition, the Department will continue participating in interagency efforts to improve pipeline safety and expedite permitting in an environmentally sound manner.

Enhanced Oil and Gas Recovery from Existing Wells

From 30 to 70 percent of oil and 10 to 20 percent of natural gas, is not recovered in normal field development. It is estimated that enhanced oil recovery techniques, through new technologies, could add about 60 billion barrels of oil nationwide through increased use of existing, not new, oil fields. This translates into more energy supply with fewer environmental effects because enhanced recovery does not require drilling in new areas. For this reason, the President has directed both the Departments of Energy and the Interior to promote enhanced oil and gas recovery from existing wells through new technology.

Coal

Coal is one of our country's most abundant resources. The United States possesses one-fourth of the world's coal resources. Part of the National Energy Policy is to maintain and improve the Department's coal leasing activities to assure that coal supplies are adequate for electricity generation.

Renewable and Alternative Energy Supply

At the heart of any national energy policy are strategies to augment the Nation's energy supplies. Renewable and alternative energy sources such as wind, hydropower, biomass, solar, and geothermal are critical components of this plan. Renewable and alternative energy supplies not only help diversify our energy portfolio, but they are sources of clean energy for current and future generations. While the current contribution of renewable and alternative energy resources to America's total electricity supply is small—less than 10 percent—the renewables and alternative energy sectors are integral to U.S. energy security.

The President has directed the Departments of the Interior and Energy to reevaluate access limitations to Federal lands in order to increase renewable energy production, such as biomass, wind, geothermal, and solar. The identification of potential locations for renewable energy production on Federal lands will assist in the planning and development of alternative energy resources. A review of administrative impediments and access limitations will aid in the development of these resources.

The Department will look for ways to reduce delays in geothermal lease processing to encourage more geothermal energy production. Most geothermal plants are located in the West, in California, Nevada, Utah, and Oregon. An expeditious leasing process could be an important source to help meet the energy needs of California and the West.

Finally, per the President's request, Interior will seek to work with Congress on legislation to use an estimated $1.2 billion of ANWR bonuses for funding research into alternative and renewable energy resources, including wind, solar, geothermal, and biomass.

Hydropower

Although the majority of the Nation's electricity is generated using fossil fuels, hydropower also plays an important role. Western states, such as Idaho, Washington, Oregon, Montana and California, rely on hydropower for a significant portion of their electricity supply. Other states, such as South Dakota and New York, also depend to some substantial extent on hydropower for their electricity. Hydropower is a clean, domestic, and renewable source of electricity. The Administration seeks to increase electricity generation from hydropower plants. The Department is committed to accomplishing these gains in an environmentally sound manner.

Bureau of Reclamation Efficiency Improvements

The Bureau of Reclamation has undertaken an aggressive uprating and efficiency improvement program, which has significantly expanded the capacity of our hydropower system. For example, Bureau of Reclamation has ongoing turbine runner

work at Grand Coulee Dam in eastern Washington, which is ultimately expected to result in 45 - 50 MW of additional capacity. Replacements are also underway at Yellowtail Dam in Montana, and turbine runner replacements at the Shasta Powerplant in California are planned. These three programs will result in an equivalent of 250 new megawatts of capacity over the next nine years.

With an average age of 43 years, Interior's generation capacity is old. While two-thirds of the facilities have been uprated and/or rewound, one-third have not been modified. The efficiency of the existing generators could be increased by replacing aging windings inside the generator. In fact, there often can be substantial increases in capacity by installing windings using modern insulation technology. Reclamation presently has rewinding projects ongoing on units at Alcova and Davis Powerplants which could result in the equivalent of an additional 10 megawatts.

Using Market–Oriented Incentives

Another potential source of additional power is leasing water that could then be used to generate power. Such leasing arrangements would be between willing non-Federal buyers and sellers. Reclamation will work to facilitate such arrangements and will shortly initiate an internal effort to identify potential opportunities in this area.

Reclamation continues to work on flexible power generation schedules to support the needs of the western power grid. In many cases, Reclamation has asked its project pumping customers to shift the timing of their deliveries to off-peak times to make more peaking power available to the market. At Grand Coulee Dam in eastern Washington, we have been able to shift more than 300 megawatts of pumping load to off-peak times - making it available to the Bonneville Power Administration for peaking purposes. There are likely to be additional opportunities in this area, especially if power marketers are willing to provide financial incentives to project water users to shift the timing of their use.

Infrastructure

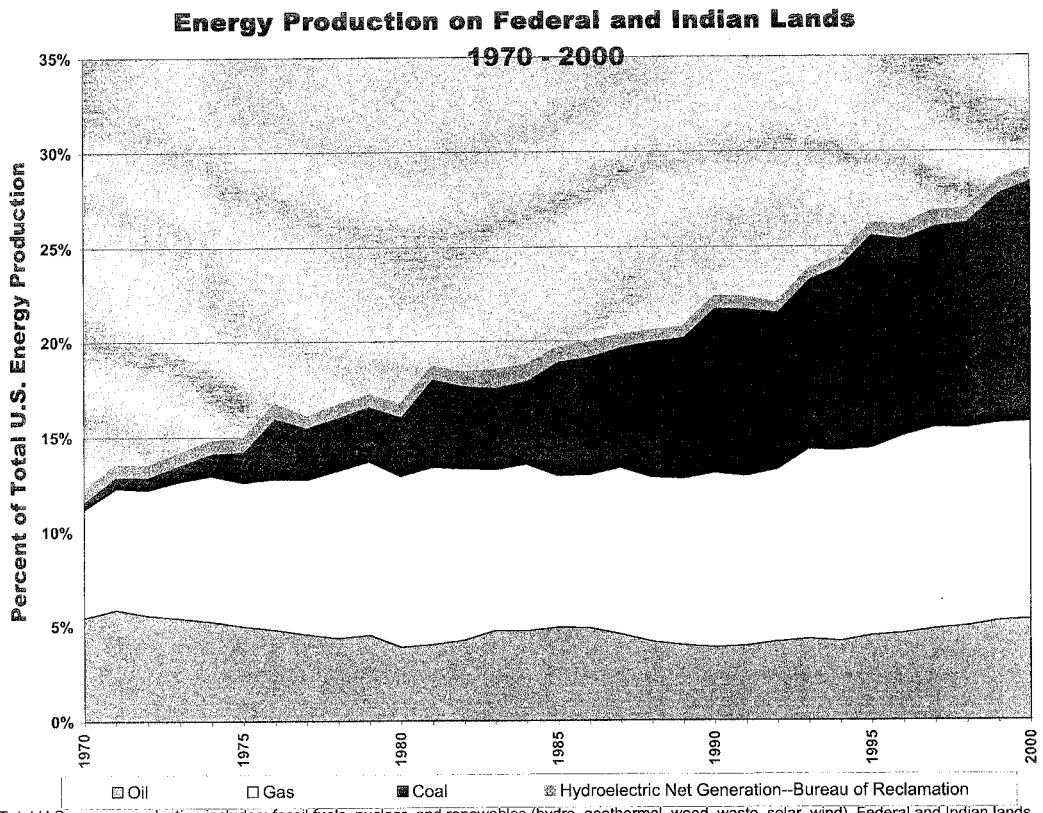
Our energy infrastructure includes many components, such as the physical network of pipelines for oil and natural gas, electricity transmission lines and other means for transporting energy to consumers. Unfortunately, the Nation's energy infrastructure has not kept up with the changing requirements of our energy system. The demand for additional energy and electricity is expected to increase the need for rights-of-way across Federal lands. To help with this process, we have identified a number of opportunities to expedite the processing of energy rights-of-way applications by streamlining the application process.

Conclusion

Mr. Chairman, while the challenge facing us is significant, it is not insurmountable. By building on new 21st century technologies, this country can produce ample domestic resources while enhancing and protecting the environment. I look forward to working with this Committee and others in Congress to implement Interior's pieces of the President's National Energy Policy.

Mr. Chairman, this concludes my statement. I would be pleased to answer any questions that you or members of your Committee might have.

[Charts included in Secretary Norton's testimony follow:]



*Total U.S. energy production includes: fossil fuels, nuclear, and renewables (hydro, geothermal, wood, waste, solar, wind). Federal and Indian lands production of geothermal and wind energy is not shown (1999 estimate less than 0.25 quads).

Figure 2-6

Dependence on Oil Imports Is Rising

(Millions of Barrels per Day)

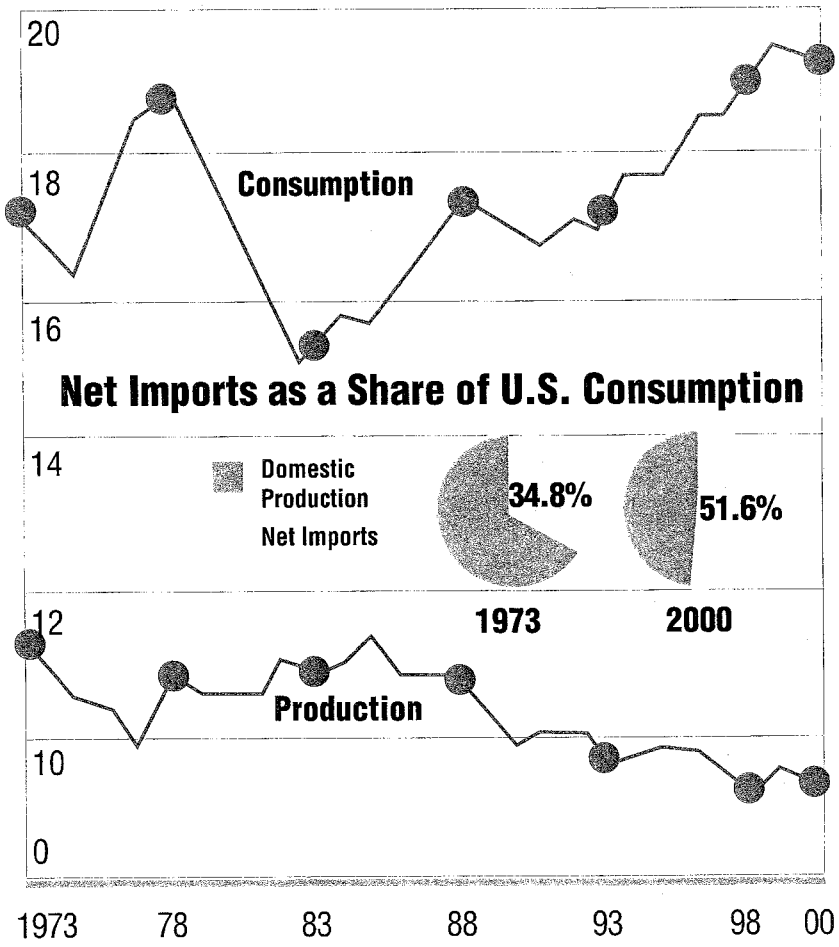
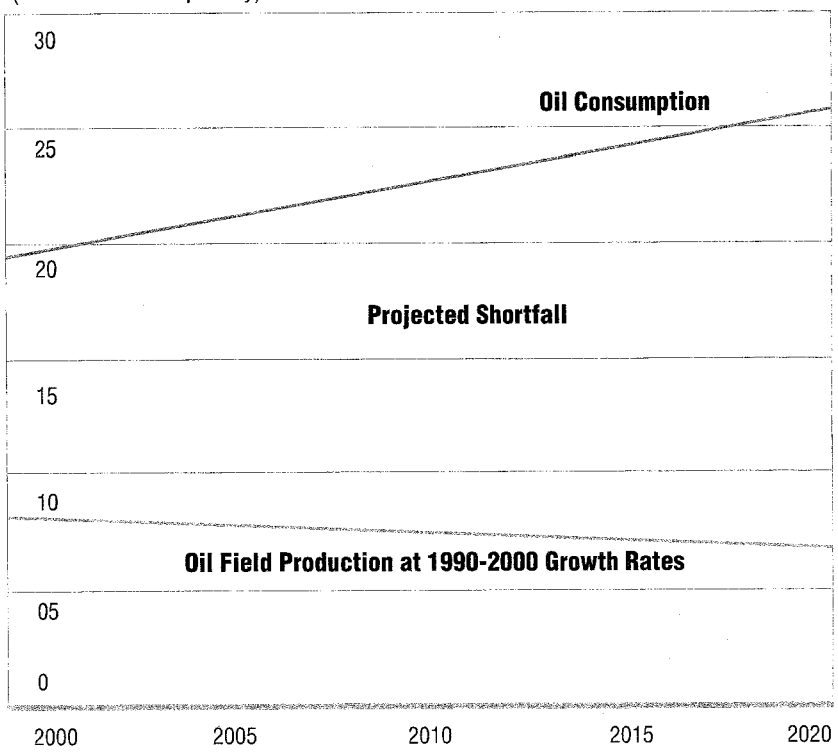


Figure 2

U.S. Oil Consumption Will Continue to Exceed Production

(Millions of Barrels per Day)



The CHAIRMAN. Thank you, Madam Secretary. We appreciate your statement. We will now turn to members of the Committee for questions. We limit the members to 5 minutes. We appreciate them doing their best to stay within that time. Mr. Rahall, we will start with you, sir.

Mr. RAHALL. Thank you, Mr. Chairman. Thank you Secretary Norton, for your testimony. The Department at times, as we have been reading, has resorted and responded to extraordinary situations involving mineral leases with innovative approaches, including buybacks, working at the local level, at the State level, trying to arrange exchanges, et cetera, in order to prevent Federal involvement or a Federal solution to the particular issue.

I am wondering if you are prepared to invoke such a similar program, invoke measures of this nature in regard to the situation I referred to in my opening testimony at Weatherman Draw; that is, to stop the drilling in the Valley of the Chiefs, this area of critical environmental concern and very sacred religious rights to many of our tribal leaders in this country. If you are willing to go in and invoke these type of measures at the local level in consultation with the tribal leaders in trying to arrange an acceptable solution here.

Secretary NORTON. Thank you, Congressman, for the opportunity to comment on that. That is an area that I became aware of through seeing newspaper accounts of that. The decision-making on that so far has taken place at the State level within the Bureau of Land Management. It is my understanding that there was a 4-year long process of consultation and study on that, that they are going forward with essentially one exploratory well, is the current proposal, and that there would be measures taken to try to protect the resources in that area. That decision, however, is subject to appeal to the Interior Board of Land Appeals, and that process would presumably take place before any activity would occur on the grounds.

We will continue to monitor that and to see what information arises out of that process.

At this point I don't have the level of detailed information on that to really interject my opinion.

Mr. RAHALL. There has been such a long process to which you referred because it has been described as an area of critical environmental concern. It is an area ripe in resource values as well as its sacred implications that I have alluded to. Some of the opponents to the drilling in the Valley of the Chiefs have advised me that there was a decided shift in the Bureau of Land Management after, last year's Presidential election, toward the Anschutz Exploration's drilling permit application.

So I would ask you if you can assure this Committee that the politics did not influence the Montana BLM State office after the election to approve this application.

Secretary NORTON. To the best of my knowledge and after some checking with the Montana people, we found no evidence that there was any communication from or to Washington in that decision-making process. And so as far as I know, there was no consultation that the Montana officials from BLM had with regard to that.

Mr. RAHALL. As I said in my opening comments, you do have the administrative ability to stop this exploration and drilling and I would just like to in a more general way ask your views how this activity might comport with what I view as your responsibilities to our Native Americans, a very important responsibility in your job as Secretary of the Interior.

Secretary NORTON. We certainly work with the tribes on energy issues both in situations like this where they may be concerned about energy development as well as in those situations where they want to pursue energy development on their own lands. And so we hope to have a working relationship with them. My direction to the bureaus throughout, and the point that I have made, is that they need to consult with the people who are affected by the decisions, and that would include consultation with tribes in situations like this as well as with other affected local residents, with environmental groups in various situations. And so I would like to see a consultation process take place. So I will continue to monitor this one and we will continue to see how this evolves and to obtain more information about it.

Mr. RAHALL. I hope that would take place along with Mr. Anschutz as well and involvement of the tribal leaders.

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

Mr. TAUZIN. Thank you, Mr. Chairman. Madam Secretary welcome. Let me ask you, have you ever visited the Mandalay National Wildlife Refuge in Louisiana?

Secretary NORTON. No, sir, I have not.

Mr. TAUZIN. I want to welcome you. I hope you will come one day. We have quite a number of wildlife refuges and incredible wetland areas in my State. The reason I would particularly like you to come visit Mandalay National Wildlife Refuge is that we have drilled over a hundred wells in the Mandalay National Wildlife Refuge in Louisiana. Some were drilled before the refuge was created, but many were drilled after it. And it is a prime example of how we can produce and have produced energy for this country without disturbing or environmentally damaging whatsoever a very beautiful part of our country.

The reason I ask you about the National Wildlife Refuge in Louisiana is because I have a very profound question to give you and maybe visiting the refuge will allow you to answer that question. Is the Mandalay Wildlife Refuge in Louisiana less important than the National Wildlife Refuge in Alaska or National Wildlife Refuge in Montana, Wyoming, or any other part of this country?

Secretary NORTON. I have learned I should not prioritize our lands by showing favoritism.

Mr. TAUZIN. I should hope not. But you see, we develop oil and gas resources for America on the wildlife refuges in Louisiana. We develop on Federal lands in Louisiana. In fact, here are some numbers for the Committee. Louisiana, onshore and offshore Federal jurisdiction, production of oil for America is 27 percent of our national consumption. Louisiana, on and offshore Federal and State jurisdictional lands produce 27 percent of the natural gas. A lot of it goes to the Northeast. My friends here on the Committee enjoy that natural gas. In fact, they tax it more than we do. We don't

even tax the Federal offshore. They get revenue from it, they get the benefit from the gas from it.

I want to ask you a simple question. What would happen if we made a decision in Louisiana today that we didn't want any more production on the Federal lands in Louisiana, the Louisiana jurisdiction lands, they are too sacred. They are too precious. We shouldn't take any chance of any damage to them. We ought to shut down all drilling and all production in Louisiana. What would happen to this Nation if all of a sudden 27 percent of the supplies were suddenly shut down because Louisiana decided to do what many parts of the country apparently decide to do and we decided not to be a contributor to this Nation's energy security? What would happen to this country if we went from a 52—I understand it is closer to 58 percent—dependence on foreign sources and we added another 27 percent dependence on foreign sources? What would happen to this country if Louisiana decided to act like many other places in this country and protect our wildlife refuges from any drilling, any exploration, any development at all; what would happen to this country?

Secretary NORTON. Obviously that would have a severe impact on our—

Mr. TAUZIN. Severe? It would be catastrophic, Madam Secretary. Catastrophic. The Secretary of Energy is visiting Louisiana, I think, this week, today maybe, he is over in Garyville, where the last new refinery was built in America, Marathon Oil Refinery. We produce 17 percent of the gasoline that this country uses in Louisiana. What would happen if we shut down those refineries today because we don't want any environmental impacts from refineries in our State? We want to protect our air and land. We had an explosion at one of those refineries. Almost blew up the whole town in my district. It shattered a lot of lives temporarily. But you know, that town gathered around itself and rebuilt that refinery, rebuilt the cat cracker so that we could in fact continue the operation of that refinery and supply this Nation with gasoline. What if we decided that we don't want to take any chances with explosions and natural gas pipelines and we don't want to have any more production and refining in Louisiana? What would happen to prices of gasoline and natural gas in this country if we decided we wanted to act like other people in this country and not produce? Would it be serious or catastrophic?

You know the answer. It would be catastrophic. Bottom line.

Secretary NORTON. I will let you answer that.

Mr. TAUZIN. Bottom line is we produce in the sensitive wetlands in Louisiana, even in the National Wildlife Refuges in Louisiana. We dedicate a lot of the monies from our State lands back to preserve those refuges. We have I think 5 million acres in preservation of wetlands in Louisiana that are producing oil and gas for the rest of you here and produced in environmentally sensitive ways and yet the money is going back to preserve and enhance those wetland areas.

Now, I am just going to make that little simple point. We in Louisiana have made a decision to be contributors to this Nation's energy security and we take some risk in doing it. But we think we do it wisely. But if we ever shut down like some of you want to

shut down some other areas of this country, if Texas ever decided to do the same thing, Oklahoma and few other States, Wyoming, where on earth would this country be?

Thank you very much.

The CHAIRMAN. Thank the gentleman. The gentleman from California, Mr. Miller.

Mr. MILLER. Thank you, Mr. Chairman. And Madam Secretary, welcome to the Committee. I guess I will pick up where Mr. Tauzin left off, but on a different vein. That is that we have had—since 1982 under the Reagan administration, we have had a moratoria on offshore oil and gas drilling in California and since that time Congress has renewed that moratoria every year and that moratoria in fact has been expanded to the coast lines of other States, Florida, of course being the other big State, but up the coast in part or in whole North and South Carolina and almost up the entire East Coast, if not the entire East Coast at this point.

And that was—that moratoria was extended to the year 2000 by former President Bush and it was extended by executive order to 2012 under former President Clinton. I guess the opening question I have for you is will you or will you not continue to support that moratorium?

Secretary NORTON. We will continue to support the moratorium. President Bush has been steadfast in saying that he will observe the moratoria and that the role of States in making those decisions is something that should be recognized.

Mr. MILLER. Well, I appreciate that answer. I am quite hopeful with that answer. Let me ask you a couple of particular problems that are drifting around in this discussion. And that is that the Mineral Management's advisory board has recommended that Mineral Management should identify five areas of potential exploration, quote, to identify the top five geological places in the moratoria area and if possible the most prospective areas for natural gas in a place the industry would likely explore if allowed. Do you view that as consistent or inconsistent with the moratoria that these States have asked for and have been granted by this Congress?

Secretary NORTON. That advisory board represents the State governments. It includes representatives of the governors of coastal States as well as a number of other groups that are represented on that; local government interests, for example. It is advisory to us and therefore they made a recommendation to us. Their proposal was to look at natural gas areas and to determine whether there were natural gas areas that might be acceptable to any of the coastal States. And so that continues as a recognition that the States might be receptive to making changes in the moratoria, but I believe also recognizes that the States are the ones—

Mr. MILLER. Do you view that Federal activity, to the extent that that engages Federal activity, that that is consistent with the moratoria?

Secretary NORTON. At this point that is purely a recommendation coming from an advisory committee. It has not even reached my desk in the form of a formal recommendation, much less us deciding to go forward with that recommendation.

Mr. MILLER. Well, let me ask you this: With respect to your operation in the—apparently in a set of draft options, I realize those

are options like recommendations from the Department of Interior, the suggestion has been—I think there were three or four suggestions. One specifically recommends going forward with lease sale 181 of the Florida—in the 36 tracts, the preexisting tracts in California. Is it your plan to go forward with drilling activity in those areas?

Secretary NORTON. The lease sale 181 area is excluded from the moratoria. That was action taken by Congress a few years ago as well as signed by President Clinton that removed that area from any moratoria. That is a preexisting proposal. Existing leases are and always have been excluded from any of the moratoria.

Mr. MILLER. So your proposal—would you accept that—you are going to plan to accept that recommendation to go forward with drilling development in those areas?

Secretary NORTON. We are in the process of reviewing lease sale 181. That process has not yet concluded, and so there has not been a final decision on lease sale 181. As to any existing lease activities, I am not aware of the particular status of those.

Mr. MILLER. And that is true with respect to the preexisting tracts in California?

Secretary NORTON. That is correct.

Mrs. CUBIN. Will the gentleman yield? I think that the OCS Policy Committee's recommendation isn't for drilling, they recommend not to drill. It is to gather seismic data and also data about the ocean floor itself, animals, plants and so on.

Mr. MILLER. I understand that. Those are all what we call preleasing activities or in this case, where leases are already existing, those are predrilling activities and that is why the concern in the States—

Mrs. CUBIN. Those are not preleasing activities.

Mr. MILLER. In this case they are preexisting leasing, but they are obviously designed to consider whether or not to go forward. As you know, those leases certainly off of California have been the subject of long negotiations about whether or not to purchase those leases to pay back, to give people credits to lease in other areas. This is the suggestion, recommendations of activities to suggest that you want to go forward with those leases because the next recommendation is that you assess Federal consistency on the CZMA, EPA discharge standards, all of which suggest that the provisions that are in place either in a Federal or State statute that may be prohibiting those leases from going forward now in some form or another are going to be weakened so that those leases in fact can go forward.

That is the reason for concern. We appreciate the leases exist and that the stakeholders that have those leases want to drill them. But we are also terribly concerned that there is also a body of law about the thresholds that have to be met before that would be going forward and the recommendation appears to suggest that those thresholds are in fact going to be weakened.

The CHAIRMAN. The time of the gentleman has expired. Would you like to quickly respond, and we will move on?

Secretary NORTON. Essentially what the Committee has recommended is initiating a process of discussion with the State governments, and it is my understanding that that discussion with

State governments is the core of that proposal. It is not moving forward with any sort of actual drilling program.

The CHAIRMAN. The gentleman from Tennessee.

Mr. DUNCAN. Madam Secretary, I read in Consumers Research Magazine in April that President Clinton just before he left office locked up 213 trillion cubic feet of natural gas and then I had the mayor of Englewood, Tennessee come to me and tell me that he had senior citizens who were having to choose between eating or paying their utility bills. What I have noticed is that most of these environmental extremists seem to come from very wealthy families and perhaps they are not hurt by some of these policies, but when you have groups that when you won't allow drilling for any oil you drive the price up, when you won't allow people to dig for coal you drive the price of coal up, when you won't let anybody cut any trees you drive the price of lumber up, when you won't let anybody produce any natural gas you drive up the price of natural gas. And what I am asking is this: Will you try to keep in mind in all the policies that you advocate, that if we don't allow the production of any energy or any natural resources in this country, that we are not hurting the wealthy people but we are hurting the poor and lower income and working people in this country by driving up prices and destroying jobs?

Secretary NORTON. Congressman, that is a very important point. It certainly is the least fortunate among us who are the ones who suffer the impacts from energy shortages and high prices of fuel, and so that is one of the concerns that our policy group had in mind as we discussed our energy proposals.

Mr. DUNCAN. Also I have been up to Prudhoe Bay twice and in both of those visits I have seen that 1.5 million-acre coastal plain and I don't believe there is a trigger bush on it hardly. It is this frozen tundra. I have never seen anything like it. Yet this Arctic National Wildlife Refuge I am told is 19.8 million acres. I was pleased in your statement to see that you pointed out that you would like to drill on only 2000 acres out of 19.8 million acres. I don't know what percentage that is, but it is almost minuscule. Yet some of these groups show pictures of the Brooks Range and the mountains and where the trees are. And it seems to me it is as false as Nazi propaganda used to be.

I read in Time magazine a couple of months ago that the entire Arctic Wildlife Refuge had 1,000 visitors last year. Now, I represent about half of the Great Smoky Mountains National Park and we have about 10 million visitors a year for an area that is only 1/35th the size of the Arctic National Wildlife Refuge. I assume that we don't have the votes to allow that drilling for that oil in Alaska. But it is really endangering our national security to become more and more and more dependent on foreign and imported oil, and I would hope that you would try to get that message out as much as you possibly can.

Secretary NORTON. Thank you, Congressman. I believe that we need to put in perspective both the potential impacts in the Arctic National Wildlife Refuge as well as the measures that can be taken to ensure that environmental protection is done at the highest levels if we were to go forward there.

Mr. DUNCAN. Thank you very much.

The CHAIRMAN. Thank the gentleman. The gentleman from Massachusetts, Mr. Markey, is recognized for 5 minutes.

Mr. MARKEY. Thank you, Mr. Chairman. Welcome, Madam Secretary. We from New England would just like to nail down with some specificity the intention of the administration to drill off of George's Bank. Can you give us today the unequivocal promise that you are not going to back away from the moratoria which exists and that no amount of study by any of the panels that may be looking at it will change the mind of this administration with regard to the drilling which the industry would like to commence off of George's Bank?

Secretary NORTON. Congressman, I am not familiar with exactly where the George's Bank area is, but I presume that is covered by existing moratoria. Obviously—

Mr. MARKEY. If you never find out where it is, I don't think New England would mind. I think that is probably, you know, a big plus right now in your testimony. But what our concern is this, that in the actual national energy policy plan, which is why we are greatly concerned, the administration says that the group recommends that the President direct the Secretaries of Commerce and Interior to reexamine the current Federal legal and policy regime statutes and regulations and executive orders to determine if changes are needed regarding energy related activities in siting of energy facilities in the coastal zone and on the Outer Continental Shelf.

So obviously, you know, you say, well, we are going to keep the moratorium in place, but at the same time, the President's own—Vice President Cheney's own panel that you served on basically is calling for a study of these very areas that are the subject of the moratoria.

Secretary NORTON. If I could make two points. First of all, I think it is wise for us to have a wide array of information as we are making decisions. And I think understanding where resources are located is something that leads to wise decision-making, whether we decide to go forward with trying to access those resources or not.

Secondly, I think what the policy is primarily aimed toward is looking at the processes that are used on Outer Continental Shelf development in existing areas. I think there is some potential room for improvement in those. We are analyzing that to determine whether we need administrative changes or whether we need to come back to you all.

I think the process that we have today of environmental planning in the Outer Continental Shelf is one that lacks some clarity as to the point at which it makes the most sense to go forward with the decision-making on leasing. At this point we have decision-making that has environmental analysis at a number of—

Mr. MARKEY. There is a prohibition. The moratoria includes a prohibition on leasing activities. You understand that?

Secretary NORTON. And I am talking about—if we talk about the areas that are offshore Texas in the existing Outer Continental Shelf, I think there are still some issues that we can look at in terms of the appropriate process for our analysis. And so—

Mr. MARKEY. What weight are you going to give to the States? I have a letter that I am going to send over to you today from the

entire Massachusetts delegation asking this administration not to reopen any consideration of drilling off of George's Bank. Is that something that you are going to give complete deference to?

Secretary NORTON. It seems to me that what you are asking about is something that is within your control in terms of the congressionally imposed moratoria. And to the extent that this area is controlled by moratoria, then obviously we cannot go forward with any sort of action there. The President—

Mr. MARKEY. Do you have any intention whatsoever of drilling off of George's Bank?

Secretary NORTON. Obviously we are going to comply with the law and not to drill in areas that are currently covered by moratoria. I mean obviously we would not be considering doing things that are covered by existing moratoria.

Mr. MARKEY. Would you oppose an extension of the moratoria?

Secretary NORTON. That is a completely abstract question and I am not sure what you have in mind.

Mr. MARKEY. Let me make one quick point to you.

Secretary NORTON. If I can say, I don't think there is any problem with discussions that consider where our resources are located, that present to the American public what the choices are. The eastern seaboard is an area that is a natural gas production area as opposed to an oil area. And so oil spills are not a significant concern on the Atlantic seaboard. And so natural gas is something that would be considered.

The CHAIRMAN. The time of the gentleman has expired. The gentleman from Colorado, Mr. Hefley.

Mr. HEFLEY. Thank you, Mr. Chairman. Madam Secretary, it is wonderful to see you here in this role. We have worked so long in Colorado on various issues together and it is good to see you here. Thank you for being part of an administration at least trying to develop an energy plan, because so many administrations, both Democrat and Republican, refuse to struggle with this very knotty issue. At least you are struggling with it and the debate is going on, and I think that is very, very healthy.

I would like to just point out Mr. Rahall took a swipe at President Bush about his photo opportunity down in the Everglades. You are on a little bit of shaky ground, Nick, when you think of your President Mr. Clinton, who I recall, Mr. Chairman, just before the election went down on the banks of the Grand Canyon and announced a gigantic national monument in Utah, but the photo op was better in Arizona than it was in Utah. So a little bit of shaky ground there, you might be careful about that.

Mr. RAHALL. I love photo ops myself.

Mr. HEFLEY. Sure, sure.

There is no question that we need to pursue additional energy resources. You got to go where the energy is. Now there is some ground that is truly sacred ground. Yellowstone, you are not going to drill in Yellowstone National Park. But I grew up in Oklahoma. And when I was growing up fishing the streams and ponds and so forth as a boy, a lot of the streams had oil slicks on them. And I thought that is the way streams came. I didn't realize that the oil industry was being very, very casual about their environmental

awareness there and letting oil get into the streams and into the water table. They don't do that any more. That has changed.

You look in Colorado, you look at the mining, the way the mining industry defiled Colorado, or the timber industry, anywhere you want to look in the old days, but they don't do those things any more. So, Gale, we don't have to have either/or. And you might want to speak to that, because there are so many people in this debate that say either you have energy production or you have environmental protection. It doesn't have to be either/or with the way we do it today.

Speaking of Oklahoma and sacred ground, it is interesting that the way Indian tribes oftentimes and others come up with something that all of a sudden is sacred ground. I would be very interested to know—I don't have any idea how long this has been the Valley of the Chiefs. Is this a modern thing or is this a long time thing? Maybe it is a long time thing.

Mr. HEFLEY. I know that oil made an awful lot of Indian tribes in Oklahoma very, very rich.

Mr. RAHALL. Would the gentleman yield on that question? I have got the answer.

Mr. HEFLEY. I will in just a minute, but I do want to know the answer.

Mr. RAHALL. Try 1,000 years.

Mr. HEFLEY. You are sure of that.

Mr. RAHALL. Or more. Thousand or more.

Mr. HEFLEY. All right. Maybe that is true or maybe that is a number that you just threw out. I don't know, but I will accept your word for it. On the ground, the sacred grounds of the Oklahoma capital are oil wells producing energy; doesn't seem to bother anyone. They are producing energy for the Nation. Do you have a process—I know that there is a process but do you have a process that you have confidence that will determine what truly is a sacred area where the values are more important as to what it is today, like a Yellowstone, than for it to be an area of oil production? Is there a process so that when you go through that process you have confidence that you have made not an emotional decision but a realistic decision about what truly is sacred and what isn't.

Secretary NORTON. We have several different layers in that. First of all, there are areas that Congress has set aside as not being appropriate for new development where we would not consider leasing activities, and that would include our parks obviously and wilderness areas. So there are some areas that are, as you pointed out, off limits.

As to other areas we would engage in a process of planning that would include input from local people, from State governments, from environmental groups. It is an open and public process of concentration to determine what the various values are and to try and weigh which of those are going to be the most significant and taking into account the way in which any sort of activity might occur in order to be most environmentally sensitive. We live in the 21st century and, as you point out, technology has increased dramatically and we can do things today to protect our resources that were not possible 20 years ago, and so we do have the potential to ensure that we can both have the energy that we need for our way

of life and also to go forward with our protection of our environment.

The CHAIRMAN. Time.

Mr. HEFLEY. Thank you very much.

The CHAIRMAN. I thank the gentleman. Gentleman from Michigan, Mr. Kildee.

Mr. KILDEE. Thank you, Mr. Chairman. Thank you, Madam Secretary. Madam Secretary, in January of 2000, then Governor Bush said that the President, quote, ought to get on the phone with the OPEC cartel and say we expect you to open your spigots. What has President Bush's policy been towards OPEC?

Secretary NORTON. Congressman, I hesitate to speak on international issues since that is not my area. That is a delicate area, and so I would be happy to provide that information for you for the record.

Mr. KILDEE. Do you know of any President getting on the phone with anyone in OPEC and coming close to saying turn on your spigots? Are you aware of that just from reading the Washington Post and listening to the electronic media; are you aware of any of that?

Secretary NORTON. Again, I hesitate to comment on international issues. That would be the subject of international negotiations.

Mr. KILDEE. So you are not aware of the President intervening with the OPEC?

Secretary NORTON. I have stated my position.

Mr. KILDEE. Maybe we should probably bring Spencer Abraham over here, too. Most of the newscasts indicate there is a decidedly different policy under President Bush with regard to OPEC than there was under President Clinton when he sent Richardson over there to really try to get them to open the spigots more, but if you could get some clearance on that very delicate international situation of getting on the phone and provide that to the Committee we would appreciate it very, very much.

Madam Secretary, in Michigan, in one area of Michigan overnight gasoline went up 30 cents a gallon and going up a nickel, a dime, 15 cents, but 30 cents a gallon overnight. Has your Department or anyone in your Department looked into that or asked the Department of Justice to look into how that 30 cent increase could occur overnight and how that is related to the market forces?

Secretary NORTON. My understanding is that most of those price spikes are due to refinery capacity problems and transportation problems that deal with essential boutique fuels, the fuel formulations that are unique to particular geographic areas, and that is something that is being examined as part of the overall energy plan.

Mr. KILDEE. Is the Department of Justice involved in looking at spikes of 30? That is really a very, very sharp spike, isn't it, 30 cents overnight? Is the Department of Justice working on that? Have you requested that they look into such Draconian spikes?

Secretary NORTON. Attorney General Ashcroft would have to be the one to answer that. I obviously am not privy to Department of Justice review of things. I know when I was Attorney General of Colorado we had jurisdiction over antitrust enforcement and we were frequently called every time there was an increase in the

price of gasoline to look for price fixing conspiracies and we had a complete investigation. We had a panel that we brought of outside people to analyze pricing structure within Colorado and they found no evidence of any of that, and so it is something I think people want to look to but there very often are other explanations and I think those who have looked at this have for the most part found the explanation to be within the refinery formulations.

Mr. KILDEE. But when you were Attorney General, you had other departments of State government making requests of you for investigations?

Secretary NORTON. No, never actually, not on that sort of thing. Those antitrust investigation requests are based on evidence and people coming forward with information about potential activities and most often on consumer complaints. That is the way in which that often arises.

Mr. KILDEE. Both in Michigan and in the Federal Government very often departments do call upon the Department of Justice to investigate since they are the arm of investigation and have the wherewithal to do that and the ability.

Thank you very much for your testimony, Madam Secretary.

The CHAIRMAN. Gentleman from California, Mr. Calvert.

Mr. CALVERT. I thank the Chairman. Welcome, Madam Secretary. I wanted to say something positive about California. I know nowadays that is not the most popular thing to do, but California is a great State and we have done some great things in California. We are a large solar user, I think the largest in the union. We use a significant amount of wind. As a mater of fact, in my own County of Riverside, California, you can drive down on the 10 freeway—I am sure many of you have done that on your way to Palm Springs, and you will see all those windmills down there. They are ugly as hell, but they sure generate a lot of power for folks down there in Riverside County.

And geothermal, I don't know if there is an area anywhere in the country that produces more geothermal power than the State of California, especially just down the road from Riverside County out in Imperial County, down toward the Mexican border.

And I have got to congratulate the City of Los Angeles. I know the Chairman would appreciate this, and certainly Mr. Rahall, is that the City of L.A. In their wisdom is down there negotiating a deal in Utah right now to put together 3,500 megawatts of coal power to ship down to the City of Los Angeles to help the Department of Water and Power meet future demands for the City of L.A. So you know we are doing a lot of things in California to meet the problems that we are having, but we do need some help.

And the question I have, a lot of the energy problems we have isn't necessarily just supply, though that is the biggest problem. It is also distribution. We have certainly a problem that has been well-publicized of natural gas distribution in California, not able to get enough natural gas within the State to meet the increasing demand for natural gas; also, for electricity, and the most famous one of course is Path 15, which I am certain you have heard about. What role, if any, does the Department of Interior have in helping expedite the permitting process to get this Path 15 problem re-

solved where we can get better electric distribution within the State of California from north to south?

Secretary NORTON. The Path 15 area between north and south areas of California would be something Interior would be involved in to the extent that any public land right-of-ways would be necessary, and so we would be happy and have said that we would work to expedite any right-of-way activities involving that.

Nationwide, the opportunity to look at transmission both for electricity and gas pipelines is something that would often involve Interior lands and we hope to expedite those processes.

Mr. CALVERT. And that was the next question because when I was reading through the energy policy, there certainly is a lot of impetus about creating right-of-way for not just natural gas but for electric distribution. Is it the administration's position to prioritize using Federal land first prior to using condemnation on private property?

Secretary NORTON. To my knowledge there is not a particular proposal on that. I think that would be a case-by-case type of determination, depending on what particular properties is involved.

Mr. CALVERT. I would hope you would look into that because certainly condemnation is difficult and I think it would expedite the process somewhat if that could be prioritized over private property.

One other issue of course, water resource and its ability to create electricity, essentially hydro and peaking power, which is very important in the West right now because California is not the only State suffering or will suffer this summer, and what role would you have this summer in potentially increasing the amount of peaking power that we could be able to count on in the West?

Secretary NORTON. Unfortunately, in terms of this summer, I have bad news and that is that in most of our areas of hydro production in the Pacific Northwest, this is the second driest year in the 100-year history of the Bureau of Reclamation and so additional water is simply not available for significant amounts of hydropower being available. We have less supply than we ordinarily would. We have taken steps to try to provide peaking power where we can and we have a number of situations where we have assisted California, and we have every time we have been asked by California to assist in Stage 3 kinds of blackouts situations. So we have done that. But it is more a long-term issue in terms of being able to look at our facilities across the board and see what we can do at existing facilities to enhance the turbines and otherwise provide more electricity from those areas. So we are doing what we can with very little water.

The CHAIRMAN. The gentleman's time has expired. Gentleman from Oregon, Mr. DeFazio.

Mr. DEFAZIO. Thank you, Mr. Chairman. Madam Secretary, excuse me if we go quickly here. Five minutes isn't very long and I have a number of questions.

I will go first to the issue of eminent domain. I am a bit concerned about the extraordinary proposals and the broad brush proposals I see to give the Federal Energy Regulatory Commission, which is of course a fairly obscure agency of Federal bureaucrats out behind Union Station in some nice lush headquarters, the right to preempt any and all private property rights in the United States

of America. I would assume with your background with the Rocky Mountain Foundation and others that you would not support such a proposal and perhaps this is contrary to suggestions you made during the discussions.

Secretary NORTON. The proposal to give the Federal Energy Regulatory Commission condemnation rights is essentially something that they have already had with regard to electricity—

Mr. DEFAZIO. No, with pipeline.

Secretary NORTON. With regard to pipelines. It is a new proposal as regards to electricity. Essentially having studied something of the constitutional issues in property rights, when you have a public purpose that requires that—

Mr. DEFAZIO. I am familiar with it. This is a point where I am going to interrupt you. I understand. So you are going to defend the policy. But I just find it a bit ironic that many of the same people who adamantly oppose the CARA legislation last year, which is for conservation purposes, which provided extraordinary new protections against preemption of private property, more than we ever had in terms of congressional authority to review and stop those sorts of things, would now propose a huge new broad brush preemption on private lands. I mean you are saying you are taking for public purpose. How about this public purpose?

In Minnesota the citizen advocates want a new line that goes West to bring in cheaper power from Montana and elsewhere. The incumbent utilities want a new line that goes east so they can sell the less expensive power of Minnesota into the more expensive markets of Chicago. So what is the public purpose there? Is it cheaper prices for the constituents of the State which would be a line to the West which the utilities don't want or is it the line to the East which the utilities do want so they can make more money? In whose interest is FERC going to be acting?

Secretary NORTON. Well, from an overall perspective we have an energy grid that is essentially 1950s era—

Mr. DEFAZIO. Well, it was not designed for deregulation, which I opposed—

Secretary NORTON. We really need to enhance our grids and to have more—

Mr. DEFAZIO. So you fully support this. Do you expect to be also suggesting that it would preempt Federal statutes and protections, wilderness, scenic areas, Columbia Gorge Scenic Area for instance and other areas, would you suggest that the preemption authority of FERC would go also to public lands?

Secretary NORTON. This would be a legislative proposal and I am not sure what the outlines are on the—

Mr. DEFAZIO. Will you recommend that they could preempt those protected lands?

Secretary NORTON. I am not sure what the existing status of that would be.

Mr. DEFAZIO. Well, I mean would you recommend it?

Secretary NORTON. It would concern us to have that kind of a proposal—

Mr. DEFAZIO. So you will oppose it then? You oppose it?

Secretary NORTON. We will take a look at that.

Mr. DEFAZIO. I see. Okay. All right. If we could go just quickly to the offshore. You gave both definitive and qualified answers. Do all those definitive and qualified answers apply to Oregon and Washington, the same ones that California got answers to and Massachusetts?

Secretary NORTON. We continue to observe the existing moratoria.

Mr. DEFAZIO. That is good. Now, do you think if the wildest dreams of this policy are realized that we can double our oil reserves, U.S. Oil reserves, I mean, known reserves? Do you think there is that possibility?

Secretary NORTON. I am sorry, I—

Mr. DEFAZIO. Do you think we could possibly with all the exploration that is being advocated could we double or even triple our known oil reserves, U.S.?

Secretary NORTON. I don't believe that anybody knows the answer to that.

Mr. DEFAZIO. What would you say—how about 10 times, do you think it is possible we could get to 10 times our existing reserves with all the exploration you want or is that kind of out there?

Secretary NORTON. It is quite unlikely that you would see anything like that.

Mr. DEFAZIO. Well, I would refer you to an article, the Mirage of a Growing Fuel Supply, by Edgar J. Nearing, who just happens to be a mathematician, I am not, but he says that if we have 5 percent growth, that a 1,000-year supply—that is, if we could have 10 times as much as we do now, would last 79 years, and he suggests rather that if we just got half of that in conservation, reduce a 5 percent growth to 2.5 percent growth, we could quadruple the lifetime of our expected reserves. So I would suggest strongly that if we apply the laws of mathematics here that we could do a lot better by having a little more emphasis on conservation in this plan, and I appreciate the potato fueled buses in Yosemite or wherever that was going to be, that is great, and I will eat more French fries to help with that, but that is the French fries—I am sorry, I was thinking, you know, we do grow some potatoes in Oregon.

I think my time has expired. Thank you, Madam Secretary.

The CHAIRMAN. I thank the gentleman. The gentleman, the vice Chairman of the Committee, Mr. Young, is recognized for 5 minutes.

Mr. YOUNG. Thank you, Mr. Chairman. Thank you, Madam Secretary. It always amazes me to hear people question this policy because there was a President for 8 years who had no policy at all but to burn, burn, burn, baby, burn, and now to hear the Congress on the other side talk about we have got to have—this policy is not good, it has got holes and we are going to conserve our way into prosperity is absolutely ludicrous.

Besides that, Madam Chairman, I am here for one reason. You just went to Alaska, I understand, and went to Prudhoe Bay and ANWR and Kaktovik. Just give me a little rundown on your trip.

Secretary NORTON. We toured the North Slope area as well as some other areas of Alaska. Had the opportunity to go to Kaktovik and to talk with the natives who live within the 1002 area of ANWR and to examine the high technology approaches that are

used in other parts of the North Slope. The Alpine facility is one that we visited and I was quite impressed with the technology that is used there with ice roads, with drill pads that use horizontal drilling going out several miles in order to minimize the impact on the surface.

Mr. YOUNG. What were the native people in the North Slope—what did they tell you?

Secretary NORTON. They are concerned because their native lands are tied up in the 1002 area and they have 92,000 acres of native owned lands where they would like to see oil and gas or oil development take place and they are prevented from doing that until Congress acts.

Mr. YOUNG. I happen to believe they have a right to drill their own wells, by the way. I am one of the people to advocate that and deliver to the market. And what we have done to them is absolutely wrong because the Act itself says specifically the Congress has to act on 1002 but we also granted them lands and I have asked them to explore through the legal branches where they could possibly do so. To their credit they have not said that they want to do that yet because they would look to do it with the consortium rather than do it on their own. With the horizontal drilling, Madam Secretary, they probably could drain all our oil, which I think would be quite interesting for them to do so, and I say that sincerely because it is their land, it is their oil. We gave it to them and now we are saying you can't do it because of a special interest group.

There was a little bit of a difference of opinion in your statement about the amount of oil, estimated 10.4. The so-called environmentalists say they are over-optimistic, that it is 3.5. I have heard as high as 16 and I predict as high as 39. What is the Geological Survey's estimate of the oil? What is their true numbers, most recent numbers?

Secretary NORTON. The number that we use primarily is the median estimate of recoverable oil, and that is 7.7 billion barrels. For the broader area that includes the native lands and State-owned lands, that is 10.4 billion barrels so that you often hear 7.7 and 10.4. The difference between those is just what lands are included.

Mr. YOUNG. And these are estimates because I have to remind the Committee that when we had this—and this Committee passed—the Trans-Alaskan Pipeline's estimated amount of oil was the maximum of 10 billion barrels. We have now pumped the 16th billion barrel of oil and we are still pumping 1 million barrels a day. So I don't believe estimates can be really clarified until actual drilling takes place and the production takes place.

I am a little bit concerned because I don't know how many on the Committee recognize that Saddam Hussein has stopped producing 2 million barrels of his oil that he uses for military purposes and has raised the price of oil and I am happy to say for Alaska is up to $32 a barrel today. It will probably go to $35 a barrel and yet we have those that oppose drilling in ANWR because you don't want to disturb supposedly the environment. Yet you are willing to take and go on your knee pads and go over there and negotiate with the OPEC countries to get them to try to produce more oil, and I think that is a very, very shortsighted point of view.

I am going to continue to push this issue and I do believe eventually the wisdom of America will wake up and say this is for the good of the Nation. By the way, Madam Secretary, this is the same area in 1973 when we fought the pipeline bill that the environmental community said let's go west to east with the least hospitable, with the least wildlife quality lands. That is where they want to build the pipeline, and now we have found a little oil and it becomes the Serengeti of Alaska. I wish they would stay and be consistent.

I will suggest respectfully that this is an issue that is going to go a long ways over a long period of time, a lot of debate, but don't be blindly led by the misadvertisement of the environmental community and the propaganda they put forth. Go up there and look at it. And those that haven't gone up there and are willing to vote against me, shame on you. Go up and look at it, come back and tell me I am wrong, and that is fine, but don't do it blindly.

Thank you, Mr. Chairman.

The CHAIRMAN. I thank the gentleman. Gentleman from New Mexico, Mr. Tom Udall.

Mr. TOM UDALL. Mr. Chairman, I believe that Congressmen Kind and Inslee were in front of me so I would defer to them if they are going to ask questions.

The CHAIRMAN. Congressman Kind.

Mr. KIND. I thank you, Mr. Chairman. I thank the gentleman from New Mexico for yielding me his time or however that worked out. Mr. Chairman, I do have a written statement I would like to submit for the record without objection.

The CHAIRMAN. Without objection.

[The prepared statement of Mr. Tom Udall follows:]

Statement of The Honorable Tom Udall, a Representative in Congress from the State of New Mexico

Mr. Chairman, Ranking Member, I commend you for holding this hearing so that we may address one of the most pressing issues presently facing our Nation—energy.

The National Energy Policy Group, chaired by Vice President Cheney, released its report, the National Energy Policy, on May 17. The plan promotes an increase in domestic oil and gas production from Federal public lands, specifically endorsing a change in law to allow oil and gas leasing in 1.5 million acres of the Arctic National Wildlife Refuge (ANWR).

The U.S. Energy Information Administration projects that U.S. demand for refined petroleum products will grow over 35 percent by year 2020, and natural gas is expected to rise by 45 percent. Instead of reducing this escalating rate of consumption, the Bush Administration suggests, among other things, to increase our energy supplies, remove regulatory hurdles, and expedite permits for new projects.

A key component of the Bush Administration's energy plan is to promote domestic energy security and reduce our reliance on foreign oil by opening the coastal plain of ANWR to oil and gas drilling. Reducing our reliance on foreign oil is important. However, meeting this goal by focusing on drilling of in ANWR is an unrealistic and misplaced priority because it does not exercise proper stewardship responsibility of our Federally managed lands. Moreover, with small changes in vehicle fuel efficiency, we could save many times over the amount of energy at stake. After all, the oil and gas under the coastal plain isn't going anywhere and we may develop future technologies which are much less damaging to this magnificent resource

The coastal plain of ANWR is the most biologically productive part of the refuge and the heart of its wildlife activity. In the mid–1980's, I rafted the Hula Hula River traveling over 100 miles from the mountains of the Brooks Range and through the coastal plain to the Beaufort Sea. I viewed first-hand the critical habitat for caribou, muskox, swans, snow geese as well as the Porcupine Caribou Herd which supports the subsistence lifestyle of over 7,000 Gwich'in (gwe–CHEEN') American and

Canadian Indians who oppose the drilling in ANWR because of the potential disruption of the caribou herd. As such, I question whether the administration intends to manage the protected Federal lands appropriately and take into consideration the input of the general population and our nation's native and traditional communities who will be most affected by such an initiative.

This Administration has not given consideration to developing those areas Congress has specifically recognized as being appropriate for oil and gas exploration on Alaska's North Slope. Ninety five percent of Alaska's North Slope is open to oil and gas exploration. Why aren't we doing the necessary work in those areas, rather than focusing on ANWR? The 23 million acre National Petroleum Reserve - Alaska (NPR–A) was set aside by Congress in 1923 for preservation as a future supply of oil, and was specifically opened for leasing in 1980. It makes much more sense to explore for more production in NPR–A instead of squandering the time, energy, and resources on ANWR.

(Gas Pipelines)

The National Energy Policy plan directs the Secretary of the Interior to coordinate with Federal and state agencies and interested parties to expedite the construction of a pipeline to deliver natural gas from Alaska to the lower 48 states. This recommendation lacks adequate safety and environmental protections that are a must to proceeding.

Reflecting on the horrible pipeline explosion near Carlsbad, New Mexico last August that killed 12 people and the Bellingham, Washington gas pipeline tragedy, I want to further ensure that our existing and future gas pipelines across the U.S. are safe. With that in mind, the Administration and Congress must strengthen our current oversight program for pipelines in order to enhance safety and reliability. As the Secretary of the Interior, I would hope that you would take the lead in the administration and work with Secretary Abrahams and Mineta to provide to Congress ideas on how to provide maximum safety.

The energy plan calls for more power plants, more refineries and 38,000 mile of new pipelines. Since many of gas pipelines cross Bureau of Land Management lands, the Department of the Interior is responsible for regulatory law compliance, specifically in regards to environmental analyses and the permitting process. The projected growth in energy has called into question whether regulatory actions and permitting processes can keep pace with the necessary construction of new delivery facilities. The current staffing and budget levels at the BLM field offices for these efforts are inadequate. I look forward to hearing from you how the Department of the Interior intends to address this issue. Without focusing on this aspect, I do not see how the BLM can effectively implement its resource management program in the lower 48 states with the proposed President's budget. The President's BLM budget for Fiscal Year 2002 identifies an overall decrease of $2.1 billion from Fiscal Year 2001 to $1.8 billion for Fiscal Year 2002. Although the administration intends to increase the BLM's energy and mineral program by $15 million, a large portion of that will be going toward exploration on Alaska's North Slope and completion of the BLM's land management planning process. That doesn't leave much money for the BLM to manage its other programs, and the programs will suffer tremendously because of the budget cuts.

In conclusion, let me say that the key elements for a balanced, long-term comprehensive energy strategy must be the reduction of our consumption levels and diversification of our energy base in an environmentally sound manner. And let me stress that last element—environmentally sound. These basic goals can be accomplished through a variety of measures including improving energy efficiency, promoting the use of renewable energy sources, and enhancing the productive capacity of the domestic oil industry. Thus, a comprehensive strategy should ensure that energy and environmental policies are complementary, and work together to support long term energy goals as opposed to implementing a policy at either extreme. America has placed its trust in this Administration and in Congress to implement an energy policy that is balanced and that serves not only our present environmental and energy interest, but also those of future generations.

Mr. KIND. Thank you. And as ranking member of the Energy Subcommittee on Resources along with Chairwoman Cubin, we have had quite a few hearings, Madam Secretary, in regard to the energy policy and the effect on public lands. They have been very enlightening hearings. In fact, one of the prominent facts that kind of came out in the course of these hearings is that roughly 95 per-

cent of the public lands already are available for access for exploration and drilling under current policy, and there are a lot of new discoveries being conducted on these lands that are already available for exploration.

In fact, I am wondering if when you were up in the North Slope of Alaska recently you had a chance to get together with the officials at Phillips Alaska to discuss with them the recently discovered oilfield that was made there on May 22nd. In fact, it is the largest oil reserve finding in the last decade in land that was already obviously accessible to these companies, land that is part of a national petroleum reserve, and so there is I think a lot of great potential that is untapped. In fact, discoveries that are being made, I think they are estimating it to be about a half a billion barrel oilfield that was just recently discovered.

But I think we also need to be honest with the American people. I know there is lot of optimism here in this Congress and with various members of the administration that we can do this on public lands, do it with the latest technology and in an environmentally friendly way, but there are, to be honest, inherent risks that come with exploration and drilling on our public lands.

And in fact, I don't know if you had an opportunity during your tour of the North Slope to go to Kuparuk Oilfield because on April 17th, the Anchorage Daily News just announced one of the largest oil spills to have occurred on the North Slope, oil and salt water spills, that affected a few acres of tundra because the salt water that came out, the oil that came out were over a hundred degrees in temperature and which just burned right through the snow and the ice and, now we have got saturated acres of tundra up there that was just reported in the Anchorage Daily News.

Mr. YOUNG. And if you believe the Anchorage Daily News, I can tell you a great many whales, too. That is a propaganda paper, always has been and will continue to be so. It is the left wing coming out of—

Mr. KIND. Reclaiming my time, Mr. Chairman, but this wasn't an isolated incident that was reported. Apparently there have been four other comparable oil spills that have occurred in the North Slope in the last 6 months that are being reported, and I would be more than happy to go up there and trudge around.

Mr. YOUNG. I hope that you do.

Mr. KIND. And the point I am trying to make, Mr. Chairman, reclaiming my time—

The CHAIRMAN. Gentleman from Wisconsin yielded to the gentleman from Alaska; is that correct?

Mr. KIND. The point I am trying to make is that there are going to be risks inherent in drilling on the public lands. If there aren't, then why is Governor Bush in Florida adamantly opposed to offshore drilling for natural gas in the Gulf? And why is every Republican candidate for Joe Scarborough's seat down in Pensacola opposed to offshore drilling if there aren't some inherent risks?

But we need to balance those risks with the short-term energy needs we have as a country, and I don't think anyone is proposing that we don't have a short-term need that needs to be addressed. We are a fossil fuel dependent nation. We are not going to change that overnight, and it is going to call for some increased produc-

tion. We want to be able to work with you and the administration on how we can do that in an environmentally friendly way but with a balanced approach, an approach that recognizes the fossil fuel needs that we have as a Nation but one that also is honest in recognizing the potential that does exist with renewable and alternative energy sources.

We are not 15 years away, Mr. Chairman, in being able to develop some of this latest technology. In fact, GM just announced plans of coming out with trucks in the next couple of years that are four-cylinder—eight-cylinder trucks that are going to increase fuel efficiency by up to 25 percent because of the fourth generation cylinder machines that they are going to be producing. So a lot of this is starting to happen right now, and I am hoping the administration will take a balanced approach to our long-term energy needs, one that recognizes the need for some fossil fuel development and production domestically, but one that also taps into the potential of alternative and renewable energy sources.

The budget that the administration submitted I don't feel reflected those values or those priorities. When you take a look at a 48 percent reduction in funding for the photovoltaic program, 48 percent less in the wind power program, 48 percent less in geothermal, 48 percent less in hydrogen program, for many of us it means that you are not treating the alternative and renewable aspect of this seriously. Otherwise why would we just have 48 percent across the board cuts in these programs. And perhaps the height of cynicism in the energy plan was that they will restore funding for these programs but only after we collect the oil reserves, after we go into the Arctic National Wildlife Refuge and drill and extract that oil.

And so I think the hope here is that we do approach this in a balanced way, realistically understanding that we are going to have to increase our short-term production needs in the country but tap into the developing technology—

The CHAIRMAN. The time of the gentleman—

Mr. KIND. There have been tremendous progress in the last couple of decades, and we would like to be able to work with you in more detail as we start to develop the energy plan in this Congress. Thank you again for coming.

The CHAIRMAN. The time of the gentleman has expired. The gentleman from Colorado, Mr. McInnis.

Mr. MCINNIS. Thank you, Mr. Chairman. I would hope that the other side of the aisle takes some interest in the issue now ongoing in the State of California. It is unfortunate that Mr. Markey has left, but I am concerned. There is about 83,000 acres in California near the Big Sur. It is mostly wild undeveloped coast that forms the southern gateway to the Big Sur, and it is now being proposed for development, and from my colleagues on the other side of the aisle, the expert that they hired this week was Bruce Babbitt, who helped developed that.

Second of all, I would like to say to the Secretary of Interior that the politics on this Weatherman Draw—the lease—the Weatherman Draw, the politics on this is being played by the opponents to this. It is not being played by the lessee or Mr. Anschutz's corporation.

Furthermore, Mr. Rahall, I noticed that some of the comments based on your press conference or some of the comments based on reports by the press of your comments, Mr. Rahall, strayed into a personal attack on Mr. Anschutz himself.

Mr. Udall from Colorado, the Secretary herself, myself, I consider myself a good friend of Mr. Anschutz's. Mr. Anschutz has been covered extensively in the media by Colorado for 30 years that I have kept up. I have known him for 30 years. Never once during that period of time have I seen an attack on his personal integrity. He is well respected in Colorado, and I would hope they would keep it to the facts.

Mr. RAHALL. Would the gentleman yield since he has mentioned my name?

Mr. MCINNIS. Madam Secretary, I would hope that the Department of Interior, kind of like the old detective show, just the facts, ma'am, just the facts, that is what we need to look at here and not some kind of political play. I would be happy to yield to the gentleman as I get towards the end if I have some time.

Mr. RAHALL. You mentioned my name in a false statement.

Mr. MCINNIS. Then I will yield right now. Go ahead, Mr. Rahall.

Mr. RAHALL. Would you please quote to me the personal assault I made on Mr. Anschutz?

Mr. MCINNIS. No, no. I said comments as a result of your press conference yesterday by the Sierra Club that comes out, made a comment about Western art and so on, and they apparently have teamed up with you on this approach to oppose this. In fact, I would like—reclaiming my time, I would ask the Secretary, would you reiterate for me your response to Mr. Rahall's comment. Mr. Rahall asked you if you had—I guess he didn't use the word inappropriate, but if you had contact in regards to this particular permit, undue influence. Remember that question earlier? Would you repeat your answer to that?

Secretary NORTON. The question was with regard to the decision making in Montana on that.

Mr. MCINNIS. Yes.

Secretary NORTON. And the decision making so far in this Department, and in that regard, as far as I know there was no contact between those who have made decisions on this and anyone in Washington. I do have to say I did see Phil Anschutz at his opening of his exhibits at the Corcoran Gallery that took place a while back. I don't believe that I had heard of this issue at the time. And so I know I have had no discussion with him on that type of issue.

Mr. MCINNIS. And this particular decision went to the State director of the BLM over in Montana. It went to the appeal process. As I understand from the date of the permits, the permits were first issued in 1987 and 1985. That is the numbers on them. In February of 1994 they got—I mean there is a lot of history to this. There is a lot of facts to this, and all of the sudden in the last couple of weeks I think there is a political play that is being motivated by facts that apparently I am not aware of or emotions that I am not aware of and I think it is unfair. I think you are the person to stand up to these kind of challenges. I think you are doing an excellent job, and I just wanted to clarify that.

Now, as courtesy to Mr. Rahall, Mr. Rahall, I would be happy to yield in my 30 or 40 seconds for further discussion.

Mr. RAHALL. I was asking the gentleman to quote me the statement he accused me of making a personal attack on Mr. Anschutz. I was looking for that statement so that if that is true I could apologize. If it is not true then I have nothing to apologize for.

Mr. MCINNIS. Mr. Rahall, I am not saying that you personally made this. I am saying as a result of the press on this, the Sierra Club, and I can certainly quote the Sierra Club, who is apparently working with you on their opposition to this, have begun a personal attack on this gentleman, a gentleman who is well respected in Colorado and undeserving of this type of an attack. So I would hope that you constrain or help restrain the Sierra Club and some of these others from straying off into that personal attack mode versus a professional disagreement or objection filed on the permit process.

Thank you, Mr. Chairman.

The CHAIRMAN. The gentleman's time has expired. We are going to recognize folks by the order in which they arrived on the minority side, Mr. Inslee, Mrs. Christensen, Tom Udall, Mark Udall. In the column on the GOP side it would be Mrs. Cubin, Mr. Gibbons, Mr. Osborne, Mr. Rehberg, Mr. Cannon and Mr. Gilchrest. With that in mind Mr. Inslee is recognized for 5 minutes.

Mr. INSLEE. Madam Secretary, my name is Jay Inslee. I represent the First District. That is the area north of Seattle and Redmond in the State of Washington. And I want to tell you my constituents are very concerned about one of the lines on a graph you showed us this morning. That is this graph showing proposed or projected oil consumption by America in the next, I guess it is the next 20 years that you have brought this graph with you today.

Their concerns are that the projection of the increase that you and the administration have projected are as if they are fixed in stone and we can't do anything about wringing efficiencies from our vehicles and other machinery to try to reduce the slope of that curve as it goes up. And my constituents are very, very concerned that while we are in this energy shortage and while we have known technology to increase the fuel efficiency of our vehicles, this administration has not supported increasing our CAFE standards, our average mileage standards to our vehicles.

And the reason that is very concerning to them is that nationwide I see numbers, 89 percent of Americans believe we ought to improve the fuel efficiency standards of our vehicles and yet the administration has not supported moving forward to increase those CAFE standards. Perhaps they are listening to other folks, I don't know, but they certainly are not taking action to reduce the slope of that oil consumption curve.

The question I have to ask you is, I want to ask about your role in this discussion. You are the steward of our public lands. You have an incredible responsibility of the most beautiful land in the known solar system to date in any event. Now, I would hope during the administration's energy policy you went to these meetings and said, hey, folks, we shouldn't be drilling in the Arctic Refuge or we shouldn't be drilling in the Hanford Reach New National Monument until and unless we first improve our CAFE standards and

improve the mileage of our vehicles. I guess I would like to know, did you make that argument during the development of this policy?

Secretary NORTON. We have looked at a comprehensive approach that looks across the board, and I would like to correct something on the CAFE standards. There is currently a study underway by the National Academy of Sciences and the administration is planning to look at the results of that study and act upon those results of that study, and so we have not in any way ruled out looking for a whole variety of different ways of trying to reduce the slope of that oil consumption increase. That is really the most likely scenario. It is obviously not the only scenario and that is why we have taken an across the board look that looks at reducing demand as well as increasing supply.

Mr. INSLEE. Well, perhaps you can answer my question. As a steward of all public lands, did you argue within the administration that our CAFE standards should be improved before we look at drilling in the ANWR and other national monuments?

Secretary NORTON. I think we need to look at things simultaneously and that is the position that I take across the board every place.

Mr. INSLEE. Today are you advocating?

Secretary NORTON. That we need to take a long-term look. We are in a situation today because we have not built a new refinery in a generation, we haven't seen new power plants in California in 10 years, we have not planned ahead and I think we need to plan ahead, take a long-term look. That means we don't stop at any place and wait for just one proposal. We need to look across the board at a comprehensive approach.

Mr. INSLEE. Are you today here arguing that we should improve our CAFE standards; is that your testimony?

Secretary NORTON. That is not something that my Department deals with. We are not the ones who have the scientific expertise in dealing with that. I have a strong position that we need to base our decision making on a thorough understanding of science and based on public input, and that would be an element of any decision that is made on that.

Mr. INSLEE. Let me encourage you to consider your portfolio larger. As a steward of the public lands, I can tell you that the people I represent want to go to this administration and say I as steward of these public lands want to improve our CAFE standards before we endanger the environment that I am sworn to protect.

Second issue, pipeline safety, if we are going to drill in these national monuments you have got to have pipelines that don't explode. Three people were incinerated in Bellingham, Washington over a year and a half ago, several in New Mexico. To date the U.S. House has not moved a meaningful bill. The U.S. Senate has approved a bill. Are you urging our noble Chairman to move at least a bill as strong as the Senate's bill that has passed this year on pipeline safety?

Secretary NORTON. I am not aware of that particular legislation. I am sure we would be happy to take a look at that.

Mr. INSLEE. We would encourage you to do so, and I hope you can join us in urging the House to act. It has been over a year and half since three children were incinerated in Bellingham and this

House has not acted in a meaningful way in pipeline safety, and if we are going to drill on these lands I think we ought to do it in a way that doesn't expose the people to incineration.

Secretary NORTON. Safety obviously is very important.

The CHAIRMAN. The time of the gentleman has expired. The gentlelady from Wyoming, Mrs. Cubin.

Mrs. CUBIN. Thank you, Mr. Chairman. Welcome, Madam Secretary.

I did want to make a point that on May 2th—Mr. Inslee will be interested in this, as Mr. Kind would be—that the President put in the budget amendment to drastically increase the research and development on renewable energies. So I think that should make them very happy. I am also going to want to talk about the budget. No matter how much people might want us to be able to conserve ourselves out of this energy crunch or crisis, it is not possible. We finally have to face the consequences of inaction, of restrictive land policies and extremist environmental policies. We finally have to deal with the consequences of the actions that have been taken over the past so many years.

Now when I hear members on the other side say that 95 percent of the public lands are available for exploration, I wonder what in the heck that even means. I just really question that in the first place, and then I wonder if they understand that available for exploration, maybe some of the land is leased but so they think because the land is leased somebody can go poke a hole in the ground because the land is leased. They don't realize the permitting process that has to be gone through and all of those laws that are in place have to be applied by members, personnel in the agencies to protect the environment, and that is where they give us a hard time because they really don't understand what happens out there on the ground, and that is what I want to talk about. I was concerned that, I am concerned that the agencies have enough personnel to process applications to permit drilling or all of those kind of things, with taking into account that the President recommended a $200 million cut, was it, how much, I can't remember how much the cut was to Interior.

Secretary NORTON. $200 million from last year's.

Mrs. CUBIN. I have spoken with Chairman Young and it is my opinion, it is my very strong opinion, that the only agency or basically the only agency of our government that generates new money is the Interior Department and it seems very short-sighted to me to not have that agency funded to the level that they can actually do the work that is given them to do. We have a gas area in Wyoming of cold bed methane. There are 2,300 APDs pending because they can't get to them. I would like to get a larger appropriation for the agency to help with that. Would you give me your views on that?

Secretary NORTON. We are looking across the board at what we can do to expedite permits. To some extent that may require simply decreasing the time that it spends in somebody's desk drawer before it is sent on to the next agency for action. In other cases, it may be a manpower type situation. We are in the process and will be taking a look at those kinds of issues so that we can tell you exactly where the problems are. I would like to point out to you a

Department of Energy study that is being released today was done in cooperation with my Department that deals with the Powder River area in Wyoming and the stipulations and the restrictions on land use in that area and it found that 68 percent of the resource is not available because of surface restrictions, and that is the type of study and the type of information that will be coming out of our long-term study.

Mrs. CUBIN. That is excellent. I also find it curious that some members on the other side seem to be afraid of gathering information on drilling, or not on drilling but on gathering information off the coast of New England and California when they in fact voted for the bill that required the study to find out all of that information in the lower 48 States. So it is sort of like not in my backyard.

Another thing I wanted to bring up, and again you can do this internally, but I want to be as helpful as possible, there are areas as we know like the Powder River Basin where there is a lot of activity and we have in the Parks Department, as you know, a fee program where the park who collects the fees gets to keep a certain percentage of the fees to use in that park rather than returning it to the general Treasury and we have been thinking about possibly having a setup like that for BLM offices or Park Service offices where a lot of permitting has to be done and where it seems to me that that would be a good way to address activity where the activity is.

Secretary NORTON. I would be happy to talk with you further about that.

Mrs. CUBIN. Thank you for being here. I look forward to a productive year and please know we are here to help you out.

The CHAIRMAN. I thank the gentlelady. Madam Secretary, we have two votes on. I understand we have got about 40 minutes more that we can infringe on your time. If the Committee could stand in recess, myself and the ranking member feel we probably have room for one quick one, and if it is all right with the Committee I would kind of yield to myself for that and then we will quickly go over and vote. We have two votes, and then come right back and see if we can indulge you for the remainder of the time.

Let me just say, if I may, very respectfully, I notice that past Chairman Mr. Young talked to you about going to Alaska and you have been there. I don't want to in any way pin you down on anything but we have something that we call the Grand Staircase Escalante and I have noticed that some of the members have alluded to the idea of drilling in our monuments. I still feel the same way about that.

How many have been there? People talk about monuments and parks and Federal land. A lot of that has to be done on a retail basis. What are we looking at? You know in the 1.7 million acres of that monument—and I have to say I am very familiar with it. My father had uranium mines on it. I have put Piper supercubs down in places that only a person that is not using their head would put them down on. I have been on horses on it. I have driven jeeps across it and the whole nine yards. I am very, very familiar with the property down there. If anyone seems to think that that is a grand and glorious scenery, they are kidding themselves. I would say maybe 10 percent of it would qualify under my criteria

of the 1906 antiquity law under what is an archaeological, scientific or historic site.

It is basically sagebrush, but on there is probably the largest supply that we have of low sulfur coal, fossil fuels and natural gas. And I think we have to do this on a retail basis and look at it and see what we can drill on so an idea of saying just because someone declares it as sacrosanct and it can't be looked at is nonsense. It can be.

I also would like to talk to you for a moment about the idea, this idea of the big bad oil companies. I am given to understand in my briefings on this that oil companies basically could do better going overseas. But as the Chairman of the Commerce Committee always likes to refer to it, we are dealing with those we can't depend on and I understand they could make, from my briefings, probably more money going overseas than they can here. But it is not a big issue of who is making money, it is more of an issue who do you want to depend on, and I think that is something that should be taken into consideration.

So with that said, I just wanted to get that in, if I may, and point out that these things can be done in an environmentally sound way and I think they should be. I really appreciate you coming and we are going to just recess for a few moments here and we will run over and vote and come right back and then wind this up. Is that all right with you?

Secretary NORTON. Yes, thank you, sir.

The CHAIRMAN. Okay. With that said, we will stand in recess and be right back, and I urge the Committee members of the Committee to hurry back.

[Recess.]

The CHAIRMAN. The Committee will come to order. Thank you, Madam Secretary. I really appreciate the members keeping in mind that we have got 15 minutes and the Secretary has to leave, so let's be very brief. We are trying to get to everybody that we can.

The gentleman from New Mexico, Mr. Udall, is recognized.

Mr. TOM UDALL. Thank you very much, Mr. Chairman. Welcome now, Madam Secretary. It is great to have you here today and as a beginning I just wanted to compliment you on what you are doing, at least what I am reading about that you are doing, with the Corps of Engineers. I noticed they put out a new set of regulations on wetlands. It looks like those are going to weaken protection for the riparian areas and I hope that you keep it—it reported in the press that you and several other agencies were keeping the pressure on them and keeping up the fight, so I hope that you continue to do that.

Mr. TOM UDALL. The question that I wanted to ask, and I am going to preface it with a little bit of a statement to give you a little bit of background, but it goes along a line that Congressman Inslee was approaching, and this is—and the Chairman talked about, and other Members here have talked about, a national energy policy. And we are getting into a national energy policy. The thing that I fear is we are really not telling the truth to the American people about what our energy situation is.

And there has been a lot of criticism of the administration's policies being too supply-oriented and trying to increase supplies of oil

and gas. And I wanted to specifically focus on natural gas, because it seems to me that we have put all our eggs at the national level here in the United States in the natural gas basket. Seventy percent of the new homes coming online use natural gas. All of the new power plants that we have been talking about, and many of them are in the report, and there are numbers from 1,000 to 1,600 going to be run by natural gas. And I am worried about that because as you note in your testimony, and I think you do it pretty persuasively here, you talk about how natural gas production is just barely keeping up, and we are talking about a 50 percent increase in demand.

And I just wanted to read a brief little statement to you. This is a fellow—and I don't consider myself the absolute expert on this, but here is a guy named Matt Simmons, he is in President Bush's kitchen cabinet. He is an investment banker and deals with the energy services industry, and here is what he writes about this natural gas situation: An energy crisis is descending over the world. The situation is grave. The world has not run out of oil, and North America has not run out of natural gas, but what we are short of is any way to grow our energy supply.

North America has no excess natural gas capacity. What we do have is extremely aggressive decline rates making it harder each year to keep current production from falling. A massive number of gas-fired power plans have been ordered, but the gas to run them is simply not there.

And so my question to you, Madam Secretary, is aren't we better off, knowing that we have this massive increase and knowing that we have this serious problem confronting the Nation, aren't we better off focusing on conservation, on efficiency, even use a new term, let's call it energy productivity, that is where we make productivity gains, and focus on that side of the equation where we know we can make enormous gains? For example, the rules put in under the Clinton administration for air conditioners would allow us to not build 146 power plants, and so those kinds of savings are out there. The industry people have endorsed some of them. And I am just wondering if we are not better off focusing in a bold way and in a big way on conservation or what we call energy productivity?

Secretary NORTON. Congressman Udall, I think you raise a good point in terms of trying to focus on conservation. That is something that we would like to look at. Natural gas demand far exceeds any expectation that is currently there in terms of what conservation can accomplish. The Energy Department proposals that estimate the 50 percent increase in natural gas, I believe, do factor in that we continue with conservation efforts and that we continue with these at the current rate that we are going forward and finding new ways of conserving. It is largely for air quality reasons that natural gas has become so much in demand, and so to a large extent that natural gas increase is a shift from other fuels in order to take advantage of the air quality benefits.

Mr. TOM UDALL. And I understand that. And what I would like you to focus on is aren't we better off being very aggressive on energy productivity rather than putting all our eggs in the natural gas basket so to speak?

Secretary NORTON. We are trying to pursue both avenues so that we have both conservation and additional supplies.

Mr. TOM UDALL. Thank you very much.

The CHAIRMAN. The time of the gentleman has expired. The gentleman from Nevada Mr. Gibbons is recognized for 5 minutes.

Mr. GIBBONS. Thank you, Mr. Chairman, and, Madam Secretary, I want to welcome you to our Committee and certainly appreciate your testimony and presence here today. I have only been in this Committee for now 5 years, or beginning my 5th year, but during that time your predecessor Secretary Babbitt never once came in here and testified and argued and demanded CAFE standards be increased. Perhaps that is because he also realized that CAFE standards are not in his jurisdiction. But in the 96 months of the previous jurisdiction, they never came up with an energy plan as comprehensive or detailed as yours, so I want to give you great credit for that.

I also want to thank you. Thank you for your willingness to look at the 3809 regulations. As you know, in Nevada, a State which has approximately 111,000 square miles, is 90 percent Federal public land, whether that is Forest Service or BLM, and mining is an important industry for our State. It is an important industry for the United States. So your willingness to take a look at the 3809 regulations and review those changes that were made are greatly appreciated and deeply important to a lot of Nevadans, as I am sure to a lot of Americans.

My issue, of course, is one as we look at all of the renewable energy issues, geothermal. Recently in the last Congress in the late night, passed as a rider to one of the appropriation bills, was a change to some of the status of Nevada lands, that Black Rock National Conservation Area in which approximately 1.3 million acres was removed from geothermal potential and taken off the books.

We would appreciate your willingness and your understanding to take a look at the Black Rock conservation issue, geothermal potential, not that we want to change any of the provisions which are going to protect those pristine areas that need protecting, but we do also recognize that Nevada, unlike what my friend from California says, is probably the heart of geothermal energy in this Nation. And we have a great potential for it, one, which I think is a very clean energy source that could provide a great deal of energy for the answer to California's problem.

In addition to that, let me say that California has approached Nevada in the last year, and I know I was talking with your director, State director, with approximately 11 applications for new power plants to be built in Nevada for California. This is probably part of the problem with California, its unwillingness to look internally at its own energy needs and demands.

But that being put aside, I want to thank you for your interest here, but also I want to talk about the geothermal as I indicated earlier and hopefully get the Department of Interior's willingness to take a look at the boundaries of that 1.3 million-acre Black Rock NCA to see whether or not we can efficiently and effectively and environmentally soundly, may I say, look at the geothermal energy potential there and make some accommodations for that very vital, very needed energy resource from that standard.

Secretary NORTON. Congressman, we would be happy to work with you and to examine that issue further.

Mr. GIBBONS. Thank you. And I know that you are on a very short time leash, and with that I would again applaud you for being in office for 4 our 5 months and having come up with an energy plan for this Nation. And again, you know, we have to address these issues. It is important for you to be here to address these issues. You are doing a fine job, and we look forward to having you back. Thank you.

I yield back the balance of my time.

The CHAIRMAN. Appreciate the gentleman's comments.

Looks like we have time for one more. The gentlelady from the Virgin Islands is recognized.

Mrs. CHRISTENSEN. Thank you. I will be very brief. Thank you, Mr. Chairman.

Good morning, Madam Secretary. It is a pleasure to join my colleagues in welcoming you to the Committee for the first time.

Secretary NORTON. Thank you.

Mrs. CHRISTENSEN. Before I ask the one question that I have, I want to take the opportunity to thank you for the way in which you have addressed with us the issue of the monument which is still ongoing, the two monuments that have been designated in my district. Mr. Chairman, from that experience and the other opportunities that we have had to work with the Secretary, despite what we are going through now, I am sure that we are going to end up at the end of the process with a very fair and balanced approach to dealing with our energy crisis.

My question is that based on your testimony, the U.S. consumes about 7 billion gallons of oil—barrels of oil per year, and of that we import 4 billion and produce about 3-. How much does your office estimate we could increase production, for example, from increased drilling in the 95 percent of the BLM lands in those five States in the West from the lease that is already existing and available to us, and the outer continental shelf from enhanced recovery from the existing wells? Because your testimony says that maybe somewhere from 30 to 70 percent is not recovered of what is drilled, how much more can we increase our production from just those areas and not putting any of our environmentally sensitive areas at risk?

Secretary NORTON. We are in the process of looking at some of those things and would be happy to provide you with some follow-up information about that. I obviously don't have those figures right at the top of my head. Certainly looking at enhancing production from existing areas is one of the things that we would like to pursue, and I think there are some good opportunities for doing that. That doesn't solve all of our problems, but I think that is one of the many steps that we have to pursue.

Mrs. CHRISTENSEN. Thank you. And you know, I agree with my colleague Mr. Udall here. I think that if we use the existing areas and increase our production, then the yield, and use the conservation—and what is it—energy productivity measures, I think that we can address this crisis.

The CHAIRMAN. I thank the gentlelady.

We have four Members who haven't had an opportunity. We have got about 3 minutes. Raise your hand if you want to ask a question. We will take you by the order you came then.

Mr. Osborne.

Mr. OSBORNE. Thank you, Mr. Chairman. Thank you, Madam Secretary, for being here. I realize it may not be directly in your province, but we are very interested in biodiesel and ethanol as part of renewable fuels and wondered if you had a quick comment on how you see this fitting into the energy plan?

Secretary NORTON. The alternative fuels such as ethanol are a part of the comprehensive energy plan, and that is something that the administration does plan to pursue with additional research, as well as looking at other incentives for going forward with that.

Mr. OSBORNE. Thank you. Yield back my time.

The CHAIRMAN. Thank you.

Mr. Rehberg.

Mr. REHBERG. Thank you, Mr. Chairman.

Having been in public service since 1984 as a State legislator, and Lieutenant Governor from 1991 and 1997, and now as Congressman, I have spent my entire time traveling in the State of Montana to all 56 counties. I can honestly tell you I have never even heard of Mr. Anschutz, nor was this a controversy until it was created, this controversy, by the media and by the various interest groups to create the controversy. I hope you will stay above it, allow the process to go forward. I commend you for what you have done so far.

I also want to thank you for sending Mike Koslowski out to Montana most recently. We had a Missouri Breaks hearing, and as you know there is a controversy surrounding that breaks designation by President Clinton and Mr. Babbitt.

My question is—and certainly the monument that was created for the purposes of protecting the Missouri Breaks, but as you know, there are 80,000 acres of private property that were included within that designation, and there was quite a bit of oil and gas leasing property and, in fact, active Federal gas wells in that area. Are you open to suggestions for boundary adjustments?

Secretary NORTON. That is one of our more controversial monument designations and one that has, I think, one of the largest amounts of concern from local citizens.

We are going through a process. We would be happy to work with you further. We are just beginning our process in looking at what should be the future of that monument, and perhaps adjustment of boundaries is something that you all might want to consider for congressional action.

Mr. REHBERG. Thank you. I hope that Mike will give you a full briefing. We sat there for 8 hours and had 300 people. Mike gave everybody an opportunity to testify. It took us about 8 hours to get through that process.

My second quick question is Otter Creek. Are we any closer on Otter Creek? As you know, the State of Montana negotiated in good faith with the Federal Government for the transference of the Otter Creek tracts because they wanted to keep us from actually mining the New World Project north of Yellowstone Park. That was a good faith negotiation. It broke down in the end because Mr. Bab-

bitt chose to turn his back on the State of Montana. How are we on that process?

Secretary NORTON. My understanding is that we are still working with the State of Montana in trying to move forward on that.

Mr. REHBERG. Thank you, Mr. Chairman.

The CHAIRMAN. The gentlelady from Minnesota.

Ms. MCCOLLUM. Thank you, Mr. Chair.

Secretary Norton, I am from the State of Minnesota, and the Great Lakes does have some drilling going on in Michigan. The Great Lakes provides drinking water for 10 million people, 35 percent of the fresh water, and we are very alarmed and very concerned that there is going to be increased pressure both on the States, with the Canadian Government also, with more drilling going on in the Great Lakes as well as the proposed pipeline, which, it is my understanding, may have some input in whether or not it is approved or not, running a pipeline through the Great Lakes to transport what eventually could be oil, which covers 35 percent, as I said, of America's drinking water, the world's fresh water. So can you tell me what your position is, the Department's position is, on protecting fresh drinking water in the Great Lakes? And if you have taken any position, I hope have you taken a position in slowing down and not drilling in the Great Lakes.

Secretary NORTON. My understanding is that the drilling in the Great Lakes is entirely a State issue as opposed to any Federal land being involved in that. And I am not familiar with the pipeline proposal. I would be happy to get back with you with additional information on that. I don't have an understanding of or a position on the pipeline proposal at this time.

Ms. MCCOLLUM. Mr. Chair—Ms. Norton, yes, it is a State issue. The Federal Government, I would think, would have a health and safety concern with the fresh water sources that are out there. So I am asking the Federal Government, you know, you are representing the Department of Interior, if you are going to ask States to slow down on this, or if you are going to be working to identify oil and other resources potentially that could be drilled out of the Great Lakes, or are you going to take a position where there is the place of last resort we should go because it is drinking water, as I said, for 10 million people?

Secretary NORTON. I would be happy to take a look and see what jurisdiction the Department of the Interior has on those issues. I am not aware of a particular jurisdiction we have at this point. I think it would be primarily an Environmental Protection Agency issue in terms of water quality.

Ms. MCCOLLUM. Well, Secretary Norton, even if you don't have direct jurisdiction, you are a leader in this area. I am asking for your strong consideration of doing what we have to do to protect drinking water. We are focused on oil right now, but any of the futurists will tell you the next battles that future generations will fight over will not be over oil, it will be over water. Thank you.

The CHAIRMAN. I thank the gentlelady.

The gentlemen from Colorado.

Mr. TANCREDO. Thank you, Mr. Chairman.

Although some may be surprised at the great accomplishments you have already been able to achieve, Madam Secretary, none of

us from Colorado are surprised, because we know you, and we know exactly what you are made of. And I have to say that you make us all very proud. Personally certainly I can attest to that.

Madam Secretary, just a point about ANWR and the bonus bids. If you could clarify for us exactly how the administration is—as I understand it, some revenue from the bonus bids would be directed toward land conservation and some toward research and development of alternative energy sources. Am I accurate in that? Do you know how that split will occur? Do you have any idea about how much money we may be talking about?

Secretary NORTON. My recollection is that we would be looking at alternative energy types of research from the money coming from the bonus bids, where land conservation measures would be coming from the royalties from actual production. I don't have dollar figures for that, but would be happy to see if we do have any of those available.

Mr. TANCREDO. Thank you. I have no other questions except to say it is great to see you.

The CHAIRMAN. Thank the gentleman from Colorado.

We thank the Secretary. We appreciate your patience and your time with us. I think as I have listened to all the testimony, the most revealing testimony I heard today was from Mr. Markey from Massachusetts, his comments when he said this, ″The State should be given complete deference when deciding how to use the natural resources.″ Now, I hope that applies to Alaska, Utah and Colorado and those other States, because so far those of us that live in the West, my 21 years as a Member of this organization, I haven't seen that. I say amen. I agree wholeheartedly with Mr. Markey on that with the exception of one thing in Nevada, Mr. Gibbons. And sometimes the good of the country has to come first.

Mr. GIBBONS. A little nuclear waste, that is all we have got a problem with.

The CHAIRMAN. I don't know how you came up with that.

Thank you, Madam Secretary. We surely appreciate it and appreciate your kindness, and we now stand adjourned

[Whereupon, at 12:36 p.m., the Committee was adjourned.]

Additional statements submitted for the record follow:

[The prepared statement of Mr. McInnis follows:]

Statement of The Honorable Scott McInnis, a Representative in Congress from the State of Colorado

Recently, my Subcommittee on Forests and Forest Health conducted an oversight hearing exploring the role of community-based partnerships in the management of our nation's forests, and another on forest biomass as an economic use for forest fuels. During the course of these hearings, two critical themes surfaced. First, healthy forests and healthy local communities are inalterably intertwined. Second, the emerging field of biomass production provides a great opportunity to promote both healthy forests and healthy local economies while contributing to our nation's energy needs.

Biomass production seeks to utilize wood fiber generated by the mechanical thinning of forests for energy production. This practice complements other efforts to turn small logs into innovative value-added products, such as furniture or hardwood floors, or composite signs made from chip wood and plastics.

As Secretary Norton and members of this Committee know, last year Congress established the National Fire Plan to combat the rampant threat of catastrophic fire on our forest lands. At present, 73 million acres of National Forest lands run the

substantial risk of experiencing run-a-way wildfires during the coming fire season. Additional acres are at risk on Interior Department lands. The cause of this imminent threat is clear: after 100 years of aggressive fire suppression, many of our forests are crowded with excess fuels—live small-diameter trees, dead trees of all sizes, branches, brush, and heavy accumulations of needles and leaves. The National Fire Plan creates a comprehensive and coordinated framework through which land managers can address this fundamental cause of our current forest fire crisis.

As resource managers begin to systematically reduce hazardous forest fuels under the National Fire Plan, vast quantities of biomass could be made available. If this excess wood and brush must be removed to improve forest health, it only stands to reason that these resources should be put to efficient use in the local market place. It's a matter of common sense. In my view, Congress and Federal land management agencies should take all practical steps to promote the long-term availability of biomass and the viability of the businesses that utilize it.

There will no doubt be some who cynically, and wrongly, view biomass production as some sort of threat to our public forests. It is not. Let me be clear: forest fuel reduction and biomass production is not an excuse to increase timber harvesting. Instead, it is a one-two combination that simultaneously promotes the sustainability of our forests and the health of our local economies.

I look forward to hearing how the Department of the Interior will participate in exploring the benefits, opportunities and obstacles to utilizing biomass from our Federal lands. Such a renewable resource can boost domestic energy production while providing a viable and safe alternative to letting our public land treasures burn up in catastrophic fire.

[The report entitled ″National Energy Policy″ was too lengthy to be included in the printed hearing. It has been retained in the Committee's official files.]

[The prepared statement of Mr. Kind follows:]

Statement of The Honorable Ron Kind, Ranking Democrat, Subcommittee on Energy and Mineral Resources

Thank you Mr. Chairman. Ms. Norton, I would like to thank you for appearing before the Resources Committee today to discuss aspects of the President's National Energy Policy. I have reviewed the policy and found aspects that I can support. In particular, I was impressed with those sections of the plan that address the need for increased emphasis on renewable energy, conservation, and energy efficiency.

I believe these are exactly the areas that we as a country should focus on in order to achieve greater energy self sufficiency. However, while there were good words in the President's energy policy regarding energy efficiency and renewable energy sources, the President's Fiscal Year 2002 budget request does not support his commitment in these areas. For example, the President proposes to cut Department of Energy funding for solar and renewable energy sources by $136 million - a reduction of 36 percent.

Further, the Administration's request would eliminate the International Renewable Energy Program and the Renewable Energy Program for American Indians. It would include $36.1 million less for Photovoltaics, $19.1 million less for Wind, $17.8 million less for Superconductivity, $13.0 million less for Geothermal, $13.0 million less for Hydrogen, and $11.8 million less for Concentrating Solar Power.

I find it very difficult to understand these proposed cuts in light of the glowing words for renewable energy contained in the National Energy Policy and the President's claim that the nation faces an energy crisis. Indeed, common sense would dictate that we be increasing funding for these programs, not cutting them as the President proposes.

The National Energy Policy also calls for increased domestic production of oil, natural gas, and coal. While I recognize the possible need for increased domestic production of these traditional energy resources, I am concerned that the Administration is too willing scale back environmental protections in the name of increased supply. Environmental restrictions designed to protect our wildlife must not be sacrificed. For example, I am concerned that the environmental impacts of pumping billions of gallons of contaminated water to the surface as a result of coalbed methane gas production have not been adequately assessed. In addition, the energy industry must be required to use the most advanced technology designed to minimize environmental impacts.

Over the short term, we may need to increase domestic production of our traditional energy to meet our needs. However, this must be done in a manner that is truly protective of the environment. We should not allow the current situation to be used as an excuse to rollback environmental protection. Over the long term, our economic and environmental future lies with using our advanced technology to develop clean, renewable energy sources and becoming more energy efficient.

[The prepared statement of Mr. Mark Udall follows:]

Statement of The Honorable Mark Udall, a Representative in Congress from the State of Colorado

I am looking forward to hearing from Secretary Norton, because this is a most important topic.

I have some very serious concerns about the Administration's energy policies. I think they lack balance, with too much emphasis on increased production of fossil fuels and not enough on alternative sources, energy conservation, and increased efficiency.

I also am very apprehensive about how these policies would affect the management of the Federal lands, which are the property of all the American people.

Certainly those lands—in Colorado as in other states—can and should provide our country with energy and minerals.

But the lands also have many other resources, both natural and cultural, as well as less-tangible values.

Like energy and minerals, those other resources and values are important for the entire country. But they are especially important for the people of the Western states—they shape our region and our lives.

In Colorado, rapid population growth is putting increased pressure not only on our national parks and monuments but also on the national forests, the wildlife refuges, and the public lands managed by the Bureau of Land Management.

We are becoming increasingly aware of the need to respond to that pressure by better management of recreational and other uses of all the Federal lands in our state, and by increased protection for the most sensitive areas.

Just in the last two years, legislation has been enacted to enlarge the Black Canyon of the Gunnison and the Great Sand Dunes National Monuments and to designate them as National Parks; to create the Colorado Canyons National Conservation Area; and to add the Spanish Peaks and the Black Ridge areas to the National Wilderness Preservation System.

And pending before this Committee are bills to protect more wilderness areas in our national parks, national forests, and public lands and to designate Rocky Flats as a National Wildlife Refuge once that former weapons site is fully cleaned up and closed.

I strongly support these initiatives and also support protecting the roadless parts of the national forests. I think that is the way we should be going.

But the Administration's energy policies seem to go in the other direction.

In fact, I am tempted to borrow some rhetoric from the other side of the aisle and say that we are on the verge of a "war on the West.—

That is not a new phrase. Some people used it about some actions of the previous Administration. But now there is a difference—this time, it may prove to be accurate.

Unless we restore some balance, the energy policy will be a war on wilderness, a war on wildlife, a war on open spaces—and ultimately, a war on the economy of the West.

The administration wants the people of the West to open up protected areas, forsake protecting more wilderness, and sacrifice much of what makes our part of the country special—all to avoid a commitment to a balanced policy of increased efficiency and conservation and an energy supply featuring not only oil and gas but also greater use of wind, solar, biomass, and other renewable sources.

The West has heard that before—but the West has changed significantly since the Reagan–Bush administration came to Washington. Our region's economy is more diverse and many of the jobs in the new economy are based on people's desire to live where open space and the natural environment are vigorously protected.

So, I urge the President to draw back from the brink, rethink his priorities, and listen to all the voices of the west and the rest of the country.

If that happens, I think we in the Congress can work with the Administration to develop a sound, balanced policy that will address our energy problems without

sacrificing the other resources and values of the Federal lands. Certainly I am ready to help in that effort.

[The prepared statement of Ms. Solis follows:]

Statement of The Honorable Hilda L. Solis, a Representative in Congress from the State of California

Chairman Hansen, Ranking Member Rahall, and colleagues, I am disappointed with this so-called National Energy Policy.

As a Representative from the great state of California, my constituents and I have experienced first hand what it is like to sit in the dark. We have grumbled as we sat in traffic because the traffic lights were not working due to a blackout and we have cried out for relief as prices have jumped from $30 per Megawatt Hour (MWh) to $1900 per Megawatt Hour (MWh).

My constituents are on the front line of the energy crisis. And yet, they have been ignored by the Bush Administration and its National Energy Policy Development Group. How can our country take seriously an Administration who has promised so much in the future but is unwilling to deal with the present?

The Administration promises more drilling, less environmental protection standards, and more coal burning. They want the focus of our national energy policy to be on the destruction of the environment instead of the future of this country.

Sure, President Bush's plan has some portions which are environmentally conscious - but this limited good does not make up for the overall destruction of our precious resources. We are drilling away at our children's future.

[The prepared statement of Mr. Flake follows:]

Statement by The Honorable Jeff Flake, a Representative in Congress from the State of Arizona

President Bush's energy policy is intended to increase energy supply through a variety of measures while paving the way for more self-reliant energy production. The economics of the plan move toward allowing the market to correct current imbalances between current supply and demands. Today we look into how this plan will affect legislation to be heard before the Resource Committee this Congress.

Currently, we are experiencing the results of policies that inhibited production, raised costs and imposed price controls on energy. Our situation is felt in rolling blackouts, higher utility bills, higher gasoline prices and concern over our country's future energy supply. And, we find ourselves 56% dependent upon foreign produced oil. The President's Energy Policy is intended to address these very issues.

In a report containing over 100 recommendations, the National Energy Policy emphasizes basic economics, and production of energy on our own soil to a much greater extent than we have seen over the past several years. In order to accomplish this, we need to directly address issues of expedited permitting processes, infrastructure development, and exploration of regions known to contain energy resources.

It is my hope that together we can approach this situation with a strong effort for reform that will bring us closer to a self-sufficient energy supply. I look forward to hearing more about how the Committee can work towards accomplishing the President's goals during this Congress.

[The response from Secretary Norton to questions submitted for the record follow:]

FOLLOW-UP QUESTIONS AND ANSWERS FOR SECRETARY NORTON FROM THE JUNE 6, 2001 HEARING BEFORE THE HOUSE RESOURCES COMMITTEE ON THE NATIONAL ENERGY POLICY

(HANSEN) Energy and Minerals

Question 1a: Does the Interior Department have an estimate as to how much oil and gas production is presently not accessible due to restricted land management uses or designation such as wilderness study areas, national monuments?

Answer: General information is available for National Monuments and Wilderness Study Areas regarding oil and gas potential. The probability of oil and gas develop-

ment within these sites is generally low based upon preliminary geologic data, Bureau of Land Management (BLM) planning and known industry records (including proprietary data). One notable exception to this is Canyons of the Ancients National Monument in Colorado which is currently 85% leased for oil and gas and is subject to valid existing rights and further leasing in particular circumstances, as provided by Proclamation. In other areas, there is limited overlap of industry identified oil and gas reserves with National Monuments and Wilderness Study Areas. The Department of Energy report in June of this year that analysts studying Federal lands in the Greater Green River Basin of Wyoming and Colorado found that nearly 68% of the area's technically recoverable gas is either closed to development or under significant access restrictions. However, the total volume of the reserves is not proven at this time and BLM is working closely with the USGS to obtain more detailed information about the potential for undiscovered oil and gas reserves within these areas.

Question 1b: How have permitting delays for drilling and construction of transportation facilities, such as pipelines and transmission lines across public land impacted our ability to develop energy resources on public lands?

Answer: Permitting delays result in slowing the efforts to bring on-line energy development in a timely manner.

The BLM is responding to this concern regarding our national need for increased energy and mineral production from our Federal lands in an environmentally responsible manner through several initiatives. One key element is the study required in Section 604 of the Energy and Policy Conservation Act (EPCA) of 2000. The EPCA study will identify and inventory impediments and restrictions to oil and gas resources. We will also study ways to ensure that the permitting of drilling and construction of transportation facilities and other right-of-ways for oil and gas are made available in a timely and expedited manner as allowed by budgetary resources.

Question 2: Do you believe that you as Secretary of Interior have the authority to acquire seismic data in areas which are designated off-limits to oil development through annual appropriations riders or an executive order?

Answer: In moratoria language appearing in the Fiscal Year 1992 House Report, accompanying the Fiscal Year 1992 Interior Appropriations, restrictions on preleasing activities did not preclude environmental, geologic, geophysical, economic, engineering, or other scientific analyses, studies, or evaluations. These studies are not considered a part of the EIS or the formal sale process. While the current moratoria language is silent on these interpretations, this language has not been revised or reinterpreted in subsequent appropriation bills.

Question 3: In light of highly publicized natural gas shortages and high market prices, what specific actions does Interior plan to take to speed up the permitting process, particularly in areas where excess pipeline capacity is available to carry natural gas into gas-short areas like California or the Midwest?

Answer: Permitting for energy-related projects is often a lengthy multi-agency process. The President has issued an executive order directing Federal agencies to expedite the review of permits and other Federal actions necessary to accelerate the completion of energy-related project approvals on a national basis. The Department of the Interior is well on its way to developing our energy implementation plan. Specific actions to expedite permitting will be contained in that plan. The BLM is addressing permitting through several initiatives, including revising key land use plans for current development scenarios; streamlining the processes for timely approvals for oil and gas development such as ESA Section 7 consultation with Fish and Wildlife Service, National Marine Fisheries Service, and cultural resources clearances; and improving coordination among affected parties by the use of information meetings and forums such as the National Petroleum Forum and Federal Leadership Forum. In addition to permitting, the Bureau must also address the monitoring and compliance of existing and new operations. Finally, pipeline carrying capacity is not a responsibility of the Department of the Interior, but we will work with FERC to expedite Right–Of–Way approval to facilitate this process.

Question 4: Does BLM have any national guidelines on how regional managers should handle prospective energy resource lands in the area planning process or is that left to the individual's discretion? Is it time to re-examine these guidelines in light of energy shortages?

Answer: The BLM does have existing national Supplemental Program Guidance for oil and gas leasing and planning. This guidance is in the process of being reviewed in light of the National Energy Policy.

Question 5: What is the current status of the implementation of the Energy Policy and Conservation Act, Sec. 604 study on impediments to oil and gas exploration and development? How will the Department use the study in increasing access to oil and gas resources?

Answer: Since the reauthorization of the Energy Policy and Conservation Act (EPCA) (P.L.106–469) on November 9, 2000, the Department of the Interior is proceeding expeditiously in its efforts to complete the assessment of restrictions and impediments to oil and natural gas development underlying Federal land. To expedite the process, the Secretary designated the BLM as the lead agency to coordinate the assessment. Working cooperatively as an inter-agency team, the BLM, USGS, USFS, and DOE completed identifying current studies and ongoing efforts, establishing agency's responsibilities and identifying the overall approach to the analysis. Currently, the study is focusing on five priority areas within the Rocky Mountain Region based on industry interest, resource potential, reserve ranking and an oil and gas needs analysis. The analysis for these basins is expected to be provided to the House and Senate energy and resource Committees within the required two-year time frame.

As the information from the assessment is received, the BLM and USFS will review the findings, assess the restrictions and impediments effects on the availability of oil and gas resources for future development, and consider modifications, as necessary, to increase access to oil and natural gas resources.

Question 6: Can you give us an idea regarding the budget requirements for the Department to conduct this work? What level of detail will this assessment take if new funds are not sought in the current fiscal year? Will a reprogramming request be sent to the appropriators to get this job funded?

Answer: Implementation of Section 604 of the Energy Policy and Conservation Act Amendments of 2000 affects Interior's Bureau of Land Management and the U.S. Geological Survey, as well as the U.S. Forest Service and the Department of Energy. Section 604 requires these agencies to identify and evaluate the extent of oil and gas resources and reserves on public lands, and evaluate impediments and restrictions to access and development of these resources. These evaluations are to be completed by the end of 2002.

In the 2002 President's Budget, $3.0 million is requested in the BLM budget for the work of all four agencies. Since oil and gas assessments are performed by geological basin, and since it would not be possible to perform these analyses on all basins in the U.S. within the time provided, the agencies are in the process of discussing the basins of greatest interest with the authorizing Committees. Currently, the four agencies will be able to fulfill the requirements of EPCA by the end of 2002 for five study areas in the Rocky Mountains with the largest estimates of oil and gas resources and significant Federal land ownership. These study areas include Montana Thrust Belt in Montana, the San Juan and Paradox Basins in Colorado and New Mexico, the Unita/Piceance Basin in Colorado and Utah, the Greater Green River Basin in Wyoming and Colorado, and the Powder River Basin in Wyoming and Montana.

Because the requested funding is sufficient to complete work in these five basins, the Department does not anticipate that a reprogramming request will be necessary to meet the requirements of the provision by the end of 2002.

Question 7: BLM is implementing a major planning effort that concentrates on updating and completing land use management and activity plans. Has BLM set energy resource areas as their highest priority?

Answer: The BLM fully supports the goals and measures outlined in the President's Energy Policy and is taking the necessary measures to achieve them. This includes adjusting the priority and schedules of land use planning activities. Management of energy resources was a key factor used to identify planning projects included in the Fiscal Year 2001 and 2002 President's budget requests. The BLM has recently undertaken efforts to expeditiously identify and complete high-priority energy related plans. The BLM currently is in the process of identifying 5 - 10 time-sensitive plans where we will take appropriate measures to ensure their timely completion. These measures will include, as needed, the use of policy and technical support teams, additional training, enhanced contracting procedures, and the re-allocation of funding.

Question 8: Will BLM be exploring new approaches to the planning process to assure that management plans not only remain current but also address the energy potential of each resource area?

Answer: In November 2000, the BLM issued a revised land use planning manual and handbook to more clearly outline planning and decision making requirements, including those for mineral and energy development. This manual and handbook includes specific guidance on updating land use plans to ensure they address energy and mineral development. This guidance also includes direction for addressing new information and circumstances to ensure that land use plans remain current. This guidance identifies factors to consider when making a determination of whether plan revisions or amendments are necessary, such as the identification of new infor-

mation or changes in anticipated impacts. We are currently revising our Planning for Fluid Mineral Leasing Handbook to ensure it provides up-to-date guidance for energy development, including procedures to address energy potential for each resource area. We plan on expanding this handbook to address other energy sources as well. This handbook will also provide guidance for addressing information generated through the assessment of oil and gas resources which is being conducted under provisions of the Energy Policy and Conservation Act of 2000.

The BLM is currently exploring opportunities to modify the land use planning regulations so that they more closely align with the Council for Environmental Quality's regulations for implementing the National Environmental Policy Act. These modifications will reduce some of the confusion that exists between the procedural requirements for land use planning and the procedural requirements for completing environmental analyses. The anticipated changes will also allow land use plans to be completed in less time.

Question 9: Are any bottlenecks in the oil and gas leasing and permitting process caused by conflicting requirements in different laws? If so, what legislation is required to resolve these conflicts?

Answer: As part of the President" National Energy Policy, we will be examining whether there are any such bottlenecks and how best to resolve them.

Question 10: In many offices the BLM has significant Application for a Permit to Drill backlogs, even though states are also involved in issuing drilling permits on state and private land in the same areas. Would it be feasible for BLM to contract some of the APD backlog to the appropriate state agency or rely on outside parties to conduct much of the work?

Answer: Most Application for a Permit to Drill (APD) backlogs are due to NEPA and planning requirements and the consultations and reviews, required by several statutes, that are conducted in conjunction with the environmental analysis required by NEPA. Most of the large-scale EISs are already contracted out to private contractors. Decision making on individual APD approvals is a Federal function which is not susceptible to contracting out. However, BLM is considering possible additional uses of contractors for the analytical processes involved prior to decision making.

Question 11: The National Resources Defense Council said in a report to this Committee that it is not necessary to drill in offshore Alaska, the eastern Gulf of Mexico, and other OCS areas where drilling moratoria are in place because 70 percent of the country's estimated undiscovered, economically recoverable oil and gas is located outside of these areas. Can you respond to this statement?

Answer: It is true that the estimated undiscovered economic resources of the moratoria areas represent less than a third of the estimate for the total OCS. The current reserves and resource estimates are concentrated in the Central and Western Gulf. Large portions of these areas are mature and natural gas production on the shelf has been in decline since 1997. Resources in moratoria areas could have a significant effect on the Nations energy future. Since these areas are comparatively under-explored, less certainty exists about the resource estimates. There is also relatively greater up-side potential since the comparative lack of exploration in these areas also means that the larger fields in the field size distributions remain undiscovered. It is these larger fields that normally produce resources more efficiently with less environmental impact since less infrastructure is required to produce a given resource level than from more numerous but smaller fields.

Question 12: In the Powder River Basin there has been a de facto moratorium on Federal gas drilling because of the threat of a lawsuit over the inadequacy of the current land use plan to contemplate CBM development of this magnitude. What is being done to resolve this impasse in a timely fashion?

Answer: An environmental assessment for approving up to 2,500 CBM drainage protection wells was completed in March of this year and Wyoming BLM is actively approving CBM wells in its portion of the Powder River Basin (PRB). In addition, a new EIS for permitting CBM wells in the Wyoming PRB is scheduled for completion in mid–2002. This document will allow for the permitting of up to 50,000 CBM wells. In Montana, BLM is doing a joint EIS with the State of Montana for CBM wells in its portion of the Basin. The Montana EIS is scheduled for completion in late 2002.

Question 13: The Wyoming Oil and Gas Conservation Commission continues to approve coal bed methane drilling permits in the Powder River Basin. During the last 12 months they have approved about 6400 permits, which included about 1500 on Federal lands. This seems to be a duplication of efforts. Is it necessary for BLM to also approve drilling permits?

Answer: Under current law, BLM has the responsibility to coordinate and manage all resources on Federal lands and to comply with a number of other environmental

laws (such as the National Historic Preservation Act, Endangered Species Act, FLPMA, NEPA, etc.). These are not requirements in the State of Wyoming. Consequently, the State permitting process is vastly different.

Question 14: The imbalance in drilling permit approvals indicates that Federal gas resources are being drained by non Federal wells. BLM has received about $3.5 million in supplemental appropriations during the last three years for coal bed methane in the Powder River Basin. What is the current backlog in the approval of CBM drilling permits and when will the backlog be eliminated?

Answer: The current backlog for CBM drainage permits is 1,400 wells. Since the drainage Environmental Assessment was completed in March 2001. Wyoming BLM has approved approximately 550 CBM drainage wells. The remaining backlog should be processed by end of year. Additionally, there are approximately 1,600 non-drainage CBM permits pending. These will not be processed until the 50,000 well EIS is completed in 2002 at which time thousands of additional drilling permit submissions are anticipated. Ultimately, the Wyoming Office plans to permit more than 2,500 CBM wells a year once the environmental documents are completed and additional staff are hired.

Question 15: This Committee has heard complaints about EIS delays in Wyoming's Jack Morrow Hills Resource Area and at the Vernal District Office in northeastern Utah? What is the cause of these delays and when may we expect this process to be completed?

Answer: The Jack Morrow Hills Coordinated Activity Plan is in the process of being revised by the BLM in Wyoming. The BLM has received approximately 12,000 public comments on the plan. Since we must still analyze all the comments, we cannot provide a completion date at this time. In northeastern Utah, the Vernal Field Office is preparing an EIS for conventional gas well drilling. The project was first analyzed in an Environmental Assessment (EA) but due to public input, an EIS was initiated. The BLM plans to complete the EIS in the summer of 2001.

ANWR

Question 16: In your testimony, you say the mean estimate of recoverable oil under the coastal plain of ANWR is 10.4 billion barrels. Environmentalists say the Geological Survey's most "optimistic" estimate is only 3.5 billion barrels or less. There seems to be a difference of opinion. Can you clarify the Geological Survey's estimate of oil? What is estimate of "in-place" oil resources under the coastal plain, including Native and State lands?

Answer: The USGS Petroleum Assessment of the 1002 Area of the Arctic National Wildlife Refuge is reported in three categories: in-place, technically recoverable, and economically recoverable resources. For each category, they report a range of values from lowest and most conservative (at the 95% confidence level) to highest, but unlikely (at the 5% confidence level). Also, they report the mean, or the expected value.

Also, the USGS estimates are reported geographically for the 1002 Area alone (both deformed and undeformed areas), and the entire assessment area, which includes the 1002 Area, the State waters, and the Native lands. This assessment did not assess state lands. Given the many categories and ranges of values, it is not surprising that quotes of assessment results might appear to be in conflict.

The best way to clarify the Geological Survey's estimate of oil resources is to present the results in the table below, with categories labeled. The results of the economic analysis are given for oil at $24 a barrel, which is just an example. If the price of oil were to increase, the resource estimate would increase as well. Tables within the Assessment report include volume estimates for economically recoverable oil for a range of prices for oil.

The USGS mean estimate for "in-place" oil under the coastal plain, including Native lands and State waters (not lands) is 27.78 billion barrels. The full range reported is from 15.58 bbo (at the 95% confidence level) to 42.32 bbo (at the 5% confidence level).

USGS
science for a changing world

IN-PLACE RESOURCES

Part of study area	Oil Fields Oil (BBO) F_{95}	Mean	F_{05}	Gas Fields Non-associated Gas (TCF) F_{95}	Mean	F_{05}
Entire assessment area	15.58	27.78	42.32	0	5.12	14.47
ANWR 1002 area	11.59	20.73	31.52	0	4.64	13.35
Undeformed part	9.43	17.48	27.44	0	0.48	2.38
Deformed part	0	3.25	8.14	0	4.16	12.58

TECHNICALLY RECOVERABLE RESOURCES

Part of study area	Oil Fields Oil (BBO) F_{95}	Mean	F_{05}	Gas Fields Non-associated Gas (TCF) F_{95}	Mean	F_{05}
Entire assessment area	5.72	10.36	15.96	0	3.84	10.85
ANWR 1002 area	4.25	7.69	11.80	0	3.48	10.02
Undeformed part	3.40	6.42	10.22	0	0.36	1.79
Deformed part	0	1.27	3.19	0	3.12	9.44

ECONOMICALLY RECOVERABLE RESOURCES -- at $24 barrel

Part of study area	Oil Fields Oil (BBO) F_{95}	Mean	F_{05}	Associated Gas* (TCF) F_{95}	Mean	F_{05}
Entire assessment area (not available)						
ANWR 1002 area	2.03	5.25	9.38	1.04	2.13	3.72
Undeformed part	2.03	4.45	7.69	1.04	1.89	3.20
Deformed part	0.00	0.80	1.69	0.00	0.24	0.52

*** No estimates of economically recoverable, non-associated natural gas resources were made. Associated gas resources are produced as a by-product of oil production.**

Question 17: The industry on Alaska's North Slope has increased its success rate in recovering oil the last 20 years. Is it possible that the estimated amount of recoverable oil in ANWR could increase, too, if further technological advances are made?

Answer: The technically recoverable resource volumes reported in the USGS Petroleum assessment of the 1002 Area of ANWR were estimated by applying recovery rates, that are typical for current North Slope fields, to in-place resource estimates. Therefore, it would be reasonable to say that technically recoverable resource estimates might increase if recovery rates increased, if all other information remained the same.

Question 18: Have the caribou arrived in the coastal plain of ANWR this year? What time did they arrive last year?

Answer: Not as of June 15. This year an unusually late spring, coupled with exceptionally deep snow persisting along the spring migration route in Canada, has delayed the Porcupine herd from reaching the coastal plain of the Arctic National Wildlife Refuge. Since the herd calves in early June, we assume they calved on the north slope of the Yukon Territory and upland migration routes east of Old Crow Flats. This is very similar to the pattern observed in 2000, also a late- spring deep-snow year.

Under a similar pattern in 2000, initial birth rate was lower than average (71% v 80%), and survival of calves to 1 July was also lower than average (63% vs 88%). Data for 2001 are not yet available. Given the late spring, this summer's census will be particularly important. An inter-agency team will attempt to conduct a herd census beginning around 25 June.

Last summer, caribou of the Porcupine herd began arriving on the refuge coastal plain around 15 June 2000 after calving primarily in Canada. Major movements from the calving grounds in Canada arrived during the period of 20–25 June 2000.

Question 19: What has been the effect of oil development on wildlife in and near Prudhoe Bay? Has the oil development caused any wildlife to become endangered or caused species to be listed due to development?

Answer: The potential impacts of oil field development on wildlife near Prudhoe Bay and across the Arctic Coastal Plain of Alaska can be broadly classified to include: loss of habitat due to gravel fill; avoidance or displacement from preferred habitats; disturbance; changes in hydrology and vegetation near infrastructure; distribution and abundance of predators and scavengers; contaminants; and the chance of a significant onshore or offshore oil spill. Knowledge of the potential effects of oil development on wildlife in the Prudhoe Bay area is constrained by the lack of quantitative pre-development data, particularly for migratory waterbirds (*e.g.,* waterfowl, shorebirds), predators (*e.g.,* foxes, brown bears), and scavengers (*e.g.,* gulls). In 1999, oil production facilities extended approximately 80 miles across the Arctic Coastal Plain (Alpine to Badami) with more than 362 miles of roads, 11 square miles of land developed for drill pads and processing facilities, 1,130 miles of pipelines and 15 gravel mines totaling approximately 2.5 square mile. The direct loss of wetland habitats as the result of gravel fill and indirect impacts (*e.g.,* disturbance, avoidance, potential changes in hydrology and vegetation) of oil development on the distribution, breeding density and productivity of migratory birds are unknown. Although many species of migratory birds occur, nest and raise broods in or near oil field infrastructure, some species have been shown to avoid infield facilities.

Although adequate data have not been collected, arctic foxes near Prudhoe Bay may produce more young and live longer due to the availability of a supplemental food source (garbage) and den sites (buildings, equipment). The potential impacts of increased numbers and survival of arctic foxes on ground nesting birds, including threatened species, are unknown. Similarly, the occurrence, density and productivity of brown bears and gulls have likely increased as the result of the Prudhoe Bay landfill. Ravens did not occur in the Prudhoe Bay area until the development of infrastructure which provided nesting structures and anthropogenic food sources.

Relative to caribou, the Central Arctic herd has two distinct calving areas. From 1980–87, the western-most portion of the herd that calved near Prudhoe Bay shifted its location of concentrated calving away from oil field infrastructure. Since 1987, the concentrated calving has remained south and outside of the oil field in an area of poorer quality forage. Yet despite this shift, from 1978 to 2000, the Central Arctic herd increased from 5,000 to its current population of about 27,000 individuals.

The two threatened migratory birds which occur in the Prudhoe Bay area during summer are spectacled eiders and the Alaska breeding population of Steller's eiders. Causes of the declines of both species are not well understood but factors include lead shot poisoning; increased predation by ravens, large gulls and foxes on breeding grounds in areas where predators may be enhanced by year-round food and shelter due to human activities; and degradation of winter habitat. The development of the

Prudhoe Bay area, in itself, has not resulted in any species becoming endangered or being listed under the Endangered Species Act.

Question 20: You've been to the North Slope of Alaska. How would you compare the environmental track record of oil development there with that of similar industrial development in other areas you've toured?

Answer: Yes, I have visited the North Slope of Alaska. I find the environmental record of the industry in Alaska, under state and Federal regulation and supervision, to be good. In addition, I believe all efforts are being made to improve the oil industry's environmental record. My experience in other states is similar to what I saw in the North Slope in that the industry continues to refine environmentally sound ways to produce.

Question 21: How much Federal land in Alaska has Congress set aside in Wildlife Refuges, Parks, Monuments, Wilderness Areas, and Wild and Scenic Rivers? Was the coastal plain of ANWR ever designated a wilderness area?

Answer: 77.0 million acres in Alaska are set aside in Wildlife Refuges of which 18.7 million acres are Wilderness. There are approximately 5.2 million acres of National Park Service Land in Alaska of which approximately 33 million acres are Wilderness and .72 million acres are Monuments. The Bureau of Land Management has .6 million acres (952 miles on 6 rivers) of Wild and Scenic River Land and .78 million acres of Wilderness Study Areas in Alaska. The coastal plain of the Alaska National Wildlife Refuge has never been designated as a wilderness area.

Water and Power

Question 22: In 1996, Former Secretary Babbitt signed a Record of Decision regarding the operations of Glen Canyon Dam that reduced the peaking power capacity of the dam by one third. Obviously this has had significant impact on municipalities across the west. What are the Administration's plans to evaluate and improve this situation? What suggestions do you have as to what action could be taken to increase the power capacity of Glen Canyon Dam?

Answer: The 1996 Record of Decision(ROD) on the Operation of Glen Canyon Dam EIS placed restrictions on the power plant releases from the dam, but also put in place an Adaptive Management Program to monitor the effects of these restrictions. Annual monitoring and research activities are currently being conducted to evaluate the effectiveness of the ROD in meeting the intent of the EIS preferred alternative and the Grand Canyon Protection Act of 1992. Results from this long term effort will address whether the constraints are achieving the desired effect. Recommendations to the Secretary from this Adaptive Management Program could lead to changes.

Increasing the power capacity of the dam depends not only on these constraints, but also on the availability of water for release for generating electricity. Release volumes are bound by treaty, compact and statute, and we have no authority to release water in excess of these requirements. Drought conditions in the Southwest thus constrains our ability to meet municipalities' electrical demand from hydropower facilities.

The ROD contains a provision for deviation from EIS constraints under emergency conditions, and this provision has been used 7 times in the last year to temporarily increase on-peak releases to assist power users. However, there are no provisions for deviation from the ROD constraints for financial reasons. Since there can be no increase in annual water deliveries from the dam, any additional releases for emergency purposes must be offset by lower releases later in the water year. Therefore, permanent increases in generating capacity could only occur by relaxing the daily fluctuation constraints of the EIS, a proposal which would be expected to have adverse impacts to most of the downstream resources in the Grand Canyon.

Question 23: What role will Departmental agencies take in regards to mandatory conditions for FERC relicensing?

Answer: Interior bureaus are responsible for establishing hydropower license conditions as they relate to the protection and adequate utilization of Indian and public lands, and as they relate to fishways. Interior has committed to developing preliminary conditions within 60 days after FERC determines that the license application is ready for analysis, and final conditions within 60 days of the close of the draft NEPA comment period. We are looking for other ways to streamline the process and will be examining whether or not an appeals process would be appropriate. We will also be re-examining our definition of "fish" and "fishway.—

Question 24: As you know, hydropower is one of the cleanest sources of energy available, yet like all other forms of energy production, dams require a source of fuel—water. With much of the west in drought conditions, what is the Department doing to assure maximum power production, within the limits of water availability and water service contracts, throughout the 17 western Reclamation states?

Answer: Through the 1980's and 1990's, Reclamation has had an aggressive program to update and uprate existing units. Reclamation presently has programs underway to increase capacity and energy at many facilities including new runners at Grand Coulee (400 MW) and Shasta (51 MW) and uprating Davis (11 MW). In addition, Reclamation continues to implement life extension programs to revitalize performance and to reduce/eliminate expensive failures.

Reclamation has been changing pumping operations to provide additional power during peak hours. As an example, Grand Coulee pumping for irrigation of the Columbia Basin Project has been shifted as much as possible to non-peak hours. This can remove up to 300 megawatts from the peak hours and add up to 600 megawatts of load to non-peak. The off-peak pumping also reduces spill on other Columbia River hydro plants by increasing off-peak loads during high water release periods when water might otherwise bypass the generating units.

In operations, Reclamation is working with BPA on powerplant optimization and other operational improvements which would improve powerplant operations. As an example, at Hungry Horse, Reclamation is reviewing different unit configurations for power generation to maintain the minimum water releases this year and increase power generation.

Region powerplants have coordinated closely with the PMAs on a daily basis and regular scheduled weekly conference calls to ensure that units are scheduled out at the most opportune time. This has resulted in frequent changes to outage schedules and occasionally expedited return to service should system emergencies arise. Many units such as those at Grand Coulee units are also used for reserves (both standby and spinning) in addition to generation requirements.

Conservation efforts Reclamation is making include signed agreements with BPA for energy conservation audits at Reclamation Power facilities. Presently, the Hungry Horse audits have been completed. The recommend retrofits in lighting, HVAC, and other systems will save energy that will be available for BPA to market.

In the Upper Colorado Region, the project operators for pumping plants are the water districts. The water districts have entered into power contracts with the Western Area Power Administration (Western) and Reclamation. A requirement in the power contract is to have an energy conservation plan. This plan includes such items as using energy efficient equipment and operating at times to best use the water and power.

Question 25: What is the Administration's position regarding the Path 15 transmission issue in Northern California?

Answer: The Department and the BLM support designation of the Western Area Power Administration (WAPA, a Department of Energy agency) as the lead Federal agency for this issue. It is not known at this time whether public lands will be involved in the proposed upgrade/expansion of the Path 15 transmission line. In March 2001, WAPA hosted a meeting in Sacramento, California of Federal and State agencies and other organizations that would be involved in the permitting of the upgrading of Path 15. Various discussions of how to streamline and coordinate the Federal National Environmental Protection Act and the State California Environmental Quality Act reviews that would be required were raised at that meeting, and the goal of producing a joint Environmental Impact Statement/Environment Impact Report. This coordination should continue under WAPA's lead and BLM will provide whatever support is needed.

Question 26: What steps is the Department taking in determining new Federal water resource projects that could potentially provide power generation? Is the Department of the Interior undertaking any studies that will increase the amount of water storage, while at the same time providing potential power generation?

Answer: At present the Department has no completely new water resource projects under consideration that would provide new power generation. The Department has however been studying modifications to existing projects that would substantially increase power output of existing facilities or increase the power that could be provided during peak load periods. One of the most promising opportunities is our program to evaluate the replacement of aging water turbine runners of existing units to substantially increase energy output with no additional water through the units. We are beginning to develop criteria to evaluate the best opportunities. Once identified, further evaluation of these opportunities will be conducted as funding permits.

Studies that are presently underway include the following:

1) Hungry Horse units have already been uprated with the intention of installing a small re-regulating reservoir 3 miles below Hungry Horse Dam. The downstream flows could be improved (fluctuations decreased) for fishery and environmental quality purposes. As a result of the new Biological Opinion for Bull Trout Reclamation

has been requested to reexamine the addition of a re-regulation reservoir below Hungry Horse Dam.

2) Looking at increasing capacity at Folsom Powerplant.

3) Reclamation is working with BPA to rebuild the 2.5 MW Boise Diversion Dam Powerplant, which is presently mothballed.

4) Increasing the water storage at Keswick reservoir by the addition of flashboards to the existing gates and looking at doing environmental cleanup upstream of the reservoir to allow greater reservoir operating flexibility. This will substantially increase peaking from Shasta powerplant.

5) Looking at an additional 10MW generation at Black Canyon.

6) Looking at increasing capacity at Keswick Powerplant.

7) Looking at increasing output at Shasta with the proposed raising of the dam.

8) Negotiating the replacement of the aging 0.3 MW Lewiston Powerplant with a 1.5 MW facility.

Other programs are underway to evaluate the economic viability of rewinding and upgrading of older generating units to increase the energy and power output of existing units.

Forest and Forest Health

Question 27: Significant energy resources may be "locked up" by the Forest Service's Roadless Rule and transportation policy. Since, the subsurface resources in these areas are actually managed by the BLM, will Interior work with the Forest Service to identify these resources and modify the rule so that they remain open for development? Can you suggest any actions that Congress should take to resolve this problem?

Answer: a) The BLM, in cooperation with the USGS, the Department of Energy, and the Forest Service is conducting the EPCA study to more clearly identify these resources and the impediments to accessing them. On July 10, 2001, the Forest Service published an Advanced Notice of proposed Rulemaking (66 Fed. Reg. 35918) that gives the public the opportunity to comment on key issues that have been raised regarding the protection of roadless areas. These comments will help the USDA determine the next steps in addressing the long-term protection and management of roadless values within the National Forest System. For a discussion of the relative responsibilities of the Forest Service and BLM regarding subsurface mineral management, see pages 3–250 to 3–261 of the roadless rule FEIS.

b) We do not have any suggestions for Congressional action at this time.

Question 28: The Federal lands currently contain millions of acres of forest lands at high risk of catastrophic fire, due largely to many decades of successful fire suppression. The National Fire Plan has set objectives for both the National Forests and the Department of the Interior to reduce the fire risk where it is greatest. With millions of acres needing treatment each year, would you support a policy encouraging the use of woody material, such as a small tree thinnings and brush, for biomass energy production?

Answer: Yes. Utilization of biomass for energy production is consistent with a National Energy Policy objective to increase America's use of renewable and alternative energy sources. Biomass utilization is also consistent with the goals and objectives of the National Fire Plan to reduce accumulations of woody material that create a fire hazard, threatening communities and forests and rangelands. Markets for small woody material are currently limited but there are opportunities to utilize these byproducts of resource restoration treatments for heat, steam, electric energy generation, and transportation fuels. Firewood, wood-stove pellets and hog fuel; cofiring and biogasification; and small modular power systems and transportation fuels are examples of existing or emerging technologies.

Question 29: How many acres of such lands are estimated to need treatment on Interior lands, by agency, under the National Fire Plan? Could you describe your plans for accomplishing the fire plan goals?

Answer: For Fiscal Year 2001, it is estimated that 1.383 million acres managed by the Department of the Interior are at high risk from catastrophic fire and need to be treated. Plans for accomplishing this goal include treating an estimated 123,000 acres by mechanical means such as thinning, 1,040,000 acres by prescribed burning, 87,000 acres by combination of mechanical and prescribed treatments and roughly 233,000 acres by a combination of multiple treatments. We plan to treat an estimated 296,000 acres of land administered by the National Park Service, 495,000 acres of land administered by the Fish and Wildlife Service, 172,000 acres administered by the Bureau of Indian Affairs, and 420,000 acres administered by the Bureau of Land Management.

The Department of the Interior may not achieve the estimated treatment acreage with prescribed fire due to regional drought conditions resulting in restrictions on

use of prescribed fire in the Southeast, Pacific Northwest, and Northern Rockies. A severe fire season may also hamper fuels treatment efforts as many of the personnel involved in fire suppression are also responsible for project planning and implementation.

Tribal Energy Issues

Question 30: How does the Presidents Energy Policy ensure that Tribal lands will be included in any new interstate or national grid plans?

Answer: This is a matter that would need to be dealt with by the Federal Energy Regulatory Commission.

Question 31: Will the Administration provide tax incentives for development and production of Tribal oil, coal, natural gas to enable tribes to be competitive with other domestic and foreign product?

Answer: There are no current proposals to do so.

Question 32: Will the Administration support double tax credit for the development of renewable resources on Tribal lands?

Answer: The Department will work with the Administration in formulating a policy following consultation with Tribes and other Federal Agencies involved.

Question 33: Will the Administration support granting FERC regulating authority to establish national interconnection requirements?

Answer: The Department recognizes that interconnection is a problem, particularly for small utilities, including those on Tribal lands. The Department welcomes proposals offering an appropriate set of national standards.

Question 34: Does the Administration have provisions to affirmatively clarify the authority of Tribal governments to control the siting and regulation of generation, transmission facilities and rate-making authority on Tribal lands?

Answer: The decision to develop energy resources on Indian lands is entirely at the discretion of the Indian mineral owner(s) and, as noted, any actions by the Federal Government that could affect those resources must be accomplished through consultation.

CZMA

Question 35: Section 307(b)(3)(B) of the Coastal Zone Management Act gives the Secretary of Commerce the authority to determine what data states may request to review in addition to the information provided under the plans required by the OCSLA. Since the Secretary of Interior has the expertise to determine if any additional data is needed, or if states are merely engaging in dilatory tactics, would the Administration support giving the Section 307(b)(3)(B) authority to the Secretary of the Interior?

Answer: The correct citation is 307(c)(3)(B). Under the Administration's National Energy Policy Report, the Departments of the Interior and Commerce are tasked with re-examining the current Federal legal and policy regime to determine whether changes associated with OCS activities are needed. The procedures for determining what additional information states may request for their consistency reviews should be part of that review. The Administration will support a process that ensures States have adequate relevant information for their consistency reviews while providing operators with a predictable and reasonable decision making process for their proposed activities. Through the joint review, we will be able to identify any legal/policy areas requiring modification and will develop possible solutions to implement any identified changes.

(DEMOCRATIC QUESTIONS)

Question 36: According to the Denver Post, on March 15, President Bush was quoted as saying that there was room in some national monuments for drilling rigs. He said, according to the Post, that the Bush Administration will look at "all public lands" for new sources of energy. Do you support oil and gas drilling in National Monuments?

Answer: For the most part, potential for O&G development in National Monuments is low. However, if the required EPCA study should identify an area in a National Monument that restricts O&G development with a higher potential, we would carefully assess these findings. It should be noted that some monuments are already accessible, under valid existing rights, for oil and gas development.

Question 37: In that same Denver Post article, President Bush is also quoted as saying that concerning whether or not to allow energy development in national monuments, "It all depends upon the cost-benefit ratio." Is that the criteria you will use to determine energy development in national monuments?

Answer: Careful evaluation of the relationship between the oil and gas potential and resources being protected would occur on a site specific, case-by-case basis. It

should be noted that some monuments are already accessible for oil and gas development.

Question 38: You have stated your intention to open some of the new National Monuments (those created by President Clinton) to energy exploration and development—apparently by adjusting the boundaries. Will you attempt to make such changes administratively or will you seek legislation to accomplish this?

Answer: I have not indicated an intention to open Monuments to energy exploration and development. On March 28, 2001, letters were sent to elected officials requesting their (and their constituents) ideas about Monuments. Responses to those letters will be collected and analyzed and determinations will be made as to changes that should be made.

Question 39: According to press reports, you have sent invitations to certain elected officials seeking their ideas on National Monument boundary adjustments, existing uses that should be accommodated, vehicle use, rights-of-way, grazing, water rights, and "other traditional multiple uses . . ." What process do you intend to use in making decisions regarding oil and gas development and these other "uses in our national monuments?

Answer: On March 28, 2001, letters were sent to elected officials requesting their (and their constituents) ideas into how they would like to see their National Monuments managed and for what uses. Responses to those letters will be collected and analyzed and determinations will be made as to changes that are recommended. In general, changes to the National Monument proclamations would require legislation. All other land use issues will be addressed in the Land Use Plans being prepared for each area.

Question 40: Is it your intention that the BLM land use planning process be used to consider changes in National Monument boundaries, proposals for energy development, mining proposals, and other uses, such as off-road vehicles? Will you commit to consider proposed changes to monument boundaries or proposed uses within the new Monuments only after BLM has considered such changes during the development of a land use plan for each Monument? (*i.e.,* assuring public review and comment).

Answer: I have demonstrated my commitment to the public involvement process by the letters sent March 28th asking for input into the land uses in National Monuments and by placing a priority for funding the Land Use Plans currently underway.

Question 41: Which Monuments do you believe should be altered?

Answer: Once the responses from the March 28th letters are in and completely analyzed, decisions and recommendations will be made on whether changes will be made.

Question 42: Have you or your staff had discussions with Members of Congress regarding proposed alterations to the new Monuments? If so, which Monuments are under consideration for changes?

Answer: On March 28, 2001, letters were sent to elected officials including affected Members of Congress requesting their (and their constituents) ideas into how they would like to see their National Monuments managed and for what uses. Responses to those letters will be collected and analyzed and determinations will be made as to changes that are recommended.

Question 43: For example, the Associated Press reported on June 5 on a possible threat to the new Ironwood Forest National Monument from mining. According to the report, ASARCO, a giant producer of copper and other metals is lobbying you and other officials to change the boundaries so that mining can take place on what is now protected monument lands. The article stated that a Congressman Kolbe's request, officials from BLM and Pima County, Arizona, toured the ASARCO Silver Bell mine last week. Representative Kolbe was quoted as saying that he had sent an aide to the meeting at Chairman Hansen's and your request. Is this an accurate report? What are your intentions for this monument?

Answer: We would be willing to consider changes to monuments which resolve difficult and conflicting land use issues while working to protect the resources as intended by the proclamation.

Question 44: Secretary Babbitt made a habit of meeting with members of the public prior to making recommendations on the designation of new national monuments. He held open public forums in communities that would be affected by these proposals and articulated his intention to recommend national monument designation before doing so. Will you commit to engage the public in an open dialogue before proceeding with any changes-or proposals to change-the new National Monuments?

Answer: Yes, I have already made that commitment through the March 28th letters and am taking the feedback seriously.

Question 45: In June 2000, then-candidate Bush stated that he did not support extension of the deepwater royalty relief program in the Gulf of Mexico OCS leasing program. As you know, that 5-year program expired after allowing oil and gas companies a free ride on paying royalties due on billions of barrels of oil and gas produced from the deepwaters of the Gulf of Mexico. Interestingly, the President's energy plan takes a different approach, suggesting that the program be reintroduced to encourage oil and gas development. Given the boom that continues in the Gulf, why would a royalty holiday be warranted?

Answer: My understanding is that when President Bush stated that he did not support extending the Deep Water Royalty Relief Act, he was referring to the specific amounts and form of relief embodied in that legislation, which passed in 1995 and expired in 2000. By the year 2000, economic conditions and geologic findings in the Gulf of Mexico had changed considerably in the five years since passage of the Act. So, clearly, the provisions in the Act needed to be adjusted or eliminated.

The President's energy plan provides that the Secretary of the Interior consider economic incentives for environmentally sound offshore oil and gas development where warranted by specific circumstances: explore opportunities for royalty reductions, consistent with ensuring a fair return to the public where warranted for enhanced oil and gas recovery; for reduction of risk associated with production in frontier areas or deep gas formations; and for development of small fields that would otherwise be uneconomic. (NEP p. 5–7) (emphasis added).

Accordingly, royalty relief will provide some insurance that the net proceeds from production in the future will justify today's required substantial deepwater investments. In addition, if oil and gas prices are higher than expected and exceed the price thresholds specified as part of the conditions of royalty relief, producers are required to pay royalties on production during those time periods even if it otherwise would be royalty-free. Thus, the public's interest is protected during times when prices are higher than expected.

Question 46: A May 30th article in a Montana newspaper, The Great Falls Tribune, on oil and gas development Montana and Wyoming, reported that Department of Interior officials have suggested streamlining decision-making about oil and gas leases, by removing any say-so of the Forest Service. Under the current system, the Forest Service decides where oil and gas activities will occur. Do you believe the BLM should decide where in National Forests energy development should occur?

Answer: We do not recommend changing the current responsibilities of the Forest Service and the BLM for energy development in National Forests. We will continue to strive to improve our coordination with the Forest Service and other agencies to expedite environmentally-sound energy development.

Question 47: The OCS Policy Committee recently recommended to you that the Department lift the OCS moratoria in at least five places. Specifically, the advisory group recommended that the Interior Department examine "the most prospective areas for natural gas in [places] the industry would like to explore if allowed." The President's plan also recommended that the Interior and Commerce departments reexamine laws and regulations restricting offshore exploration.

Answer: The recommendations forwarded to the Secretary of the Interior were those of the OCS Policy Committee. Neither the Natural Gas Subcommittee report, nor the OCS Policy Committee recommendations, specified revisiting any particular moratoria area. The Natural Gas Subcommittee charter stated "The purpose of this subcommittee is to independently review and evaluate information on natural gas, and then to provide an assessment of the contribution the OCS can make to meeting the short-term and long-term natural gas needs of the U.S. within the framework of a national energy policy." The report provided resource estimates and potential for the entire OCS.

On May 24, 2001, the OCS Policy Committee amended the Natural Gas Subcommittee recommendations and adopted a resolution to forward its amended recommendations to the Secretary of the Interior. I received a letter from the Policy Committee forwarding a resolution to transmit 12 recommendations "to encourage increasing natural gas production from the OCS." I plan to take all 12 recommendations under advisement.

Copies of the Policy Committee's Resolution and Recommendations are attached.

Question 48: On pages 3–8 through 3–9 of the National Energy Policy, there is a discussion about hydro power and the importance of communities working together to reduce the impacts dams have on fisheries. The report touts the work of Grant County Public Utility District 2 which installed spillway deflectors on Wanapum Dam and says Grant County's work is "an example of successful collaboration" between the National Marine Fisheries Service and the utility. Can you tell me more about the history of Grant County's participation in this project? I am advised that the so-called collaboration stems from litigation that the States of Wash-

ington and Oregon, National Marine Fisheries Service and Fish and Wildlife Service brought against Grant County in a suit before the Federal Energy Regulatory Commission.

Answer: The spillway deflectors developed by the Grant County Public Utility District and referred to in the National Energy Report are needed to reduce dissolved gases in the Columbia River. (Dissolved gases can adversely affect migrating salmon.) They are being installed by Grant County to improve water quality and reduce salmon mortality. The U.S. Fish and Wildlife Service is not involved in litigation with Grant County and we are not aware of any litigation regarding the spillway deflectors. However, while the Grant County PUD has not been involved in any litigation, they still do face exposure to litigation.

The Mid-Columbia River has several Federal Energy Regulatory Commission (Commission) licensed projects including Priest Rapids, Wanapum, Rock Island, Rocky Reach, and Wells. Grant County owns and operates the Priest Rapids and Wanapum Projects. Since the mid–1970s, the State and Federal agencies and the licensees have been trying to reduce project-related mortality on migrating salmon and steelhead. These efforts have included installing fish screens, improving upstream passage of adults, spilling water to help juvenile salmon avoid the turbines, installing spillway deflectors to reduce dissolved gases, and several other measures. Many of these devices have been installed or are in the approval process.

To approve these devices, the licensee must petition the Commission to amend their license. In this case, Grant County asked the Commission to change the license for the Wanapum Project because the spillway deflectors are not an authorized part of the project. Under the Commission's procedures for requesting an amendment of a license, the licensee must petition the Commission to reopen the license; must provide substantial evidence to support their position; must outline the legal and technical basis for their petition; and must provide evidence of consultation with the Federal and State agencies. This process appears, for all practical purposes, to be litigation. However, it is not litigation, instead it is the normal quasi- judicial process the Commission uses to make decisions. The same process is used regardless of whether it is a contested proceeding or all parties agree with the proposal.

The U.S. Fish and Wildlife Service, NOAA–Fisheries, and the States of Oregon and Washington are involved in the efforts to improve fish passage on the Mid–Columbia. They are consulting with Grant County and Chelan County, and are aware of the counties efforts to improve their hydropower projects for the benefit of salmon and steelhead

(YOUNG)

Question 49: Your testimony describing the productivity of the average oil well on the North Slope of Alaska in comparison to the average well in the Lower 48 States was an interesting point that has not been often made. Can you elaborate on the significance of this issue?

Answer: The point of my remark was that there are significant differences in the size of the prospects for oil and gas between the North Slope of Alaska and the lower 48 that should be considered when we think about the expected results of exploration and development in those areas. The North Slope holds the potential to yield substantial additions to our oil and gas supplies with much less drilling and much less surface area devoted to petroleum production than in the lower 48.

This situation results from the fact that the geological features that remain to be explored on the North Slope are much larger than those remaining in the lower 48. In addition, only large discoveries are economical to develop and produce on the North Slope. In the lower 48, as illustrated by the data from Wyoming, the targets for exploration are a larger number of small geological features, each one needing exploratory wells. Each of the few prospects on which oil or gas are found requires production wells and equipment and an access road.

In comparison, on the North Slope, the exploration targets are much larger so that much more oil will be discovered by successful wells. Moreover, the large reservoirs of the North Slope can be produced using numerous wells drilled directionally from the same surface facility. This substantially reduces the extent of the area occupied by such facilities in relation to the amount of oil produced. Disturbance for roads is also reduced on the North slope by using ice roads.

Comparing the data for Wyoming to a recent discovery in the National Petroleum Reserve - Alaska (NPR–A) that is typical of the North Slope shows that the area of surface disturbance per barrel discovered is about 300 times less for the NPR–A discovery than the average in Wyoming.

The North Slope has about 2200 producing oil wells with an average production of about 455 barrels of oil per day. On a state-wide basis, Wyoming, the largest oil

producing state with substantial Federal lands, has 9,121 producing oil wells with an average production of 19 barrels per day. Existing Alaskan wells produce about 24 times as much oil per well as those in Wyoming. At this rate, it would take about 219,000 wells to produce as much oil in Wyoming as is produced on the North Slope—if there was that much oil available.

These statistics illustrate the high potential for discovery of oil on the North Slope and they support my point that we should consider the fact that those will be less drilling and less surface disturbance per barrel than the lower 48.

Question 50: What are the USGS estimates of the in-place oil resources on the coastal plain of ANWR, including the Federal 1002 area, and State and Native lands? If oil recovery methods improve on oil fields that are comparable to those believed to underlie the coastal plain, would the estimate of technically recoverable oil resources under the coastal plain increase?

Answer: The USGS mean estimate for "in-place" oil under the coastal plain, including Native lands and State waters (not lands) is 27.78 billion barrels. The full range reported is from 15.58 billion barrels (at the 95% confidence level) to 42.32 billion barrels at the 5% confidence level).

The volume of technically recoverable oil is that volume that is recoverable from the in-place estimate. Therefore, it is reasonable to expect that larger volumes of oil could be recovered as recovery methods improve. However it is very difficult to forecast what that volume might be.

Question 51: Some believe the 1002 area is a Wilderness area. Is the 1002 Area now, or has it ever been, a unit of the Wilderness Preservation System?

Answer: The 1002 area is not designated as Wilderness, nor has it been.

(GALLEGLY)

Question 52: I have concerns about the fairness of some of the studies that small hydro-power plants have been asked to do in the midst of the current energy crisis.

In my district, the operators of the Santa Felicia Dam and hydro-plant near Piru Creek, have been asked to do a number of studies by various Federal agencies. It is estimated that the costs of the studies outweigh the costs of the hydro facility - the hydro facility costs $2 million. The dam currently provides clean hydro-electric power to an estimated 1,500 homes in my district.

Will you work with your fellow agencies to ensure that the FERC relicensing process is not overly burdensome for small hydro-electric plants?

Answer: I am committed to working with other resource agencies to guarantee that the FERC-licensing process is not overly burdensome for applicants.

Upon initial review of this case I believe that this was an instance where the applicant initially did not do enough to provide necessary information to the resource agencies. Unfortunately the resource agencies responded with expensive study requirements to fill the information gap. I am happy to report that the resource agencies and the applicant will be meeting this summer to decide on a course of study that is appropriate to the physical scale of the project and its environmental impacts.

Studies provide key scientific information to all involved in the licensing process: 1) Licensees use study information to develop mitigation that addresses impacts related to their project operations; 2) Resource agencies rely on studies to develop license conditions to protect resources for which they have statutory responsibilities; 3) FERC uses the information to perform NEPA analysis, to meet other regulatory responsibilities, and to make decisions regarding the appropriate level and type of mitigation to require in licenses.

Recent forums for improving hydropower licensing identified a number of issues and solutions with respect to selecting and implementing studies. The Interagency Task Force to Improve Hydroelectric Licensing Process (ITF) called for the resource agencies to more clearly identify their resource management goals and objectives, and establish a clear nexus between project operations and impacts on the resources being studied. Importantly, the Department made a commitment to choosing the least cost alternative to achieve management goals. The resource agencies are committed to implementing these and other changes.

(MARKEY)

OCS Drilling

Question 53(a): One of the recommendations made in the Bush Administration's proposed national energy policy was to revisit OCS drilling policy. What specific changes in "current Federal legal and policy regimes" is your Department currently considering to implement this recommendation?

Answer: We are at a very early stage in implementation of the Administration's energy policy. We plan to work with other agencies, to see if we can improve the

efficiency of our regulatory process while ensuring involvement of essential stakeholders.

Question 53(b): What aspects of this issue [do] you expect will be evaluated by the Commerce Department?

Answer Under the Administration's National Energy Policy Report, the Departments of Commerce and Interior have been tasked to review policies, procedures, and regulations associated with energy-related activities and facilities in the coastal zone and on the OCS to determine whether they lend themselves to an efficient, predictable, and environmentally-sound oil and gas leasing, exploration, and development program.

Question 53(c): In your oral testimony, you said in response to a question about the Administration's plans to revisit OCS drilling policies that "I think it is wise for us to have a wide array of information as we are making decisions. And I think understanding where resources are located is something that leads to wise decision-making, whether or not we decide to go forward with trying to access those resources or not." With respect to the OCS moratoria areas, what additional information do you believe it is necessary to obtain at this time that we do not already have, and how are you proposing to obtain this information?

Answer: As we look to and plan for the future, we need to have a sound information base for discussions and consultations with all stakeholders. We need to understand the environment and the geology. We have conducted environmental studies of moratoria areas in the past, but clearly some would need to be updated. Acquiring environmental information in moratoria areas has been supported by past review of the National Academy of Science and the Department of the Interior Advisory Committees.

We would also benefit if there were more geological and geophysical information collected using state of the art techniques. This is an activity normally done by the private sector and it is unlikely companies will pursue such activity while areas are under moratoria.

Question 53(d): Would the Department be considering allowing exploratory drilling or related activities in order to obtain the type of information you are seeking?

Answer: Consistent with longstanding Departmental interpretation, the current congressional restrictions on OCS activities, as well as the restrictions under the President's 1998 OCS directive, do not preclude the collection of environmental, geologic, geophysical, economic, engineering or other scientific analyses, studies or evaluations. These are the types of information needed to better understand the environment and resources potential of an area. Also, current congressional moratoria, as well as the restrictions under the President's 1998 OCS directive, do not preclude exploratory drilling on existing leases located in areas under a leasing moratorium. Therefore, a lease owner of an existing lease within a moratoria area can file an exploration plan, which could include exploration drilling. If that were to occur, an exploration plan would require review and approval by MMS and affected states under NEPA and CZMA.

Question 53(e): During the hearing, you seemed to suggest that the Department's "re-examination" might also focus on policies affecting off-shore drilling in those existing regions where such drilling is currently permitted. Here, you indicated in your oral testimony that you believed there was "some potential room for improvement" and that "we are analyzing that to determine whether we need administrative changes or whether we need to come back to you all?" What specific administrative or legislative changes are you considering and why?

Answer: We would like to reexamine several laws. Much of this work involves other Federal agencies. Under the Administration's National Energy Policy Report, the Departments of Interior and Commerce have been tasked to examine the current Federal legal and policy regime (statutes, regulations and Executive Orders) to determine if changes are needed regarding energy-related activities and the sitting of energy facilities in the coastal zone and on the OCS.

Question 53(f): Your testimony also seemed to indicate a desire to review existing environmental planning requirements relating to off-shore drilling because you felt current requirements lacked some "clarity." What specific concerns do you have about these environmental requirements?

Answer: Our interest is that the regulatory framework provides clear instruction as to what regulatory requirements will be met, what environmental information is required to be submitted, how that information will be used, and when decisions must be made. We also believe that timeframes should be clear.

Question 53(g): When do you expect the Department's "reexamination" of OCS drilling policies and the relevant legal and regulatory framework to be completed?

Answer: It is my understanding that staff from the Department of the Interior and the Department of Commerce will meet soon, and I do not know when a review would be completed.

Question 53(h): Recent press reports indicate that the Natural Gas Subcommittee, a division of the Federal advisory Committee that provides recommendations to the Interior Department, has recommended that the Department examine "the five top geological plays in the moratoria areas, and if possible, the most prospective areas for natural gas in the plays that the industry would like to explore if allowed." In your response to a question raised at the Committee's hearing, you indicated that you have not been formally presented with the recommendations of this Subcommittee. When do you expect that this will occur, and what action will the Department take in response to these recommendations?

Answer: The OCS Policy Committee provides advice to the Secretary of the Interior on implementing the OCS Lands Act. Representing the collective viewpoint of coastal states, environmental interests, industry and other parties. The Policy Committee advises the Department, through the Minerals Management Service, on a number of important issues involving our Nation's energy policy. The Committee establishes subcommittees to study issues in-depth and to develop recommendations for consideration by the full Committee. Committee recommendations are forwarded to the Secretary.

On May 24, 2001, the OCS Policy Committee amended the Natural Gas Subcommittee recommendations and adopted a resolution to forward its amended recommendations to the Secretary of the Interior. On June 7, 2001, I received a letter from the Policy Committee forwarding a resolution to transmit 12 recommendations "to encourage increasing natural gas production from the OCS." I plan to take all 12 recommendations under advisement.

Copies of the Policy Committee's Resolution and Recommendations are attached.

Question 53(i): Who are the current Members respectively of the Natural Gas Subcommittee, the Outer Continental Shelf Advisory Committee, and the Minerals Management Advisory Board? For each of these panels, how many Members are employed by, affiliated with or have financial ties to the oil and natural gas industries, including consultants to those industries? How many Members are from environmental, consumer, or public interest organizations?

Answer: The members of the Natural Gas Subcommittee were:

Jerome M. Selby (Chair), Consultant for the Mayor of Anchorage, Anchorage, Alaska; Patrick S. Galvin, Division of Governmental Coordination, Juneau, Alaska; Robert R. Jordan, Delaware Geological Survey, Newark, Delaware; Jack C. Caldwell, Louisiana Department of Natural Resources, Baton Rouge, Louisiana; Lawrence C. Schmidt, Department of Environmental Protection, Trenton, New Jersey; Daniel F. McLawhorn, North Carolina Department of Environment and Natural Resources, Raleigh, North Carolina; Bruce F. Vild, Statewide Planning Program, Providence, Rhode Island; Andrew L. Hardiman, Chevron Gulf of Mexico Deepwater Business Unit, New Orleans, Louisiana; Paul L. Kelly, Rowan Companies, Inc., Houston, Texas; George N. Ahmaogak, Sr., Mayor, North Slope Borough, Barrow, Alaska Environmental Community advisor.

The Minerals Management Advisory Board is comprised of four committees, the OCS Policy Committee, the Royalty Policy Committee, the Alaska OCS Region Offshore Advisory Committee (inactive), and the OCS Scientific Committee. The advice and information that the Board, through its committees, provides to the Department and MMS are unique. The members serve as MMS's primary contact to the Governor's offices and Native American Indian tribes. These members bring into focus a broad range of knowledge and invaluable perspective and provide for distillation of data affecting offshore oil and gas exploration and development and royalty management. The committee meetings also provide opportunities for parties with an interest in OCS oil and gas development and royalty management issues to discuss their differences in an open forum and examine alternatives to resolve conflicts.

The OCS Policy Committee follows:

OCS Policy Committee

12 Discretionary Members

	Member	Name	
Environmental Community	Warner	Chabot	VP for Regional Operations Center for Marine Conservation
Environmental Community	Linda	Shead	Executive Director, Galveston Bay Foundation
Fisheries Industry	Richard	Gutting	President, National Fisheries Institute
Local Government	George	Ahmaogak	Mayor, North Slope Borough
Local Government	Jerome	Shelby	Consultant, Mayor of Anchorage
Major Oil Industry	Tina	Langtry	General Manager, Exploration and Reservoir Characterization, Conoco, Inc.
Marine Mining Industry	George	Banino	VP, Earth Tech, Inc.
Natural Gas Industry	Andrew	Hardiman	VP, GOM Deepwater Business Unit, Chevron U.S.A.
Offshore Support Industry	Paul	Kelly	Senior VP, Rowan Companies
Vacancy			Independent Producers
Vacancy			
Vacancy			

24 State Members

State	Member	Name	
Alabama	Donald	Oltz	Director, Geological Survey of Alabama
Alaska	Patrick	Galvin	Director, Division of Governmental Coordination, Alaska

California	Vacant		
Connecticut	Arthur	Rocque	Commissioner, Department of Environmental Protection
Delaware	Robert	Jordan	State Geologist and Director, Delaware Geological Survey
Florida	Lisa	Edgar	Deputy Secretary, Florida Department of Environmental Protection
Georgia	William	McLemore	State Geologist, Georgia Geologic Survey
Hawaii	Seiji	Naya	Director, Department of Business, Economic Development & Tourism
Louisiana	Jack	Caldwell	Secretary, Department of Natural Resources
Maine	Julie	Hashem	Policy Development Specialist, Maine State Planning Office
Maryland	Emery	Cleaves	Director and State Geologist, Maryland Geological Survey
Massachusetts	Susan	Snow-Cotter	Assistant Director, Massachusetts Coastal Zone Management Office
Mississippi	Charles	Chisolm	Executive Director, Environmental Quality, Mississippi
New Hampshire	David	Hartman	Manager, New Hampshire Coastal Program
New Jersey	Larry	Schmidt	Director, Office of Program Coordination, New Jersey Environmental Protection Office
New York	Vacant		

North Carolina	Donna	Moffitt	Director, Coastal Management, Environment and Natural Resources
Oregon	Nan	Evans	Acting Manager, Coastal Ocean Program, Land and Conservation Development
Pennsylvania	Vacant		
Rhode Island	SamuelReid		Policy Advisor, Rhode Island State House
South Carolina	Victor	Burrell	Director Emeritus, Marine Resources Research Institute
Texas	John	Sneed	Deputy Commissioner, Intergovernmental Relations and Policy, Texas Land Office
Virginia	Vacant		
Washington	Therese	Swanson	Senior Coastal Policy Analyst, Coastal/Shorelands Section, Washington Shorelands & Environmental Assistance Program

OCS Policy Committee Federal Members

Agency	Member	Name	
DOE	Mitchell	Baer	Office of Policy
DOI	Piet	DeWitt	Acting Assistant Secretary, Land Minerals Management
DOI	Joseph	Doddridge	Acting Assistant Secretary, Fish and Wildlife and Parks
DOC	Ramona	Schreiber	Environmental Protection Coordination, Office

			of Policy and Strategic Planning
Navy	Duncan	Holaday	Deputy Assistant Secretary, Installation and Facilities
DOI	Carolita	Kallaur	Associate Director, Minerals Management Service
DOI	Thomas	Kitsos	Acting Director, Minerals Management Service
EPA	Anne	Miller	Acting Director, Office of Federal Activities
Coast Guard	Paul	Pluta	Assistant Commandant, Marine Safety and Environmental Protection
State	Maureen	Walker	Chief, Office of Ocean Affairs

Royalty Policy Committee

12 State and Indian Members

State/Tribe/Organization	Member	Name
Southern Ute Indian Tribe (1 year term)	Karen	Anderson
State of Louisiana	Jack	Caldwell
Western Governor's Association	Ronald	Cattany
Council of Energy Resource Tribes	David	Harrison
Oklahoma Indian Mineral Owners Assoc.	Eddie	Jacobs
State of Wyoming	Stephen	Reynolds
Ute Tribe	Tom	Shipps
Navajo Nation	Perry	Shirley
Western States Land Commissioners Association	Pary	Shofner
Western Governor's Association	Brad	Simpson
Jicarilla Apache Tribe and Shii Shi Keyah Allottee Assoc.	Alan	Taradash
Vacancy- Renomination Received from Western States Land Commissioners Association		

9 Minerals Industry Members

Industry	Member	Name
Council of Petroleum Accountant Societies	John	Clark
Chairperson, API Royalty Management Task Force	Wendy	Daboval
National Mining Association	William	Hartzler
National Mining Association	David	Landry
Independent Petroleum Association of America	Tammy	Naron
Oklahoma Independent Petroleum Association	Robert	Price
Welborn Sullivan Mech & Tooley, PC	Hugh	Schaefer
Senior Council Enron Oil and Gas Co.	Steven	Williams
Vacancy		

4 Discretionary Members

Attorney	Sandy	Blackstone
Attorney	Lee	Helfrich
State Geologist, Oklahoma	Charles	Mankin

Federal Members

Agency	Member	Name
DOI, Bureau of Indian Affairs	Don	Aubertin
DOI, Bureau of Land Management	Pete	Culp
Department of Treasury	Cynthia	Johnson
DOI, Minerals Management Service	Tom	Kitsos
DOE	John	Pyrdol
DOI, Minerals Management Service	Lucy	Querques-Denett
Federal Energy Regulatory Commission	Vacancy	

OCS Scientific Committee

15 Academic and Industry Members

Member	Name	Organization
Dr. Stan	Albrecht	Executive VP and Provost, Utah State University
Robert	Carney	Associate Professor, Coastal Ecology Institute
Dr. James	Coleman	Boyd Professor, Coastal Studies Institute
Dr. Cortis	Cooper	Senior Staff Scientist, Chevron Petroleum Technology Company

Dr. Eric	Crecelius	Technical group Leader, Marine Sciences Laboratory
George	Forristall	Research Advisory, Shell Global Solutions, U.S.
Duane	Gill	Professor of Sociology, Anthropology, and Social Work, Mississippi State University
Oliver	Goldsmith	Professor of Economics, University of Alaska
Dr. J. Frederick	Grassle	Director, Institute of Marine and Coastal Sciences, Rutgers, The State University of New Jersey
Dr. Steven	Murray	Professor, Department of Biological Science, California State University of Fullerton
Dr. Henry	Niebauer	Senior Scientist, Department of Atmospheric and Ocean Sciences, University of Wisconsin
Edella	Schlager	Associate Professor, School of Public Administration and Policy, University of Arizona
Dr. William	Schroeder	Professor and Coordinator, Marine Science Program, University of Alabama
Lynda	Shapiro	Professor of Biology, Director, Institute of Marine Biology, University of Oregon
Dr. Douglas	Wartzok	Associate Vice Chancellor for Research, Dean of the Graduate School, University of Missouri

Federal Members

Carolita	Kallaur	Associate Director, Offshore Minerals Management, MMS
Robert	LaBelle	Chief, Environmental Division, MMS
Dr. Ken	Turgeon	Chief Scientist, MMS

Question 53(j): Do you intend to revisit the moratorium on oil and gas exploration in the Georges Bank, as the Natural Gas Subcommittee has recommended? Do you intend to authorize any further studies, reports, or other evaluations of drilling in the Georges Bank? If so, what would be the purpose of such studies, reports or other examinations be?

Answer: The Administration supports the current moratoria and there are no plans under consideration for exploration and development in the Georges Bank area.

The OCS Policy Committee amended the Natural Gas Subcommittee recommendations and adopted a resolution to forward its amended recommendations to the Secretary of the Interior. On June 7, 2001, I received a letter from the Policy Committee forwarding a resolution to transmit 12 recommendations "to encourage increasing natural gas production from the OCS." I plan to take all 12 recommendations under advisement.

Question 53(k): According to press reports, in a May 9, 2001 interview, Energy Secretary Spencer Abraham stated that he was "not aware of any changes to any of the moratoria" and that "I don't think that's been at all under consideration, to my knowledge." Your testimony, on the other hand, seems to indicate that the Administration is trying to obtain information that would form the basis for making such changes.

Answer: My testimony was not intended to indicate any lack of support of current OCS moratoria. The Administration supports current presidential withdrawals and congressional moratoria.

Question 53(l): During the Committee's hearing, you indicated that the Administration would comply with the existing Congressionally imposed moratoria on drilling in the OCS. However, President Clinton also issued an executive order extending the current moratoria until 2012. Does the Bush Administration intend to keep this executive order in place?

Answer: We appreciate the longstanding history, context, and concerns associated with OCS moratoria and presidential withdrawals. The Administration has no plans to undo this framework.

Question 53(m): Is the Administration also "re-examining" whether or not to retain the existing executive OCS order or repealing, shortening, or narrowing its scope? If so, what options are you considering?

Answer: We intend to comply with existing moratoria/executive withdrawals.

COOGER Leases

Question 54: Secretary Norton, the Administration's Energy Task Force Report recommended a reexamination of the currently suspended offshore leases near California. If you include these leases in your review and your Department decides not to allow drilling in offshore California, then will you allow these stakeholders to recover their offshore California investments for use in future lease sales in the Gulf of Mexico or elsewhere?

Since your Administration seems to be fixated on giving on the production side of the equation, what guarantee would you give these leaseholders that they have not wasted their money in vain and can use their money for other sales? What mechanism would you propose to allow them to recover their costs?

Answer: The Administration's Energy Policy Development Group does not recommend a review of the currently suspended California offshore leases. The operators of these leases are submitting plans for the exploration and development of their leases this year, with a number pursuing delineation of reservoirs in order to craft development plans to maximize recovery with a minimum of environmental disruption. Thorough analyses of the environmental effects of exploration and development are being performed on the proposals under the National Environmental Policy Act and the Coastal Zone Management Act.

Ultra–Deepwater Drilling

Question 55(a): It is my understanding that there is a great deal of natural gas beneath the ultra-deepwater portion of the Gulf of Mexico. The problem seems to be that it is very expensive and technically challenging to develop natural gas from great water depth. Has the Interior Department conducted an analysis of the oil and gas deposit values in the ultra-deepwater region of the Gulf of Mexico?

Answer: Sediments beneath the ultra-deepwater of the Gulf of Mexico are believed to contain significant quantities of natural gas, as well as oil resources. To date, the deep water has been more of an oil province with primarily associated natural gas. Although there are numerous high profile discoveries in this region; *e.g.* Crazy Horse, North Crazy Horse, Mensa and Mad Dog, actual production has occurred in only a single field, Mensa. Reserve estimates are very speculative for fields at this

early stage of exploration and delineation, but current estimates total 3.7 billion barrels of oil (Bbo) and 6.8 trillion cubic feet of gas (Tcfg). In its most recent assessment of undiscovered hydrocarbon resources in the Gulf of Mexico, MMS estimated that, at the mean level, 16.1 Bbo and 62.6 Tcfg may exist in the portion of the region available for exploration and development.

No attempt was made to develop an estimate of the value of the hydrocarbon in either the individual or aggregate field discoveries. MMS, however, did develop estimates of the quantities of undiscovered resources in ultra-deepwater with water depth greater than 1800 meters that would be economically recoverable under two different price scenarios. In the base case scenario ($18/bbl and $2.11/mcf) 4.7 Bbo and 14.5 Tcfg are estimated to be economically recoverable. In the high case scenario ($30/bbl and $3.52/mcf) 10.9 Bbo and 34.8 Tcfg are economic. These estimates respectively represent 27 and 63 percent of the assessed volumes of undiscovered hydrocarbon resources in the area.

Question 55(b): What has the Department done to expedite development of this region when there are so many pipe dreams of drilling in ANWR. Does the Department have a contingency plan if Congress doesn't open up ANWR to drilling?

Answer: As for expediting ultra-deepwater development, we have increased resources (mainly through additional staff) to review and act on deepwater plans and permits. We have also changed our plans and permitting process, including use of conceptual Deep Water Operations Plans, for all deepwater applications. These changes give us access to information at as early a stage as possible to hopefully improve cycle time in the application review process.

Question 55(c): Could the ultra-deepwater region of the Gulf help meet domestic oil and gas demand in light of the inevitable failure to open up ANWR?

Answer: Even though only a single field (Mensa) is currently producing, the recent announcements of numerous significant field development projects in this region (*e.g.,* Crazy Horse, North Crazy Horse, Mad Dog, and Nakika) assure that the area will be a significant source of domestic hydrocarbon production for years to come. With respect to natural gas, there is still a concern that the OCS will not be able to meet the increases required to meet the expected increased in natural gas consumption by 2012.

Question 55(d): Should we be accelerating the development of the ultra- deepwater no matter what the fate of ANWR?

Answer: The U.S. currently imports nearly 60 percent of its crude oil consumption and is projected to face significant challenges in the next two decades in meeting forecasts of natural gas demand. It, therefore, makes sense to encourage production in those areas where it can occur in an environmentally safe manner. The ultra-deepwater region of the Gulf of Mexico is one such area. Virtually all of the unleased deepwater area of the central and western Gulf of Mexico is offered. Additional deepwater tracts are proposed to be offered later this year in the eastern Gulf of Mexico area as well.

Question 55(e): When exploring the ultra-deepwater region, has the Department made a determination of the necessary technological capabilities to enhance production capabilities in this area while protecting the environment?

Answer: The MMS has assessed and continues to track the evolution of technological capabilities that will enable and enhance the development of hydrocarbon fields in water depths exceeding 5000 feet (*i.e.,* the ultra-deepwater). A concentrated effort was initiated in the mid–1990's to investigate the development of deepwater hydrocarbon reserves. A multi-task strategy was formulated with the goal of ensuring deepwater development activities were consistent with the Agency's environmental, safety, conservation mandates. The Deepwater Strategy is a proactive approach to managing operations, ensuring appropriate environmental and technical reviews, and focusing studies and research efforts related to deepwater activities. Part of this effort was the identification of over 100 new technologies, techniques, and systems that are in use or necessary for deepwater development. MMS continues to gather information about these technologies. A database is used to track the status of the individual deepwater technologies.

The MMS evaluation of new technologies and alternative compliance measures (procedures and equipment) can be complex, involving risk assessment, comparative analyses, and a review of hazard analyses conducted by the operator in support of the departure (or alternative compliance). MMS reviews have resulted in some denials of requests to use new technology as untested and unproven. MMS has launched a series of initiatives, including an aggressive technical research effort, joint funding with industry projects, linkages to major universities, and joint research with foreign governments to address mutual questions. Some of the issues being addressed include well control, oil spills, production flow assurance, and risk assessment of new production systems. MMS has also conducted and cosponsored workshops to ad-

dress issues of immediate concern. MMS uses these workshops to identify issues and to gather information for evaluations and decisions.

The near-term implications of MMS' efforts are being realized. Development intentions for 3 fields in water depths greater than 7000 feet are currently being reviewed; there are 20 hydrocarbon fields in the development stage in water depths exceeding 5000 feet that will be in production before 2004. The baseline work to address new, enabling technologies are directly beneficial to the MMS review of these projects.

Pipeline and Electricity Transmission

Question 56: In your opening statement, you said that the Department was going to streamline the process through which it considers and approves requests to allow the construction of electric transmission lines and natural gas pipelines. What specific options is the Department going to consider?

Answer: The BLM, in collaboration with the Forest Service and interested stakeholders, has been streamlining the processes used to receive, review and analyze applications for electrical and natural gas transmission lines. For example, the BLM has developed procedures to allow oil and gas developers to apply for Right-of–Ways concurrently with the applications for permit to drill. The BLM has also developed procedures that allow for payment of Right-of–Way processing fees (which must be paid in advance before application processing can proceed) with "call in" credit card information. In the future, the BLM will be expanding its use of electronic commerce by exploring ways to accomplish pre-application "meetings," application data review, and data submission using the internet. The BLM is also exploring ways to have all the required application processing fees paid electronically

Question 57: Can you assure the Committee that the measures you are considering will not result in any diminution in the Department's critical responsibilities to protect and management sensitive public lands, and will not curtail a full and thorough assessment of the environmental impact of any proposed new powerlines or natural gas pipelines?

Answer: Yes, BLM strongly encourages the use of private sector environmental contracting companies to prepare applications and the required environmental reports. This allows BLM to concentrate its workforce on application review, analysis, and decision making. The BLM and the FS are leading the way in refining procedures related to establishing "Lead Agency" and "Lead Office" responsibilities when processing applications that cross lands administered by both agencies. When a lead agency and office are designated, single points of contact are established and the application review and decision processes are coordinated out of one office. This saves time and resources for both the applicant and the Federal agencies. The BLM is also working to finalize regulations that will modernize its cost recovery procedures. When implemented these regulations will allow the BLM to direct more resources to the offices processing applications. The regulation will also allow the BLM in certain situations to enter into agreement with companies to meld its administrative practices with the companies business practices.

Question 58: How will the Department's plans to streamline this process affect the opportunities for public comment and public participation in the decision-making process regarding siting of new pipelines and electrical transmission lines?

Answer: The Department is fully committed to involving the public in its decision-making process for pipelines, electrical transmission lines, and other transportation support needs. The BLM will complete all necessary land use plan amendments or revisions, and their associated environmental analysis in accordance with procedures for public involvement. This includes notifying the public of the upcoming planning and environmental process and providing notification of opportunities for the public to review and comment. BLM's planning process also includes provisions for affected parties to raise objections to the BLM Director. The planning and right-of-way granting processes will be completed with one document, rather than sequentially, to decrease the amount of time required. None of the measures being considered will diminish the Interior's critical responsibility to protect and manage the public lands. The measures will increase our ability to protect and manage our public lands because they are designed to reduce the routine administrative procedures associated with application review and to focus the Interior's activity on critical analysis and decision making elements of application review. One example is contracting private sector environmental firms to prepare applications and environmental reports. This frees BLM personnel to concentrate on the analysis of the data and on making the required decisions.

Oil and Gas Production on Public Lands

Question 59: The American public will judge how "environmentally-sensitive" new production on public lands might be according to how "environmentally-sensitive" we have already been. In this regard, I would like to know what steps you are taking to impose enforceable obligations on developers when they are granted oil and gas leases on public lands. Certainly mitigating the damage done by the routine operation of oil and gas exploration and production on the scale of Prudhoe Bay, for example, would be a vast, expensive undertaking. The industry plans to expand into pristine, environmentally sensitive areas on lands belonging to the public. Will the mess ever be cleaned up?

Requirements for Cleanup: What conditions regarding clean-up and environmental restoration of a drilling or production site are currently contained in Federal leases on Federal lands such as the NPR–A? Please provide the actual language from such leases. Please provide a discussion of the method used, if any, to set the standards of cleanup and to hold the leaseholder accountable if it fails to meet the requirements of the lease.

Answer: Many of the following requirements are created and implemented to prevent or minimize damages which might otherwise require cleanup upon completion of specific activities.

The standard lease stipulations were created by the BLM's Washington Office staff with considerable input from the BLM field staff and review by the Solicitor's Office to assure that any standard conditions which might be encountered in the field are covered. Special stipulations are created based on environmental research and public input which occurs during the environmental review process as required by the National Environmental Protection Act (NEPA). Additional site-specific NEPA reviews are made, and if any additional needs are identified, additional NEPA protective requirements are added by the BLM's authorized officer (AO) when reviewing the lessee's or operator's plan of development and site-specific Applications for Permit to Drill (APDs). A copy of the NPR–A requirements is attached.

BONDING: Bonding doesn't relieve a lessee or operator from it's cleanup and resource protection requirements and responsibilities, but is nevertheless an integral part of the "cleanup" package. It is required by the BLM in every case ($10,000.00 minimum per lease; $25,000.00 minimum statewide; $150,000.00 minimum nationwide) before any on-the-ground activity is allowed to take place, and also for geophysical exploration ($5,000.00 minimum per exploration; $25,000.00 minimum statewide; $50,000.00 minimum nationwide). For the NPR–A, the BLM also requires bonding, but at these different amounts: individual lease ($100,000.00 minimum); NPR–A-wide bonding ($300,000.00 minimum). NPR–A bonds must be filed and approved before we will issue a lease or leases to a lessee. Further, individual states have differing bonding requirements in addition to the BLM-required bonding. For example, the State of Alaska's Oil and Gas Conservation Commission requires a $100,000.00 bond for each well drilled on Federal, state or private lands, or—. . . not less than $200,000 for a blanket bond covering all of the operator's wells in the state, except that the commission will allow an amount less than $100,000 to cover a single well if the operator demonstrates to the commission's satisfaction in the application for a Permit to Drill (Form 10–401) that the cost of well abandonment and location clearance will be less than $100,000.—

SPECIAL SITE–SPECIFIC RESTRICTIONS: The unique particulars of site-specific cleanup and environmental restoration are established by the BLM's AO, as noted above, and set out as specific terms and conditions in the NEPA-review / approval process for each individual Application for Permit to Drill (APD) or drilling and development plan. This allows them to be tailored to the most currently available environmental data, technological advances, and other changing issues which arise over a period of time.

Standardized resource protection and reclamation requirements are contained in the lease forms and, as developed during the course of NEPA analysis, in the Record of Decision for the pre-sale NEPA study. In the case of the NPR–A, these general stipulations, as well as five special stipulations applicable to only certain leases, were also contained in the Detailed Statement of Sale.

See attached Appendix A for the standard protections in lease language.

Question 60: Ensuring the Availability of Cleanup and Restoration Funds: The huge cost of dismantling, removal and restoration occurs once the wells have stopped producing. Therefore, the oil and gas industry cannot expect to have the resources necessary to do the job unless it sets the funds aside while the wells are still producing. What guarantees exists to ensure that sufficient financial resources will be available to complete the required activities at the appropriate time? Are funds being held in escrow? If not, why not? Please provide the actual language from leases regarding such requirements.

Answer: All oil and gas lessees are responsible for cleanup and restoration of damaged lands resulting from their operations. It is a requirement on all Federal oil and gas leases as well as current operating regulations contained in 43 CFR 3160. In addition, there are an number of other Federal laws that also require clean up and restoration of contaminated lands. The BLM assures enforcement of these requirements through the use of lease bonds as well as enforcement provisions of the oil and gas operating regulations (Re: 43 CFR 3104 Bonding and 43 CFR 3163 Noncompliance). Lease bonds are a form of escrow held by the surety company and payable to the BLM. Actual lease language is as follows:

> "4.(a) The Undersigned certifies that...(6)offeror is in compliance with reclamation requirements for all Federal oil and gas lease holdings as required by sec. 17(g) of the Mineral Leasing Act."

Question 61: Examples: Please provide three good examples of successful implementation of cleanup requirements implemented by the holder of an oil or gas lease on public lands following major production, pursuant to the requirements of the lease.

Answer: The BLM routinely approves hundreds of well abandonments each year. On all of these sites the well is plugged according to approved BLM specifications, the well location is re-contoured and the entire disturbed area is re-vegetated. The BLM does not release the final lease bond obligation until field inspectors have verified the location is fully reclaimed. These are the standards for all Federal onshore oil and gas wells. The following are three examples of successful implementation of cleanup requirements following oil or gas production:

1. EOG Resources Incorporated, formerly Enron Oil and Gas Company's Big Piney/Labarge operations (in Sublette County, Wyoming), received the BLM's Director's Excellence Award for EOG's efforts and contribution in performing outstanding reclamation activities on Federal lands administered by the BLM in 2000. EOG Resources reclamation endeavors within the Big Piney/Labarge operations include the following accomplishments: successful final abandonment of three entire oil and gas fields, including extensive road and pad removal, recontouring and reclamation, resulting in the prior disturbed land being reclaimed back to that of a natural landscape; substantial reduction in soil erosion through extensive road upgrading and graveling which included numerous culvert installations for a road network covering over 70-square miles; establishment of stable producing well locations through surface re-contouring which alleviated erosion and weed infestations; and re-establishment of specific plant subspecies that resulted in considerable improvement to winter range areas of wildlife;

2. Over the last two years, Merit Energy has conducted extensive environmental clean-up and production facility consolidation of the Hamilton Dome Oil Field in Hot Spring County, Wyoming. Hamilton Dome is considered one of Wyoming's major oil fields. Pursuant to the requirements of the lease, Merit Energy upon acquiring the Hamilton field operation, expended considerable resources to improve the oil field infrastructure to minimize and in a number of cases alleviate environmental problems. As an example, Merit has been proactive at plugging and reclaiming a significant number of idle or inactive wells which are no longer capable of production.

3. The Hogback Dakota Field, located to the northwest of Farmington, New Mexico, in the San Juan Basin, is an oil field which was discovered in the late 1920's, but developed beginning in the 1950's. Several dozen wells were drilled to completely develop the field. The northern part of the field was depleted by the early 1990's. The operator at the time, Duncan Oil Company, plugged 24 wells on three of the oil and gas leases in 1995. Reclamation consisted of grading and reseeding the locations. The three leases were then terminated. The southern part of the Hogback Field continues to produce under a successor operator to Duncan Oil Company.

(GILCHREST)

Question 62: Does the Secretary support continuation of the offshore oil and gas moratorium for the Atlantic Coast?

Answer: The Administration supports the existing moratoria/executive withdrawals.

Question 63: How many national wildlife refuges currently host extractive activities (oil, gas, coal, other minerals)?

Answer: 42 refuges host oil and gas extractive activities;
0 refuges host coal extractive activities;
1 refuge hosts hardrock extraction;
29 refuges host sand and gravel extractive activities; and
2 refuges host extractive activities of other minerals

Question 64: How many extractive use leases have yet to be acted upon in national wildlife refuges, and how many refuges does this effect?

Answer: From the regions that were able to respond, only 634 potential extractive use leases were identified coming from 3 regions and affecting 19 refuge units. 632 of these leases were from 7 refuges in Alaska.

Question 65: How many refuges have potential oil, gas, coal, and other energy resources, that have yet to be capitalized upon?

Answer: 45 refuges reported potential oil, gas, coal, and other energy resources that have yet to be capitalized on. One region was unable to obtain the information in the time allotted. Several of the others only provided best guesses.

Question 66: The Secretary described in her testimony, actions that the Department has taken to improve energy efficiency and to diversify energy sources it draws upon. What are some of the best examples of energy efficiency and diversification within the Department of the Interior? How much biofuel does the Department use annually? How many fuel cells are in operation? Solar panels? Other non-fossil fuel sources?

Answer: General: Over the past two decades, Interior has done much to reduce energy use and embrace energy efficient technologies. This legacy of accomplishment has resulted in numerous successful energy and water conservation and renewable energy projects around the country. In response to the National Energy Policy and Secretary Norton's energy mandates, Interior bureaus have renewed their emphasis on energy efficiency, energy conservation and the use of energy-saving technologies. By partnering with the Department of Energy (DOE) and its national energy laboratories, other Federal agencies, state and local governments, and non-governmental organizations, Interior will continue to implement energy conservation practices and techniques, and introduce new technologies to increase energy efficiency and reduce energy consumption.

Best Examples of Energy Efficiency and Diversification Within the Department of the Interior:

The following fourteen energy and water conservation showcase facilities have been recognized by the DOE and offer some of Interior's best examples of energy efficiency and diversification:

- *National Park Service (NPS)*
  - Golden Gate National Recreation Area,
  - Joshua Tree NP,
  - Sleeping Bear Dunes National Lakeshore,
  - Whitman Mission National Historic Site, and
  - Zion National Park (NP)
- *Bureau of Reclamation*
  - Centennial Job Corps Center,
  - Denver Federal Center–Building 67,
  - Davis Dam, and
  - Glen Canyon Dam
- *Fish and Wildlife Service (FWS)*
  - John Heinz NWR,
  - National Conservation Training Center,
  - Neal Smith National Wildlife Refuge (NWR), and
  - Wichita Mountains Wildlife Refuge
- *U.S. Geological Survey*
  - Central Region - EROS Data Center

These and other Interior facilities, have incorporated energy-saving concepts into building design including automated energy management control systems; energy-efficient heating, ventilation, and air conditioning systems; energy-efficient lighting; insulation, passive solar energy design; ground-source geothermal heat pumps; use of recycled materials in building construction; and power generation from renewable energy sources.

Biofuel use annually: During Fiscal Year 2000, Interior's motor vehicle and marine fleets used over 70,000 gasoline-equivalent gallons of biofuels produced from renewable domestic feedstocks such as forage grasses and oil seeds. With greater production and improved distribution, Interior will be able to significantly increase biofuel usage. Many Interior facilities are partnering with public and private sector organizations to improve the availability of biofuels. With the assistance of the Defense Energy Support Center, DOE and industry, Interior plans to greatly expand its use of biofuels through bulk purchasing for facilities in the Mid–Atlantic, Northwest and Southwest beginning in Fiscal Year 2001. A few facilities plan to begin use of biofuels in their diesel generators.

Fuel Cells in Operation: The high cost of fuel cells has been the obstacle to greater use of this technology. Currently, Interior has a fuel cell operating at Golden Gate National Recreation Area with another one planned to be installed at Yellowstone NP during the summer. Both of these systems were financed through cost-sharing partnerships. Other Interior facilities are actively seeking to acquire fuel cells to replace diesel generators and supplement energy currently supplied through the electric grid. They are looking to partnerships to help finance the acquisition of these systems.

Solar panels in Operation: Interior is a government leader in the use of solar-powered energy generating systems with nearly 600 solar photovoltaic (PV) facilities and an estimated 40 solar hot water systems primarily located at NPS, Bureau of Land Management and FWS facilities. The Bureau of Indian Affairs (BIA) is also working with Native Americans to deploy solar powered generating systems on Indian lands. Our installations are notable for the fact that they are not just demonstrations—they are cost-effective power sources that were the best choice for the application. These systems conservatively represent about 600 kiloWatts (kW) of capacity, and generate over 1 million kW hours of electricity annually. Each system is made up of multiple panels, which vary from roughly 50 to 100 Watts each. With total capacity at 600 kW, that would represent between 6,000 and 12,000 panels.

Other Non–Fossil Fuel Sources: As resources allow, Interior facilities are using other non-fossil fuel sources such as from off-grid wind turbine, geothermal, and hybrid systems (combining two energy sources) and green power from renewable sources available on the grid to meet energy needs. Highlights include:

- FWS and NPS are using ground source geothermal systems to both heat and cool the buildings at seven facilities.
- BIA is incorporating the use of geothermal systems in the design for some of its Native American school replacement and renovation projects.
- FWS is using wind energy at five refuges.
- Several bureaus facilities in Denver, Colorado will purchase a portion of their monthly electric power from wind-generated electricity.
- Channel Islands NP is in the process of installing an innovative hybrid wind/PV system on Santa Rosa Island, reducing the island's annual diesel fuel consumption for power generation by 94 per cent.
- The Office of Surface Mining and the Minerals Management Service are working with the General Services Administration to incorporate the use of non-fossil renewable fuel sources where possible, into their building lease agreements.
- With DOE's design assistance, the National Business Center is planning to create an energy efficient "green" roof for the Main Interior Building consisting of liner, insulation, gravel and topsoil, and moss, plants or grasses as well as a small PV system.

(ORTIZ)

Question 67: Madam Secretary, it is my understanding the Department is moving forward with development of a new 5–Year program for Outer Continental Shelf leasing for 2002–2007. What is the current status of this plan?

Answer: In December 2000, in accordance with section 18 of the OCS Lands Act, the MMS published a request for information with a 45-day comment period in order to begin preparing a new 5–Year OCS Program for 2002–2007. The current 5–Year Program expires in June 2002. The 5–Year Program indicates the size, timing and location of leasing activity determined to best meet national energy needs. In preparing a new 5–Year Program, we seek comments from constituents including States, local government, industry, interest groups, and individual citizens. Based on an analysis of these comments, the 5–Year Program must balance the potential for environmental damage, the discovery of oil and gas, and the adverse impact on the coastal zone.

We have now completed the initial information gathering phase, and we are currently evaluating a number of options in light of the information we have received, our own analysis, and the Administration's developing energy policy. Our objective is to develop a 5–Year OCS leasing program, which meets the mandates of the OCS Lands Act and advances the nation toward its energy goals.

We plan to publish an initial Draft Proposed Program for 2002–2007 and draft EIS, this summer. Subsequent steps in developing a new 5–Year Program after receiving comments on the Draft Proposed Program and accompanying draft EIS, will include an appropriate comment period and publication of a Proposed Program and draft EIS with an appropriate comment period; and publishing a Proposed Final Program with a final EIS. We hope to have the next 5–Year Program in place before June 2002.

Question 68: Considering the status quo of limiting offshore exploration and production to the Central and Western Gulf of Mexico and Alaska, what consideration is being given to the "equitable sharing" of the production and distribution of offshore energy resources?

Answer: Section 18 of the OCS Lands Act requires that every new 5-year program for OCS oil and gas leasing be prepared in a manner consistent with four main principles: (1) consideration of economic, social, and environmental values and the potential impact on marine, coastal, and human environments; (2) a proper balance among potential for environmental damage, discovery of oil and gas, and adverse impact on the coastal zone; (3) assurance of receiving fair market value; and (4) consideration of eight factors. The equitable sharing of developmental benefits and environmental risks is one of these eight factors. Among the others are existing information on geographical, geological, and ecological characteristics of regions; location of regions with respect to needs of energy markets; location of regions with respect to other uses of the sea and seabed; interest of potential oil and gas producers; and laws, goals, and policies of affected States.

The current program, you have noted, includes proposed lease sales only in the Gulf of Mexico and the Alaska OCS, the result of a greater weight given to the laws, goals, and policies of affected States and the location of regions with respect to other uses of the sea and seabed. As we develop a new program to succeed the current one, I will give full consideration to the geographic distribution of proposed OCS lease sales and the benefits and risks that would result from those sales. However, I will have to temper this consideration with the understanding that both the Atlantic and the Pacific OCS and all but a small portion of the Eastern Gulf of Mexico, under presidential authority, have been withdrawn from disposition by leasing until after June 30, 2012.

As the President pledged during the campaign, the Department will work with the various affected parties to try to craft agreement as to what kind of program would best serve the Nation by providing energy—especially natural gas—and employment while protecting other valued resources.

Question 69: In developing your plan, will your Department consider the costs of eliminating large areas from consideration under the 5-year plan? While I support reserving areas of important resource and cultural benefit, I am concerned that we do not understand the costs of removing large areas from consideration, not only in terms of economics and jobs, but equally, in terms of national security.

Answer: As directed by the OCS Lands Act, MMS has begun its analysis for the new 5-year program by examining all planning areas eligible for leasing consideration. This initial analysis includes a ranking of these planning areas by the potential net economic value and by the potential net social benefits of leasing all of each area. Areas under Presidential and congressional moratoria are not considered for leasing and are not included in the economic analysis. The information provided by MMS allows me to gauge the effect on total value to the Nation of any options eliminating areas from consideration or reducing the eligible portion of a planning area.

The environmentally sound development of the Nation's OCS resources, through a reliable lease sale schedule that is consistent with other uses of the OCS sea and seabed and with State and local government priorities, can help further the achievement of each of the goals set out in the OCS Lands Act. Investments in and production of OCS oil and gas generate billions of dollars annually in bonuses, royalties, and taxes and create thousands of well-paying jobs throughout the American economy. Production of offshore resources under proper environmental safeguards poses less risk of major oil spills than does importing foreign oil in tankers. Expanded use of natural gas, including that produced on the OCS, has substantial environmental benefits over other fossil fuels.

Most production resulting from lease sales held under the new 5-year program is likely to begin over the next decade and continue well into the first half of this century. Just as important, the program decisions and the way they are made will have a lasting effect on the relationship between the Federal Government and other interested parties and the ability to develop and implement future programs in a way that best meets the Nation's energy needs while protecting the values reflected in competing Federal, State, and local priorities.

(FLAKE)

Question 70: Natural gas appears to be a cleaner alternative to energy production because it does not release soot, chemical toxins, or mercury. It emits half as much smog producing nitrogen oxide and 30 percent less carbon dioxide, a green house gas believed to worsen global warming. How can the Committee address this and encourage sources of natural gas to be tapped and used?

Answer: The NEPD Group recognized the critical importance of boosting production to meet anticipated demand, and ensuring that the natural gas pipeline network is expanded to the extent necessary. To that end, the NEPD recommended that my agency should examine land status and lease stipulation impediments to Federal gas leasing, economic incentives for environmentally sound off-shore development, and opportunities for royalty reductions in specific instances and where warranted. It is also recommended that we expedite discussion on a right-of-way for a gas pipeline for North Slope natural gas if and when an application is received.

Question 71: It was assumed in the 70's that many of the nation's older, higher emitting power plants would soon go off line and thus were exempted by the Clean Air Act. The Act specified that improvement beyond routine maintenance- including measures to prolong the life of these plants - would make the entire plant subject to the newer, more stringent, rules. Some say these plants continue to run, evading compliance by calling major expansions "routine maintenance." What will be the Department's approach to enforcement of these situations.

Answer: While I am sensitive to the importance and complexity of this question, I believe that it would not be appropriate for me to comment on this issue which is under the regulatory jurisdiction of EPA.

Question 72: President Bush has called for reducing and expediting Federal regulations, such as those protecting public lands and air quality, in order to stimulate oil drilling and power generation. How can we encourage this to occur and get the market rolling?

Answer: At Interior, we will be reviewing our regulations to identify opportunities for streamlining. We are also focusing attention on expediting decisions within existing regulations.

Question 73: When encouraging development of power resource production and generation, the issue of eminent domain arises and the fact that rather than use or harm public lands, privately held property is sometimes "taken." There appears to be a conflict when the Federal government has the ability to name National Monuments and private property becomes the remaining vehicle by which energy can be developed. Can you comment on how we might ensure that this does not create a conflict of interest for the Federal government? (Article 1, Section 8, Clause 17).

Answer: There is a potential for such conflict, and we will want to weigh that in the balance as Federal land use decisions are made. In any given case, there may be important public land values that need protection from a utility corridor such as an electric transmission line, but we also need to take into account that forcing a right-of-way off public lands may have major economic impacts due to extensive and longer rerouting, but also land use impacts on the lands to which the right-of-way is rerouted. It is not clear that this was always taken into account in developing the boundaries for new National Monuments.

Question 74: Only 17% of Arizona is privately owned land. Given the recommendation that legislation be developed to grant authority to obtain rights of way for electricity transmission lines and our Committee's interest in Federal lands, how do you see privately owned lands being addressed versus those that are publicly owned?

Answer: The Bureau of Land Management (BLM) currently has authority to grant rights-of-way across public lands for oil and gas pipelines under the Mineral Leasing Act of 1920 (MLA) and for other rights-of-way, including electric transmission lines and facilities, under the Federal Land Policy and Management Act of 1976 (FLPMA). In practice, BLM processes over 1,200 pipeline and electric system rights-of-way authorizations annually and, based on increasing demand for energy, BLM expects this number to increase by 15 - 20 percent over the next five years. At present, BLM estimates that some 90 percent of all oil and gas pipeline and electric transmission rights-of-way in the western U.S. are dependent to some extent on rights-of-way authorizations on Federal lands. Given the increased demand for rights-of-way, their obvious importance, and the growing complexity of some applications, the BLM issued a proposed rule in June of 1999 to update its cost recovery program in order to better meet the increasing demands of the rights-of-way program.

With regard to acquisition of rights-of-way on private lands for electrical transmission lines or facilities, industry must acquire such lands independent of any right-of-way application related to public lands. The Department of the Interior does not play a role in the acquisition of rights-of-way on such lands.

Question 75: It was originally thought that with our country's shift to the service sector that energy consumption would decrease, however, with the onset of computerized business, we now have less conservation and more use of peak hour energy consumption. How has this factored into the National Energy Policy?

Answer: Changes in our society have led to changes in our projections about future supply and demand of crucial energy resources. President Bush recognized the need to incorporate an analysis of these trends into a comprehensive National Energy Strategy. Energy intensity, or the energy required to produce a dollar's worth of gross domestic product will continue to decline, due to improved energy efficiency, as well as to structural changes in the economy. The NEPD Group offered a number of suggestions that address energy conservation and energy efficiency.

Question 76: The President has stated that there are no short term fixes, but is he considering, or will he consider short term bailouts in case there are extreme shortages this summer, such as tapping into the Strategic Petroleum Reserve?

I am certain that the President is concerned about the potential impacts of energy shortages this summer. He has directed us to expedite permits for new power production and to work as good partners to reduce our electricity at Federal facilities, especially during the peak periods this summer. We have not had discussions about tapping into the Strategic Petroleum Reserve.

(PALLONE)

Question 77: According to chart 6–2 that you provided to the Committee, between 1978 and 1983 consumption of oil in the United States dropped from nearly 19 million barrels per day to just over 15 million barrels per day. Then between 1983 and 1998, oil consumption increased to once again meet the 1978 level of approximately 19 billion barrels per day. Clearly in the late 1970's through conservation efforts and innovative solutions, this country reduced the need to use billions of barrels of oil. Twenty years later, in 1998 consumption levels were equal to those in 1978.

Additionally, the USGS has calculated that at today's high oil prices, only 2.6 billion barrels of oil - equal to 140 days of current U.S. consumption - in the Refuge are "economically recoverable.—

As the proprietor of our country's natural resources, to what extent will you promote conservation efforts, supported by historical figures, prior to supporting development of oil and gas production in our country's most sensitive areas?

Answer: We are committed to promoting conservation efforts and alternative fuels. Interior bureaus have renewed their emphasis on energy efficiency, energy conservation and the use of energy-saving technologies. Interior facilities have incorporated energy-saving concepts into building design including automated energy management control systems; energy-efficient heating, ventilation, and air conditioning systems; energy-efficient lighting; insulation, passive solar energy design; ground-source geothermal heat pumps; use of recycled materials in building construction; and power generation from renewable energy sources. In addition, the Bureau of Land Management (BLM) is reviewing the opportunities for expanded siting of solar and wind electrical generating facilities on public lands. The BLM is also working with the Forest Service to identify sites for biomass development.

Question 78: In regard to the Alaska National Wildlife Refuge, in your testimony you state, "...because of advances in technology...we are now able to proceed with exploratory work with very little long-term effect". Further you identify regulations that Department of Interior intends to put in place on production in the Arctic Refuge and conclude with "we believe that new technologies enable us to conduct environmentally safe oil and gas exploration and production.—

Just days before you visited Prudhoe Bay, state inspectors found that almost a third of the safety shutoff valves tested at one drilling platform failed to close. Additionally, on the North Slope, 92,400 gallons of saltwater and crude oil leaked from a pipeline at the Kuparuk oil field on April 15; this was the fourth major spill on the North Slope in the winter of 2000. Given these recent environmentally disastrous incidences, I am deeply concerned about your use and the Administration's frequent use of the term environmentally friendly technology.

Question 79a: First, please explain to me what you believe is "environmentally safe oil and gas exploration and production—?

Answer: Environmentally safe oil and gas exploration and production in the context of the North Slope is activity where "state of the art" environmentally friendly technology and procedures are employed such as low impact exploratory approaches that include ice roads and extended reach directional drilling. It includes developing contingency plans and procedures to deal with incidents and potential environmental impacts. Planning, training, equipment, Federal and state regulation and supervision all play a part. Finally, it includes operating under a strong environmental standard that overlays all activities conducted in the area.

Question 79b: Second, please explain how you determine what are long-term effects and the scientific insight you have to determine these effects?

Answer: We are monitoring the ongoing development in the Naval Petroleum Reserve–Alaska (NPRA) under the stipulations we developed prior to leasing. Funding

for additional studies covering issues such as ice road location is included in the President's 2002 Budget

Question 79c: Third, how will the cost of the regulations you intend to put in place in the Arctic National Wildlife Refuge affect oil and gas production rates and the overall cost benefit analysis of economically recoverable resources?

Answer: The National Energy Policy states that Congress should require the use of the best available technology and should require that activities will result in no significant adverse impact to the surrounding environment. This standard will be our position despite any additional costs that could arise.

Question 80 : Will the Administration seek to overturn the Presidential moratorium in place until 2012 to develop oil and gas production in the OCS?

Answer: We appreciate the longstanding history, context, and concerns associated with OCS moratoria and presidential withdrawals. The Administration has no plans for undoing this framework.

Question 81a: Earlier this morning I met with tribal leaders from the Crow, Comanche, Blackfeet, and Standing Rock Sioux about a sacred area known as Weatherman's Draw. Aside from the fact that I find it outrageous we would be drilling in an environmentally sensitive area, I find it unacceptable that the tribal nations were not adequately consulted about the proposed drilling in the area. This Canyon has religious and spiritual significance and is found to contain some of the most impressive rock drawings and petroglyphs in the West. How do you explain the fact that local American Indians were essentially left out of consultation process?

Answer: There is a long history of tribal consultation associated with this area.

Geographically, the nearest tribes to BLM's Billings Field Office are the Crow and Northern Cheyenne in Montana, and the Eastern Shoshone and Northern Arapaho in Wyoming. Initial contacts were made with all four of these local tribal governments within several days after the applications for permits (APDS) to drill came in to our Billings office late in 1993. An initial visit to the Weatherman Draw sites was conducted by BLM in March 1994, with representatives of all four tribes in attendance. Other tribes in Montana more distant from the Billings area were contacted by phone, including the Blackfeet and Assiniboine Sioux, however these additional tribes deferred to the Crow and the other local tribes.

Since the initial site tour for the tribes in 1994, the Bureau has met with tribal government representatives from each of the four local tribes on numerous occasions in the BLM office and in tribal administration offices. Tours of the Weatherman sites were conducted twice with government representatives of the Crow and the Northern Cheyenne Tribes. BLM sought comments repeatedly from all four groups and have kept them informed of the project status. BLM had numerous letters and faxes that were sent to the tribes informing them of the project and asking for comments and involvement. We have written comments on file from the tribal governments of the Northern Cheyenne and the Crow. We have verbal comments from the Eastern Shoshone government and the Northern Arapaho government.

The comment period on the final EA for the Weatherman Draw APD closed December 1, 2000. After the comment period closed several environmental groups requested a meeting on Weatherman Draw. The meeting was held January 17, 2001, in Billings and Dr. Lawrence Loendorf presented evidence indicating possible links with prehistoric Apachean peoples, all of whom reside now in New Mexico, Arizona, Oklahoma, and Alberta. We also had a number of comments on the EA suggesting that more distant tribes should be involved in consultation. We looked at the range of tribes with possible prehistoric ties to the Billings area and contacted those groups. In addition, we were contacted by other groups who wish to consult, but who are not well documented as ancient residents of the area. In total, we have spoken with, written to, and provided materials to 26 tribes, including almost all the tribal governments on the North American Plains.

Question 81b: Given your authority and ability to stop this proposal and knowing now of its disturbing history, do you have any plans to stop the exploratory drilling from proceeding?

Answer: On February 5, 2001, the Bureau of Land Management concluded an environmental study that began in 1993 and issued a decision to allow drilling of a single exploratory well. Several groups requested a review of that decision. The review was signed on May 21, 2001, and upheld the decision to allow the exploratory well. However, the review can be appealed to the Interior Board of Land Appeals, and the BLM will not allow any drilling activity to take place until the 30-day appeal period has expired June 23. The Board has the discretion to issue a stay of drilling activity until it renders a decision. I will, of course, continue to monitor this issue.

Question 82: Question 6. Under the 1992 Energy Policy Act, the Secretary of the Interior is authorized to request funding for American Indian Renewable Energy

Projects. Given the potential for renewable, clean energy production by tribes, will you seek funding for the American Indian Renewable Energy Project? What is the Department of Interior's plan to help tribes develop their renewable resources?

Answer: Funding for American Indian Renewable Energy Projects will be considered within the overall evaluation of economic viability using present and developing technology. Where feasible, these energy sources can contribute in environmentally attractive ways. In addition, for Indian tribes, renewable energy might provide energy locally more cost effective than by conventional grid service.

As a Department, we are considering how to best develop a plan to help tribes with all energy resources on Indian lands including renewable resources.

(KIND)

Question 83: Drilling and producing methane gas from coal beds results in vast quantities of water being pumped to the surface. For instance, there are proposals to drill up to 70,000 such gas wells in the state of Wyoming alone. These wells would result in more than one billion gallons of water being pumped to the surface everyday. Pumping such quantities of water to the surface can impact the water table, contaminate drinking water supplies, cause flooding, etc. In addition, the water sometimes has a high salt content that has an adverse impact on plants and animals. Has a comprehensive analysis of the impacts of pumping such vast quantities of water to the surface been performed. If not, is one planned? Does the Department have a strategy for mitigating possible impacts?

Answer: All of these issues are part of the EISs and EAs being conducted in Wyoming and Montana. Specifically, the impact of water production, disposal, and use has been analyzed in substantial detail. An EIS is in preparation on this area and these issues. The final EIS is expected to be completed mid-year 2002. In addition, all Coal Bed Methane (CBM) wells on Federal leases must have an approved water management plan prior to approval of the drilling permits. The BLM also requires State Department of Environmental Quality approvals under the Clean Water Act for any disposal of produced water.

Question 84: Directional drilling is one of the technologies being touted as a means of reducing the infrastructure footprint associated with oil and gas drilling, particularly in regard to drilling in Alaska. However, in some cases industry has resisted using this technology for drilling on Federal lands in the lower 48 states. Rather than using directional drilling, the industry is lobbying to increase the density of oil and gas wells allowed on Federal lands. Do you believe the allowable density of oil and gas wells on Federal lands should be increased, or do you think the industry should be encouraged or required to pursue technologies such as directional drilling that minimize the industrial footprint and associated environmental impacts?

Answer: The technology for a "small footprint" is applicable in many situations, both in Alaska and the lower 48 states. I support this technology where needed to minimize environmental impact and where it can be done technically and with reasonable economics.

Question 85: There are a number of lease stipulations regarding drilling and production on Federal lands that are designed to minimize the impacts on animal wildlife. For instance, in some cases there are prohibitions on production activities during sensitive animal breeding or migration periods. There are industry proposals that call for relaxing or eliminating such protective measures in the name of increasing production. Do you support relaxing or eliminating these protective measures that are designed to protect animal wildlife?

Answer: Most of the prohibitions to reduce impacts to wildlife populations are applied only to drilling operations when most of the human influence is present. Production restrictions are uncommon. I support continued use of all necessary prohibitions, whether on drilling or production if they are supported by sound science and provide for the continued existence of viable wildlife populations while allowing for development of our energy resources.

Question 86: Approximately 95% of the land managed by the Bureau of Land Management within the Rocky Mountain States of Colorado, Montana, Wyoming, Utah, and New Mexico are already open to oil and gas leasing and there are extensive ongoing exploration and development activities on these lands already. Can you provide an estimate of the size of oil and gas reserves on the remaining five percent of Federal lands not currently available for leasing? How does the size of these projected reserves compare to U.S. total reserves of oil and gas?

Answer: The USGS does not have information about energy resources under Federal lands that are not currently available for leasing. The Energy Act of 2000 requires the Secretary of the Interior to conduct an inventory of energy resources under Federal lands and the restrictions and impediments to their development.

The first five priority regions will be completed by November 2002, and estimate of resources under land available for leasing will be available at that time.

(T. UDALL)

Question 87: Reflecting on the horrible pipeline explosion near Carlsbad, New Mexico last August that killed 12 people and the Bellingham, Washington gas pipeline tragedy, I want to further ensure that our existing and future gas pipelines across the U.S. are safe. With that in mind, the Administration and Congress must strengthen our current oversight program for pipelines in order to enhance safety and reliability.

As the Secretary of the Interior, please explain how you will take the lead in the administration and work with Secretaries Abraham and Mineta to provide ideas to Congress ideas on how to provide maximum safety?

Answer: The Department of Transportation (DOT) has the lead responsibility for pipeline safety issues. However, the Department of the Interior is strongly committed to working with the DOT on environmental and right-of-way impacts of pipelines on public and Federal lands. In order to better explain the role of pipeline safety to both government and private industry pipeline managers, the DOT's Office of Pipeline Safety (OPS) actively participated in the inter-agency/International Right of Way Association, Pipeline Committee, Pipeline Systems Course. It is becoming increasingly common where pipeline safety is a concern in the application review process to have OPS personnel conduct "on site" public land reviews.

Question 88: I do not see how the BLM can effectively implement its resource management program in the lower 48 states with the proposed President's budget. ThePresident's BLM budget for Fiscal Year 2001 was $2.1 billion and dropped to $1.8 billion for Fiscal Year 2002. Although the administration intends to increase that BLM's energy and mineral program by $15 million, a large portion of that will be going toward exploration on Alaska's North Slope and completion of the BLM's land management planning process. That doesn't leave much money for the BLM to manage its other programs, and the programs willsuffer tremendously because of the budget cuts.

Can you provide a breakdown of all the BLM's programs funding levels between Fiscal Year 2001 and the President's budget for Fiscal Year 2002, nationally and in New Mexico?

Answer: The attached table (appendix B) provides funding changes by account. It is accurate that the BLM President's budget shows an overall decrease from Fiscal Year 2001. However, BLM's two main operating accounts include an increase from Fiscal Year 2001. Also, a major portion of the proposed decreases in the budget are one-time or emergency costs that were provided in Fiscal Year 2001 and not continued in Fiscal Year 2002. For example, $226 million in reductions reflect the elimination of a fire emergency contingency fund [$199.6 million] as well as one-time fire equipment purchases and a targeted research project [$26.8 million]. Other similar reductions include $17 million in one-time emergency funding for Great Basin restoration and Grasshopper and Mormon cricket control.

We do not yet have a detailed breakdown of Fiscal Year 2002 funding for New Mexico or other BLM states. It is expected that New Mexico would share in the requested energy increases as specified in BLM's Fiscal Year 2002 budget justifications. For example, of the requested increase for land use planning, $217,000 would be directed to New Mexico for five high priority land use plans. A portion of the $11.7 million requested increase for oil and gas activities would be directed to high priority areas in New Mexico such as the San Juan Basin to process additional Applications for Permit to Drill and for implementation of the Energy Policy and Conservation Act. $670,000 of the $1.5 million increase requested for processing additional right-of-ways would be directed to New Mexico. Approximately $7.6 million would also be used in New Mexico for land acquisition in four critical, specially-designated areas, as well as sufficient resources to prepare for and address wildland fires.

Question 89: Even at the Fiscal Year 2001 budget levels, staffing levels if BLM field offices such a Farmington, New Mexico appear severely deficient to manage and implement its resources objectives as well as its public relations program.

How do you intend to maintain or ramp-up the appropriate staffing levels for these program areas, especially with fire management and suppression given the proposed budget cuts?

Answer: The BLM Full Time Equivalency [FTE] request for Fiscal Year 2002 is 10,771 FTE, the same as Fiscal Year 2001. This level represents an increase of 833 FTE [8%] over the FTE actually used in Fiscal Year 2000. The Fiscal Year 2002 budget request also presents several internal adjustments in FTE levels to address the highest priorities. For example, an additional 40 FTE will be directed to priority

energy activities, 17 FTE will be used to make more progress in land use planning and 11 FTE will help process additional right-of -ways.

A significant number of these positions will also help BLM to ensure a full readiness capability for wildland fire management. The BLM is moving toward increasing staffing in the wildland fire program in Fiscal Year 2001 by 656 FTE to continue progress in implementing the National Fire Plan prepared after the Fiscal Year 2000 fire season.

The Fiscal Year 2002 budget request for wildland fire management is more than double historical funding levels. At the proposed level, emphasis will continue on full implementation of the National Fire Plan, including building capacity in preparedness, ensuring a responsive operations program, and sustaining support for rural fire districts.

(INSLEE)

Question 90: Will the Administration withhold funding of the Hanford Reach National Monument in order to attempt to drill for natural gas on the monument, or change the boundaries of the monument?

Answer: I have not indicated an intention to open Monuments to energy exploration or drilling, nor have I recommended withholding funds to do so. On March 28th, letters were sent to elected officials in Washington State requesting their (and their constituents) ideas about how they would like to see their National Monuments managed and for what uses. Responses to those letters will be collected and analyzed and determinations will be made as to recommended changes.

(M. UDALL) Withdrawn Areas

Question 91: The Cheney task force recommended that the President direct you, as Secretary of the Interior, to review public lands that are now withdrawn from oil and gas leasing, and to "consider modifications where appropriate." Will you be doing that?

Answer: Yes. This will be done, primarily through the Energy and Policy Conservation Act section 604 studies and the land use planning process.

Question 92: As I understand it, right now about 16 million acres of BLM lands in Colorado are open to oil and gas leasing, while about 600,000 acres - that is, about 3.5% of the total - are withdrawn from leasing. Are those numbers about right?

Answer: The BLM Colorado administers 12.6 million subsurface acres that are open to oil and gas leasing. About one million acres are withdrawn from leasing, including 145,000 acres of wilderness and 615,000 acres of wilderness study areas.

Question 93: Will you be reviewing lands in Colorado that BLM is now managing as wilderness study areas? If so, which ones?

Answer: We will be reviewing all lands BLM manages in priority oil and gas basins under the EPCA section 604 process. However, until Congress determines otherwise, wilderness study areas will be managed according to the Wilderness Act of 1964, which states in part A...so as not to impair the suitability of such areas for preservation as wilderness, subject, however, to the continuation of existing mining and grazing uses and mineral leasing...@

Question 94: In addition to the formal wilderness study areas, there are a number of areas in Colorado that BLM has been re-inventorying to see if they might have wilderness potential. How will the energy plan affect those areas?

Answer: In 1997 and 1998 the BLM Colorado conducted in-depth roadless reviews in six western slope areas. After consultation with filed offices, on-the-ground tours, and review of hundreds of public comments, 167,000 acres in the Vermillion, South Shale Ridge, and Bangs Canyon areas were identified as containing wilderness values; land use plan amendments were prepared. When funding is available, BLM will proceed with a land use classifications. In addition we expect the result of the EPCA review to be factored into the land use planning process. To the extent that land use planning recommendation could result in additional restrictions on land use development, they will be evaluated pursuant to Executive Order 13211- "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use.—

Question 95: What other Colorado withdrawals will you be reviewing?

Answer: The only withdrawn land that is closed to oil and gas leasing is the U.S. Air Force Academy. The BLM is currently reviewing about 200,000 acres of Bureau of Reclamation withdrawn lands and opening those lands no longer needed for water project purposes. However, these lands have always been open to oil and gas leasing.

Question 96: How will you decide what modifications to these withdrawals would be "appropriate—?

Answer: As noted in question 95 above, the only withdrawn lands in Colorado closed to oil and gas leasing are withdrawn to benefit the U.S. Air Force Academy. When withdrawn lands are returned to management by the BLM, land use plans are amended to address resource issues, concerns and future management direction.

Question 97: How will you go about consulting with people in Colorado about this?

Answer: Land use planning and compliance with NEPA are public processes. The BLM routinely notifies and solicits participation by our public through the NEPA scoping process, which includes Federal Register notices, press releases, letters to interested citizens, and open houses or meetings.

Question 98: What modifications can you make administratively, and which would require legislation?

Answer: In general, withdrawn by legislation and proclamation (*e.g.,* National Conservation Area's, National Monuments, Military and power site withdrawals, Wilderness, Wilderness Study Areas and Wild Rivers) from oil and gas leasing would require legislation to allow leasing. Any withdrawals executed through land use planning can be modified through a new or amended land use plan.

Question 99: Am I right in understanding that relaxing restrictions on leasing in wilderness study areas can only be done through legislation?

Answer: Yes. Mineral leasing on the overwhelming majority (98%) of BLM wilderness study areas is restricted by Act of Congress. To change that restriction requires legislation.

These are a small number of WSA's (2%) that were identified by BLM through the land use planning process. The Secretary has the discretion to reconsider these section 202 WSA's. Release of these WSA's would require a land use plan amendment and associated NEPA analysis.

Question 100: Wilderness Study Areas - Just before he left office, the first President Bush sent Congress a final report on possible BLM wilderness. It named 54 Colorado wilderness study areas and recommended that more than 346,000 acres in Colorado be designated as wilderness. Congress dealt with some areas in the 1993 Colorado wilderness bill and later legislation. But the others are still wilderness study areas, and other areas have been proposed as well. I understand the task force considered urging the Administration to encourage Congress to decide which BLM and Forest Service wilderness study areas should be protected as wilderness. That evidently is not in the final report. But don't you think that it would be good to get this resolved, at least in Colorado, by passing a BLM wilderness bill?

Answer: The final decision as to whether or not a wilderness study area becomes a designated "Wilderness Area" under the authority of the Wilderness Act of 1964 is made by Congress. I support Congress resolving these issues in Colorado and throughout the West.

Leasing Stipulations

Question 101: The task force also recommended that the President direct you, as Secretary, to review the stipulations on existing oil and gas leases, and to modify them as appropriate. Will you be doing that?

Answer: Yes. The review is proceeding. The EPCA study and the related Green River Basin study include a component where existing lease stipulations are analyzed.

Question 102: Will you be doing this in a generic way, or on a case-by-case basis?

Answer: BLM may make some generic changes, but case specific stipulations will still be applied were warranted.

Question 103: What kinds of modifications might be considered?

Answer: Duration of seasonal stipulations might be amended; size of others might be reduced; and terms of prohibited activities might be modified. BLM anticipates the EPCA study to provide valuable information on both the effectiveness of new and existing stipulations as well as a review of the impact of the stipulations on energy and mineral development. It will provide a baseline for monitoring effectiveness of the stipulations.

Question 104: Do you know if any Colorado leases are likely to be modified?

Answer: It is unknown at this time whether any Colorado leases are likely to be modified.

Question 105: How will you go about consulting with people in Colorado about this?

Answer: We have pledged to include public notification and consultation in the modification of lease stipulations. The National Energy Policy recommends that the President direct the Secretary of the Interior to "review public land withdrawals and lease stipulations, with full public consultation, especially with the people in the region, to consider modifications where appropriate.—

Canyons of the Ancients Monument

Question 106: Will you be considering any changes to the boundaries or the management of the new Canyon of the Ancients National Monument?

Answer: On March 28th, letters were sent to elected officials in Washington State requesting their (and their constituents) ideas about how they would like to see their National Monuments managed and for what uses. Responses to those letters will be collected and analyzed and we will consider recommended changes.

(HOLT)

Question 107: It appears the R&D funding for renewable energy and funding for land conservation proposed in the Administration's energy plan all rely on revenues generated from the oil and gas leases in the Arctic Refuge. In the event that Congress does not allow drilling in the 1002 Area, what contingencies does the Administration propose for making up for these lost funds?

Answer: The research and development funding from ANWR leasing was projected to occur in 2004, and our understanding is that discretionary funds are also proposed in the President's Budget for renewable research and development, independent of ANWR royalties. However, the research and development of renewable energy is a Department of Energy program, so the Department of Energy may be able to provide a more complete answer about funding these programs.

The proposal to fund land conservation from royalties collected on ANWR production is part of a recommendation in the National Energy Policy, but is not part of the budget request for 2002. We are proceeding with planning efforts for implementing the National Energy Policy recommendations and hope to be able to provide more detail in the future.

The Department and the Administration remain optimistic about the potential of ANWR to provide for our nation's future energy needs. The proposal in the 2002 budget, and any proposals in future budgets, will take several years to come to fruition.

Question 108: The President recently renewed his commitment to maintaining a moratorium on offshore oil drilling off the coast of California. In the recent hearing before the Resources Committee, the Secretary stated she would abide by the existing moratoria. Is the Secretary willing to abide with the moratorium on offshore drilling off of the coast of New Jersey?

Answer: We appreciate the longstanding history, context, and concerns associated with OCS moratoria and presidential withdrawals. The Administration has no plans to undo this framework.

Question 109: The plan proposes providing additional economic incentives for companies to develop reserves in frontier areas and using deep gas production. First, does this imply that these reserves would not be developed without these incentives? Second, every industry assumes much of their own risk, especially when reporting record profits. Why are we proposing that the taxpayers reduce or eliminate the risk of this exploration?

Answer: The President's National Energy Policy calls for the Secretary to consider economic incentives for environmentally sound offshore oil and gas development where warranted by specific circumstances which includes exploring opportunities for royalty reduction consistent with ensuring a fair return to the public where warranted. We estimate that about one billion additional barrels of oil equivalent could be developed from the unleased resource base due to royalty relief. Absent this relief, these resources would not be developed at prices expected to prevail over the next 10 years. In addition, some fields that would be developed, but at a later time without royalty relief, will be developed sooner in the presence of relief from royalties.

Taxpayers stand to gain considerably by the increased production, in the form of less vulnerability to oil supply disruptions, greater domestic natural gas reserves, and lower domestic oil and gas prices. In short, for commodities such as oil and gas, the value to the Nation of each unit produced domestically is worth more than its market price. Few products generated in other industries can make this same claim. So, reducing the risk of exploration to oil and gas companies benefits all the citizens of the Nation, especially when the result is additional domestic oil production that replaces insecure supplies of foreign oil, and additional domestic gas production that lowers domestic gas prices. Further, our royalty relief program is not open-ended. Royalty relief is granted only when prices are below the thresholds specified in the leases. If prices exceed the threshold values, producers pay royalties and the production applies against their royalty suspension volume.

(SOLIS)

Question 110: What private organizations and businesses did the Administration consult when creating the National Energy Policy report? Will you submit a list to the Committee for our information?

Answer: The Department of the Interior did not request information or views from private organizations and businesses in developing options for consideration in the National Energy Policy effort.

Question 111: The Federal Energy Regulatory Commission (FERC) has clearly acknowledged that energy prices in California are not "just and reasonable." Yet according to FERC Commissioner William Massey, FERC is not willing to ensure that consumers are protected from these outrageous rates. In light of these facts, why didn't the National Energy Policy Development (NEPD) Group direct FERC to exercise their responsibility and regulate skyrocketing wholesale prices in the West?

Answer: Competition, if implemented effectively, will benefit consumers. The California deregulation plan, unfortunately, was severely flawed and counter-productive in that it did not allow the market to work. In order for electricity markets to function, there must be adequate supplies to meet demand, and there must be efficient means to deliver the goods to the electric power consumers. The major part of the problem of providing adequate supplies in California was locking in enough long-term contract power to provide a strong incentive to increase generating capacity and supply; this was exacerbated by the lack of new local generating facilities and the unusually low amount of hydropower generation due to the extensive regional drought. The problem with regulatory action—establishing price caps to lower the price of electricity in this market is that such caps will do nothing to increase, and may lower, the amount of electricity produced. At the same time the lower prices will increase the amount of electricity consumers use which is immediately and directly counterproductive.

The Administration's view of this unfortunate situation is that it is important for the market to continue to send price signals to consumers that more conservation is needed—especially in the immediate term, and to potential suppliers that more power needs to be produced in both the short and longer terms. This approach appears to be working since conservation is way up in California, and substantial new investment in new and expanded generating facilities is extensive. From FERC actions to date, it appears that there has been inappropriate overpricing of power in some specific cases; FERC appears to be dealing with this, and has ordered refunds where it has determined that overcharging took place.

Question 112: Most of the NEPD Group proposals are long term in scope and will not impact the consumer for many years to come. My constituents are dealing with an energy crisis today. How does the NEPD group propose to relieve this burden in the near future?

Answer: President Bush has directed us to expedite permits for new power production and to work as good partners to reduce our electricity use at Federal facilities, especially during the peak periods this summer. The President has also instructed us to work with Congress in increasing funding for the Low Income Home Energy Assistance Program (LIHEAP) and allow use of oil and gas royalties for that program when oil or gas reaches certain prices.

Question 113: Extensive drilling will take place if this proposed National Energy Policy becomes a reality. How will the Administration ensure local voices are heard and taken into consideration when making decisions about drilling? How will you ensure that these activities are not taking place disproportionately in minority communities?

Answer: Leasing decisions are made only after extensive planning with ample opportunity for public participation. If applicable, we will proceed in light of Executive Order 12898 February 11, 1994 on Environmental Justice. Agencies must analyze the environmental effects (*ie*, human health and economic and social effects) of their actions—including their effects on minority communities and low-income communities—when such analysis is required by NEPA. Also, agencies must provide opportunity for community input in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving the accessibility of meetings, crucial documents and notices.

Question 114: The Bush Administration froze funds for the Low Income Heating and Energy Assistance Program (LIHEAP). The NEPD Group has proposed making the future of the program contingent on oil/gas royalties. In fact, the Groups recommendations go as far as to direct the Secretary of Energy to raid weatherization programs to fund LIHEAP. This program directly affects my constituents - people in dire need. Why would your group recommend risking funds for this program when it is so worthwhile.

Answer: The NEPD Group recommended that the President take steps to mitigate the impacts of high energy costs on low-income consumers. The President understands the real impacts of high energy prices on families. As part of its support for LIHEAP, the National Energy Policy recommends that Congress enact legislation that would allow the use of oil and gas royalty payments to bolster LIHEAP funding whenever oil and natural gas prices exceed certain prices. The Administration wants to work with the Congress to determine the appropriate trigger prices or the formula for determining them.

Question 115: The NEPD Group recommends what looks to be national electricity deregulation to increase competition. In light of the FERC's inability to live up to its responsibilities to ensure "just and reasonable" prices, how can we ensure that the price gouging of the West doesn't spread nationwide?

Answer: It is difficult to draw a general conclusion about deregulation from the California example. The risk that the California experience will repeat itself is low, since other states have not modeled their retail competition plan on the California model.

Question 116: The Federal budget proposed by President Bush cut research for renewables, which would increase electricity generation and protect our environment. At the same time, the NEPD group recommends an increase in the Administration's requested funding for renewable research. How can you explain this discrepancy?

Answer: One NEPD recommendation was that the President should direct the Secretary of Energy to conduct a comprehensive review of current funding and historic performance of renewable and alternative energy research. The President is committed to increasing America's use of renewable and alternative energy. Additionally, the Administration has found that congressional action to add significant energy efficiency and renewables funding above the President's Fiscal Year 2002 Budget request on both the Fiscal Year 2002 Energy and Water and Interior and Related Agencies Appropriations bills, is consistent with and largely supportive of the NEPD recommendations. The Administration looks forward to working with Congress to ensure allocation of resources to those programs that most effectively meet performance-based criteria, and to fund the most efficient program alternatives by reducing lower priority program resources.

Question 117: According to scientists throughout the world, your recommendations are sure to cause an increase in global warming. Yet, you make no mention about the climate in your policy discussion. Was this issue addressed during the NEPD Group's meetings? How will you ensure that the policy's actions don't increase greenhouse gas emissions?

Answer: The primary focus of the Administration on global warming is being addressed through the cabinet-level Global Climate Change Task Force which is currently assessing the science and potential actions to address the issue. While global warming was discussed in the processes of developing the National Energy Policy, the NEPD consciously deferred dealing with this issue because of the more comprehensive analysis on global climate change being conducted. There are a number of major elements in the National Energy Policy, however, that will help address global climate change including the major emphases on energy conservation, natural gas, clean coal technology, nuclear energy, and alternative energy sources such as wind, geothermal and solar power.

Question 118: One of the proposals that the NEPD Group put forth requires the Secretary of Transportation to provide Corporate Average Fuel Economy (CAFE) standards that will not negatively affect the auto industry. The Report says nothing about how the CAFE standards affect the environment, or about the Environmental Protection Agency's participation in the determination of those standards. How will you ensure that the Secretary of Transportation takes into consideration the environmental impacts of the CAFE standards?

Answer: This question relates directly to a recommendation made by the NEPD that the President has tasked to the Secretary of Transportation. The Secretary of Transportation must craft CAFE standards that increase efficiency without adversely affecting the automotive industry. The President believes that environmental protection and economic growth are not mutually exclusive.

Question 119: The NEPD Group's recommendations strongly support the expedited use of nuclear energy. How can the Administration endorse such a plan when we have not yet found a safe way of disposing of spent nuclear rods?

Answer: I will have to defer to the Department of Energy on this issue.

(WILSON) Bureau of Reclamation and the Middle Rio Grande Conservancy District

Question 120: As you know, the New Mexico office of the Bureau of Reclamation loaned the Middle Rio Grande Conservancy District money for work on the Middle

Rio Grande Project in 1951 and the San Juan–Chama Project; both projects involved District irrigation improvements and water. The Middle Rio Grande Conservancy District paid off the first loan last year. It recently tried to pay off the San Juan–Chama loan, but the Bureau refused to accept the payment and claimed indefinite control over these projects. This in effect Federalizes the control of local water rights, whether intended or not. Will you direct the local office of the Bureau to accept complete repayment for the loan?

Answer: The Reclamation decisions carried out by the local office were discussed and supported by the highest levels of Reclamation and the Department. The Reclamation Act does not authorize Reclamation to issue loans. Rather, in the Reclamation Act, Congress authorized the funding and construction of Federal Reclamation projects and provided that the dams and reservoirs that make up those Federal projects would remain in Federal ownership until Congress provided otherwise. Thus, when Congress authorized the Federal Middle Rio Grande Project in 1948, it did not provide a situation where lands and facilities would be held as collateral for a loan, but rather was creating a Federal Reclamation project which would remain in Federal ownership until Congress made other provision. Consequently, the repayment of construction costs is not the equivalent of a mortgage payment but instead is the price paid for water delivery from Federal facilities.

Additionally, the Reclamation laws impose conditions upon those who enter into contracts for Reclamation water. Those conditions include price and acreage limitations in order to control the benefits provided by Reclamation projects and ensure they are provided to the largest number of people possible. Therefore, Congress also placed stringent conditions upon the repayment of construction obligations and the termination of price and acreage limitations.

In 1951, the Middle Rio Grande Conservancy District (MRGCD) contracted to repay, without interest, the reimbursable costs of the Middle Rio Grande Project. In 1963, that contract was amended to include repayment, without interest, of costs related to a supplemental water supply from the San Juan–Chama (SJ–C) Project.

Acting pursuant to authority provided to the Secretary by Congress in 1962, Reclamation constructed the SJ–C Project to furnish irrigation water to Native Americans, Pueblo lands, and other lands within MRGCD. Additionally, the SJ–C Project provides water for municipal and industrial purposes and recreation and fish and wildlife benefits in New Mexico. The SJ–C Project is a transbasin diversion which helps to satisfy New Mexico's entitlement to water from the Colorado River and helps meet the increasing demands in the Rio Grande basin.

In 2000, MRGCD completed repayment for the Middle Rio Grande Project portion of its contract but has until 2022 to repay the approximately $2.4 million balance on the San Juan–Chama Project portion.

On May 14, 2001, MRGCD attempted to present Reclamation with a check for the remainder of San Juan–Chama Project costs. After consultation with the Department's Solicitors, Reclamation declined to accept payment because Section 213[1] of the Reclamation Reform Act of 1982 (RRA) precludes lump sum or accelerated repayment by water users unless specifically provided for in a contract existing prior to enactment of the RRA. MRGCD's contract requires repayment in 50 consecutive annual installments ending in 2022 and makes no provision for lump sum or accelerated repayment. Legislative action is therefore necessary before Reclamation can accept complete repayment.

MRGCD has stated publicly that its objective is to terminate Contract No. I78r–243 and obtain title to Project lands and facilities in order to remove the Federal presence from the Middle Rio Grande Project. An exemption from Section 213 authorizing early payout would not accomplish this objective because Reclamation law requires that title to project lands and facilities must remain in the name of the United States until Congress provides otherwise.

Question 121: The local Bureau of Reclamation office has refused to accept repayment of a Federal loan from the Middle Rio Grande Conservancy District. This defies common sense. This position is unacceptable and may be contrary to law. Is this the official position of the Bush Administration or reflection of the local Bureau of Reclamation office policy? Do you support this policy or will you reverse the position of the local Bureau of Reclamation?

Answer: Reclamation and I share your view that interest-free loans should be recovered quickly whenever possible.

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[1] Section 213, Reclamation Reform Act of 1982 (96 Stat. 1269; 43 U.S.C. sec. 390mm), paragraph (c), states: (c) Nothing in this title shall be construed as authorizing or permitting lump sum or accelerated repayment of construction costs, except in the case of a repayment contract which is in effect upon the date of enactment of this Act and which provides for such lump sum or accelerated repayment by an individual or district.

Section 203 [Middle Rio Grande Project], Flood Control Act of 1948 (62 Stat. 1179)

> In carrying out the provisions of this Act, the Secretary of the Interior shall be governed by and have the powers conferred upon him by the Federal reclamation laws (Act of June 17, 1902, 32 Stat. 388), and Acts amendatory thereof or supplementary thereto, except as is otherwise provided in this Act or in the reports referred to above. This Act shall be deemed a supplement to said Federal reclamation laws.

Section 213 of the Reclamation Reform Act of 1982 (RRA) appears to leave Reclamation no administrative remedy to solve this problem without Congressional assistance. We believe that legislation exempting the District from Section 213 is necessary before Reclamation can accept their lump sum payment.

Even though a statutory exception from Section 213 and other provisions of the RRA could facilitate prepayment, such an exception alone will not achieve the District's publicly stated desires to terminate its contract and obtain title to project facilities.

Title to project facilities does not automatically transfer to the District when their contract is paid in full. Section 6, Reclamation Act of 1902 (32. Stat. 389, 43 U.S.C. sec. 491, 498), states:

> Provided, that when the payment required by this act are made for the major portion of the lands irrigated from the waters of any of the works herein provided for, then the management and operation of such irrigation works shall pass to the owners of the lands irrigated thereby, to be maintained at their expense under such form of organization and under such rules and regulations as may be acceptable to the Secretary of the Interior: Provided, that the title to and the management and operation of the reservoirs and works necessary for their protection and operation shall remain in the Government until otherwise provided by Congress.

This is also reiterated in Article 29 of the District's contract, which specifically states: "Title to all works constructed by the United States under this contract and to all such works as are conveyed to the United States by the provision hereof, shall, as provided in Article 26, be and continue to be vested in the name of the United States until otherwise provided for by Congress, notwithstanding the transfer hereafter of any such works to the District for operation and maintenance." I do not believe that current law allows this prepayment. Our management actions must continue to comply with the law.

Question 122: If the reason for the Bureau's policy is based on statute, it clearly has unintended consequences. Will you provide Congress with specific language that will allow us to correct this situation for the Middle Rio Grande Conservancy District?

Answer: We appreciate your willingness to seek a legislative remedy and are willing to work with your staff and the District to find a solution for this situation. Reclamation believes that legislation would be required in order to terminate MRGCD's contract without terminating water delivery. Reclamation also believes that legislation would be required before title to project lands and facilities could be transferred from the United States to MRGCD.

Termination of the contract and transfer of title to project facilities would reduce the Federal presence in the Middle Rio Grande Project. Termination of the contract would terminate MRGCD's right to receive water from both the Middle Rio Grande and the San–Juan Chama projects unless Congress deauthorized the projects and removed them from Reclamation law. Legislation which would fully accomplish this objective would be complex.

An exemption from Section 213 of the Reclamation Reform Act of 1982 (RRA) alone would not relieve MRGCD of all of the acreage limitation and reporting requirements of the RRA. Despite early payout, MRGCD would remain subject to acreage limitation and reporting requirements unless the legislation also exempted MRGCD from other portions of the RRA. A comprehensive exemption from RRA requirements might be viewed as precedent-setting.

The United States holds water rights for the six Native American Pueblos (Acts of February 14, 1927, March 13, 1928, August 27, 1935, and June 30, 1938). These rights are satisfied first through natural flow of the Rio Grande, but any deficiencies are made up through Rio Grande water stored in El Vado Reservoir under a 1981 agreement. Water is delivered to the Pueblos through facilities of the Middle Rio Grande Project. The Secretary of the Interior has a trust responsibility to the Pueblos associated with the Pueblos entitlement to receive water through project facilities to irrigate lands which were reclaimed under the Middle Rio Grande Project. A portion of the Pueblo right has first priority over any water right lands within MRGCD, and the water right for reclaimed Pueblo lands has priority equal to water delivered to other water right lands within MRGCD. Additionally, because the Mid-

dle Rio Grande Project facilities must continue to deliver Pueblo water, a portion of the Federal interest in the Middle Rio Grande facilities would survive title transfer.

The reach of the Middle Rio Grande from which MRGCD obtains its water supply is considered critical habitat for the endangered Rio Grande silvery minnow. In 1999 a coalition of environmental groups filed suit against the United States and MRGCD alleging violations of the Endangered Species Act (ESA) in the operation of the Middle Rio Grande Project. Authorization of early payout could impact the outcome of ongoing litigation in the Federal District Court for the District of New Mexico (CIV 99–1320–JP/RLP–ACE, Rio Grande Silvery Minnow vs. J. William McDonald, et al., and Middle Rio Grande Conservancy District)

Many municipal providers, such as the City of Albuquerque, receive a municipal and industrial water supply from the SJ–C Project and have repayment contracts with Reclamation similar to MRGCD's contract. Additionally, it would be inconsistent if MRGCD were the only entity to receive title transfer to any SJ–C Project facilities by repaying its portion of the construction obligation.

ATTACHMENT A

OCS Policy Committee Meeting (May 24, 2001)

The OCS Policy Committee is an independent advisory committee chartered under the Federal Advisory Committee Act to give the Secretary of the Interior advice on discretionary issues related to implementation of the OCS Lands Act. The members represent Governors of coastal States, local government, environmental interests, and the offshore oil and gas, minerals and fishing industries.

In October 2000, the OCS Policy Committee established a Natural Gas Subcommittee to independently review and evaluate information on natural gas, and then provide an assessment of the contribution the OCS can make to meeting the short term and long term natural gas needs of the United States within the framework of a national energy policy. The subcommittee forwarded its report with accompanying recommendations for consideration of the OCS Policy Committee on April 20, 2001.

Action Taken: The OCS Policy Committee on May 24, 2001 amended the Subcommittee recommendations and adopted the resolution to forward its amended recommendations to the Secretary of the Interior.

OCS POLICY COMMITTEE

Resolution of the OCS Policy Committee on Recommendations based on the Report from the Subcommittee on Natural Gas

In consideration of the duty of the Outer Continental Shelf (OCS) Policy Committee to provide policy guidance to the Secretary of the Interior on issues related to the management, protection, and development of mineral resources on the OCS, the following resolution is hereby adopted in Alexandria, Virginia on this 24th day of May, 2001;

WHEREAS, growth of U.S. consumptive demand for natural gas is currently of national interest, with projections as high as 30 trillion cubic feet (Tcf) of natural gas annually by the year 2015, representing a 50 percent increase over current national consumption;

NOTING that if the offshore is expected to maintain the same percentage contribution towards future U.S. gas consumption, the annual gas production from Federal waters will have to be increased to reach about 7 to 8 Tcf from its current level of 5 Tcf;

WHEREAS, the OCS Policy Committee established a Subcommittee to independently review and evaluate information on natural gas, and then provide an assessment of the contribution the OCS can make to meeting the short term and long term natural gas needs of the United States within the framework of a national energy policy; and

WHEREAS, the Subcommittee on Natural Gas, after careful review and due consideration of significant factors including resource, production, and demand projections; infrastructure; alternatives; the environmental safety record of, and current technologies and procedures used by, the offshore industry; leasing moratoria; safety and operational considerations unique to natural gas; and social impacts; has prepared a report that documents its review and offers recommendations; but does not evaluate energy, fuel, or building efficiencies and the roles these may play in the nation's energy needs over the next several decades; and

WHEREAS, the report of the Subcommittee will help guide the Secretary of the Interior and the Minerals Management Service (MMS) in identifying the role of the

OCS in addressing the natural gas needs of the nation by identifying potential issues and policy options;

NOW, THEREFORE BE IT RESOLVED by the OCS Policy Committee that the attached recommendations based on the Report of the Subcommittee on Natural Gas are approved and adopted by the OCS Policy Committee; and

Further, Be It Resolved, that the Secretary of the Interior is urged by the OCS Policy Committee to take timely action to implement the recommendations of this Committee.

Outer Continental Shelf Policy Committee
Chairman DONALD F. Oltz, Jr.

OCS POLICY COMMITTEE RECOMMENDATIONS BASED ON THE REPORT FROM THE SUBCOMMITTEE ON NATURAL GAS

MAY 24, 2001

After consideration of the available information concerning the supply and demand for energy in the U.S., the Policy Committee finds that natural gas should be considered as a significant part of an energy base, which includes alternatives and conservation programs. Recognizing that natural gas is only a portion of a national energy policy, the Policy Committee makes the following recommendations:

- The Outer Continental Shelf (OCS) should be viewed as a significant source for increased supply of natural gas to meet the national demand for the long term.
- Congressional funding to MMS and other critical agencies such as Fish and Wildlife Service, National Marine Fisheries Service, DOE, and EPA, should be assured to allow staff to accomplish the work necessary to increase production of natural gas in an environmentally sound manner from the OCS.
- Future production will have technical and economic challenges; therefore, following on the success of the deep water royalty relief program, MMS should develop economic incentives to encourage new drilling for natural gas in an environmentally sound manner in deep formations, subsalt formations, and in deep water. Such incentives should be considered for both new leases and existing leases to maximize the use of the existing natural gas infrastructure on the OCS.
- The MMS, in cooperation with industry, should encourage increased natural gas production in an environmentally sound manner from existing OCS leases.
- The Policy Committee supports the existing 5-year leasing program. However, the leasing process can be improved with increased congressional funding for mitigation, including impact assistance funds, revenue sharing, and local participation in the decisionmaking process.
- Encourage congressional funding for additional education and outreach regarding the leasing program.
- With regard to improving the leasing process, the Policy Committee also recommends that MMS:
  - * Include the mitigation of local social, cultural, and economic impacts within its policy determinations and recommendations.
  - * Consider how the Bureau can restructure its decisionmaking process to provide for greater input from local communities, including the opportunity for MMS, the industry, and local residents to attempt to reach agreement on controversial matters and how they should be adjusted, remedied, or mitigated—at specific times and places that various activities occur.
  - * Conduct a comparative assessment of environmental risk between offshore and onshore production, where onshore reserves exist in the same area as offshore reserves.
  - * Encourage operators to provide natural gas to the local communities in all areas.
- Specifically in Alaska,
  - * Give special consideration to local, social, cultural, and economic impacts in northern Alaskan communities, in light of the unique subsistence culture in, and the remoteness of, these communities.
  - * Adopt as a resource tool the 1994 NRC Committee report entitled "Environmental Information for Outer Continental Shelf Oil and Gas Decisions in Alaska" (National Academy Press, 1994).
- The MMS, partnering with DOE, should expand cooperative research with other agencies and industry seeking technical solutions to leading edge issues such as seismic imaging of subsalt areas and drilling in deep formations.

- The MMS, in cooperation with DOE, should encourage international cooperation in development of gas hydrates in an environmentally sound manner, with a goal of a pilot program in place within 10 years.
- A gas pipeline from Alaska to the lower 48 States would favorably encourage an increase in natural gas production by creating favorable economics for Federal OCS production in Alaska. The Policy Committee recommends that DOI work with other agencies to expedite all appropriate permit reviews for such a pipeline.
- To help develop information and enhance an informed public debate on whether or not there are grounds and support for a limited lifting of moratoria in existing moratoria areas, the MMS in consultation with industry and affected states, should identify the 5 top geologic plays in the moratoria areas, and if possible, the most prospective areas for natural gas in the plays that industry would likely explore if allowed. The following process would be used:
  * Encourage congressional funding to MMS for the acquisition of seismic data to assist in narrowing down prospective areas. It is important that these data be non-proprietary, which would be the case if acquired exclusively by MMS.
  * Encourage congressional funding for environment and social/human impacts studies for broad based or specific to 5 prospective geological plays.
  * Establish a site-specific stakeholder consultation process that would permit a sharing of information and discussion of concerns regarding the pilot areas.
- Although the following are not under the purview of the MMS and the Policy Committee, it is recommended that a national energy policy consider:
  * Continuing to expand and develop the national pipeline infrastructure, looking at corridor access, environmental, safety and regulatory issues, and capacity.
  * Encouraging dual fuel capacity for new electricity generating plants.
  * Encouraging the review by the Administration of cost-effective tax incentives to increase the production of natural gas.
  * Encouraging conservation and increasing efficiency in the use of natural gas, as a part of a national energy policy portfolio.

SUMMARY OF BUREAU APPROPRIATIONS
(all dollar amounts in thousands)

Comparison of 2002 Request with 2001 Enacted:

	2001 Enacted		2002 Reques		Change From 2001	
	FT	Amount	FT	Amount	FT	Amount
Appropriations						
Management of Lands and Resources	6,494	752,745	6,514	760,312	20	7,567
Wildland Fire Management	2,445	977,099	2,445	658,421	0	(318,678)
Central Hazardous Materials Fund	2	9,978	1	9,978	(1)	0
Construction	13	16,823	12	10,976	(1)	(5,847)
Payments in Lieu of Taxes	1	199,560	1	150,000	0	(49,560
Land Acquisition	34	56,545	33	47,686	(1)	(8,859)
Oregon & California Grant Lands	957	104,038	946	105,165	(11)	1,127
Range Improvements	58	10,000	58	10,000	0	0
Service Charges, Deposits & Forfeitur	103	7,484	103	7,484	0	0
Miscellaneous Trust Funds (Indefinite)	60	12,405	60	12,405	0	0
Subtotal, Appropriations	10,167	2,146,677	10,173	1,772,427	6	(374,250)
Permanents and Trusts						
Miscellaneous Trust Funds	13	1,595	13	1,595	0	0
Miscellaneous Permanent Appropriatio	0	19,419	0	133,610	0	114,191
Permanent Operating Funds						
Ops. & Main. of Quarters	2	155	2	155	0	0
Recreation Fee Collections	1	125	1	125	0	0
Recreation Fee Demonstration	71	7,500	71	8,000	0	500
Forest Ecosystems Health & Recovery	127	5,332	124	10,917	(3)	5,585
Expenses, Road Maintenance Deposits	21	2,999	21	2,999	0	0
Timber Sale Pipeline Restoration Fund	83	513	80	334	(3)	(179)
Southern Nevada Land Sales	10	50,575	10	50,575	0	0
Southern Nevada Earnings on Investme	0	1,737	0	2,752	0	1,015
Land Sales, Deshutes County	0	648	0	0	0	(648)
Lincoln County Land Sales	0	0	0	5,313	0	5,313
Interest, Lincoln County Land Sales Act	0	0	0	102	0	102
Commercial Film & Photography Fees	0	500	0	500	0	0
White River Oil Shale Mine (Utah Sale)	0	700	0	0	0	(700)

New Purchases/Land Sales	0	4,000	0	10,875	0	6,875
Subtotal, Perm. Operating Funds	315	74,784	309	92,647	(6)	17,863
Helium Fund	69	14,000	69	15,000	0	1,000
Offsetting Collection	0	(14,000)	0	(15,000)		(1,000)
Working Capital Fund	17	33,000	17	31,000	0	(2,000)
Offsetting Collection	0	(33,000)	0	(31,000)	0	2,000
Subtotal, Permanents and Trusts	414	95,798	408	227,852	(6)	132,054
Seasonal, Reimbursable & Other FTE	190	0	190	0	0	0
TOTAL, BUREAU OF LAND MANAGEME	10,771	2,242,475	10,771	2,000,279	0	(242,196)