AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

DOMESTIC NATURAL GAS SUPPLY AND DEMAND: THE CONTRIBUTION OF PUBLIC LANDS AND THE OCS

OVERSIGHT HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES

OF THE

COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

March 15, 2001

Serial No. 107-6

Printed for the use of the Committee on Resources

Available via the World Wide Web: http://www.access.gpo.gov/congress/house
or
Committee address: http://resourcescommittee.house.gov

U.S. GOVERNMENT PRINTING OFFICE

71-208 PS WASHINGTON : 2001

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2250 Mail: Stop SSOP, Washington, DC 20402–0001

COMMITTEE ON RESOURCES

JAMES V. HANSEN, Utah, *Chairman*
NICK J. RAHALL II, West Virginia, *Ranking Democrat Member*

Don Young, Alaska,
Vice Chairman
W.J. "Billy" Tauzin, Louisiana
Jim Saxton, New Jersey
Elton Gallegly, California
John J. Duncan, Jr., Tennessee
Joel Hefley, Colorado
Wayne T. Gilchrest, Maryland
Ken Calvert, California
Scott McInnis, Colorado
Richard W. Pombo, California
Barbara Cubin, Wyoming
George Radanovich, California
Walter B. Jones, Jr., North Carolina
Mac Thornberry, Texas
Chris Cannon, Utah
John E. Peterson, Pennsylvania
Bob Schaffer, Colorado
Jim Gibbons, Nevada
Mark E. Souder, Indiana
Greg Walden, Oregon
Michael K. Simpson, Idaho
Thomas G. Tancredo, Colorado
J.D. Hayworth, Arizona
C.L. "Butch" Otter, Idaho
Tom Osborne, Nebraska
Jeff Flake, Arizona
Dennis R. Rehberg, Montana

George Miller, California
Edward J. Markey, Massachusetts
Dale E. Kildee, Michigan
Peter A. DeFazio, Oregon
Eni F.H. Faleomavaega, American Samoa
Neil Abercrombie, Hawaii
Solomon P. Ortiz, Texas
Frank Pallone, Jr., New Jersey
Calvin M. Dooley, California
Robert A. Underwood, Guam
Adam Smith, Washington
Donna M. Christensen, Virgin Islands
Ron Kind, Wisconsin
Jay Inslee, Washington
Grace F. Napolitano, California
Tom Udall, New Mexico
Mark Udall, Colorado
Rush D. Holt, New Jersey
James P. McGovern, Massachusetts
Anibal Acevedo-Vila, Puerto Rico
Hilda L. Solis, California
Brad Carson, Oklahoma
Betty McCollum, Minnesota

Allen D. Freemyer, *Chief of Staff*
Lisa Pittman, *Chief Counsel*
Michael S. Twinchek, *Chief Clerk*
James H. Zoia, *Democrat Staff Director*
Jeff Petrich, *Democrat Chief Counsel*

SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES

BARBARA CUBIN, Wyoming, *Chairman*
RON KIND, Wisconsin, *Ranking Democrat Member*

W.J. "Billy" Tauzin, Louisiana
Mac Thornberry, Texas
Chris Cannon, Utah
Jim Gibbons, Nevada,
Vice Chairman
Thomas G. Tancredo, Colorado
C.L. "Butch" Otter, Idaho
Jeff Flake, Arizona
Dennis R. Rehberg, Montana

Nick J. Rahall II, West Virginia
Edward J. Markey, Massachusetts
Solomon P. Ortiz, Texas
Calvin M. Dooley, California
Jay Inslee, Washington
Grace F. Napolitano, California
Brad Carson, Oklahoma

CONTENTS

	Page
Hearing held on March 15, 2001	1
Statement of Members:	
Cubin, Hon. Barbara, a Representative in Congress from the State of Wyoming	1
Prepared statement of	3
Kind, Hon. Ron, a Representative in Congress from the State of Wisconsin	4
Prepared statement of	5
Markey, Hon. Edward J., a Representative in Congress from the State of Massachusetts	6
Otter, Hon. C.L. "Butch", a Representative in Congress from the State of Idaho, Prepared statement of	63
Statement of Witnesses:	
Alberswerth, David, Director, Bureau of Land Management Program, The Wilderness Society	91
Prepared statement of	94
Downey, Marlan W., President, American Association of Petroleum Geologists	75
Prepared statement of	77
Fisher, Robert W., President, Montana Petroleum Association, and Senior Vice President/Managing Partner, Ballard Petroleum Holdings, LLC	83
Prepared statement of	85
Hackett, James T., Chairman/President/Chief Executive Officer, Ocean Energy, Inc.	12
Prepared statement of	14
Papa, Mark, Chairman & CEO, EOG Resources	29
Prepared statement of	32
Simmons, Matthew R., President, Simmons & Company International	8
Prepared statement of	10
Speer, Lisa, Senior Policy Analyst, Natural Resources Defense Council	45
Prepared statement of	47
Additional materials supplied:	
Cavaney, Red, President and CEO, The American Petroleum Institute, Statement submitted for the record	114
Powder River Basin Resource Council, Statement submitted for the record	50

DOMESTIC NATURAL GAS SUPPLY AND DEMAND: THE CONTRIBUTION OF PUBLIC LANDS AND THE OCS

Thursday, March 15, 2001
House of Representatives
Subcommittee on Energy and Mineral Resources
Committee on Resources
Washington, DC

The Subcommittee met, pursuant to call, at 2:00 p.m., in Room 1334, Longworth House Office Building, Hon. Barbara Cubin [Chairman of the Subcommittee] presiding.

STATEMENT OF HON. BARBARA CUBIN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WYOMING

Mrs. CUBIN. The oversight hearing by the Subcommittee on Energy and Mineral Resources is meeting today to hear testimony on domestic natural gas supply and demand and the contribution of the public lands and the OCS.

Under rule 4(g) the Chairman and the Ranking Minority Member can make opening statements. If any other Members—and you can see there are so many up here, we really need to worry about it—have statements, we will include them in the record.

So, with that, our first hearing for the 107th Congress, we meet today in our oversight function for issues concerning public lands and mineral resources. Last week the full Resources Committee began this inquiry by looking at the role of our public lands and power marketing administrations to provide a broad spectrum of energy supplies. Our hearing today will focus upon the natural gas availability issues, both from onshore Federal mineral estate and from the outer continental shelf.

Fifteen months ago an advisory body to the Secretary of Energy completed a report entitled "Meeting the Challenges of the Nation's Growing Natural Gas Demand." This study examined demand-side projections and supply-side forecasts and concluded that coordinated action by the Federal Government will be necessary to stave off an impending imbalance. That was 15 months ago. That is, gas producers and pipelines may not be able to meet consumers' expectations for this fuel if we don't get our act together soon.

Perhaps the key recommendation of this panel was for the President to establish an interagency working group within the White House to bring industry representatives and various Executive

Branch agencies together to discuss the place for natural gas and an energy strategy for the Nation. The panel believed that interagency squabbles were inhibiting supply, particularly from Federal mineral estate in the West and on the outer continental shelves. A primary finding of the supply-side team was that while sufficient resources exist to meet growing demand well into the 21st century, many access restrictions are denying significant volumes of gas today, and will continue to do so unless administrative and/or legislative action to reduce permitting delays occurs.

I don't need to tell everyone what happened this winter, but the NPC guys look like they were pretty good forecasters, better than the local TV weathermen actually anyway, the ones that said that the 50-year storm was headed our way a week or two ago, and then we had a half an inch of snow here. So, the NPC did a good job. They warned of this problem by the end of this decade, and it is here now.

One of the President's first initiatives was to ask Vice President Cheney to lead an energy policy development group at the White House level. He will report on the current state of the Nation's energy situation and make recommendations for a national energy strategy. The Vice President's report is expected next month.

But, today I would like our Subcommittee to listen to the views of industry and economists and the environmental community about the role for natural gas. This energy source, nicknamed "the fuel of the future" by some of the past administrations, is an increasingly important fraction of our domestic demand. But unlike crude oil and refined petroleum products that we import by the tankerload, natural gas is a commodity that we must get from North American supplies by way of pipeline. Yes, there are a few mothballed LNG port facilities in this country, but even if they were refurbished and operating, it would still represent a small fraction of the demand. And the proposed reopening of just such a facility on the western shore of the Chesapeake Bay, right now, is causing concerns among Maryland officials because of the proximity to a nuclear power plant.

So, we are talking about getting our gas from the United States and Canadian sources, as Mexico is currently a net importer of natural gas. So far our neighbors to the north have been willing to sell us their gas from Western Canada and more recently from offshore of Nova Scotia. Still, this is not enough. Perhaps stranded gas from the North Slope of Alaska is finally becoming economic to transport to the lower 48 markets, but that gas won't make it here for several years to come at best.

But, significant amounts of the estimated natural gas resource base is on Federal land or the submerged lands beneath the Federal waters of the outer continental shelf. However, it seems more and more potentially resource-rich land and submerged lands in the United States are closed, both to assessment and/or development. Land withdrawals, development moratoria and regulatory restrictions on land use prohibit development of significant gas resources in areas like the eastern front of the Rocky Mountains, the eastern front of the Gulf of Mexico and almost all of the Atlantic and Pacific submerged lands. Likewise, many promising OCS

lands are off limits by an Executive Order and congressional moratoria or both.

Our charge is to learn what, if anything, we might do to foster exploration for natural gas in prospectively valuable areas of the public lands. Can we do it while we are still protecting the environment? Are trade-offs worth it to boost the usage of favored energy sources? What will happen to our national economy if we don't change the culture that has hamstrung permitting of resource extraction activities over the next decade?

These are the types of questions that we have to begin to address, and we will do that today at this hearing.

[The prepared statement of Mrs. Cubin follows:]

Statement of The Honorable Barbara Cubin, Chairman, Subcommittee on Energy and Mineral Resources

The Subcommittee meets today, in our inaugural hearing of the 107th Congress, in our oversight function for issues concerning public lands energy and mineral resources. Last week the full resources Committee began this inquiry by looking at the role of our public lands and power marketing administrations to provide a broad spectrum of energy supplies. Our hearing today will focus upon natural gas availability issues, both from onshore Federal mineral estate and from the outer continental shelf.

Fifteen months ago an advisory body to the Secretary of Energy completed a report entitled "Meeting the Challenges of the Nation's Growing Natural Gas Demand." This study examined demand-side projections and supply-side forecasts and concluded that coordinated action by the Federal Government will be necessary to stave off an impending imbalance. That is, gas producers and pipelines may not be able to meet consumers expectations for this fuel if we don't get our act together soon.

Perhaps the key recommendation of this panel was for the President to establish an Interagency Working Group within the White House to bring industry representatives and various Executive Branch agencies together to discuss the place for natural gas in an energy strategy for the nation. The panel believed that inter- agency squabbles were inhibiting supply, particularly from Federal mineral estate in the West and on the Outer Continental Shelves. A primary finding of the supply-side team was that while sufficient resources exist to meet growing demand well into the twenty-first century, many access restrictions are denying significant volumes of gas today, and will continue to do so unless administrative and/or legislative action to reduce permitting delays occurs.

I don't need to tell everyone what happened this winter, but the NPC guys look like pretty good forecasters. Better than the local TV weathermen anyway who said the 50-year storm was headed our way ten days ago and Washington got a quarter-inch of snow. The NPC warned of a problem by the end of this decade, and it is here now.

One of President Bush's first initiatives was to ask Vice President Cheney to lead an Energy Policy Development Group at the White House level. He will report on the current state of the nation's energy situation and to make recommendations for a national energy strategy. The Vice President's report is expected next month.

But, today I'd like our Subcommittee to listen to the views of industry and economists, and the environmental community about the role for natural gas. This energy source, nicknamed "the fuel of the future" by some in the past Administration, is an increasingly important fraction of our domestic demand. But, unlike crude oil and refined petroleum products we import by the tanker load, natural gas is a commodity we must get from North American supplies transported by pipeline. Yes, there are a few moth-balled liquefied natural gas (LNG) port facilities in this country, but even if they were refurbished and operating it would represent a small fraction of demand. And the proposed reopening of just such a facility on the western shore of the Chesapeake Bay is causing concerns among Maryland officials because of proximity to a nuclear power plant.

So, we are talking about getting our gas from U.S. and Canadian sources, as Mexico is currently a net importer of natural gas. So far our neighbors to the north have been willing to sell us their gas from western Canada and more recently from offshore of Nova Scotia. Still this is not enough. Perhaps stranded gas from the North

Slope of Alaska is finally becoming economic to transport to lower-48 markets, but that gas won't make it here for several years to come, at best.

But, significant amounts of the estimated natural gas resource base is on Federal land or the submerged lands beneath Federal waters of the outer continental shelf. However, it seems more and more potentially resource rich land and submerged lands in the United States, are closed to both assessment and/or development. Land withdrawals, development moratoria, and regulatory restrictions on land use prohibit development of significant gas resources in areas like the eastern front of the Rocky Mountains, the eastern Gulf of Mexico and almost all of the Atlantic and Pacific submerged lands. Likewise, many promising OCS areas are off-limits by Executive Order and Congressional moratoria both.

Our charge is to learn what, if anything, we might do to foster exploration for natural gas in prospectively valuable areas of the public lands. Can we do it while still protecting the environment? Are trade-offs worth it to boost the usage of this favored energy resource? What will happen to our national economy if we don't "change the culture" that has hamstrung permitting of resource extraction activities over the past decade? These are the types of questions we must begin to address at this hearing.

Mrs. CUBIN. The Chair would now like to recognize the Ranking Member, Mr. Kind.

STATEMENT OF HON. RON KIND, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WISCONSIN

Mr. KIND. Thank you, Madam Chair, and distinguished guests, and I am looking forward to what will hopefully prove to be a very productive Subcommittee in this session of Congress as we have a much needed and long overdue energy policy debate for our long-term energy needs in this country. And I think it is certainly timely, in light of the President's recent announcements regarding carbon dioxide emissions and allowing oil and gas exploration on all public lands, for the Subcommittee to take a closer look at the question of supply and demand of natural gas, and one of the cleaner and more abundant energy resources that we have available.

It is also disappointing to find the President reversing himself so early in his tenure on a campaign promise that he made to the American people to have power plants reduce carbon dioxide emissions in order to meet clean air standards. The President has acknowledged that global warming is one of the most important environmental challenges that we face, but instead of addressing that issue, he has turned his back on it.

It is equally disheartening to learn that he has stated that all public lands, even lands that have been set aside as national monuments, can be made available to oil and gas exploration.

This is not a good beginning for a rational and productive debate on national energy policy, I believe. The solution to this problem is not simply more supply at any cost, as the President's recent actions seem to imply. Instead, we need a comprehensive and coordinated strategic plan that incorporates conservation measures and wise use of our resources. The best interests of the American people and the oil and gas industry will be better served by a balanced policy that consists of promoting exploration and development where it is appropriate, while also protecting our natural heritage and biodiversity, and fostering conservation and developing alternative and renewable energy sources.

Certainly, natural gas will be a critical component of meeting those needs, and Federal lands have historically played a very large role in helping meet our needs, producing about 11 percent of the natural gas produced onshore in the United States, while the outer continental shelf currently accounts for more than 26 percent of the domestic natural gas production, with the Gulf of Mexico OCS producing on average over 5.1 trillion cubic feet of natural gas per year.

Further there has been, according to the Department, a nearly 60 percent increase in the production of natural gas on Federal onshore lands over the last 7 years, but I am concerned that some people believe that much of the Rocky Mountain area containing significant gas reserves are off limits or unreasonably restricted and therefore prevent oil and gas exploration and production. However, the vast majority of the restricted lands they cite are off limits only seasonally, to provide wildlife protection, for example. That is just not accurate to say there is no access to those lands or that somehow such restrictions prohibit production in the long run. Moreover, this line of reasoning appears to suggest that the oil and gas producers are in a better position than wildlife managers, for instance, many of whom are State fish and game professionals, to determine when exploration, drilling and production should occur in an environmentally sensitive manner.

If we are to continue America's economic growth and continue creating jobs and wealth across the country, we need the affordable, reliable energy that fuels our economy and supports our way of life. If necessary, Congress can develop cost-effective, environmentally sound mechanisms for increasing domestic supply, but increasing supply, especially by opening up protected areas such as national monuments or ANWR, is neither the only nor primary answer, I feel. Environmental concerns have to be addressed. We will not solve our energy problems by opening up currently protected areas or ignoring wildlife needs.

I thank the panelists for your testimony here today. I look forward to constructive engagement on these very important issues, and I thank the Chair for yielding me the time.

Mrs. CUBIN. Thank you, Mr. Kind.

[The prepared statement of Mr. Kind follows:]

Statement of The Honorable Ron Kind, Ranking Democrat, Subcommittee on Energy and Mineral Resources

Madame Chair, distinguished guests, it is certainly timely, in light of the President's recent announcements regarding carbon dioxide emissions and allowing oil and gas exploration on all public lands, for the Subcommittee to take a closer look at the question of supply and demand of natural gas, one of the cleaner and more abundant energy sources.

It is disappointing to find the President reversing himself so early in his tenure on a campaign promise he made to the American people to have power plants reduce carbon dioxide emissions in order to meet clean air standards. The President has acknowledged that global warming is one of the most important environmental challenges we face, but instead of addressing that issue; he has turned his back on it.

It is equally disheartening to learn that he has stated that all public lands—-even lands that have been set aside as national monuments—-can be made available to the oil and gas industry.

This is not a good beginning for a rational and productive debate on national energy policy. The solution to this problem is not simply more supply at any cost as the President's recent actions seem to imply. Instead, we need a comprehensive

and coordinated strategic plan that incorporates conservation, and wise use of our resources.

The best interest of the American people and the oil and gas industry will be better served by a balanced policy that consists of promoting exploration and development where appropriate, while also protecting our natural heritage and bio- diversity, and fostering conservation and developing alternative energy sources.

Certainly natural gas will be a critical component of meeting those needs. Presently natural gas provides nearly a quarter of the Nation's energy needs. The Energy Information Agency, National Petroleum Council, Gas Research Institute, and others forecast significant increases in future domestic gas demand to as much as 29 trillion cubic feet by 2010.

According to the Department of the Interior, the U.S. is mostly self-sufficient in meeting an annual domestic demand for 22 trillion cubic feet of natural gas, of which the United States imports 3.4 trillion cubic feet almost exclusively from Canada.

Federal lands have historically played a large role in helping meet our needs, producing about 11 percent of the natural gas produced onshore in the United States while the Outer Continental Shelf currently accounts for more than 26 percent of domestic natural gas production, with the Gulf of Mexico OCS producing, on average, over 5.1 trillion cubic feet of natural gas per year. Further, there has been, according to the Department, a nearly 60 percent increase in the production of natural gas on Federal onshore lands over the past 7 years.

Within the North Slope of Alaska, the Minerals Management Service estimates that there is more than 26 trillion cubic feet of stranded natural gas reserves. This equals nearly 21 percent of the total proven onshore and offshore reserves of the Lower 48 States. The entire gas endowment of Prudhoe Bay has been cycled through the oil field infrastructure since 1977 to enhance oil recovery. Gross gas production on the North Slope in 1999 averaged 8.7 billion cubic feet per day that is just 1 billion cubic feet less than total net imports to the US in 1999. Until we can transport this gas to the Lower 48, it is premature to even discuss exploration in ANWR.

But I am concerned that some of our witnesses today believe that much of the Rocky Mountain area containing significant gas reserves are off-limits or unreasonably restricted and therefore prevent oil and gas production. However, the vast majority of the "restricted" lands they cite are off-limits seasonally, for example, to provide wildlife protection.

It is not accurate to say that there is no access to those lands, or that somehow such restrictions prohibit production in the long run. Moreover, this line of reasoning appears to suggest that oil and gas producers are in a better position than wildlife managers—many of who are state fish and game professionals—to determine when exploration, drilling and production should occur in an environmentally sensitive manner.

If we are to continue America's economic growth and continue creating jobs and wealth across the country, we need the affordable, reliable energy that fuels our economy and supports our way of life. If necessary Congress can develop cost-effective, environmentally sound mechanisms for increasing domestic supply. But, increasing supply—-especially by opening up protected areas, such as national monuments or ANWR—-is neither the only nor the primary answer. Environmental concerns must be addressed; we will not solve our energy problems by opening up currently protected areas or ignoring wildlife needs.

Mrs. CUBIN. As the Committee knows, the rules are that only the Chair and the Ranking Member give opening statements, but since there are so few of us here, if any other Members would like to give an opening statement, I would like to welcome them to do that.

Mr. Markey.

STATEMENT OF HON. EDWARD J. MARKEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MASSACHUSETTS

Mr. MARKEY. Thank you, Madam Chair, very much. I see from press reports just two days ago that President Bush called for allowing drilling for oil and gas on all public lands, including some areas presently designated as national monuments. So I suppose we soon may have to rename some of our national monuments to

reflect their new status. The Statue of Liberty National Monument, for example, could become the Statue of Fossil Fuels Production National Monument, with an actual flame burning on the top of the torch. What an inspiring symbol that would be of the Bush Administration's public lands policy. Of course, we would have to change the inscription to read, give me your drill bits, your rigs, your huddled oil companies yearning to drill free, to dump their wretched refuse on our pristine shores. Send your well-heeled executives to me. I lift their lamps besides their golden doors.

Mrs. CUBIN. He means well.

Mr. MARKEY. Now I am told in looking at this great threat that exists in the lower 48 that we have 1,466 trillion cubic feet of natural gas that unfortunately cannot be exploited, which is really a shame when you hear about it, you know. Sounds like a great tragedy and a loss, and we probably would become completely energy-dependent on OPEC. But the closer you look at the numbers, Madam Chair, you find out that 1,361 of the 1,466 are now accessible, but the obsession, of course, is with the 105 that are not accessible, and I guess the question is, why don't they go after the 1,361 trillion cubic feet first which have yet to be exploited before we have the debate over the 105? And I think that those are the issues, that is, the sequencing of the drilling, that have to be dealt with first.

We know that this 30- to 40 trillion cubic feet of natural gas in Prudhoe Bay in Alaska that we all agree should be exploited. There is between 60- and 100 trillion cubic feet of natural gas off of Nova Scotia. There are scores of trillions of cubic feet down in Trinidad that we could create a policy for liquefying to bring into the East and gulf coast of the United States to deal with that issue.

And I think these hearings are going to help us put together a comprehensive policy where we are looking at all of these sources in a way that I think is going to minimize this final 100- or 150 trillion cubic feet and realize that we can solve the problem if we use our heads in working together in a bipartisan fashion as we did in Alaska where the environmental impact statement was actually approved 18 years ago to bring down the natural gas from Alaska, but yet the industry hasn't built the pipeline yet. And I think the first set of questions have to go to them so they can tell us why they haven't built the pipelines where it is already approved before we open up the most sacred lands in our country.

I thank you, Madam Chair.

Mrs. CUBIN. Certainly welcome your comments, Mr. Markey, anytime.

Mrs. CUBIN. The Chair now would like to introduce the first panel: Matthew Simmons, the President of Simmons and Company International; Mr. James Hackett, Chairman, President and Chief Executive Officer of Ocean Energy, Inc.; Mark Papa, Chairman and CEO of EOG Resources; and Lisa Speer, Staff Attorney for Natural Resources Defense Council. I will first call on Mr. Simmons.

The Chair would like to remind you that your entire statement will be included in the record, and if you would please limit your oral presentation to five minutes.

STATEMENT OF MATTHEW R. SIMMONS, PRESIDENT, SIMMONS & COMPANY INTERNATIONAL

Mr. SIMMONS. I commend this Committee for having this hearing today. The current supply-demand balance for North American natural gas is precarious. Supply has now fallen behind demand, and to make up this shortfall the country has withdrawn record amounts of natural gas storage, leaving us already at record low levels of gas storage with still weeks of cold weather still probably to come before the industry begins an arduous task of trying to refill its storage system before the summer air conditioning gas needs kick in.

Drilling for natural gas is at the highest level since the drilling collapse of 1982, yet thus far there has been no supply response. Canada is a year ahead of the U.S. in setting new records for gas drilling, but has also yet to see any significant supply response. There is a widespread hope that this supply response is just around the corner, but a growing number of industry experts, particularly those actually drilling these record number of wells, are beginning to question whether the current rig fleet and acreage available for drilling are adequate to create significant supply additions beyond the current base.

There is a distinct possibility that five years hence North American natural gas supply base will be less than what we enjoy today.

A week ago the Department of Energy held a 2-day workshop to review the natural gas industry today pursuant to the various assumptions that went into creating the NPC report on natural gas's long-term outlook. The findings were grim. Demand is outpacing the NPC estimates, while supply lags. A rig shortage has emerged some five to seven years earlier than the NPC report envisioned. People shortages are now becoming severe. Access to potential added gas reserves have been even more restricted. More troublesome is the fact that more new natural gas-fired power plants are now on order to be online by 2002 than the NPC model assumed would be onstream by 2010. Few have any plants or facilities for any fuel-switching capability.

This adds up to a possible need for up to 30 TCF of natural gas by as early as 2005. Adding so much supply is impossible. Reaching the 30 TCF market even in 2010 is a question. There is a risk that many parts of our country could be short of electricity capacity for up to a decade. Nothing highlights the urgency of finding fresh supplies of natural gas more than the prospect of long-term electricity rationing.

The natural gas supply is particularly threatened by increasing evidence that the current supply base is now declining at a rate where half the current supply will be consumed by 2005. This means that 50 percent or 25 BCF of gas per day of new gas production needs to be added merely to keep the current supply base flat. In this context it is hard to exaggerate the importance of OCS energy resources.

Natural gas from our continental shelf makes up 25 percent of domestic supply; 85 percent of this comes from the Gulf of Mexico shelf, the balance from deep water, but the shelf supply has one of the country's highest decline rates. What is now 11 BCF a day will likely decline to only 3 BCF a day by 2005. Whether this can

realistically be replaced by ever higher drilling activity in this mature area is questionable for two reasons.

First, the number of offshore rigs is now near a 100 percent utilization. Second, the finds each year are diminishing. Deepwater gas is growing from almost nothing at the start of the 1990s to over 2 BCF a day and projected to grow as high as 5 by 2005. If these aggressive targets were met, they would still only account for 10 percent of the U.S. Supply base.

But complex technical issues to develop these deepwater resources still remain unsolved. Leading this list is an ability to strip associated gas from deepwater oil and how to transport this dry gas from water depths up to 10,000 feet. This highlights and underscores the importance of developing natural gas reserves in the highly gas-prone part, eastern part of the Gulf, an area that has been off limits to any hydrocarbon exploration for over a decade.

The Clinton Administration placed a moratorium on any lease sales in the eastern portion of the Gulf through 2012 with the exception of a block of acreage planned for leasing this December. Lease Sale 181 is critical to help resolve America's pending natural gas crisis. It is extremely important to prevent Florida and Georgia from experiencing the awful energy problems now facing California.

The Rocky Mountain States are another critically important area, but 40 percent of their reserves lie in Federal lands currently unavailable for any development. Much of these remaining reserves are burdened by cumbersome and lengthy permitting delays and other restrictions.

Alaskan natural gas has suddenly become another critical portion of our fragile energy equation. For the past 30 years Alaskan energy just simply meant oil. Now Arctic gas could become invaluable.

The Department of the Interior is about to begin a careful and detailed inventory of onshore natural gas potential. This inventory needs to be extended to the entire offshore waters of the U.S. Whether or not any of the potential reserves get developed is another issue, but unless an effort is made to test the potential, the country will never know how much natural gas we might have.

Despite record levels of the drilling and remarkable technology advances and safer and more efficient drilling, the amount of exploration wells has fallen to less than 10 percent of wells drilled, and the exploration success is still less than 35 percent. The cost to drill new wells is rising even though drilling economics are not good enough to justify contractors building new rigs.

Unless these problems are tackled quickly, America faces a genuine energy crisis that could last for over a decade. As natural gas becomes even more scarce, energy wars could erupt between various States reminiscent of the water wars between the Western States when the Colorado River dam system was created. These are unpleasant comments to make at such an important congressional hearing, but they are real issues, and they are serious issues. I appreciate the opportunity of sharing these concerns with this Committee.

Mrs. CUBIN. Thank you, Mr. Simmons.

[The prepared statement of Mr. Simmons follows:]

Statement of Matthew R. Simmons, President, Simmons & Company International

I am Matthew Simmons, President of Simmons & Company International, a specialized energy investment bank. I have spent the past 28 years focusing exclusively on energy related investment banking and research. I am a member of the National Petroleum Council and was a member of the Bush-Cheney Energy Transition Advisory Committee. I also am a past Chairman of the National Ocean Industry Association. I served as the Demand Task Force Chairman on the National Petroleum Council's extremely important review of natural gas and the challenges we face in addressing a future market likely to exceed 30 TCF per year.

I commend this Committee for holding these hearings today. The current supply demand balance for North American natural gas is precarious. Over the course of the past year, supply has fallen behind demand despite a significant number of natural gas users abandoning this precious fuel source because its price has soared. To make up this shortfall, the country has withdrawn record amounts from natural gas storage facilities. The country now has the lowest amount of gas storage in modern history with weeks of cold weather probably still to come before the industry begins the arduous task of trying to re-fill its storage system before the summer air-conditioning gas needs kick in.

Drilling for natural gas is at the highest levels since drilling collapsed in 1982. Yet, thus far, there has been no supply response. Canada is a year ahead of the United States in setting new records for gas drilling, but has also yet to see any supply response.

There is a widespread belief, or at least a hope, that such a supply response will arrive shortly. But a growing number of industry experts, particularly those actually drilling these record number of wells, are beginning to question whether the current rig fleet and acreage available for drilling are adequate to create significant supply additions beyond the current production base. There is a distinct possibility that five years hence, North America's natural gas supply base will be less than what we enjoy today.

A week ago, the Department of Energy held a two-day workshop to review the natural gas industry today, pursuant to the various assumptions that went into creating the NPC report on natural gas long term outlook which was published just over a year ago. The findings were grim. Demand is outpacing the NPC estimates while supplies lag. A rig shortage is emerging some five to 7 years earlier than the NPC reported envisioned. People shortages are now becoming severe. Access to potential added gas reserves has been even more restricted, particularly with the new roadless policies and the potential challenge to the important upcoming lease sale in the Eastern portion of the Gulf of Mexico.

More troublesome is the fact that more new natural gas-fired power plants are now on order to be on-line by 2002 than the NPC model assumed would be on-stream by 2010! Few have any plans or facilities for any fuel-switching capability. There is growing evidence, or at least strong suspicion, that many of these new gas-fired plants were originally built as merely peaking plants but now will be forced to become defacto quasi-base load plants in an electricity generation scarcity world.

This adds up to a possible need for up to 30 TCF of natural gas by as early as 2005. Unless a supply miracle soon arrives, the Nation's ability to increase its use of electricity is severely threatened. There is a risk that many parts of our country could be short of electricity capacity for up to a decade. Nothing highlights the urgency of finding fresh supplies of natural gas more than the prospect of long term electricity rationing.

The natural gas supply is particularly threatened by increasing evidence that the current supply base is now declining at a rate where half of the current supply will be consumed by 2005. This means that 50 percent, or 25 BCF per day of new gas production needs to be added merely to keep the current base flat.

THE IMPORTANCE OF OCS RESOURCES

Natural gas from our Outer Continental Shelf remains the backbone of our domestic supply. Over 13 BCF per day come from these waters, making up about 25 percent of total domestic supply. 85 percent of this supply comes from the Gulf of Mexico's shelf. The balance comes from deep water gas. The supply from the shelf has one of the country's highest decline rates. What is now 11 BCF per day will likely decline to only three BCF per day by 2005. Whether this can realistically be replaced by ever higher drilling activity in this mature area is questionable for two reasons. First, the number of offshore rigs is now at near 100 percent utilization. Second, the finds each year are diminishing.

Deepwater gas has grown from almost nothing at the start of the 1990's to over two BCF per day today and is projected to grow to as high as five BCF per day by 2005. If these aggressive targets were met, they would still only account for 10 percent of the U.S. base in 2000. Furthermore, some complex technical issues still remain unsolved. Leading this list is an ability to strip associated gas from deepwater oil and how to transport this dry gas from water depths up to 10,000 feet.

This highlights and underscores the importance of developing the natural gas reserves in the eastern part of the Gulf, an area that has been off-limits to any hydrocarbon exploration for over a decade. The Clinton Administration placed a moratorium on any lease sales in the eastern portion of the Gulf through 2012 with the exception of a block of acreage planned for leasing this December. Lease Sale 181 is critical to help resolve America's pending natural gas crisis. It is extremely important to prevent Florida and Georgia from also experiencing the awful energy problems now facing California.

FEDERAL LANDS ARE ALSO CRITICALLY IMPORTANT

The Rocky Mountain states represent another critically important gas prone area. But, 40 percent of their potential gas reserves lie in Federal Lands currently unavailable for any development. Much of the remaining reserves are burdened by cumbersome and lengthy permitting delays and other restrictions.

Alaskan natural gas has suddenly become another critical part of our fragile energy equation. For the past 30 years, Alaskan energy meant simply oil. Now, its potentially vast gas resources are an important resource. But to get this gas out of the ground, wells need to be drilled in areas beyond the Prudhoe Bay region because much of this area's gas may need to be re-injected to prop up a sagging, old oil production. This puts added emphasis on the importance of opening up ANWR and promptly resolving the pipeline route and considering the possibility of constructing two pipelines so both Alaskan and Beaufort Sea gas can be transported to a gas hungry USA.

The Department of Interior is about to begin a careful and detailed inventory of onshore natural gas reserve potential. This exercise is extremely important but it also needs to be extended to the entire offshore waters of the U.S. Whether any of the potential reserves this inventory might uncover get developed is another issue, but unless an effort is made to test the potential, the country will never know how much natural gas we might have available to curtail a terrible risk to our economy's well being.

Natural gas is the most precious energy source in North America. It is the most environmentally friendly real energy source we have. There is no geo-political risk to this energy supply. But getting it produced is a difficult task, even if all access problems are quickly resolved.

Despite record levels of drilling and remarkable technology advances in safer and more efficient drilling, the amount of exploration wells has fallen to less than 10 percent of all wells drilled, and the exploration success rate is still less than 35 percent. This means that 65 of every 100 exploratory wells drilled fail. The cost to drill new wells is rising even though drilling economics are not good enough to justify contractors building new rigs or paying wages high enough to attract a new generation of people to operate the rigs and develop the prospects.

Unless these problems are tackled quickly, America faces a genuine energy crisis that could last for over a decade. Even if the problems of access are resolved, it might be too late to avoid a crisis for the next several years. But, any delay in resolving all the obstacles to growing fresh gas supplies merely extend and increase the crisis.

As natural gas supply becomes ever more scarce, energy wars could erupt between various states reminiscent of the water wars between western states as the Colorado river dam system was created. Texas, for instance, has done a remarkably good job in building ample new gas-fired power plants to safely supply its growing electricity needs. But as these plants come on-line, more and more of Texas natural gas supply needs to stay within Texas. This will cutoff supplies which other states now take for granted.

These are unpleasant comments to make at such an important congressional hearing but they are real issues and serious issues. I appreciate the opportunity to share my concerns with this Committee and urge all of you to help resolve this crisis.

Mrs. CUBIN. The Chair now recognizes Mr. Hackett to testify.

STATEMENT OF JAMES T. HACKETT, CHAIRMAN/PRESIDENT/ CHIEF EXECUTIVE OFFICER, OCEAN ENERGY, INC.

Mr. HACKETT. Thank you, Madam Chairman. On behalf of the 22 companies that are part of the Domestic Petroleum Council, independent oil and gas companies, I want to give some comments about the situation we are facing, and I am going to skip around a little bit, given Matt's summary at the beginning.

On page 4, if you would, the Department of Energy-sponsored NPC study concluded that the North American natural gas resource base is sufficient to meet the projected growth and demand for natural gas, which Congressman Markey remarked as well. However, this ability is very dependent on industry and government positively addressing seven key challenges, which are in front of you on the slide on top. Access to resources tops this list.

Page 5 shows that access to the resource base and to rights of way for infrastructure is critical for sustainable supply. Of the lower 48 resource base cited in the NPC study, approximately 47 percent is owned by the Federal Government. But the resource base under Federal Government lands is far more critical than that percentage might imply.

The map illustrates the total lower 48 natural gas resource base and the percentages of it that are either completely off limits or importantly is access-restricted according to the NPC study. As can be seen on the map on page 6, a significant portion of the Rocky Mountain area, including some 76 percent of the natural gas resources, is owned by the Federal Government.

Let me give you some examples of restrictions that we believe can and must be dealt with.

Last year Bureau of Land Management officials in New Mexico announced new criteria for approval of applications for permits to drill in the San Juan Basin, while the BLM conducted a new environmental impact statement in preparation for updating its resource management plan. Had the criteria, including announced moratoria on some applications, been put into effect as announced, critical California gas supply from this mature producing area would have been lost in the recent crisis.

Another prime example of this type of regulatory problem is illustrated by the time line chart you see on page 7 for BLM lands in southwest Wyoming. With the layering of wildlife protection and other environmental restrictions, you can see that there are only limited periods in which necessary gas exploration and production drilling by the industry can occur.

Much of the land we are discussing is like that shown on page 8 at the top in Wyoming. With our current technology we can explore and produce gas on these lands with much smaller drilling locations. Also improved geoscience technology allows us to better target promising geologic formations below ground so we drill fewer wells to develop larger producing fields, but we still must drill to find and produce gas. Then we must and do reclaim the land back to its original condition.

Now, an important word about the offshore appears on page 9. As the NPC study pointed out and Matt referred to, as we in our industry know, with two of our three coasts completely off limits to exploration and production, the Gulf of Mexico, including its

deep waters, will be crucial in meeting gas demand. Lease Sale 181 in the eastern Gulf of Mexico scheduled for December of this year provides a good example of what we need to be doing. It alone can make a significant contribution to providing natural gas to the Nation and the surrounding region to meet increasing electricity generation needs with a more clean-burning and environmentally safe fuel than any other alternative.

The chart on page 10 illustrates the NPC's projection of the impact of access restrictions in the eastern Gulf of Mexico. Shown here on the bottom red line is the impact if Sale 181 does not happen. Our Nation will suffer if the sale doesn't proceed as planned.

Page 11 shows that over the past decade production from the wells we have drilled every year has declined more sharply. This means that the number of wells to be drilled will have to increase even beyond current high levels to meet projected demand. This can only be achieved through billions of dollars of investments by companies such as ours, but it will be a limited exercise without greater access to the U.S. resource base.

As shown on page 13, producers are responding to market signals by spending billions of dollars putting additional gas rigs to work to meet consumer demand, but this pace will decelerate without more access to new inventory.

On page 14 appear our recommendations to the administration about several steps to be taken to seek better coordination of energy permitting.

In addition, on page 15 we support the ongoing congressionally mandated inventory of energy resources on Federal Government lands, but it needs to be expedited. Even more importantly, Congress and the administration should use the time during which the inventory is being undertaken to consider whether there should be a simplified process to allow States and their congressional delegations to seek removal of the access restrictions where there is little or no other benefit from the restriction, but the very real detriment of not producing critically needed energy supplies. The U.S. Government also needs to improve permitting processes and coordination.

I appreciate the opportunity to be with you to discuss the Nation's energy challenges. All of us that are producers care as much about consumers as we do about producers. We are one of both. Thank you.

Mrs. CUBIN. Thank you, Mr. Hackett.

[The prepared statement of Mr. Hackett follows:]

Testimony of

James T. Hackett
Chairman, President and CEO
Ocean Energy, Inc.

on behalf of the
Domestic Petroleum Council

before the
House Resources
Subcommittee on
Energy and Mineral Resources

March 15, 2001

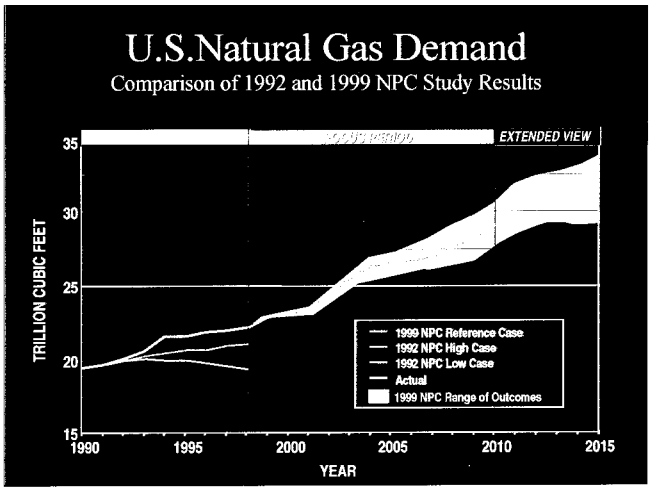
Good afternoon. I'm James T. Hackett, Chairman, President and CEO of Ocean Energy, Inc.

Ocean Energy is a Houston-based independent oil and gas exploration and production company with a market capitalization of $4.5 billion dollars. Two thirds of its reserves and production are in the United States. It has a large commitment to growing our natural resource base as it spends nearly $1 billion dollars in 2001 on exploration and development, especially deepwater drilling in the Gulf of Mexico. Drilling in these water depths(of up to two miles deep) costs from $20 to $100 million dollars per well.

On behalf of the twenty-two large U.S. independent natural gas and oil exploration and production companies of the Domestic Petroleum Council, thank you for inviting us to be here today to discuss the importance of access to federal government lands if we, as a nation, are to have the future natural gas supplies that will power the new internet economy and fuel our industry, and keep our homes and businesses warm in the winter and cool in the summer.

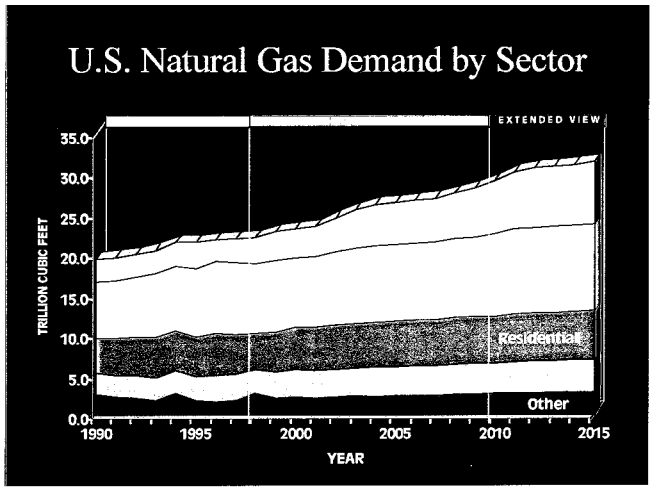
The DPC companies are all very concerned about this issue. We produce one-fifth or more of the nation's natural gas. We are responsible for most of the wells that U.S. independents drill. We know as well as anyone the challenge we face in having access to the gas resources we'll need to find and produce in the future.

I'll cite examples of that challenge, and some policy and implementation changes that will help us meet it.



First, let's remember that we are facing a U.S. natural gas demand increase of more than 30% by the year 2010, according to the 1999 natural gas study of the National Petroleum Council that was requested by the U.S. Department of Energy.

The last study of this type was conducted in 1992 and, as is shown here, the growth in demand for this clean-burning fuel was underestimated. It is still early to predict, but it is very possible that once again demand projections are conservative. There are recent indications that natural gas demand could be even stronger than the latest NPC projections.



Of the annual 7 trillion cubic feet (TCF) increase in natural gas demand projected by 2010, almost half will be required for power generation.

Over 90% of projected new electrical generating capacity will be gas fired.

It is estimated that about 85,000 megawatts (MW) of new gas fired generating capacity will come on line in the US this year alone, resulting in increased gross gas usage of almost 650 BCF per year.

17

Critical Factors

- Access
- Technology
- Financial Requirements
- Skilled Workers
- Rigs
- Lead Times
- Requirements of New Customers

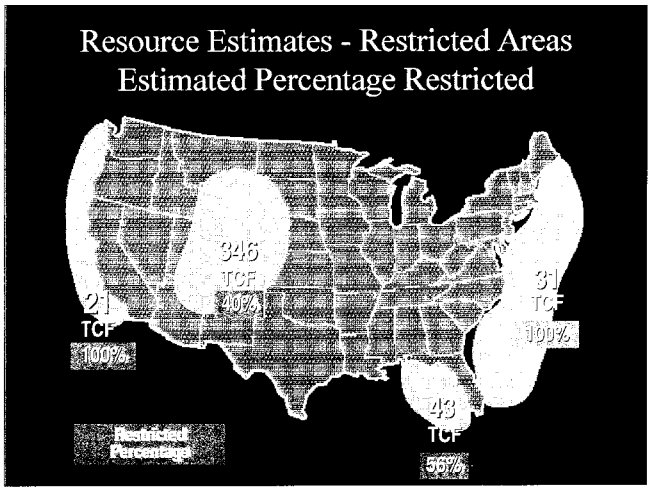
The NPC Study concluded that the North American natural gas resource base is sufficient to meet the projected demand for natural gas. However, this ability is very dependent on industry and government positively addressing seven key challenges.

Access topped the list.

Access to multiple-use federal government lands is a critical concern because they hold the relatively under-explored and not-yet-producing gas resources for the future. This is compared with private and state lands that have been more fully explored and developed.

(Other challenges include technology, financing, workforce, the physical infrastructure including rigs, lead times, and the requirements of the new customer base which includes the new Independent Power Producers.

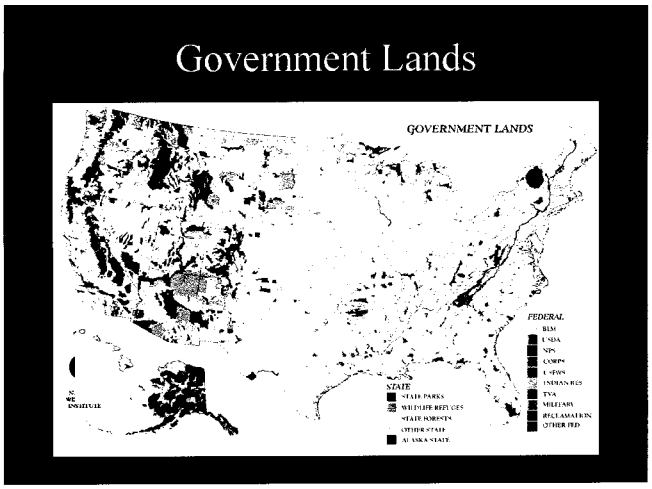
A positive partnership between government and industry is essential in meeting all the NPC-identified challenges to finding and producing the natural gas we'll need to meet the nation's economic and environmental goals.)



Access to the resource base and to rights of way for infrastructure is critical for sustainable supply.

Of the almost 1,500 TCF of lower 48 resource base cited in the NPC study, approximately 47% is owned by the Federal Government. But the resource base under Federal Government lands is far more critical than that percentage might imply. As mentioned previously, that's because state and private lands have been much more fully explored and developed with respect to energy resources. By contrast, the Federal Government lands are relatively under-explored. For example, it is estimated that 90% of the Federal Government lands resource base in the Rockies is unproven and clearly not yet available to consumers. What's more, offshore drilling moratoria have virtually closed activity in the Eastern Gulf, Atlantic and Pacific Coast waters under Federal jurisdiction. It is important to note that technology has advanced to a point that we can assess and develop resources in these areas more efficiently, and with less environmental impact, than ever before.

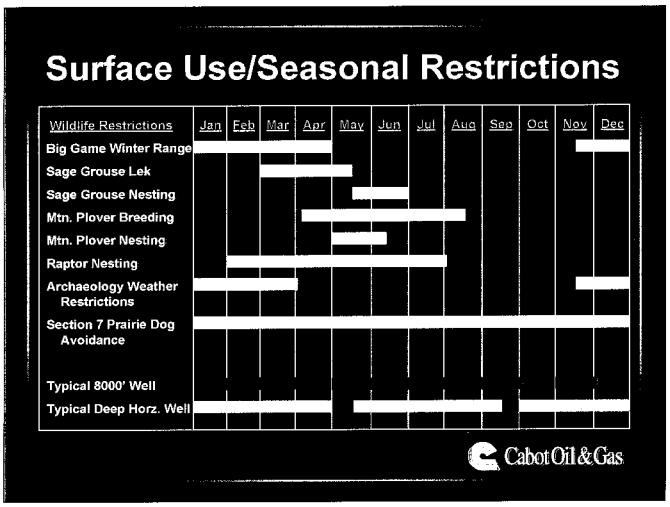
The map above illustrates the total lower-48 natural gas resource base and the percentages of it that are either completely off-limits or is access-restricted according to the NPC. (This is based on modeling such factors as complete activity prohibition, no-surface-occupancy stipulations, two-year or greater delays and cost increases. Later examples dramatically illustrate these factors.)



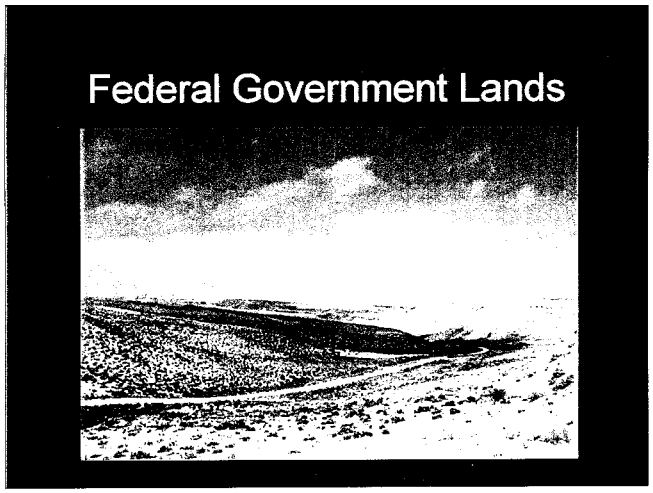
As can be seen on this map, a significant portion of the Rocky Mountain area -- including some 75.8 percent of the natural gas resources according to the NPC -- is owned by the Federal Government, and managed either by the BLM or the Forest Service (US Department of Agriculture). It should be noted that the industry is not advocating drilling in National Parks. However, a significant portion of the yellow (BLM) acreage in the states of Wyoming, Colorado, New Mexico and Utah has considerable gas potential. Meaningful cooperation among these entities and industry will be required to access this important area of natural gas supply.

Let me give you some examples of restrictions that we believe can -- and must -- be dealt with.

Last year Bureau of Land Management officials in New Mexico announced new criteria for approval of applications for permits to drill in the San Juan Basin while it conducts a new environmental impact statement in preparation for updating its resource management plan. Had the criteria, including announced moratoria on some applications, been put into effect as announced, critical California gas supply from this mature producing area could have been reduced. Strong protests led to changes in the New Mexico policy while the EIS is done, but with the current APD backlog and pace, it is still uncertain whether there will be enough drilling over the next year or two to meet supply needs.



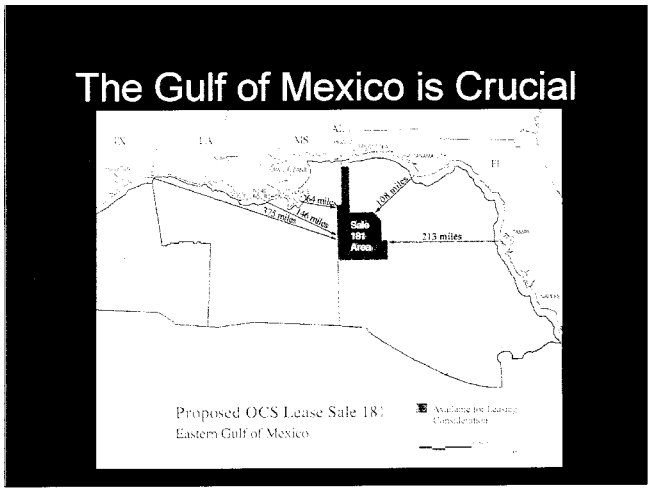
A prime example of this type of problem is illustrated by the time line chart you see here for BLM land in Southwest Wyoming. With the layering of wildlife protection and other environmental restrictions in parts of the year, you can see that there are only limited periods in which necessary natural gas exploration and production drilling by one of our member companies can occur. As you can also see, some deep wells that take longer than the allowed drilling window either will not be drilled, or must be drilled in inefficient and probably prohibitively expensive phases over more than one year.



Let me pause here for a moment to point out that much of the land we are discussing is like that shown above in Wyoming. With our current technology we can explore and produce gas on these lands with much smaller drilling locations, or "pads", than in year's past. Improved geoscience technology allows us to better target promising geologic formations below ground, so we drill fewer wells. But we still must drill to find and produce gas. Then we reclaim the land to its original condition.

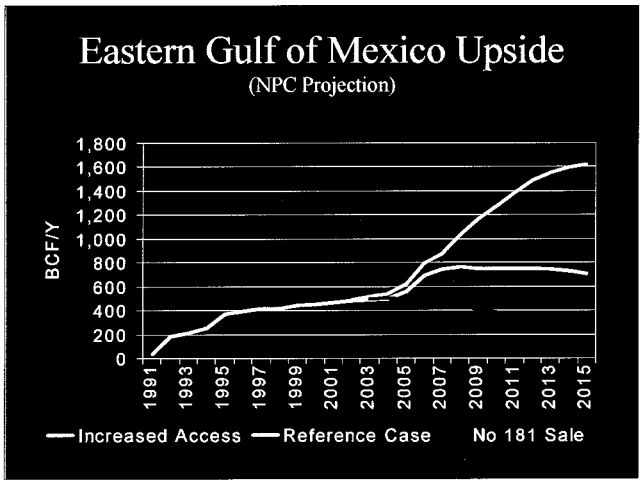
But to move to another example of restrictions, in Southwest Wyoming a permit for an exploratory well was denied last fall despite explicit provisions of an "interim Drilling Policy" that was in effect while a new Environmental Impact Statement was being prepared. Total company costs related to the EIS itself and the delays in permitting that have occurred to date, and could occur in the future may run over $2-million--enough to drill six additional wells and bring them on line.

One final onshore case. In the Monongahela National Forest of West Virginia, inconsistency in the directives provided by Forest Service specialists in the preparation of an Environmental Assessment caused ten revisions over a span of 2 years. Several revision drafts duplicated previous drafts that had been rejected by the Forest Service personnel. Such delays obviously add to costs, but they also delay or prevent gas from flowing to consumers.



Now an important word about the offshore. As the NPC study pointed out, and as we in our industry know, with both of our coasts off limits to exploration and production -- the Gulf of Mexico, including its deep waters, will be crucial in meeting gas demand.

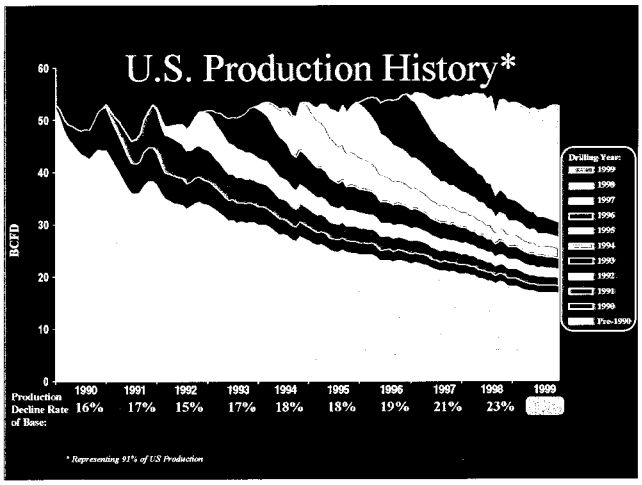
Lease Sale 181 in the Eastern Gulf of Mexico, scheduled for December of this year, provides an outstanding example of what we need to be doing. It alone could make a significant 400 BCF per year contribution to providing natural gas to Florida and the surrounding region to meet increasing electricity generation needs.



This chart illustrates the NPC's projection of the impact of access restrictions in the eastern Gulf of Mexico. The Reference Case curve (middle line) assumes that Western Norphlet, off the coast of Mobile, Alabama, and MMS Lease sale 181 will be the only areas in the eastern gulf that will produce gas.

Also shown here is the impact if sale 181 did not happen (bottom line). As noted a moment ago, this is a potential 400 BCF per year loss of valued natural gas resource.

However, as the top line indicates, the NPC study anticipates substantial additional gas supplies to feed the country's growing energy demand if industry is allowed access beyond the Western Norphlet and Sale 181 areas.



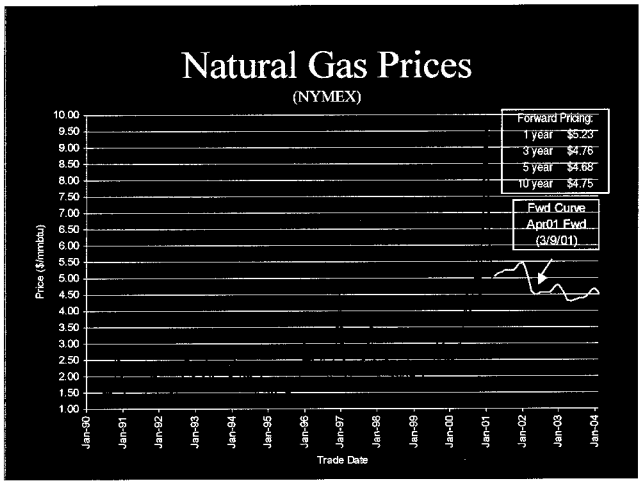
To begin to conclude, as this slide shows, over the past decade production from the wells we have drilled every year has declined more sharply. That's because, with current access restrictions,

1) new field discoveries tend to be smaller in size; and,

2) drilling and completion technological advances have enable higher flow rates, resulting in shorter reserve lives as we drill and produce smaller fields.

This means that drilling rates will have to increase to meet projected demand.

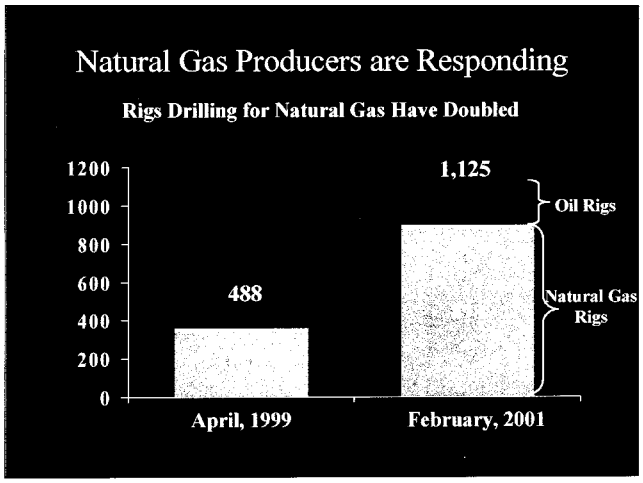
Again, to accomplish this we must meet the challenges we discussed -- including investments in finding and training people for our increasingly technology-oriented industry -- and new equipment. But access to the remains the key to the responsible development of natural gas as a precious natural resource.



Since the NPC study was completed in late 1999, the access and regulatory issues I have been discussing have not been addressed. In fact, access has become more and more problematic in recent years.

One result of our current situation has been a tight natural gas market in which such factors as a cold winter and unexpected strong demand in the electric generation sector can cause the price history shown here by the red, or dark, line.

The good news for the future is shown by the lighter, or yellow line to the right -- the futures market beginning to respond by predicting lower prices, though still strong by comparison with most of the past decade or so. That's in part because of the extraordinary efforts our industry is making to meet consumer demand.



As discussed on the previous slide, producers are responding to market signals.

Today, with tight supply and rising demand, producers are individually responding by working to bring more natural gas to the market. One economic indicator is the Rotary Rig Count. Natural gas drilling rigs have increased by 143% since April 1999, when prices were at their lowest.

Equally important, almost 80% of the rigs being used today are looking for natural gas, up from 75% in April 1999.

Policy Recommendations

- Administration
  - Energy Policy Directive to All Departments and Agencies
  - Prompt Permitting Review and Benchmarking Program

We have recommended to the Administration that several steps be taken to seek better coordination of energy permitting. Included among them are:

- a directive that all resource agency policy and implementation decisions take energy implications into account; and,
- a quick benchmark survey of permitting by every state, area and Forest group within the Bureau of Land Management and the U.S. Forest Service to identify where things are being done well – and efficiently – and where improvements need to be made. (This would also help identify areas and offices in need of more resources, and would be a valuable budget tool.)

Then a quick program should be started to bring all parts of these agencies to the higher performance level.

Perhaps your Subcommittee and the Congress as a whole can help in these areas through legislation or oversight.

Policy Recommendations

- Congress
  - Expedite Federal Government Lands Energy Resource Review.
  - Consider Streamlined Process for Eliminating or Easing Access Restrictions

In addition, we support the ongoing congressionally mandated inventory of energy resources on federal government lands, but it should be expedited.

Even more important, Congress and the Administration should use the time during which the inventory is being undertaken to consider whether there should be a simplified process to allow states and their congressional delegations to seek removal of access restrictions where there is little or no benefit at the cost of energy supplies, and to improve permitting processes and coordination where problems are identified.

We look forward to continuing to working with you especially on this crucial element of a comprehensive and consistent national energy policy.

I appreciate the opportunity to be with you to discuss such important energy issues, and I would be glad to answer any questions you may have.

Mrs. CUBIN. The Chair now recognizes Mr. Papa to testify.

STATEMENT OF MARK PAPA, CHAIRMAN & CEO, EOG RESOURCES

Mr. PAPA. Madam Chairman, members of the Committee, I am Mark Papa, Chairman of the EOG Resources of Houston Texas. Today I am testifying on behalf of the Independent Petroleum Association of America, IPAA, National Stripper Well Association and 32 cooperating State and regional oil and gas associations. These organizations represent the thousands of independent petroleum and natural gas producers that drill 85 percent of the wells, produce 40 percent of the oil and 65 percent of the natural gas in the United States.

This issue is particularly important to my company, EOG Resources, because we are at the forefront of the effort to develop new domestic gas reserves. During the past three years, EOG has ranked either number one or number two of all companies in terms of footage drilled in the U.S. looking for new gas reserves.

Today's hearing addresses the impediments to developing domestic natural gas supply because access to the national resource base is prohibited or constrained. Much of the Nation's gas underlies Federal-controlled land both offshore and onshore. Policies in these areas have constrained or prohibited access largely based on fears of environmental harm.

But these resources can be developed in an environmentally sound and sensitive manner. The Department of Energy recently released a comprehensive report, Environmental Benefits of Advanced Oil and Gas Exploration and Production Technology, demonstrating that the technology is available to preclude environmental damage. This technology is currently being employed when exploration is allowed. However, without policy changes the Nation may face a gas supply challenge.

The National Petroleum Council's natural gas study projects demand increasing by over 30 percent during the next 15 years. This will require not only finding and developing resources to meet this higher demand, but also to replace the current depleting resource.

While many analysts are focusing on how much natural gas demand will grow, it is equally important to recognize what is happening to supply. All natural gas wells begin to deplete as soon as they come on production. In fact, depletion rates for all U.S. production have increased from 16 percent in 1990 to 23 percent today. In simple terms, this means that the domestic natural gas industry is on an ever-increasing depletion treadmill, and the reserves underlying Federal lands become that much more important.

Let me address both offshore and onshore land use issues, and I will start with offshore. Currently over 75 trillion cubic feet, TCF, of natural gas in the offshore is off limits to development because of moratoria that are based on technologies that have been replaced decades ago. It is essential that those areas of the offshore that are scheduled for leasing remain accessible.

Specifically, Lease Sale 181 lying off the Alabama coast must be undertaken. Unfortunately after years of negotiation to allow this lease sale, uncertainty remains as to regarding the political efforts

that may be made to halt this sale. Lease Sale 181 is projected to be a significant natural gas area with estimated reserves of about 8 trillion cubic feet, enough natural gas to fuel Florida's 5.9 million households for 16 years. To prevent the sale in view of the extraordinary environmental safety record of the Gulf of Mexico operations would be a tragic energy policy decision.

Onshore the NPC natural gas study estimates the development of over 137 trillion cubic feet of natural gas under government-controlled land in the Rockies is restricted or prohibited. It is important to understand that access to these resources is limited by more than just one moratoria. The constraints differ. Monument and wilderness designations clearly prohibit access to some areas. Regulations like the Forest Service roadless policy and prohibitions in the Lewis and Clark National Forest are equally absolute.

Let me discuss the Lewis and Clark National Forest for a moment as a specific example. The Rocky Mountain Division of the Lewis and Clark National Forest is estimated to contain large amounts of natural gas. The 1986 forest management plan anticipated development of this resource and made it an objective. In 1996, the Forest Service published a draft EIS with a preferred alternative that would allowed limited environmentally sensitive leasing. In 1997, the Forest Service published the final EIS, adding additional environmental protections to the preferred alternative.

Notwithstanding these additional restrictions, the Lewis and Clark National Forest supervisor decided that no oil and gas leasing in this area would be permitted. The Forest Service amended the forest management plan without further public comment, deeming the decision to exempt the Rocky Mountain Division from leasing insignificant.

These types of decisions obviously generate adverse energy supply consequences.

Regarding onshore Federal lands, we offer both the short- and long-term recommendations. In the short term, additional BLM personnel are needed to process the increased number of permits that are being generated as the industry responds to supply challenges, and regarding our company, I can specifically mention the Rawlins and Pinedale offices in your home State, Madam Chairman, and also the Vernal, Utah, offices as areas where we have a potential backlog of getting permits done.

Long term there are several policy decisions that need to be dealt with. We need a commitment to assure that government actions are developed with full recognition of the consequences to natural gas and other energy supplies. IPAA believes that all Federal decisions, regulatory guidance, environmental impact statements, Federal land management plans should identify at the outset the implications of the actions on energy supply. These implications should be clear to the decision-maker. Such an approach does not alter the mandates of the underlying law compelling the Federal action, but it would likely result in developing options that would minimize adverse energy consequences.

In conclusion, it is time for this county to develop a sound future policy. Certainly there is room in such a policy for sound energy conservation measures and protection of the environment, but

energy production, particularly petroleum and natural gas, is an essential component that must be included and addressed.

Thank you for considering these comments.

Mrs. CUBIN. Thank you, Mr. Papa.

[The prepared statement of Mr. Papa follows:]

Testimony

Of

Mark Papa

On Behalf Of The

Independent Petroleum Association of America

And The

National Stripper Well Association

Before

Committee on Resources

U.S. House of Representatives

March 15, 2001

Independent Petroleum Association of America 1101 16th Street, N.W., Washington, DC 20036
(202) 857-4722 ♦ Fax (202) 857-4799 ♦ www.ipaa.org

STATEMENT OF MARK PAPA
FOR THE
INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA
AND THE
NATIONAL STRIPPER WELL ASSOCIATION
AND

California Independent Petroleum Association
Colorado Oil & Gas Association
East Texas Producers & Royalty Owners Association
Eastern Kansas Oil & Gas Association
Florida Independent Petroleum Association
Illinois Oil & Gas Association
Independent Oil & Gas Association of New York
Independent Oil & Gas Association of Pennsylvania
Independent Oil & Gas Association of West Virginia
Independent Oil Producers Association Tri-State
Independent Petroleum Association of Mountain States
Independent Petroleum Association of New Mexico
Indiana Oil & Gas Association
Kansas Independent Oil & Gas Association
Kentucky Oil & Gas Association
Louisiana Independent Oil & Gas Association
Michigan Oil & Gas Association
Mississippi Independent Producers & Royalty Association
Montana Oil & Gas Association
National Association of Royalty Owners
Nebraska Independent Oil & Gas Association
New Mexico Oil & Gas Association
New York State Oil Producers Association
Ohio Oil & Gas Association
Oklahoma Independent Petroleum Association
Panhandle Producers & Royalty Owners Association
Pennsylvania Oil & Gas Association
Permian Basin Petroleum Association
Tennessee Oil & Gas Association
Texas Alliance of Energy Producers
Texas Independent Producers and Royalty Owners
Wyoming Independent Producers Association

Mr. Chairman, members of the committee, I am Mark Papa, President of EOG Resources of Houston, Texas. Today, I am testifying on behalf of the Independent Petroleum Association of America (IPAA), the National Stripper Well Association (NSWA), and 32 cooperating state and regional oil and gas associations. These organizations represent the thousands of independent petroleum and natural gas producers that drill 85 percent of the wells drilled in the United States. This is the segment of the industry that is damaged the most by the lack of a domestic energy policy that recognizes the importance of our own national resources. NSWA represents the small business operators in the petroleum and natural gas industry, producers with "stripper" or marginal wells. These producers are the linchpins to continued development of domestic petroleum and natural gas resources.

Today's hearing addresses the impediments to developing domestic natural gas supply because access to the national resource base is prohibited or constrained. This testimony will focus first on several key factors that influence future energy issues. Second, it will describe issues that are specifically related to natural gas supply issues related to access constraints.

A Nation Dependent on Fossil Fuels

Like it or not, the nation will be dependent on fossil fuels for the foreseeable future. In particular, petroleum and natural gas currently account for approximately 65 percent of the nation's energy supply – and will continue to be the significant energy source. Natural gas demand, for example, is expected to increase by more than 30 percent over the next decade.

Independent Producers – The Linchpin to Future Domestic Petroleum and Natural Gas

It is important to recognize that the domestic oil and natural gas industry has changed significantly over the last fifteen years. The oil price crisis of the mid-1980's and policy choices made then triggered an irreversible shift in the nature of the domestic industry. Independent

producers of both oil and natural gas have grown in their importance, and that trend will continue. Independent producers produce 40 percent of the oil – 60 percent in the lower 48 states onshore – and produce 65 percent of the natural gas. They are becoming more active in the offshore, including the deep water areas that have previously been the province of the large integrated companies. At the same time those large companies are now mainly focusing their efforts overseas, in addition to Alaska and the offshore, because they are aiming their investments to seek new and very large fields. Domestic energy policy must recognize this reality.

Recognizing The Role of The Market

Future energy policy should rely on market forces to the greatest degree possible. For natural gas the market is strong and active. Natural gas supply is essentially North American and overwhelmingly from two countries that rely on private ownership and the free market -- the United States and Canada. Currently, exploration and development of natural gas in both countries is being aggressively pursued when the opportunities are there, and can be accessed. In the United States drilling rig counts for natural gas are running at rates that are as high as they have ever been since natural gas drilling was distinguished from petroleum. The principal constraints are finding the capital to invest, getting access to the resource base, finding competent personnel, and obtaining rigs. If the market is allowed to work, it will continue to draw effort to produce this critical resource for domestic consumption.

Oil, however, is a different situation. In making decisions regarding developing domestic petroleum resources, the nature of the world petroleum market must be recognized. Although the United States remains the second or third largest producer of petroleum, it is operating from a mature resource base that makes the cost of production higher than in competitor nations. More

importantly, most other significant petroleum producing countries rely on their petroleum sales for their national incomes. For them, petroleum production is not driven by market decisions. Instead, their policies and their production are determined by government decisions. Most are members of OPEC, the Organization of Petroleum Exporting Countries. Several are countries hostile to the United States like Iraq, Libya, and Iran. Even those that are generally supportive of the United States, like Saudi Arabia and Kuwait, are susceptible to unrest from both internal and external forces.

Thus, the market price for petroleum will be largely framed by production decisions driven not by the market, but by the politics of these countries – both by internal issues and global objectives. United States domestic policy decisions must reflect this reality – looking to this factor in taking actions that can affect domestic production and producers. But, more importantly, it must recognize that a healthy domestic oil production industry is also essential for a healthy domestic natural gas industry, because they are inherently intertwined.

For example, the failure of the United States to recognize the need to respond to the low oil prices of 1998-99 resulted in adverse consequences for both oil and natural gas production. The nation has lost about 10 percent of its domestic oil production – most of which has been made up by imports from Iraq. And, in addition, the tight natural gas supplies this year are partially attributable to the drop in natural gas drilling in 1998-99 when oil prices were low and capital budgets for exploration and production of both oil and natural gas were slashed by producers because drilling under those conditions made no economic sense.

The Federal Role

The predominant areas where the federal government plays a major role in promoting or inhibiting domestic oil and natural gas production are: providing access to essential capital and providing access to the natural resource base

I. Providing Access to Essential Capital

Because this hearing is primarily focused on the role of resource base constraints, this testimony will only touch on the capital issue. Because oil and natural gas exploration and production are capital intensive and high-risk operations that must compete for capital against more lucrative investment choices, much of its capital comes from its cash flow. The federal tax code is a key factor in defining how much capital will be retained. The Administration and Congress need to enact provisions designed to (1) encourage new production, (2) maintain existing production, and (3) put a "safety net" under the most vulnerable domestic production – marginal wells. Congress has considered a mix of tax reforms that have widespread support. They include provisions to allow expensing of geological and geophysical costs and of delay rental payments that encourage new production, extending the net operating loss timeframe and revising percentage depletion that assist both new and existing production, and a countercyclical marginal well tax credit when prices fall to low levels. All of these are programs that independent producers need because their revenues are limited to their production

Beyond these immediately needed policy changes, new tax policies must be developed to encourage renewed exploration and production needed to meet future demand, particularly for natural gas. In 1999 the National Petroleum Council released its *Natural Gas* study projecting future demand growth for natural gas and identifying the challenges facing the development of

adequate supply. For example, the study concludes that the wells drilled in the United States must effectively double in the next fifteen years to meet the demand increase. Capital expenditures for domestic exploration and production must increase by approximately $10 billion/year – roughly a third more than today. Generating this additional capital will be a compelling task for the industry. As the National Petroleum Council study states:

> *While much of the required capital will come from reinvested cash flow, capital from outside the industry is essential to continued growth. To achieve this level of capital investment, industry must be able to compete with other investment opportunities. This poses a challenge to all sectors of the industry, many of which have historically delivered returns lower than the average reported for Standard and Poors 500 companies.*

In fact, as the past year has shown, capital markets have not shifted to supporting the energy sector. For the industry to meet future capital demands – and meet the challenges of supplying the nation's energy – it will need to increase both its reinvestment of cash flow and the use of outside capital. The role of the tax code will be significant in determining whether additional capital will be available to invest in new exploration and production in order to meet the $10 billion annual target.

IPAA Capital Access Policy Recommendations

Short-Term Tax Reforms

- Allow expensing of geological and geophysical costs and of delay rental payments.
- Allow a 5-year net operating loss carry-back for independent producers.
- Eliminate the net income limitation on percentage depletion for marginal wells and the 65 percent net taxable income limit on percentage depletion.
- Create a counter-cyclical marginal well tax credit.

Other Tax Reforms

- Modify the Alternative Minimum Tax.
- Create a plow back or drilling incentive.
- Expand the Enhanced Oil Recovery tax credit.

II. Providing Access to The Natural Resource Base

National energy policy must also recognize the importance accessing the natural resource base. In 1999 the National Petroleum Council in transmitting its *Natural Gas* study concluded:

> *The estimated natural gas resource base is adequate to meet this increasing demand for many decades.... However, realizing the full potential for natural gas use in the United States will require focus and action on certain critical factors.*

Much of the nation's natural gas underlies government-controlled land both offshore and onshore. Policies in these areas have constrained or prohibited access largely based on fears of environmental harm. But, these resources can be developed in an environmentally sound and sensitive manner. The Department of Energy recently released a comprehensive report, *Environmental Benefits of Advanced Oil and Gas Exploration and Production Technology*, demonstrating that the technology is available. And, it is being employed, when exploration is allowed.

Without policy changes, the nation may not be able to meet its needs. The NPC study projects demand increasing by over 30 percent during the next fifteen years. This will require not only finding and developing resources to meet this higher demand, but also to replace the current depleting resources. While many analysts are focusing on how much more natural gas demand will grow, it is equally important to recognize what is happening to existing supply. All natural gas wells begin to deplete as soon as they start producing. However, as our technology has improved, we now are able to identify probable reservoirs more effectively. This allows us to find and produce smaller fields. At the same time extraction technology has also improved our ability to produce our reservoirs more effectively. As a result we have seen depletion rates in places like the Gulf of Mexico double from historic levels while the reservoir size has decreased.

In simple terms this means that we are challenged to find more reserves more quickly and the reserves underlying federal lands become that much more important.

Currently, over 75 trillion cubic feet (TCF) of natural gas in the offshore is off limits to development because of moratoria that are based on technologies that have been replaced decades ago. The rationale for these moratoria is outdated and inaccurate; there must be a reassessment of these decisions in the context of today's technology and tomorrow's needs.

Moreover, it is essential that those areas of the offshore that are scheduled for leasing remain accessible. Specifically, Lease Sale 181 lying off of the Alabama coast must be undertaken. Unfortunately, after years of negotiation to allow this lease sale within negotiated constraints related to its military use and moratoriums that have been established for the Eastern Gulf of Mexico off of Florida, uncertainty remains that some political efforts will be made to halt the sale. Lease Sale 181 is projected to be a significant natural gas area with estimated of about 7.8 TCF – enough natural gas to fuel Florida's 5.9 million households for 16 years. Estimates of potential oil reserves are on the order of 1.9 billion barrels. To prevent this sale in view of the extraordinary environmental safety record of Gulf of Mexico operations when natural gas demand is accelerating would be tragic energy policy decision.

Even in those offshore areas of the Gulf of Mexico that are open for development, the federal policies that determine royalties will also significantly define the extent to which development will occur. For example, over the past half-decade, Gulf of Mexico development has soared, partly because of the Deep Water Royalty Relief Act that specified how royalties would be determined for a set time period. This allowed producers to plan their investments better. However, large integrated companies principally used the 1995 Deep Water Royalty Relief Act and its specific provisions expired in 2000. Now, as independent producers are also

seeking deep water opportunities, the planning window is narrow and the policies are less certain. On the Outer Continental Shelf, marginal properties remain that could be developed if the royalty policies were right. All of these issues need to be addressed with the full understanding that independent producers will be increasingly willing to develop these areas as large integrated companies look toward the Ultra-deep Water and overseas for the large fields that they need to find.

Even as these identified constraints are being addressed, new threats are developing. For example, the Coastal Zone Management Act (CZMA) may become a significant limitation on offshore energy development. This Act was originally developed to allow for better coordination between states and the federal government with regard to the use of the coastal areas of the country. It encouraged states to consider the various uses of its coastal areas and plan more effectively to accommodate those uses. New regulations under the law can give states the authority under certain conditions to prohibit federal activities that violate the state's Coastal Zone Management Plan. It thus becomes a mechanism for activists opposing any offshore energy development to assert authority well beyond the state's sovereign border and limit federal leasing and mineral management actions.

Onshore, the NPC *Natural Gas* study estimates that development of over 137 TCF of natural gas under government-controlled land in the Rocky Mountains is restricted or prohibited. A recent study by the Energy Information Administration concludes that about 108 TCF are under restriction. Regardless, the amount is significant. An inventory of these resources is underway. It is an important first step. But, it is equally important to understand that access to these resources is limited by more than just moratoria. The constraints differ. Monument and wilderness designations clearly prohibit access to some areas. Regulations like the Forest

Service "roadless" policy and prohibitions in the Lewis and Clark National Forest are equally absolute.

At the same time the permitting process to explore and develop resources often works to effectively prohibit access. These constraints range from federal agencies delaying permits while revising environmental impact statements to habitat management plans overlaying one another thereby prohibiting activity to unreasonable permit requirements that prevent production. There is no single solution to these constraints. What is required is a commitment to assure that government actions are developed with a full recognition of the consequences to natural gas and other energy supplies. IPAA believes that all federal decisions – new regulations, regulatory guidance, Environmental Impact Statements, federal land management plans – should identify, at the outset, the implications of the action on energy supply and these implications should be clear to the decision maker. Such an approach does not alter the mandates of the underlying law that is compelling the federal action, but it would likely result in developing options that would minimize the adverse energy consequences.

IPAA Access Recommendations

Overall

- Provide mechanisms to assure that the energy supply consequences of federal decisions be identified early in the decision process and made clear to the decision makers.

Offshore

- IPAA believes it is critical to continue to provide a royalty structure that encourages offshore development. IPAA and others involved in the offshore are working together with MMS and DOE to create a royalty structure that will enhance domestic production.
- Offshore moratoria policies need to be revisited and revised.

Onshore

- Access in the Rockies won't be resolved by a single act. Many areas are limited during certain times of the year by management plans designed to protect various species. While each plan individually provides opportunities for resource development, collectively, they interact to effectively prohibit natural gas and petroleum extraction. The industry must deal with a mosaic of limitations. Some involve land that is completely excluded from natural gas and petroleum exploration and production. Regulatory actions need to be undertaken to consider the energy implications of decisions – both individually and collectively.

There's No Short Term Fix – Recovery Will Take Time

Any realistic future energy policy will take time. There is no simple solution. The popular call for OPEC to "open the spigots" failed to recognize that the low oil prices of 1998-99 reduced capital investment from the upstream industry all over the world. Only Saudi Arabia had any significant excess production capacity and no one knew just how much or whether the oil was of a quality that it could be refined in most refineries. The collateral damage of low oil prices on the natural gas industry is affecting gas supply today and will until the industry recovers. The producing industry lost 65,000 jobs in 1998-99. While about 40 percent of those losses have been recovered, they are not the same skilled workers. If measured by experience level, the employment recovery is far below the numbers. Less obvious, but equally significant, during the low price crisis equipment was cannibalized to keep operating and support industries were decimated. It will take time to develop the infrastructure again to build new drilling rigs and provide the skilled services that are necessary to rejuvenate the industry.

Additional IPAA Policy Recommendations

- Continue Dept. of Energy Oil Data Transparency initiative to develop more accurate information on worldwide supply and demand.
- Create initiatives to train oil and natural gas production workforce through existing and new education programs
- Consider federal financial instruments like the PADDIE MAC concept that would create a FANNIE MAE-like program to help lower the capital costs to the smaller producers so essential to maintaining the nation's marginal wells.

Conclusion

Overall, attracting capital to fund domestic production under these circumstances will be a continuing challenge. This industry will be competing against other industries offering higher returns for lower risks or even against lower cost foreign energy investment options. The slower the flow of capital, the longer it will take to rebuild and expand the domestic industry.

Providing access to the resource base will be critical and requires making some new policy choices with regard to federal land use.

These two issues are the ones that are particularly dependent on federal actions, and should be the immediate focus of this Congress and the Administration.

It is time for this country to take its energy supply issues seriously and develop a sound future policy. Certainly, there is room in such a policy for sound energy conservation measures and protection of the environment. But, energy production – particularly petroleum and natural gas – is an essential component that must be included and addressed at once. Independent producers will be a key factor, and the industry stands ready to accomplish our goals, if policies reflect that reality.

Mrs. CUBIN. The Chair now recognizes Ms. Speer for her testimony.

STATEMENT OF LISA SPEER, STAFF ATTORNEY, NATURAL RESOURCES DEFENSE COUNCIL

Ms. SPEER. Thank you. My name is Lisa Speer. I am Senior Policy Analyst with the Natural Resources Defense Council. NRDC is a national nonprofit organization dedicated to protecting the environment and public health. My testimony today is on the environmental impacts and other environmental issues related to oil and gas or gas exploration and development on the outer continental shelf. My colleague, Dave Alberswerth, will deal with gas development onshore.

Our Nation faces important challenges in the coming year. With California dealing with an energy crisis and natural gas prices shooting up for many, many people, it is time for this country to come together and develop a comprehensive national energy strategy.

Two distinct visions of what that strategy should look like have emerged. One vision focuses on extracting as much energy as possible, principally in the form of fossil fuels, in the hope that we can somehow drill our way out of our energy woes. An alternative vision calls for encouraging innovative and new technologies to meet our energy needs in an environmentally responsible manner.

NRDC believes that U.S. energy policy must rely on the application of readily available, currently available technology as a way to reduce consumption. Such an approach will decrease America's reliance on foreign sources of energy, protect the environment, provide for our energy needs and buffer the economy against short-term swings in the market.

NRDC recently published a report called "A Responsible Energy Policy for the 21st Century," which discusses these issues in detail. I would like to submit it for the record, if I might. (NOTE: This report is available for viewing in the Committee's official files.)

Turning to natural gas development on the OCS, some people argue that we should move ahead to open protected areas of the OCS to natural gas development. They argue that natural gas—the risk of oil spills when developing natural gas is negligible, and, therefore, natural gas development can proceed in an environmentally benign fashion. This argument ignores the fact that oil spills are not the only concern with respect to natural gas development on the outer continental shelf.

OCS gas development, like oil development, can have substantial environmental impacts. For example, offshore activity, be it for oil or for gas, frequently entails extensive onshore infrastructure in the form of roads, pipelines, processing facilities, waste-handling facilities and other industrial infrastructure. This infrastructure can cause significant harm to the coastal zone. For example, OCS pipelines crossing wetlands in the Gulf of Mexico are estimated to have destroyed more coastal salt marsh than exists from New Jersey to Maine.

Moreover, the industrial character of offshore oil and gas development is often at odds with the existing economic base of affected

coastal communities, many of which rely on coastal tourism, fishing and recreation.

Air and water pollution is a second issue. Offshore operations for oil or gas generates tremendous amount of waste, some of which contains a variety of pollutants, including toxic pollutants. Air pollution is also generated in significant amounts by offshore oil and gas drilling rigs as well as production platforms.

And then there is the possibility of an oil spill. There is always the possibility of finding oil when searching for gas. We know of no instance where a lease has prohibited the development of oil in a gas-prone region, and we are not aware of any company ever agreeing to such a restriction in the history of the OCS program. If oil is found, the possibility of spills exists. According to the Department of the Interior, some 3 million gallons of oil have spilled from OCS oil and gas operations between 1980 and 1999.

Concerns over these impacts have led many States and their congressional delegations to oppose OCS development off their coasts. Since 1981, Congress and two Presidents have imposed restrictions on OCS leasing in sensitive areas off of our coasts. These moratoria now protect the eastern and western coast of United States, much of the eastern Gulf of Mexico and Bristol Bay, Alaska. They represent a clearly established consensus on where OCS development should take place in this country. They have been endorsed by a broad array of elected officials from former President George Bush to Governor Jeb Bush, from Governor Knowles of Alaska to Governor King of Maine and from Governor Davis in California and Governor Bush in Florida.

We strongly oppose any attempt to lift the moratoria to promote gas development or to promote gas development in other sensitive areas off of Florida and Alaska. Fortunately, we don't need to drill these areas for natural gas. That is because some 80 percent of the Nation's untapped economically recoverable OCS gas is located in areas already open to leasing.

The idea that most of America's OCS gas is locked up is simply not supported by the facts. It is also not supported by this report. If you add up, as Mr. Markey indicated, the amount of gas that is in OCS areas that are under restriction, it amounts to less than 5 percent of the total amount of gas the Nation has outside of Alaska as identified in this report.

Large untapped efficiency resources exist that can provide more gas more cheaply and faster than drilling public lands. For example, providing tax incentives for the construction of energy-efficient buildings and manufacturing of energy-efficient heating and water-heating equipment could save some 300 trillion cubic feet of gas over 50 years. That is more than twice the amount of gas the Interior Department estimates is economically recoverable from the entire OCS.

These strategies will do far more to increase our Nation's energy security than a "drain America first" approach of exploiting onshore and offshore Federal lands.

Thank you, Madam Chairman.

Mrs. CUBIN. Thank you very much for your testimony.

[The prepared statement of Ms. Speer follows:]

Statement of Lisa Speer, Senior Policy Analyst, Natural Resources Defense Council

My name is Lisa Speer. I am Senior Policy Analyst with the Natural Resources Defense Council (NRDC) in New York. NRDC is a national nonprofit organization of scientists, lawyers, and environmental specialists, dedicated to protecting public health and the environment. Founded in 1970, NRDC serves more than 400,000 members from offices in New York, Washington, Los Angeles, and San Francisco. My testimony today addresses environmental issues surrounding natural gas exploration, development and production from submerged Federal lands on the Outer Continental Shelf (OCS).

1. Background: Energy Policy in the 21st Century

At the dawn of a new century, America finds itself once again wrestling with a problem that has, off and on, been at the forefront of U.S. politics for several decades: energy. The United States has 5 percent of the world's population, but consumes nearly a quarter of the world's energy supply. We use energy to heat our homes and our businesses, power our computers and telephone systems, run our automobiles and aircraft, and drive our manufacturing plants and hospitals. In short, we have constructed an economy and a way of life that depends on the ready availability of energy.

Two distinct visions of an energy policy for the United States have emerged to meet these demands. One vision focuses chiefly on extracting as much energy as possible, mostly in fossil fuel form (oil, coal and natural gas), in hopes that supply can catch up with demand. The alternative vision, however, calls for encouraging innovation and new technology to meet our energy needs in an environmentally responsible manner. This vision emphasizes efficient use of energy, and places priority on using energy resources that are least damaging to our environment. It promotes economic growth and American industrial competitiveness. This energy path would not force consumers to make sacrifices. Instead it relies on improved technologies that will eliminate waste while increasing productivity and comfort.

Therefore, NRDC believes that U.S. energy policy must rely on the application of technological advances already in place and readily available as a way to reduce consumption. Such an approach will decrease America's reliance on foreign sources of energy in the near- and long-term, protect the environment, provide for America's energy needs, and buffer the economy against short-term swings in the market. NRDC's recently published report, A Responsible Energy Policy for the 21st Century examines these issues in detail. I ask that the report be included in the record.

2. Natural Gas Resources of the Outer Continental Shelf

As the cleanest burning fuel, natural gas makes an important contribution to the Nation's energy supply. Some argue that natural gas development on the Outer Continental Shelf should be promoted. They argue that the risk of oil spills is negligible, and that environmentally sound development can take place. This argument ignores the reality that oil spills are not the only environmental concern related to OCS development. Offshore gas development, like oil development, causes substantial environmental impacts, including the following.

Onshore damage: The onshore infrastructure associated with offshore oil or gas cause significant harm to the coastal zone. For example, OCS pipelines crossing coastal wetlands in the Gulf of Mexico are estimated to have destroyed more coastal salt marsh than can be found in the stretch of land running from New Jersey through Maine.[1] Moreover, the industrial character of offshore oil and gas development is often at odds with the existing economic base of the affected coastal communities, many of which rely on tourism, coastal recreation and fishing.

Water pollution: Drilling muds are used to lubricate drill bits, maintain downhole pressure, and serve other functions. Drill cuttings are pieces of rock ground by the bit and brought up from the well along with used mud. Massive amounts of waste muds and cuttings are generated by drilling operations an average of 180,000 gallons per well.[2] Most of this waste is dumped untreated into surrounding waters. Drilling muds contain toxic metals, including mercury, lead and cadmium. Significant concentrations of these metals have been observed around drilling sites.[3]

---

[1] Boesch and Rabalais, eds., The Long-term Effects of Offshore Oil and Gas Development: An Assessment and a Research Strategy. A Report to NOAA, National Marine Pollution Program Office at 13–11.

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

[3] Id.

A second major polluting discharge is produced water, the water brought up from a well along with oil and gas. Offshore operations generate large amounts of produced water. The Minerals Management Service estimates that each platform discharges hundreds of thousands of gallons of produced water every day.[4] Produced water typically contains a variety of toxic pollutants, including benzene, arsenic, lead, naphthalene, zinc and toluene, and can contain varying amounts of radioactive pollutants. All major field research programs investigating the fate and effects of produced water discharges have detected petroleum hydrocarbons, toxic metals and radium in the water column down-current from the discharge.[5]

Air pollution: Drilling an average exploration well generates some 50 tons of nitrogen oxides (NOx), 13 tons of carbon monoxide, 6 tons of sulfur dioxide, and 5 tons of volatile organic hydrocarbons. Each OCS platform generates more than 50 tons per year of NOx, 11 tons of carbon monoxide, 8 tons of sulfur dioxide and 38 tons of volatile organic hydrocarbons every year.[6]

Oil spills: If offshore areas are leased for gas exploration there is always the possibility that oil also will be found. We no of no instance where a lease prohibits an oil company from developing oil if oil is found in a gas prone region. We are not aware of any company ever agreeing to such a condition in the history of the OCS program. Without such a restriction included in a lease there would be no assurances that oil in fact would not be developed, raising the possibility of an oil spill. According to statistics compiled by the Department of the Interior, some 3 million gallons of oil spilled from OCS oil and gas operations in 73 incidents between 1980 and 1999.[7] Oil is extremely toxic to a wide variety of marine species, including marine birds, mammals and commercially important species of fish.

3. The OCS Moratoria

Beginning in 1981 and every year since then, Congress has imposed restrictions on OCS leasing in sensitive areas off the Nation's coasts. These moratoria now protect the east and west coasts of the U.S. and most of the Eastern Gulf of Mexico. The moratoria reflect a clearly established consensus on the appropriateness of OCS activities in most areas of the country, and have been endorsed by an array of elected officials from all levels of government and diverse political persuasions, from former President George H.W. Bush to Governor Jeb Bush of Florida, and from Governor Tony Knowles of Alaska to Governor Gray Davis of California.

We strongly oppose any attempt to lift the moratorium, or to promote gas development in other sensitive OCS areas, including the Sale 181 area off the west coast of Florida and areas off Alaska. We have called on the Interior Department to remove these areas from the new Five Year OCS Program currently under development.

4. Drilling in the Moratoria Areas, the Sale 181 Area and the Alaskan OCS is Not Necessary

Despite assertions from industry and their supporters on Capitol Hill, it is not necessary to drill in sensitive areas to meet America's energy needs. For example, industry is pressing to drill in the moratorium areas, the Eastern Gulf of Mexico, and off Alaska. But such drilling is unnecessary because seventy per cent of the nation's undiscovered, economically recoverable OCS oil and gas, and 80 percent of the Nation's undiscovered, economically recoverable OCS gas, is located in the Central and Western Gulf of Mexico.[8] Thus, removing the moratorium areas, the OCS off Alaska, and the Eastern Gulf of Mexico from the five-year program will leave the vast majority of the nation's OCS oil and gas available to the industry.

Large untapped energy efficiency resources provide a much better choice. Congress can help by providing tax incentives for the construction of energy efficient buildings, manufacturing energy-efficient heating and water heating equipment. These measures could save 300 Tcf of natural gas over 50 years.[9] This is more than twelve times the Interior Department's mean estimates of economically recoverable gas located outside the Central and Western Gulf of Mexico.[10] These strategies will

---

[4] Id., p. IV–32.
[5] Id., p. IV–32–33.
[6] Id., p. IV–40.
[7] MMS, 2000. Gulf of Mexico OCS Oil and Gas Lease Sale 181, Draft Environmental Impact Statement (DEIS), pp. IV–50.
[8] U.S. Department of the Interior, Minerals Management Service (MMS), 2000. Outer Continental Shelf Petroleum Assessment, 2000, page 5 and Gulf of Mexico Assessment Update.
[9] NRDC, 2001. A Responsible Energy Policy for the 21st Century, p. 32.
[10] U.S. Department of the Interior, Minerals Management Service (MMS), 2000. OCS Petroleum Assessment, 2000, p. 5 and Gulf of Mexico Assessment Update.

do far more to increase our nation's energy security than a drain America first policy of exploiting sensitive offshore and onshore Federal lands.

Thank you for the opportunity to testify.

Mrs. CUBIN. I thank all of the Members of the panel.

Before I forget it, I would like to ask the Committee's unanimous consent to submit for the record statements that are being made by a couple of constituents of mine, who live in the Powder River Basin, where there is a huge coal bed methane play. They have some concerns about the water and the environment and what is going on up there. So with unanimous consent, I will offer this for the record.

[Letters from the Powder River Basin Resource Council submitted for the record follow:]

TESTIMONY TO MEMBERS OF THE SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES:
The Honorable Barbara Cubin, Chair

My name is Nancy Sorenson. I am a Wyoming native and a member by marriage of a pioneer ranching family whose roots in northeastern Wyoming go back over 100 years. I have lived with my family for 26 years on a ranch in Campbell County. We practice a form of sustainable agriculture that takes a long view, so that in 100 or 200 years our land will sustain agriculture and wildlife at least as well as it does now. We know that in spite of a deed with our name on it, that you never really own the land. The land owns you. It demands our very best efforts every day to make it thrive. We are glad to serve the land, and we gladly pay for the privilege of doing so. It is not my desire to stop development of methane or other minerals on our land even if I could, provided development proceeds in a way that honors our philosophy of sustainability. After all, like most ranchers in this part of the world we are short of only two things, money and water, so the present activity should and could be a boon to us.

I want to relieve your mind about the alarming stories you have been hearing that the Coal Bed Methane Industry is languishing in Northern Wyoming. I can assure you that, in spite of stories to the contrary, that industry is alive and well. In fact, one might say it has never had it so good. Methane and natural gas prices are at an all time high, and in my opinion, state and federal regulators have not been so lax with any industry since the Environmental Protection Agency was formed. Understandably, methane operators are setting up and extracting gas as fast as they can, much like children with their hands in the cookie jar, fearing they will get caught at any moment.

In the process those most affected by this play are ignored. Many landowners and people living in the vicinity of methane activity are seeing their neighborhoods turned into industrial areas overnight. Unnatural amounts of water are being pumped out of the ground to relieve pressure on the gas so it can be extracted, causing drawdown of the aquifers. This in turn causes problems with domestic and stock water wells, possible land subsidence, and worst of all, gas seepage onto the surface of the land causing fire hazards on the land and in people's homes. Water discharged onto the land causes flooding, contamination of the soils, and unnatural conditions for the arid area in which methane activity is taking place in Wyoming. Ugly, noisy compressors, the smallest of which are the size of a house, have begun to dot the countryside, and the clear, open Wyoming sky is laced with huge new power lines.

No one likes to advocate more government regulation. It often causes more problems than it solves, but federal and state government can set the tone for how business is conducted, and here are some ideas that might help. First, make sure that all existing federal and state regulations are adhered to. Some of the water being discharged onto the ground is laced with various toxic substances. It can be high in sodium, which compromises the fertility of the soils in the area. Regulators have been very weak, in

some cases, to stop this flooding. Even when they have issued cease and desist orders, some methane companies have continued to let water flood people's lands.

Increase the bonding rules for extraction from federal and state minerals. The only reason for industry to respect landowners and folks who live in the vicinity of this development is economics or regulatory action. Lawsuits by individuals when energy operators have violated their rights are rarely effective. The industry expects litigation and has teams of expensive lawyers trained to make such lawsuits as time-consuming and costly as possible, knowing the resources of the individual are limited.

A requirement for landowner consent for drilling and discharging byproduct water is needed. At the present time in Wyoming, the holder of a mineral lease has superior rights over a surface owner of a property. Even those landowners who own their own minerals can't keep mineral development off the land if even a small part of those minerals are owned by other parties. Folks living in residential subdivisions around Gillette, Wyoming are having wells drilled literally in their yards. Drilling is soon to take place within the city limits of that community.

Regulation does not cause the demise of the energy industry in Wyoming. The oil business died because there was no oil left that could be economically extracted from the ground. Regulation will not cause the Coal Bed Methane industry to die in Wyoming either. Only when there is no gas left or the demand for gas decreases will these folks leave. Protection of the environment and the culture of an area is no sin. It is a moral and, in fact, a legal obligation of the government. If the states refuse to do this in a fair and timely way, federal regulations must kick in.

Submitted by: Nancy Sorenson
7241 Highway 14-16
Arvada Wyoming 82831

Nancy Sorenson

ERIC S. BARLOW
708 Rockpile Blvd.
Gillette, WY 82716
Home Phone (307) 682-9858
Email barlow@vcn.com

March 14, 2001

Dear Representative Cubin,

I am writing this letter to express my thoughts and concerns with regard to this nation's energy policies, market pressures and their effects on Wyoming. It is my understanding that there is interest in developing a national energy policy, a concept which is long over due. It is my concern, however, that the driving forces for such a policy will be those of the "extractive" energy industry and their financiers and that the subsequent outcomes will not be favorable to long term public interests.

The issue of a national energy policy must be approached in a holistic manner with the goal of optimizing the use of available resources with the demands, and doing so while minimizing collateral damages and costs. This is undoubtedly a challenging task as most energy companies from the extractive to the generation and distribution phase are in business to maximize returns. Additionally, the demand for energy continues to grow and in some cases overwhelm itself, as was recently demonstrated on the West Coast. It is my belief that any energy policy must include the following provisions:

1. Conservation of resources- It is damnable that it requires a shortage or crisis to suggest, much less promote this "drastic measure", when in reality it should be the basis of all resource based issues. This is especially true with non-renewable resources from where most of this nations energy is produced. Conservation will continue to be elusive because it is not in the interest of the energy industry and they will continue to exert their corporate will on consumers and government to this end. The focus should not be on what we want, but rather on what we can not afford.

2. Resource identification and allocation- Any policy that strives to achieve anything tangible must be based on the tangible. What are the available resources, conventional and unconventional? The basic questions of how much, where and at what cost can energy be produced must be addressed and assessed in light of the who, where and when of foreseeable demands. This is essential foundation to building any resource program.

3. Education and participation- The success or failure of any policy is in its ability for all those affected to be informed and have input. Most assuredly, this is a daunting task, one which most policy setters would just as soon avoid. However, an issue such as this requires considerable soul-searching individually and at all levels of society. For far to

long industry has had excessive influence on many policies and this issue must not be directed by boardrooms but rather by informed citizens and their convictions for societal well-being.

4. Examination and reflection- There is a wealth of experience, information and legislation available to be examined and utilized as a resource. This is often erroneously used as a template for the future. The key is to review the information without adopting the paradigms involved.

5. Formulation- Something original can come out of such a novel process. It will require a honest, dedicated and truly altruistic approach. However, some pie-in-the-sky feel good policy is worth less than doing nothing at all.

Often referenced above are the influences and interests of the energy industries. This is not to minimize or castigate their vital role, but to ground the processes in what the reality of their influences and motivations are and how they effect the process..

As a fourth generation rancher in Campbell County, I have seen a good deal of the energy industries that are associated with extracted resources. In fact, I have heard of Wyoming and, in particular, Campbell County being the "house of ill- repute" for energy. Suffice it to say this region is no stranger to oil, coal and uranium exploration and development. The latest boom is with the coalbed methane (CBM) development that is occurring in the Powder River Basin (PRB). There are a variety of issues involved relating to both ideological and practical manner in which the State of Wyoming, Bureau of Land Management (BLM) and the CBM industry are handling this activity.

CBM is being promoted as the clean fossil fuel and in comparison to its peers it may be cleaner. However, it is far from a sustainable or "green" fuel. My understanding is that when combusted it produces CO2, the same CO2 that has deleterious effects on the ozone of our planet. Lest we open up that can of worms as the United States bargains on the world market to pollute ozone far and away above our earthly right, we will focus on a local issue that falls under the collateral damage heading.

The production of CBM requires that some volume of water be produced to facilitate gas recovery. At present, this water is permitted and discharged as "produced water". This water is essentially a byproduct of the gas production and is being discharged onto the surface into draws, reservoirs and creeks. There are two fundamental issues that I have with the current manner in which this water is being handled by regulators and the industry.

The first concern I have is with the quality of this "waste water". It is my understanding from speaking with personnel from the Wyoming Department of Environmental Quality (Wy-DEQ) that much of the water being produced to date is of very good quality. There are notable exceptions to this in both the actual water quality and its interaction with the soil upon which it is discharged. Nonetheless, I do not believe that it is in anyone's current or future interest to discard good quality water. Dick Stockdale, of the State Engineer's Office (SEO), stated at a meeting in February

1999, that there is little to no recharge of our aquifers. In effect, good quality ground water is a finite and nonrenewable resource. This is a semi- arid ecosystem, in which municipal, domestic, commercial and agriculture water users, present and future, are reliant on ground water. It is a tremendous asset to have good quality water, in fact, it is an essential component to our inhabitation of this region. It must be available for future use and not fall victim to managerial oversight and industrial abuse. I can foresee this landscape without methane, but not without water. Are we being responsible stewards of this good quality "waste water" by wasting it? I wonder how many places on this planet have the auspicious luxury of dumping good quality unused water in comparison to the number of places that are energy stressed?

The second part of the water issue is quantity. Each well produces water of varying amounts. The often cited range is 8 to 20 gallons per minute. The quantity is quite variable and only actual production will tell the real story. The most recent BLM EIS for this area uses 12 gallons per minute (GPM) for its calculations. Test pumping on our ranch indicates water production will be at least seven-fold the average and this could persist for up to a year according to the producer before gas is produced and water volume is reduced. During the discharge permit process, an applicant is requested to estimate the anticipated discharge volumes. However, the final permit does not invoke any limitations on volume as it does with quality parameters. Monitoring is required and mitigation demanded with regards to quality, but not for quantity, under the current regulations. To my knowledge, there is no quantity criteria; just pump what you need to get gas production. Should there be limits on the amount of water the citizens of Wyoming will allow to be wasted? How much water are we talking about? According to the Wyoming Oil and Gas Conservation Commission, in the month of September 2000 over 1.5 billion gallons of water was produced in association with CBM activity in Wyoming. I would invite anyone interested in this to visit their website wogcc.state.wy.us.

It is time that the water, both the quantity and quality, be addressed simultaneously in a proactive manner. I am aware that the gas is in demand and industry will provide it to the consumer. There are enormous economic incentives for all parties, including private mineral holders and government. However, it appears that no individual, agency or company has any reasonable plan or conviction to handle the water resource issue. I have spent time touring in producing fields and speaking with the landowners and producers. The bottom line is the water issue is out of control, even some of the most attentive overseers are overwhelmed by the short term surface effects much less the long term resource considerations for which no good answers are available. How can this issue be resolved? By who and when? The water must be dealt with in a responsible and sustainable manner. It must be attended to now.

The concept that seems to be lost, in the rush to sell gas, is that of <u>beneficial</u> use of the water resource as defined by law and common sense. It is my understanding that the production of CBM is considered to be a beneficial use of the water. The problem with the current policy is the water is utilized only in the fact that it is present and must be removed. It is a vehicle to attain CBM. I insist that the surface discharge of copious amounts of good water **does not qualify** as beneficial use, but more appropriately as permitted refuse. If a substantive beneficial use cannot be attained on the surface locally, then the water should be returned to a good quality aquifer for future

use. There are precedents for reinjecting poor quality waters, so the reverse seems reasonable. On our ranch, there are two wells designated for the reinjection of extremely poor quality water from the oilfield. This water is placed into aquifers containing water of similar quality. There is no excuse for not following that example and reinjecting good water into good aquifers. This was requested as we negotiated a Surface Agreement for exploration on our ranch and the reply was it is too expensive. I would challenge that a truly expensive process is the desalinization of sea water. Who has the political fortitude to challenge the industry on this issue? The only real benefactors of this surface water discharge policy is the industry.

That being my ideological perspective of the water issue relating to CBM production, I would like to address a few of the local effects the proposed water discharges will have on our ranch and Deadhorse Creek as a whole. To begin with some perspective on my interest is indicated. I am striving to be a successful fourth generation rancher. My great- grandfather came to Campbell County in 1898. My family operates a commercial cow/calf ranch and the building site for our headquarters was decided by the discovery of an artesian well. Today, we continue to be reliant on artesian wells, in addition to windmills, electric and solar pumps to provide livestock water. Without any doubt, the availability of good water started our ranch and will sustain it. This sustainability will be possible if we can prevent the excessive waste of our water resource and effectively address the unbridled impacts that it will have under the current management or more appropriately mismanagement.

The most significant impact to water discharge will be it's effect on the land. While erosion is a natural component of all ecosystems, as ranchers we strive to minimize it through appropriate management practices. In this semi-arid country, the presence of a continuous flow of water in a draw or creek will tremendously exacerbate the progression of erosion. This will occur through the soaking and sloughing of cutbanks and streambanks. Subsequently, when natural runoff does occur, these instabilities will be carved out and carried downstream as sediment. This sediment will silt reservoirs, create mud bars and ultimately encroach on the Powder River.

The continual presence of water will produce pseudo- riparian or wetland areas. There will be an alteration of the plant and animal species present and an increase in noxious weeds. Where the water has a diffuse spread, the alkali will concentrate on the surface and severely limit the quantity and quality of forage produced or the ground will simply sour. In some areas the interaction between the water and the soil will destroy the soil leaving unproductive dirt. In defined channels, the water will attract heavier use by wildlife and livestock furthering steambank instability.

The natural runoffs will be faster and more destructive in a wet drainage. Persons and livestock will be at greater risk from these treacherous situations. Vehicular and livestock movement will be faced with impassable channels. There be will increased damage to and destruction of infrastructures, such as road crossings and fences. There are considerable costs to reconstructing roads and fences. I might add that I am not just referring to a few ranch roads, but to county roads and to Interstate Highway 90. Are the taxpayers ready to foot the bill for the industry- induced damages?

As I mentioned previously, our ranch and several neighboring ranches have

artesian wells. We are very concerned that we will lose part or all of them. I am aware that the SEO says we have no right to the pressure that brings the water to the surface That does not alter the fact that a hardship will be created if our wells quit flowing. Mitigation is wonderful, but any rancher will tell you the value of an artesian is incalculable.

In essence, the entire ranch management plan will have to be altered to accommodate this unwanted intruder, the CBM produced water. This places an extraordinary burden on the landowner, both financial and managerial.

An often overlooked, but extremely critical local issue is the concept of cumulative downstream effect. The Deadhorse creek drainage encompasses 151 square miles. As CBM wells can be spaced two wells per eighty acres (based on the fact that different coal seams can be drilled, it could be even more), this would put a potential 2416 wells discharging into this drainage. I realize that not every well will be drilled, but if 20% (483) are, there would be 9,660 GPM produced, assuming 20 GPM per well. This would create a cumulative flow at the discharge points of over 42 acre-foot/ day. (Based on actual water production and industry indications of development, I am being very conservative on both well numbers and water production) So essentially, what we have is a trickle at the head , a babbling brook by midway and a coursing waterbody at the mouth of Deadhorse Creek. The negative impacts of the water will be in a exponential progression. How can this be addressed? Who will be responsible to mitigate these issues? We have been told that these are civil issues by the Wy-DEQ. The landowner upon which the production and discharge is occurring has some negotiating leverage. However, downstream landowners are at an extreme disadvantage to negotiate for compensation due to the ill effects of this "waste water". This "civil" issue is sure to involve the State because they own the water and permit its discharge. It may be that I do not want the water from upstream or persons downstream from me may not want water from our ranch. These are being termed as "trans- boundary effects" by some and it is true. It seems like nobody but the neighbor minds if the bad apples fall on their side of the fence.

There are a wide variety of issues cited above and each has a common fact. They are present due to the surface discharge of CBM water. Currently, we have one non-renewable lucrative resource (CBM) being extracted at the expense of another life - sustaining one. It is time for the citizenship of Wyoming to demand that both regulators and industry, preserve and conserve our most precious natural resource, water. I am not opposed to the production of CBM. I am opposed to the reckless and uninformed manner with which the water is being handled. I have heard that it (CBM) can't be stopped and we have to let them do it. That is like the manager of a baseball team not stopping the game to replace a pitcher with a broken throwing arm. It does not make any sense. But then I guess not everyone spells cents the same way.

Please accept my comments and I thank you for your consideration of them. I extend an invitation to all parties receiving these comments to contact me for a tour of the activities in this area. I understand that these activities have garnered some national press notoriety and for good reason by my estimation, but I invite you to come and see for yourself.

I know that there are concerned citizens that can amply demonstrate their concerns and wholeheartedly await acceptable solutions, not just to these local symptoms, but to the disease that is embattling this nation for which an appropriate national energy policy may be part of an effective treatment.

Sincerely,

Eric S. Barlow

Mrs. NAPOLITANO. Madam Chairman, can we also introduce into the record the report she handed to be introduced? I don't think you accepted it.

Mrs. CUBIN. Certainly, we accept that to be put on the record.

[The aforementioned report has been retained in the Committee's official files.]

Mrs. NAPOLITANO. Thank you, ma'am.

Mrs. CUBIN. You bet. I will start off with my five minutes really with a statement. No one argues that we are having an energy shortage or that there is some sort of a crisis. There certainly is. Many of us have known that for a long time. What has been disturbing to me is—I am glad that Vice President Cheney is the head of the task force that the President has appointed to come up with a national energy policy. I would like to give you my view of what a national energy policy should include.

First of all, I think we have to estimate—not estimate, we have to figure out what our national consumption is and how much we actually need to be safe as a Nation, and how much we need to consume or how much we do consume. Then, we need to predict or estimate future growth in consumption or reduction in consumption, whichever that might be. At that point, we need to apply the forces of conservation, better technology, efficiencies in the technology that we have and try to reduce our consumption of energy as much as we possibly can. At that point, we need to—when we know what our energy consumption needs are, then we have to decide what percentage of that should be produced domestically.

After we decide that, we need to decide what sources—what percentage of that domestic production should come from coal, oil, gas, wind, solar, geothermal, hydro, whatever, and that way we would have an idea.

This document or this policy could certainly change, and there would be times when one fuel would be contributing more to the energy supply than others, but at least we wouldn't find ourselves in a situation where we don't—a boom-and-bust situation which the minerals industries usually find themselves in.

I think if we all work together as Congressmen, and we work with industry, and we work with agencies so that we can have access to produce the energy that we need, we will be far better off than politicizing this issue. To say or to think that President Bush would want to put every acre of public land open for drilling is simply nonsense.

I wish Mr. Markey were still here. The statement he made about the 1,466 trillion cubic feet available for production are total and 1,361 are available, well, they may be available to be permitted, but they aren't ever going to get the permit because we have the Endangered Species Act that affects access. We have wilderness areas, wilderness study areas, national parks, national forests, on and on and on and on.

So the information is truly slanted, and that isn't going to help us get to a national energy policy, and it is not going to help us solve the problems that we have.

So I hope that this Subcommittee will work together to put forward honest pictures of what the situation is like out there. What

I see so far has been very distorted, and I certainly hope the Committee can do a better job of being realistic with the facts.

Having said that, I will now recognize Mr. Kind for any questions he might have of the panel.

Mr. KIND. Well, I want to thank the witnesses for your testimony here today. I think as we embark upon this, what will hopefully be a national discussion in regards to our long-term energy needs, that we will be able to approach it in a bipartisan and balanced fashion.

One of the disturbing things that I have witnessed thus far in the early stages of this next session of Congress is there has been a lot of focus, a lot of attention on the supply equation, and that is the business that you gentlemen are in, and we recognize that, and it is going to have to play an important role in regards to our energy needs. But I think we need to be careful that it doesn't become too one-sided, because obviously we need to focus on the demand aspect. And I appreciate Ms. Speer's testimony today in regards to various ideas and proposals to deal with the demand, and I would hope that all of us here would be in agreement that there is a lot of work that we can do, a lot of progress we can make in regards to sound conservation practices and trying to reduce the demand side of the equation, things we may be able to pursue in the Tax Code to encourage greater energy-saving devices and development of higher efficient buildings, for instance. And I think we also need to take a serious look at the CAFE standards when it comes to oil production and the needs of oil in this country.

And I agree with the Madam Chair's assessment in regards to what data and what information we are going to need, and that is where I think you all can be of invaluable assistance in trying to project out what the energy consumption needs are going to be in light of the economic fluctuations that we are in right now. But hopefully we are going to be able to bring some balance to this and take a serious look at developing a long-term energy conservation policy, which I believe this country sorely lacks, an honest assessment of the type of alternative and renewable sources that we can honestly and cost-effectively pursue today.

But one of the questions that I have for you gentlemen here today is it appears as if you do have a political problem. I mean, Ms. Speer testified in regards to the congressional moratorium on OCS exploration and drilling off the east and west coast and the eastern part of the Gulf, for instance. Even Governor Bush in Florida, for instance, has come out on record opposed to drilling in 181, for instance; Governor Knowles up in Alaska. In light of that, how do you make the case to the American people when you have community leaders and Governors of the very States who are on record as saying—some of them actually saying that we believe in drilling, just not in our backyard. I mean, how do you overcome that type of political resistance that you may be facing? And I would open it up to anyone.

Mr. HACKETT. I might just try to clarify what my view of that situation is, is that while Governor Bush may be against the OCS sale that has been announced for December, it has been some five years in the making. The other four Governors of the States that it touches are in support of it. So four out of five are actually in

support of it, and the onshore facilities that were referred to earlier are not anticipated to be in Florida. So States who will be most impacted by this who actually welcome offshore rigs for fishing purposes in the States that I work in, Louisiana and Texas, because they attract fish, they may have a very different view than Governor Bush about that particular sale.

And more importantly, I think there are a lot of answers, and I think you are absolutely right, Congressman Kind, in the long term in terms of demand reduction, more efficiency, LNG, frankly nuclear energy, a number of different alternatives for supplies of energy that we need to look very hard at. The problem is they don't get here for five years, and neither does the pipeline from Alaska. So we all sit here as citizens of this country worried about our global competitiveness and how we are going to make it over the next five years, and we need to take very seriously getting the facts out in front of us about what we are facing and the question about whether there really is a lot of free property out there that we are somehow not taking advantage of.

I promise you in a competitive market-based economy people tend to take advantage of what is given to them. If that was truly there, I promise you we wouldn't be spending our energy up here talking to you. We would be out there trying to drill it up. Thank you.

Mr. KIND. Ms. Speer, let me throw it at you for a second. In light of what Mr. Hackett just testified to, given our short-term energy needs, do you believe it is possible through conservation and development of alternatives and renewables to pivot in a short period of time, given the demand that already exists in the marketplace and what will inevitably be there in the very near future?

Ms. SPEER. That is a very good question, and the short-term needs are very pressing right now. There are some ramping-up activities that we can take. But the reality is my understanding is that for most offshore gas fields, as well as onshore gas fields, that it takes a good five or six years, according to Chevron, to bring those on, too. So this is going to take time to solve, and there are a lot of issues that have to be addressed, including things like pipeline availability in some areas.

But I just want to emphasize with respect to the eastern Gulf that you know this is not just a few people here and there. Every single member of the Florida delegation with one exception has supported the moratorium and supported the position that we have articulated and Governor Bush has articulated. These are very deeply held views on the part of very many people, and fortunately, there is not that much gas there by the Interior Department's estimates. The Interior Department again says there is about 6.9 trillion cubic feet in the entire eastern Gulf of Mexico, and again, that is only about 5 percent of Interior Department's estimates of the total OCS undiscovered resources.

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

The Chair now recognizes Mr. Flake from—oh, he is gone. So Mr. Otter.

Mr. OTTER. Thank you very much, Madam Chairman. I wasn't quite ready. Being the bottom of the political food chain here, I ex-

pected some of the more senior Members to get their opportunity in the box first, but thank you very much.

Mrs. CUBIN. If you would like, I could recognize somebody else. Generally on the Committee we can recognize people in the order that they show up.

Mr. OTTER. I shall show up very early from now on.

Mrs. CUBIN. If you would like to take a few minutes.

Mr. OTTER. No, no, I am ready. Having got this position, I am not giving that up for anything, and now that I have used 2-1/2 minutes of my time getting the floor—you know, much is said about who is and who isn't supporting this thing, and I think it is important—in fact, I think it ought to be the direction that we always look to first rather than looking to an organization from New York or an organization from San Francisco or Dallas, Texas, or someplace else about where we ought to be drilling and where we ought to be exploring or where we ought to be looking for energy needs, I think we ought to look to the States first, and if Governor Jeb Bush doesn't want his State to develop, that ought to be so.

But would you then agree—would you all then agree that if Governor Kempthorne of Idaho or all the other Governors said, yes, we want to build dams, yes—because I don't, Madam Chairman and members of the Committee, I don't think that we can talk about this subject in a vacuum. I think it is going to have to be part of the entire piece for energy, and so I think we have got to talk about dams and coal-fired plants. I think we have talk to about FERC. I think we have got to talk about additional potential; heaven forbid, even nuclear plants. I think we need to talk about all these things as part of our national energy policy.

And so I want to know, I want to hear from each of the Members that—would you be equally enthusiastic about extolling the statements if a Governor said, yes, come and drill in my State; yes, come and build a dam; yes, we want a coal-fired plant from clean coal?

I will start with you, Mr. Simmons.

Mr. SIMMONS. I spent this morning at the Department of Energy workshop on the power situation of the United States and heartily endorsed clean coal, nuclear. Natural gas will not get to 30 TCF, in my opinion, and it is going to basically cause severe risk of electricity problems for a decade. So I think the time has come that we need to embrace every form of energy, including conservation, but the conservation numbers, unless the conservation people can do some very quick education, do not add up to enough reduced demand to basically conserve us out of a problem.

Let me give you one example. If we could create tomorrow morning 100,000 80-mile-per-gallon cars, we would save 4960 barrels a day. That is a single well in the Gulf of Mexico. Those are real economic reality numbers. So I think it is going to be very important as we go into these very serious energy debates that we have some real genuine intellectual honesty about how we deal with some numbers very precisely, because this could be the greatest risk to our economy since World War II.

Mr. HACKETT. Thank you, Congressman. I agree with Matt that we are a very spoiled Nation, this Nation doesn't like to conserve, generally speaking. You look at the demand for oil products, even

with the crunch that you had in the late 1970's, early 1980's, and you see it has gone up over that whole period. I was not pointing to governors' support of individual States as a reason to necessarily approve or disapprove of anything. It was just to straighten the record out, so we are not biased in one direction. This is a national issue, it is a national issue on environment and energy. The biggest risk to us is the economy against a global competition that will have much lower natural gas costs.

There is plenty of natural gas in the world we just, can't get it in here because we don't want to allow degasification facilities to be sited in our country. We have four of them. We are refurbishing two of them. They do not make a big enough dent. They costs hundreds of millions of dollars just like the ships that are required to get them here, and the facilities overseas that you have to make it from, but there is plenty of it at the right price over time. It doesn't happen for five years. So what do we do in the meantime? That is where you look at all the alternatives, you mention and I applaud you for your thought process.

Mr. PAPA. Congressman, we agree that we need a national energy policy that embraces not only natural gas, but also clean coal, consideration of nuclear, certainly renewables, wind, solar, some of those items, and I think none of us disagree with that. To me, I think you can frame the debate on access for natural gas is very simply, I believe, that if, the Nation is willing to tolerate a higher average natural gas price over the next 10 or 20 years, then we can continue to withhold lands from drilling. If however we open up these lands for drilling, the consequence will be you have more supply, you will have an average lower natural gas price over the next 10 years or so. And I guess the Nation has to weigh what are the economic consequences of those two items?

Ms. SPEER. Thank you. I want to agree with Mr. Hackett that we are a spoiled Nation, and we really do have to get our house in order on this question if we are going to continue to prosper in the way we have. In our view, the way to proceed, though, is a different way. And I think that the record of energy efficiency improvement really speaks for itself. For example, from 1975 to 2000, new generations of energy efficient refrigerators has reduced their electricity consumption by 75 percent saving some 60,000 megawatts of electricity. And standards that have been adopted by the Energy Department since 1997 for clothes dryers and air conditioners and other appliances will eliminate the need to build 120 new power plants. These are real figures, and we think this is the direction people should go. With respect to the discussion of governors—.

Mrs. CUBIN. The gentleman's time has expired. If you could make it quick.

Mr. OTTER. I think she answered the question. Madam Chairman, I reserved my opening statement and I would like it submitted for the record.

Mrs. CUBIN. Yes.

Mr. OTTER. Thank you.

[The prepared statement of Mr. Otter follows:]

Statement of The Honorable C.L. "Butch" Otter, A Representative in Congress from the State of Idaho

Madam Chairwoman, thank you for holding this hearing today on the important role that public lands play in the development of a comprehensive domestic energy policy. I am pleased to join you and my colleagues in support of proposals to increase our natural gas supply.

At first look, you might ask, why would Idaho be interested in this? There are no natural gas plants in Idaho. Almost 87 percent of Idaho's electricity-generating capability comes from hydroelectric power. However, while Idaho does not produce natural gas, it now imports nearly 64 trillion cubic feet of gas that is used to provide energy for homes, businesses, and industrial operations in Idaho—almost all of it in my District.

Additionally, over 914 trillion cubic feet of gas is transported across Northern Idaho from Canada into the United States to serve the demand for natural gas in California, Washington, Oregon, and other western states. This trend is growing dramatically. The U.S. Energy Information Agency forecasts that within 20 years, demand for natural gas will increase 62 percent—much faster than it is being produced.

Madam Chairwoman, we need to develop an energy policy now—one that will utilize resources we know are already available right here in the United States—on public lands and submerged offshore in methane deposits.

Under the previous Administration, U.S. imports of foreign oil increased to 56 percent—7 percent of it from Saddam Hussein. Last summer, gas prices skyrocketed, and the only answer from the previous Administration was to beg foreigners for more oil, tap into our Strategic Petroleum Reserve, and actually cut off efforts to create new sources of energy in the United States. Because of stringent regulations, relicensing existing hydro, nuclear, or natural gas facilities has become costly and time consuming. We should be seeking ways to bolster our national security by developing domestic energy sources and decreasing our dependence on foreign oil

The crisis is at near-critical mass in Idaho and the West. Record-low water levels will severely harm hydroelectric dams' ability to produce sufficient power to meet Idaho's needs—let alone increasing demands of Californians and other western power users. The previous Administration's forest roadless restrictions on Forest Service and Bureau of Land Management lands is blocking access to 9 million acres of Idaho public lands—land that most certainly would yield to the development of new sources of natural gas supply and rich mineral resources. These rules were imposed contrary to BLM's statutory duty to manage public lands for multiple use and sustained yield.

Recent estimates reveal that 1,300 trillion cubic feet of natural gas and some 204 billion barrels of oil could be made available on American soil. That energy that could fuel American industries, businesses, homes—and help offset the millions of dollars that taxpayers are now paying for years of poor maintenance by the Federal agencies in our national forests.

Madam Chairwoman, we also need to block efforts that would tear out existing clean, renewable sources of hydroelectric power. Environmentalists have proposed tearing out hydroelectric dams that produce up to 3,000 megawatts of power at their peak—enough to power the City of Seattle three times over. Replacing the clean electricity generated by the dams with the next cheapest source—natural gas—would take years to implement, cost millions of dollars per year, and would further exacerbate the growing demand for natural gas that is already there. Instead, we should support efforts to swiftly relicense these dams, and authorize access to public lands to increase transmission capability.

I look forward to working with you, Madam Chairwoman, and the rest of the members of this Committee, to explore common sense proposals to unlock the abundant natural gas supply on the millions of acres of public lands and to review unwise directives such as the roadless regulations, that prevent access to those who could untap resources, reduce the risk of forest fires, and to ease our nation's energy crisis.

Mrs. CUBIN. The Chair recognizes Mr. Markey.

Mr. MARKEY. Thank you, Madam Chair. Let me go to you, Mr. Papa, the 1999 report of the National Petroleum Council (NPC). The report estimates that the total of natural gas resource base in the lower 48 States, including offshore, equals 1,466 trillion cubic feet. Much of this resource base resides on Federal lands or Federal

waters. The NPC study asserts that a large portion of this resource base is not open to either assessment or development.

So I would like to ask you some questions, if I may, about this assertion, which I believe to be a total exaggeration. First of all, I see that the NPC asserts that approximately 40 percent, or 137 TCF of the Rocky Mountain States resources is either closed to exploration or is under restrictive provisions. Isn't it true that the fine print in this report states that only 29 TCF of the Rocky's gas resources are actually closed to development, that is, in a natural park or wilderness area, while the remaining 108 TCF are available for oil, gas or leasing under certain stipulations, such as seasonal limitations during calving periods.

So wouldn't you agree that this 108 TCF is, in fact, accessible in the same way the industry is arguing that in the Arctic Refuge, that they can drill in a way that doesn't disturb the caribou? Isn't it true that you are also permitted to right now drill in these areas under the same conditions that you are requesting to be able to drill in Arctic Refuge?

Mr. PAPA. Congressman Markey, I believe that a study is underway, as has been initiated by Madam Chairman, to take a look at these numbers and see if we can get to some numbers that everyone can agree on. The issue that you bring up here is a very viable one. The problem with the reasoning, in my opinion, that you just generated, is that a lot of these areas that are accessible to drilling and leasing have very severe restrictions on them. For example, there may be a very narrow window such as a two month window that you can access it.

Mr. MARKEY. I am looking at the chart here that Mr. Hackett, the Chairman and President/CEO of Ocean Energy has provided, and I am looking at Wyoming, and a lot of these look like they are State restrictions for the NRA and fishermen that have been put on the books by the State government, big game winter range, sage grouse nesting, raptor nesting, prairie dog avoidance. I don't know how hard it is to avoid a prairie dog. I can move over here a little bit, but just don't disturb that nest. They do not seem like they are the most restrictive. Most of them are State restrictions. Are we supposed to preempt the governors in all these western States from putting on these relatively modest seasonal restrictions?

Mr. PAPA. It is good we are having the debate on this because it has opened up—in my opinion, the numbers are really misleading. As someone who tries to access these lands to drill, I can tell you a lot of this land is not accessible.

Mr. MARKEY. When we are talking about seasonal here, aren't we really talking about what the NRA wants? They just want a season, but the rest of the year would be fine. Do you have a problem with that? Does the NRA support your position on drilling?

Mr. PAPA. I am not aware of the NRA's position on this .

Mr. MARKEY. I look at your own chart here and it looks to me like only 3.5 percent of all public lands are off base, and it goes up to 10 percent, but then you have to include the Department of Defense and Department of Energy lands as well, which are public lands, obviously.

But I don't know that we really want to move on to the Department of Defense reservations for drilling. But it is only 3.5 percent

if you eliminate the Department of Defense and Energy. And these are under the—this is the Independent Petroleum Association of America study that I am reading that was provided to me here today, which seems like a pretty low percentage. Let me move on quickly. The NPC report also asserts that 76 trillion cubic feet are closed to development in offshore areas, that is, California, Florida and Atlantic coastal moratoria imposed by Congress with the full support of the affected States.

Are you calling for a repeal of the moratoria on offshore drilling along the Atlantic and Pacific coasts?

Mr. PAPA. At this time, no. We are designating it as resources.

Mr. MARKEY. So you are not calling for repeal? Okay. So as I look at the numbers, it seems there is only 105 TCF—29 in the Rocky mountain States and 76 on the OCS—of the natural gas resource base that are not accessible. That means there are 1361 TCF, of the 1466 TCF natural gas resource base which are available for development, and I am told at a 31 TCF per year consumption rate, that is enough to meet America's anticipated needs for over 40 years. Does that number square with you? Do you disagree with this number that 1361 TCF would be available, at least for part of the area for drilling?

Mr. PAPA. That is the potential that is out there. That is not proven reserve. In a competitive marketplace, I can assure you that if that were readily available—.

Mr. MARKEY. So even that number is speculative, is that what you are saying? Even that you don't know. It could be lower.

Mr. PAPA. It could be lower. That is exactly right.

Mrs. CUBIN. The gentleman's time has expired. I would like to answer one of the requests that you brought up, Mr. Markey, if you do not mind. You were talking about the chart where the seasonal use restrictions. I wanted to point out that they are not really State laws or State regulations. The State manages the wildlife, but the habitat is managed under the Federal Government, so that is the answer to that.

Mr. MARKEY. If you would yield. I am told that many of these restrictions are put in place by the BLM at the request of the State gaming officials, and that it is only the Federal Government responding to the State requests in almost all of these restrictions. Although they don't have the legal authority to impose them requested by Wyoming or Arizona or other States.

Mrs. CUBIN. Based on managing the animals, that would be correct.

Mr. MARKEY. So that is a State action.

Mrs. CUBIN. But I can't say that all or most of them are. I don't know the answers to that but fortunately we do not need to know the answer to that because we were smart enough as a Congress last year, Mr. Skeen, and I, as you recall, offered the amendment to have the USGS do an inventory of all of the mineral wealth underground in the United States, and then do an overlay of any rules, regulations, laws designations that restrict the possibility for exploration or introduction. And this is a priority of Secretary Norton. I have talked to her yesterday. So, soon we will have the facts that we need, so that we can do something. The Chair now—.

Mr. MARKEY. Can I just? I await that report. But pending that we have the Independent Petroleum Association's report, which makes it clear in their own study that 95 percent of it is available.

Mrs. CUBIN. One last thing, he and I need to do this off the record. Believe it or not, it is okay to mine coal in the Black Hills National Forest, but it is only okay to mine it where it isn't. So the point is, it is not okay to mine coal in the Black Hills Forest where it is, but it is okay to mine it where it doesn't occur. So that is my point.

Mr. MARKEY. So, I don't care honestly, as you can appreciate, whether your constituents can kill animals or not, but your constituents might care. So I think these are primarily restrictions imposed by the States for your constituents.

Mrs. CUBIN. We appreciate your concern. The Chair recognizes Mr. Gibbons.

Mr. GIBBONS. Thank you, Mr. Chairman. To follow up on what you were just mentioning. The State of Nevada is nearly 90 percent owned by the Federal Government. Yet in the State of Nevada, probably 1000 of 1 percent has either oil or gas deposits located on it. Oil and gas is not located under every square inch of available land to determine whether or not it is there for production. And it is found where you find it, which makes many of these large leases that you have out there literally valueless when it shows that you have entered a dry well and not found what you thought you had found in the beginning.

So speculation, of course, as to what might be under there at this point in time is, as a geologist would say, only as good as as far as you can stick your finger in the ground to see what is there. You have to spend that money. You have to invest in those drilling operations to make that determination. Nonetheless, let me say that I do support the effort to increase our resources, energy resources in this country.

There is, no doubt, in my mind, even though we are spoiled, we are a Nation that has 5 percent of the world's population using 25 percent of the world's energy, but I guarantee you that not one person in this room is ready to reduce the quality of life. They will not reduce the quality of their health care and the benefits that have come from the development of resources in this Nation. And I dare say that once the rest of the world begins to catch up with us in the quality of life and things that we have enjoyed because of our resources, that the consumption rate will pretty much level out in those countries at about our per capita rate of consumption of energy.

My point being in all of this is that in this support for your effort to supply this Nation, which has seen in recent months some great challenges to its energy consumption, what single issue, what is the biggest impediment that if we were to go at it legislatively, taking a bite of the apple, not being able to take the whole thing at one time, but one bite of the apple, what impediment would you like to see us address first? And I will begin, and let you go right down the aisle just as Mr. Otter did.

Mr. Simmons.

Mr. SIMMONS. Unfortunately, I think the magnitude of the problem is such that we don't have the luxury of prioritizing and doing

one thing at a time. If, for instance, we decided to waive every access issue, which I know will not happen, we open the door to the next problem, which is an unbelievable limitation in people and rigs. So it goes on one problem after another. So I think one of the critical needs in getting the proper national energy strategy together is to recognize how fragile our energy supplies are right across the face of energy. We can't make the mistake of saying there is one area we can solve, and then we are out of our energy problems. Unfortunately we have a thousand things to simultaneously solve.

Mr. HACKETT. It is hard to disagree with that assessment, and I think that, as with many things in a free market economy, we tend to realize too late when we find ourselves in the situation, and oftentimes we tend to ignore that we are heading into it as well politically, in particular, and I think California is a great example of that. I think Matt is absolutely right. I think we need to be absolutely committed to the notion that we have to develop the resources we can environmentally safely develop as quickly as we possibly can to bridge us into the period when we can have the very serious debate about things like nuclear energy and improving our ability to import LNG and bringing a pipeline down from Alaska.

Whatever it takes from government and industry hand in hand to make that happen, we need to get serious about it. We needed to get serious about it probably five years ago. The industry itself probably started to get serious about it two or three years ago in terms of making pronouncements up here, but it is upon us.

Mr. PAPA. Congressman Gibbons, in response to your question, I give you two answers. One, I think we need a pragmatic review of surface access in the lower 48 States and the outer continental shelf in terms of availability to drill and balancing all considerations including environmental. At the same time I would recommend that you look very hard at fast tracking the permitting for an Alaskan gas pipeline. I think that is a longer-term solution to the problem.

Ms. SPEER. Thank you. I think that is an excellent question. And I would say corporate average fuel economy standards are the number one priority. They have been frozen by a congressional rider since 1994 at 27.5 miles per gallon for cars and 20.7 for SUVs and trucks. By increasing that to an average for both of about 30.9 miles per gallon we could save over 1.6 billion barrels of oil annually by 2020. That is more oil than the government estimates would be produced from under Arctic Refuge, the entire outer continental shelf, plus the amount we import from Saudi Arabia, Kuwait, Qatar, Bahrain and the United Arab Emirates. That is the kind of step we ought to be taking to help our Nation reduce its dependence on oil.

Mrs. CUBIN. The gentleman's time has expired. The Chair recognize Mrs. Napolitano.

Mrs. NAPOLITANO. Thank you, Madam Chair. May I defer to Mr. Inslee? He has to leave.

Mr. INSLEE. Thank you very much. I do have a flight. I appreciate that, so do my children. My name is Jay Inslee. I represent the First District. It is located in the suburbs north of Seattle. I

am sure you are aware of it. The folks in the State of Washington are seeing their electrical prices go up five-, tenfold or at least the wholesale prices to date, which are already resulting in astronomical retail price increases. We have an emergency situation up in the Pacific northwest right now. I say that because a lot of people think it is just California. It is felt in the Pacific north as well. And a lot of the things we have been talking about potentially have some resolution five to 10 years from now.

But I want to focus on today and tomorrow with my constituents, because the fact of the matter is, this year, to prevent us from tripping into a recession, we need some relief led by this administration today on two things: Really, the only two things we can do right now, today, this week, which are conservation and a realistic wholesale price cap on electricity. And frankly, neither one are we seeing leadership too much on getting those immediate help for the Pacific northwest and whole west of the United States.

I want to ask you gentlemen your thoughts in that regard. First, Mr. Simmons, I noted you were in the Bush-Cheney transition team. I think I read that in your testimony. What did you advise the administration and what is their position on immediate conservation efforts to try to reduce the demand in the next five to six months in the western United States on how to help us give incentives for conservation? Can you tell us what you advised the administration and what their position is as far as you understand it?

Mr. SIMMONS. My advice has been that conservation is a very important thing to take seriously. But I do not honestly believe in any stretch of the way that we can do anything in the next 6 to 12 months to even make a dent on these terrible problems. I am originally from Utah. I am afraid Utah will get sucked into the California problems, too. I would love to think we can conserve our way out, but I think we are actually talking about Draconian life-style changes, as was said earlier, none of us in this room are probably emotionally prepared to do.

I think one of the dangerous things we could do is hold conservation out as a silver bullet. That has nothing to do with not being a really strong believer that we have to find ways to start conserving energy, but I just do not believe we will all turn in our Suburbans. I think we need to hunker down for a possible decade-long solution to a really massive energy problem. I have described this in a Senate hearing a month ago as a Marshall plan of energy that will literally take us a decade to do, and I think the bad news is there is no solution in the next 6 months.

Mr. INSLEE. Well, thanks for the optimistic note. I frankly think you are dead wrong, just flat dead wrong. It is that kind of thinking that got us behind the eight ball. I tell you, if we achieve 10 percent conservation of electrical usage in a retail and commercial basis in the State of Washington, we will relieve enormous pressure on our utilities during peak demands. As you well know, it is the peak pricing in the electrical market that kills utility. If we look at this and if we hit 10 percent conservation, we will dramatically reduce the pricing benefits that the generators have in a moment.

And so, I guess I will reiterate the question, Mr. Simmons, for instance, did you encourage the administration to get behind an effort to increase our CAFE standards and if so, what was their response?

Mr. SIMMONS. No, I didn't. I actually do not believe that CAFE—that we mandate people to do things they are not prepared to do. I think the evidence is you can enact CAFE standards and Americans will buy sport utility vehicles and suburbans, so that wasn't any of my recommendations.

Mr. INSLEE. You understand the goal is to close the loophole in the CAFE standards so that if you close the loophole, you do away with that loophole. You understand that can be done, I am sure. So what you are telling me is you are here to advocate drilling in national monuments before the United States of America closes a major loophole in their CAFE standards, and simply gains gasoline by conserving it. Is that what you are telling us?

Mr. SIMMONS. No, I am saying we need a very carefully designed and very balanced energy policy that does a little bit of everything, because not one thing will get the job done.

Mr. INSLEE. I agree with you. Are you telling this panel that we should allow drilling in national monuments, crown jewels of the west before we increase CAFE standards? Is that your testimony?

Mr. SIMMONS. No, not at all.

Mrs. CUBIN. Mr. Inslee, he answered your question.

Mr. SIMMONS. I don't know that anybody here is proposing drilling in national monuments.

Mr. INSLEE. Just so you know, President Bush yesterday said we should drill on national monuments.

Mrs. CUBIN. The gentlemen's time has expired. The Chair recognizes Mr. Rehberg.

Mr. REHBERG. No questions.

Mrs. CUBIN. You have no questions. Mr. Inslee, I believe it is your turn now.

Mr. INSLEE. Thank you, Madam Chair, for your courtesy.

Mrs. NAPOLITANO. I am sitting here shaking my head in disbelief because we in California are going through the energy crisis, and now we are faced with the increase in gas prices because of its ability to create energy, and we are now facing, supposedly, a crisis in supply of gas.

I am not quite sure that I totally agree with some of what I have been presented with in that for years, we have been saying we have more than ample supply of gas. We have heard it for years when I was in a State assembly. I have heard it in dialogue, I have heard it in testimony, and now we are saying that we need to go and drill in areas because we must find—to make sure that we have enough, and if I heard you, Mr. Papa, you stated that you did not know how much there was.

Our chair has indicated they have done an assessment and evaluation, and they have an idea why most of these precious resources are. Just recently there was a statement made by me that I am very concerned about continuing to not necessarily explore but dig out our resources, because in the end, we may not leave that much for our successors, the children, grandchildren and future generations.

While we need to know what we have and be able to tell our constituents, our friends and our neighbors that conservation is going to have to be a fiber and not just a side line. It is a major portion for me in the State of California that they, to be able to tell my constituents that they need to understand that the future rests on every one of us, not just the industry, not just government, but everyone.

That said, I am concerned because of the implications of not necessarily wrongdoing, but the gouging by the providers of energy that are driving up the prices because they control the abilities for us to be able to get it. We no longer produce it, so we have to pay the price. And my understanding that that is a problem, that we are now looking at in the CPUC, looking at the three contracts of marketers that have brought capacity through the El Paso natural gas and others, that they may have controlled, that they were able—my entities in California bought, were unable to use, sold back and this particular entity held on to it driving the price up.

To me that is unconscionable, because people that are mostly hurt when they can't pay the price of this energy are people on fixed income. The poor people. And I just can't see why we can not come to other meeting of the ways to provide energy and be able, especially now that we are beginning to feel a downturn in the economy. We are just keeping fueling while somebody is making an inordinate amount of money for their investors. And I am going to look at some of this material.

I have just found most of it as I came in. I would like to see a lot more dialogue going on. I would like to see more people who can give the other sides of it, so we can better understand and have some clarity to where we are and what we can do about it. I thank the Chairwoman for bringing this session, at least, to light so we can make some of our frustrations known and maybe have you talk to us about what is it that you can help us clarify in our minds when we talk to our constituents to say look, this is what needs to happen. But so far I haven't seen that I haven't heard that, and I would like to see how you gentlemen can somehow clarify a little bit of that mystery behind what is happening, and now can we work together so that we may be able to do our job and help you do yours.

Mr. PAPA. Congresswoman, thank you. I think that is a very germane comment that comes up when you have got an upset condition in California, and most everywhere else, and your constituents are saying why is this upset? It hasn't happened in the past. Speaking for natural gas producers in the U.S., and, as part of IPAA, I will say that one thing we will welcome the opportunity to discuss with you, one on one or as a group, more details on this, but the one thing that hopefully will bring some light to it is if you think about it, that every single gas well in the United States for the last several years has been producing at maximum rates 365 days a year, and yet we still don't have enough gas to really meet the demand requirements there.

I can tell you that there has been no curtailment by any producers or anything along those lines. We as an industry are racing as hard as we can. We have increased the level of drilling activity, and we are trying to grow supply as fast as we can. We are facing

a higher depletion rate, a treadmill every year. If we stop drilling as a Nation for one year, we would lose 23 percent of our productive capacity in one year, and we have to make up that 23 percent to just stay even. So I do think that more dialogue is absolutely necessary on this subject, and we would certainly welcome it.

Mrs. NAPOLITANO. I appreciate your comments and thank you, Madam Chair. There will be a hearing at next week at the State legislature in California to deal with the specific comment I made on the overpricing or the holding back of the supply. Thank you.

Mrs. CUBIN. One comment I would like to make is with retail prices capped as the California electric dereg did, it gives the consumer no incentive whatsoever to conserve, so that could be something that ought to be brought up too, maybe.

Mrs. NAPOLITANO. Madam Chair, I couldn't agree with you more, but I think it is inherent upon the leadership to begin espousing down to the local conservation, the methodology and do concerted efforts through the media, it is the highest authority. They have every right and every ability to get it across. It happened when we did water conservation some 10 years ago and we met it and were able to survive, and I think we will survive this one. But you are right. I think we need to do a concerted effort for teaching people when, where and how to do it, because we take it for granted we know, people may not.

Mrs. CUBIN. Right. The Chair now recognize Mr.Rehberg. He has a question.

Mr. REHBERG. Thank you, Madam Chair. It is often said that life kind of repeats itself, and I found myself remembering exactly 20 years ago when I first came to Washington D.C., it was May of 1979 in the middle of a gas crisis. Sitting in back of me where my staff is sitting today, I sat behind Congressman Marlenee staffing this Committee. And at that time we were talking about energy shortages and how we were going to conserve our way out of this problem. We funded, over the course of the next three years, a lot of solar energy policy, a lot of wind energy policy a lot of alternative energy policy and that seems to have fallen by the wayside.

Mr. Simmons I totally agree with you, with all due respect to my colleague from the State of Washington. I fear that we are creating a debt even more serious than the financial debt that we were creating for the next generations, the energy debt we are creating because a day will come where we will not be able to dig one more shovel full of coal or one more gas well can be punched, whether it be in Alaska or Montana. So I would not feel good about my representation for my State if we didn't seriously address the issue of production aside from conservation.

We will do the best we can with conservation. One of the things I remember from 20 years ago was a stupid policy called the windfall profits tax, and here we are again talking about the same thing in the State of Montana. I see in the legislature they just introduced the windfall profits tax on the electric companies out there because of the wholesale price of energy.

My question to you, and I apologize I looked through the materials and I didn't see if you touched on it. If you had, I apologize. I was looking for your resume and I don't have that as well. I see you are from the investment arena. Do you feel that the Federal

taxation policy and the policies such as another quick example, CARA, where are we going to take off shore drilling revenues and put it into something called purchases of additional properties as opposed to taking that revenue and turning it into a solution for the energy crisis, keeping it in the same arena. Do you think our taxation policies in many of the things we talk about, capping of electrical costs and such, give a true picture? Has it made it more difficult for your clientele or your group to be able to fund people in the production of energy that this country needs?

Mr. SIMMONS. I think the thing that has been the real inhibitor more than anything else is energy prices that were just simply too low. Unfortunately, America got to thinking they were real, but they virtually devastated the petroleum industry. They almost wiped out the country's spare energy fuel reserves. The industry spent 30, 20 years trying to cope with low energy price by downsizing, and we became a shadow of ourselves. It was not the tax policy. I think there are some creative things we can do on tax policy, particularly in some areas that won't work unless there is some extra stimulus.

This is a personal view, but I don't believe the current energy prices are probably yet high enough to actually pay for an energy Marshall plan. And someone has got to foot that bill. I think that we have an enormous education ahead of us to educate Americans on the proper relationship of energy costs. The natural gas consumers last year, commercial and residential spent about $31 billion on natural gas. They spent $7.7 billion on movie receipts. Now I don't think that necessarily means they should not have done that. We spent $135 billion on residential energy last year and we spent $205 billion last year on advertising, most of which doesn't ever get seen and all of which is embedded in costs.

So I think in this complicated energy relook we have to basically come back and know an awful lot more about energy costs, and if we are crazy enough, reckless enough to go back and try to windfall profit, we will never get the energy Marshall plan built because it will not be built by the government. It has got to be the private sector and they have to have money or they will not be able to afford it. It will be costly. We are talking trillions of dollars.

Mr. REHBERG. Would you say also because of the cost of regulations it has inhibited the companies' ability to get out and find the additional resource that is available to us.

Mr. SIMMONS. Absolutely. It has not helped anything, but it has been one of a whole long laundry list of problems.

Mr. REHBERG. Certainly it is not one issue this is, it is the cumulative effect.

Mr. SIMMONS. Yes, the buildup over 30 years.

Mr. REHBERG. Thank you, Madam Chair.

Mrs. CUBIN. Thank you.

The Chair recognizes Mr. Carson.

Mr. CARSON. Just a couple questions for you. I thank you for being here today. Ms. Speer brought up the point that was not addressed in the testimony I heard, the testimony is quite eloquent and the evidence quite well that the actual footprint of new exploration platforms is actually quite low . She talked about the coastal development, the infrastructure needs to back that up. I want the

three panelists from the energy industry to talk about their experience with that.

And Ms. Speer, if you might respond to what their concerns are that it is not so much of the exploration equipment itself, but in fact, the roads in infrastructure to back that exploration up.

Mr. SIMMONS. There was a terrific article in The New York Times in the last couple of months on the wildlife refuges of Louisiana, and I wasn't aware that Louisiana had wildlife refuges, and the data was remarkable because they have been doing the spoiling of the coastal plains in Louisiana for over 50 years now, and the numbers in The New York Times, I have never known The New York Times to be proenergy, were really stunning.

And so I would encourage you to have one of your staff dig out that article and look at it and just see that—you know, some stuff built 50 years ago was really built sloppily. But anything in the last 20 years has really been done in an unbelievable—I am not in the energy business. I am in the investment banking business. But I have worked with these energy companies for 30 years. They are very responsible corporate citizens. Most executives are passionate outdoorsmen. I have never known an outdoorsman that doesn't love the environment. So I think the reality turns out to be quite different than the rhetoric.

Mr. HACKETT. I might add the last five years are dramatically different than the first 15-, 20-year period that was referred to earlier in the testimony. As with most statistics they can tell you what you want them to tell you, depending on what period you choose. I do not know the actual details behind the comments that either of the witnesses have given you on the shoreline, but I will tell you that when you look at alternate fuels, which we thought might be the holy grail back in the late 1970's, early 1980's, we need to be very careful to know what we are getting into in terms of cost, in terms of damage to the environment.

You talk about substituting for an offshore platform that has a one block imprint, granted, with affiliated structures on shore, and you look at an equivalent power generating capacity of a wind farm, some of which are out in California, and you are talking about sizes that are 320 times the size, 45 square miles to have a wind farm with comparable capacity. Ten square miles for a photovotaic farm to be able to produce solar energy. We were not talking about always environmentally friendly alternate technologies. We have got to use whatever we can the best way we can, but we have to keep in mind that no solution is perfect. There is always a balancing act that has to occur.

Mr. PAPA. Congressman Carson, I would echo those comments. I would recommend that you might want to take a look at this DOE report entitled "Environmental Benefits of Advanced Oil and Gas Exploration and Production." I can tell you that technologies today are much different than they were 20 or 30 years ago. Horizontal drilling, ability to drill multiple wells from a single location. Lots of activities. And I think the oil industry is unfortunately stereotyped by things that may have occurred 30 or 40 years ago, certain specific upset cases that may have occurred. But I think a look at the last five years particularly shows that we can be very responsible environmental citizens.

Mr. CARSON. Ms. Speer do you have a comment about those?

Ms. SPEER. Yes. First of all, I think that we all agree that the industry has done a tremendous job in improving its record of environmentally sound development. Things have improved dramatically in the last 20 years. That said, there are still very significant impacts that accompany offshore oil and gas development. Spills happen routinely. They happen in great magnitude.

You need roads, you need processing facilities, you need storage tanks, you need an infrastructure that can have very significant impacts in the coastal areas. I was reading the comments of the State of Louisiana yesterday on the 5-year program, and they talk about continuing impacts that they are experiencing, particularly with respect to their coastal wetlands.

Also, you know, you have air pollution that generates over 100 tons per platform per year. Nearly 70 tons per exploratory well per year. You have water pollution, enormous amounts of waste are generated by those operations, and a lot of it is not handled by a closed loop system. Most of it is not on the OCS. Right now most of it is discharged over the side after minimal treatment.

Mr. CARSON. Great. Let me ask you a different question about that. The testimony of the IPAA was helpful about some of the tax policies that might be beneficial. Being from Oklahoma, I have a lot of friends in the oil and gas industry, and they talk often about tax policies that would encourage stripper wells and things like that from being kept up. I would like the comments of Mr. Simmons, Hackett and Papa about now that the emphasis seems to be access, if we have different tax treatment in the oil and gas industry, whether the deductibility of certain costs or changing the AMT, the very things you proposed in your testimony, to what extent will that get us to the holy grail of increased sustainable natural gas production?

Mr. SIMMONS. I would repeat a comment that probably sounds like a broken record, but there are no silver bullets. Every one of them are important, and unfortunately, they all have to be done at the same time. And to the extent we don't do ten of the thousand, we are basically whatever the percentage that is behind. And again, it is the best thing you can do in conservation to the best thing you can do on access. And if we don't do them all at the same time, then the awful problems of California are going to be all over the United States for the next decade.

Mrs. CUBIN. The gentleman's time has expired. I would like to thank the witnesses for their valuable testimony and thank the members for their questions. This Subcommittee may have additional questions. And we will ask that you respond to them in writing if you would not mind doing that.

I would like to thank the panel, and you are free to go. I would like to recognize now the second panel of witnesses, Marlan W. Downey, President of the American Association of Petroleum Geologists; Robert Fisher, President of the Montana Petroleum Association and Vice President of Ballard Petroleum; and Mr. David Alberswerth, Director of the BLM Program for The Wilderness Society. If you would please take your places at the table.

Mrs. CUBIN. Thank you. First I would like to recognize Marlan W. Downey.

STATEMENT OF MARLAN W. DOWNEY, PRESIDENT, AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Mr. DOWNEY. Thank you, Madam Chairman. I am President of the American Association of Petroleum Geologists, which is an international association that represents the energy professionals in geology, geophysics, and engineering worldwide. I was greatly impressed by the testimony and the questions coming before us, and I am going to skip over the testimony that I have provided in written form. And I am going to attempt to talk very briefly about some elements of the questions that have been brought up previously.

I would like to start with just the simple description of what the scale of the problem is. I think from all estimates, we are going to need about 10 trillion cubic feet of new gas every year for the new demand. That is a tough thing to do. The good thing is that we do have enormous resources undiscovered, unproduced, but estimated in the United States. That is the good news. The bad news is that we do not get to go to Saudi Arabia or Qatar or Mexico or Venezuela for any of those supplies, as we can do for oil. America has to solve its gas problems all by itself, within its own boundaries, with possibly a little help from Canada.

Gas is very difficult, very expensive, to transport, so forget about any significant help on our 10 trillion cubic feet of gas increase in demand every year from any other place than internal. It is our problem. Fortunately we do have a very large resource and I would say that, especially for that part that is located, appears to be located in the Rocky Mountains; I think it is vastly underestimated in the Rocky Mountains. We are going to need all of that, and we are going to need all the help we can get from conservation while we are at it.

Now, the good news is that once upon a time not too long ago, in fact, for 25 years running, we found an extra 10 trillion cubic feet of gas every year. Well, folks, we had 2000 rigs running. Right now we have got a thousand. And we are barely able to stay ahead of the game and to find each year what we burn up last year. Natural gas is important in the United States for two reasons: One is that it emits a lot less carbon dioxide than any other fossil fuel when converted to electricity; that is good; the second one is that it provides much more nearly a quick fix for local energy problems, because given the equipment, you can start up a large gas turbine electric generating plant, in probably under a year, as opposed to four or five years for a coal-fired plant and an infinity currently for a nuclear plant.

So that is a powerful reason why we were interested in being able to handle that natural gas. When we put those additional one thousand rigs to work for us to add that ten trillion cubic feet of gas, we have another subtlety in the problem. Shell won't help us, Exxon won't help us, ARCO and Amoco won't help us. All the majors have left the domestic onshore. The problem, and the solution, is going to be almost entirely with the small mom-and-pop operators, the independent producers that are drilling with most of those thousand rigs— using those thousand rigs currently.

And I heard a mention of the taxation problems. Is there anything that can be done to help? Well, I will say that since the

solution for this problem, if it is going to be attacked from a supply standpoint, is going to be the mom-and-pop independent operators, that there is a world of difference in how they need to operate in a tax system than the large companies. The small companies are capital short. They need to get their money back from each well they drill before they can drill another one. Currently you have to wait 7 years to fully recover your expenses, your general expenses from drilling a well.

That doesn't bother Shell or Exxon, but it does bother small companies. Something that allows small companies to recover their cost, the same year they start recovering revenue, would make a world of difference for little companies. No less tax to the government, no greater benefit to the small company, but cash flow, little companies live on cash flow.

At the end I have to agree, I would love to have the problem solved with conservation, but there isn't a chance in hell in the short term that can be anything but a partial help. I would love to have gas brought in from Alaska, but you are talking a decade from now. Short term, to keep our head above water, we better be encouraging domestic drilling by small companies in the United States. And if we do not, well, then, our national planners better be looking at a new energy future for the United States, one that doesn't count on natural gas.

Thank you, Madam Chairman.

[The prepared statement of Mr. Downey follows:]

NATURAL GAS: AMERICA'S ENERGY FUTURE OR ACHILLES HEEL?

Testimony Presented by Marlan W. Downey
President of the American Association of Petroleum Geologists
Before the
House Subcommittee on Energy and Mineral Resources
March 15, 2001

Thank you, Chairman Cubin, for the opportunity to provide the view of the petroleum geology community on this important issue. I am Marlan Downey, President of the American Association of Petroleum Geologists (AAPG).

The AAPG was founded in 1917 in Tulsa, Oklahoma to "advance the science of geology, especially as it relates to petroleum, natural gas, other subsurface fluids, energy mineral resources; and the care and protection of the environment; to promote the technology of exploring for, finding, and producing these materials in an economically and environmentally sound manner; to foster the spirit of scientific research throughout its membership; to disseminate information relating to the geology and the associated technology of petroleum, natural gas, other subsurface fluids, energy mineral resources and environmental geosciences; to inspire and maintain a high standard of professional conduct on the part of its members; to provide the public with means to recognize adequately trained and professionally responsible geologists; and to advance the professional well being of its members." Today AAPG has a membership of more than 30,000, with members in virtually every petroleum-producing province in the World.

Madam Chairman, I am here today to provide the Subcommittee with our perspective on the current situation concerning supplies of natural gas, and to suggest ways that your Subcommittee may be able to contribute to increasing those supplies for our consuming public.

In the 1990s, energy consumption in the United States grew at more than twice the rate of the 1980s. Much of that growth in consumption was fed by imports of crude oil and refined products, as our appetite for transportation fuels soared. Today, 60 percent of our supply of crude oil and refined petroleum products comes from imports. While prices for these fuels did fluctuate during the decade, the average cost to the consumer remained relatively flat over that time. Our ability to import crude oil and refined products has provided the public with energy supplies at a relatively constant price, while creating those problems associated with dependencies on increasing imports.

Importation of natural gas presents a very different picture from the importation of crude oil and refined products. While we are able to import crude oil and refined petroleum products in ever-increasing quantities from numerous foreign sources, the importation of natural gas outside of North America is much more difficult to achieve. We are able to import natural gas from overseas only as liquefied natural gas (LNG). This requires specially constructed cryogenic tankers to transport the

LNG, loading facilities overseas that are able to liquefy the natural gas, and unloading facilities in the U.S. that are able to gasify the liquid. The tankers and the facilities are very expensive and require long lead times to construct. Given the volatility of natural-gas prices in the U.S. over the past decade, the needed investment capital to develop such capabilities may be difficult to find. In addition, it may be difficult to find ports in the U.S. that will accept such shipping, given the crowded conditions of those facilities. The development of new commercial ports in the U.S. will be extremely difficult given the fact that about one-half of our citizens live within 50 miles of a coastline, and few are willing to accept larger ports and more tanker traffic.

At least in the short term, natural gas must be considered to be a North American commodity. The supply of natural gas to meet our needs must come from U.S. sources, with some imports by pipeline from Canada. Mexico is not a potential source of natural gas in the near term. In fact, we are now exporting a small, but growing, amount (about 140 billion cubic feet per year) to serve the Mexican industries that have developed along the border in response to the North American Free Trade Agreement (NAFTA).

Madam Chairman, an important question to be raised is, "Can the domestic petroleum industry develop the additional supplies of natural gas to accommodate the needs of our citizens?" That question immediately raises the additional question of "How much additional natural gas will be needed to meet the growing demand?"

Several assessments have been made to estimate the growth in expected demand. The Energy Information Administration (EIA) has forecast an expected growth in demand of about 10 tcfs per year by 2020, plus additional demand based upon various carbon dioxide reduction scenarios. The former Gas Research Institute also projected U.S. demand to increase by about 10 tcfs per year by 2015. Other forecasts have arrived at numbers similar to these.

If history tells us anything, it tells us that most forecasts prove to be wrong. Unfortunately, at the present time, we don't know in which direction they may err. We do know that, given current conditions, demand will grow. Furthermore, based upon current growth in demand, those forecasts may look like reasonable expectations.

Assuming these forecasts of a growth in demand of 10 tcfs per year may be within the bounds of reason, is it possible to develop these increases in supply from domestic sources? The good news is that once before such an increase was achieved. From 1950 through 1973, natural-gas production was increased by 15 tcfs per year.

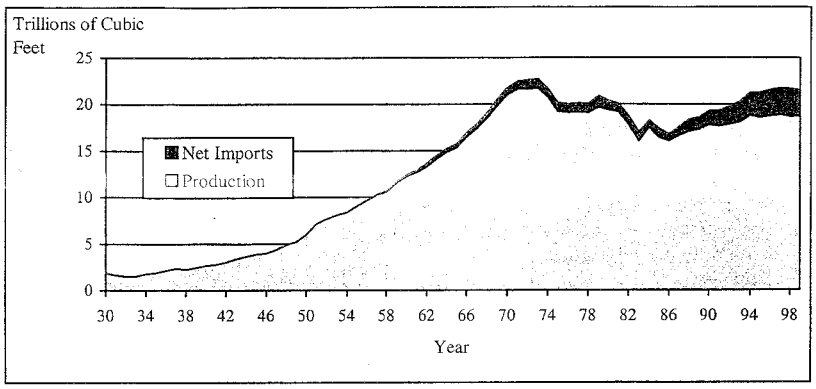


Figure 1 shows the marketed volumes of natural gas in the U.S. from 1930 through 1999.

At that time, the industry had an average of 2,000 drilling rigs operating per year, the major companies were heavily engaged in on-shore exploration, constraints on land access were minimal, and much of the on-shore state and fee lands were lightly explored. Today, the major companies have largely abandoned on-shore exploration; a large portion of public lands have been placed off limits or severely restricted for mineral access; much of the state and fee lands have been explored for conventional targets; and we have produced more than 800 tcfs of natural gas during this period.

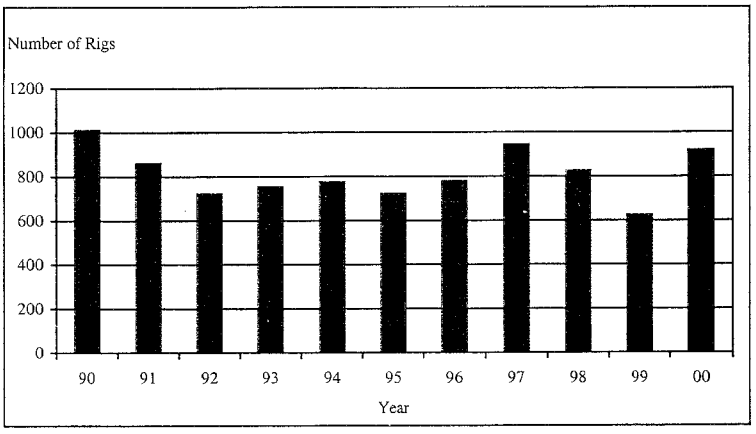


Figure 2 shows the number of rigs operating in the U.S. by year. (Data from Baker-Hughes.)

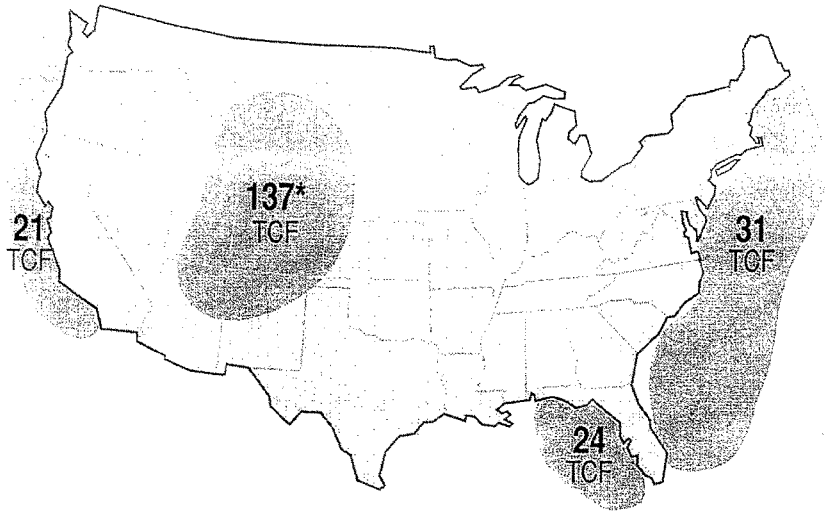
As previously noted, in the 23-year period beginning in 1950, the U.S. petroleum industry increased natural gas production by 15 tcfs per year. At that time an average of 2,000 rigs were operating in the U.S. and offshore waters. For the past 11 years, an average of 812 rigs were operating in the U.S., and today that number is about 1,000 operating in the on-shore U.S. and in the western part of the Gulf of Mexico. That is about one-half of the number that was needed to provide the increases in the previous period of supply growth. While science and technology have improved significantly from that quarter century ago, the number of rigs currently operating is totally inadequate to develop the natural gas resources to meet the anticipated demand.

Madam Chairman, if the forecasts of increasing demand for natural gas are plausible, the question remains about the ability to supply that expected demand. To address that question, one must consider three issues:

- Is the undiscovered natural-gas resource base sufficient to supply the anticipated need?
- Is that resource base both technically and politically accessible?
- Does the industry have sufficient technical and financial resources to accomplish the task?

Estimates by the Potential Gas Committee, assessments of undiscovered natural-gas potential by the U.S. Geological Survey and the Minerals Management Service, and a recent evaluation by the National Petroleum Council all conclude that the remaining undiscovered resource base of natural gas is **more than adequate** to meet the projected needs. These estimates are in the range of 1,000 to 1,500 tcfs or about 1.5 to 2 times the cumulative production to date. Areas of highest immediate potential are the Gulf of Mexico, the Rocky Mountain basins, and the deep basins in Texas and Oklahoma. Other areas of importance include the offshore East Coast, South Florida Basin, and the North Slope of Alaska.

Unfortunately, not all of these areas are currently available for exploration and development. The following illustration, drawn from a recent assessment by the National Petroleum Council, depicts a part of this problem.



Approximately 29 TCF of the Rockies gas resources are closed to development and 108 TCF are available with restrictions.

- Significant amount of resource is subject to access restrictions.
- These areas are close to large and growing population centers.

From NPC report on Natural Gas (12/15/1999)

Figure 3 shows the assessment by the National Petroleum Council of prospective areas in the lower-48 states that are either off limits for exploration and development or severely restricted to the point of making such activities uneconomic.

Action needs to be taken to permit expanded exploration and development of these currently restricted public lands. These lands were established to serve all of our Nation's citizens, not to provide scenic views for tourists. The best way to serve the interests of all citizens is to permit the development of vitally needed natural-gas resources on these lands, under careful regulation.

With respect to the financial capabilities of the industry to respond aggressively to the growing demand for natural gas, it should be noted that this challenge must be met by the numerous smaller oil and gas companies in the U.S.; companies whose financial capabilities are modest. Many have been on the verge of bankruptcy and

many are no longer in business. Most of the smaller service companies have been closed, and drilling crews have gone on to other employment. It will take several years to mobilize the efforts of oil and gas companies, but Congress can assist by reviewing the 1986 Tax Reform Act, and addressing repeal of the Alternative Minimum Tax and the restoration of the ability of the passive investor to expense Intangible Drilling Costs against a revenue stream. Those actions would go a long way in assisting small companies and independents to generate the needed capital to finance expanded exploration activities.

Absent early action by the Congress on these important matters, national planning should begin to develop a future energy supply picture that depends on much less natural gas.

Thank you again for the opportunity to testify. I would be pleased to answer any questions.

Mrs. CUBIN. Thank you, Mr. Downey. The Chair now recognizes Mr. Rehberg for an introduction.

Mr. REHBERG. Madam Chair, it gives me a great deal of pleasure to introduce the next gentlemen to you, Bob Fisher from my home State, the State of Montana is president of the Montana Petroleum Organization, an organization I have had a real close association with since my dad was the executive director of the Montana Petroleum Association for many years. He is the senior vice president and managing partner of Ballard Petroleum holdings, a big name for a little company, and to tell you how much I have appreciated and honor the Ballard family, when I became lieutenant governor in 1991, I immediately appointed Dave Ballard to the Oil and Gas Commission in Montana, a position he still holds at the age of 44 and is chairman of that commission.

The most recent governor has reappointed him. And we just look to this family and to this company for their leadership within this arena that we are talking about today. Ballard Petroleum employs 28 people and produces 1100 barrels of oil per day. Bob is a professional geologist who, despite his youthful appearance, has spent 25 years in Montana's oil and gas business.

Bob, welcome to the Energy and Minerals Resources Subcommittee. I really appreciate your taking the time. I know how many barrels of oil it took to fly you out here.

STATEMENT OF ROBERT FISHER, PRESIDENT, MONTANA PETROLEUM ASSOCIATION, VICE PRESIDENT, BALLARD PETROLEUM

Mr. FISHER. Thank you very much, Congressman Rehberg, thank you for your introduction. Madam Chair, members of the Committee, thank you for the introduction. I am here on behalf of Montana Petroleum Association and some of the mom-and-pop operations that Mr. Downey has just referred to. Independent producers supply over half of the Nation's natural gas needs. The company I helped establish, Ballard Petroleum is one of the few independent producers remaining in Montana. Since there has been so much addressed of the National Petroleum Council findings, I think I will address a few other concerns and some of the National Petroleum Council findings. Secretary Pena noted in 1998 that for a secure energy future, government and private sector decision makers need to be confident that industry has the capability to meet potential significant increases in future natural gas demand. That is a fairly prophetic outlook by Mr. Pena.

It is important to note that at the same time, the Clinton Administration was restricting air emissions from coal-fired generation facilities, and we are restricting access to government lands and access to the basic resources. These are various forces that are put in motion, along with hundreds of other small things we have done over 30 years that have combined to create a very bad recipe for the long-term supply problems.

In Montana, to give you an idea where we have been for the last decade or so, we have had three major forest service decisions, and I want to focus in on the forest service and BLM. Those three major decisions started with the Beaverhead National Forest in southwestern Montana. We started with about a million six, 2.1

million acres of land, a million six of it legally available. The games of explaining what is available for lease. No surface occupancy was almost a half a million acres. When they came out with their final EIS, a half a million acres is put into NSO; 741,000 acres is put into controlled surface use with timing limitations; and we had 415,000 acres, bless their heart, that were standard lease terms, and it goes downhill from there.

The next forest service decision has 997,000 acres available. Of that, 185,000 is put off discretionary unavailable, legally unavailable is 144,000 for wilderness areas. No surface occupancy takes up 384,000 or 45 percent of the forest remaining. Controlled surface use and timing limitations takes up another 25 percent, and bless their heart, they gave us 24,000 acres out of a million acres as standard lease terms. It gets worse. Lewis and Clark came along. The decision there in 1997, we had 1.8 million acres of land available to start with. 614,000 were the Bob Marshall wilderness areas and I love them. They are a great wilderness, but then the remaining 1.2 million acres, 356,000 no lease, the entire Rocky Mountain area of the Lewis and Clark Forest. 363,000 acres, no surface occupancy. Controlled surface use and timing limitations takes up another 400,000, and bless their heart, standard lease terms, zero acres.

I am here to tell you that access in Montana has been severely restricted and that the lands that were allowed to explore on and to help this country meet its energy needs have been severely restricted in Montana. As far as moving forward I think there have been a lot of good comments today, conservation being a very important issue, but I also think attitudes need to change, across the country, we need to work with the conservation groups, with environmentalists, with preservationists, industry and State, local and Federal governments. NIMBY has to leave. NOPE has to leave. And NOPE means "not on planet earth," "not in my backyard." .

This whole attitude that this country needs energy, it is important to our economy, it is important to our way of life and our quality of life. And we all need to come to the table and work together. And there are some very successful cooperative efforts out there that we could look at and model going forward. Some of these are known as the petroleum showcase models that are out there in the Forest Service presently.

I am a small operator and I can tell you this: these are personal experiences, when you go to do business on Federal lands, it takes 30 to 45 days to permit a well in Wyoming. I can drill it in 8 days. Okay. That is a 9,000 foot materials test. If I drill the same well which I did on Forest Service administered grasslands in Wyoming, it took me 6-1/2 months to get a permit. This country drills 24,000 wells a year. We have need to go to a pace of approximately 40,000 wells a year. We are short drilling rigs, but we also have to increase the pace. Streamlining the permitting process, bringing all the factions to the table when we are developing areas, is really critical for our country to meet, just to arrest the decline of production, let alone find new reserves.

So I know my time is short, but there are a lot of acres that the Federal lands cover, 200— over 252 million acres in the west. Not

all those acres are in productive areas. The geologic basins that hold oil and gas are unique.

So are some of the environmental concerns cover very unique areas, and sometimes we clash, but because we clash does not mean that the oil and gas sector has to be locked out of those areas. There are enough technologies out there now that we can mitigate environmental concerns, and I would just as soon have the Wilderness Society at the table with me, or the Nature Conservancy at the table with me so I know what to protect when I go into an area so I can develop those resources, because it does nobody any good to be issued an APD, an approved permit for drill, and then be served with a lawsuit and we begin the litigation.

And there are enough examples throughout the Rockies where litigation can last up to a decade for a well to be drilled. And that serves nobody any good. I thank you for your time.

Mrs. CUBIN. Thank you.

[The prepared statement of Mr. Fisher follows:]

Statement of Robert W. Fisher, President, Montana Petroleum Association, and Senior Vice President/Managing Partner, Ballard Petroleum Holdings, LLC

Madam Chairman, Members of the Committee, for the record my name is Robert Fisher and I am the President of the Montana Petroleum Association (MPA) and Managing Partner in a small independent exploration and production company headquartered in Billings, Montana. It is a distinct honor to be here today at the invitation of Congressman Rehberg to represent the MPA and independent oil and gas business at work in the Rocky Mountain States.

Independent producers supply over half of the Nation's natural gas needs. The company I helped establish, Ballard Petroleum, is one of the few independent producers remaining in the state of Montana. I am here today to attempt to convey to this Committee the challenges facing all exploration companies in their quest to help this Nation meet its energy needs. Specifically, I would like to address some of the findings of the 1999 National Petroleum Council report on natural gas, entitled Meeting the Challenges of the Nation's Growing Natural Gas Demand .

The 1999 NPC report was prepared at the request of then Secretary of Energy, Federico Pena. Secretary Pena noted that, For a secure energy future, government and private sector decisions makers need to be confident that industry has the capability to meet potential significant increases in future natural gas demand. A very prophetic outlook indeed.

It is important to note that in 1998 the Clinton Administration was restricting air emissions from coal-fired generation facilities forcing this sector toward increased natural gas usage to meet new air quality standards and at the same time fostering an environment in our Federal land management agencies that continued to restrict access to government lands and access to the basic resource. To put these various forces in motion without consideration of the impact on the commodity of natural gas was poor policy decisionmaking at best, and a recipe for long term supply problems.

The 1999 NPC report identified several key factors influencing natural gas supply and deliverability to this nation. These factors include:

- Acess to resources and rights-of-way
- Continued technological advancements
- Financial requirements for developing new supply and infrastructure
- Availability of skilled workers
- Expansion of the U.S. drilling fleet
- Lead times for development
- Changing customer needs

In regards to the National Petroleum Council's report, I would like to relate my company's specific interactions with various government agencies and other examples of Montana's attempts to help meet this Nation's energy needs.

First, a history of various Federal agency actions was prepared to give this Committee a reference point from which to evaluate the ability of the industry in Montana to help assist this Nation in the development of energy resources and power generation.

In January 1994 the Beaverhead National Forest began scoping for a new Environmental Impact Statement (EIS) for oil and gas leasing. In February 1996 a Record of Decision (ROD) was issued concerning the original 2,149,300 acres.

- Legally Unavailable 503,400 acres (23 percent)
- Administratively Unavailable 9000 acres (<1 percent)
- Administratively Available 1,636,900 acres (76 percent)

Of the Administratively Available acreage the following designations were enacted:

- No Surface Occupancy (NSO) 479,300 acres (22 percent)
- Controlled Surface Use (CSU)/Timing Limitations (TL) 741,700 acres (35 percent)
- Standard Terms (STD)* 415,900 acres (19 percent)

*Bureau of Land Management (BLM) standard lease terms are applicable.

In February 1996 a Record of Decision was issued by the Helena National Forest covering approximately 997,700 acres. In July 1996 the Forest Service promptly withdrew their 2/96 ROD because of other reasonably foreseeable projects that had arisen since the EIS was prepared. Subsequently, a new ROD was issued in May 1998 with the following leasing availability designations:

- Legally Unavailable 144,500 acres (14.48 percent)
- Administratively Available 853,200 acres (85.52 percent)

Of the Administratively Available acreage the following designations were enacted:

- Discretionary Unavailable 185,100 acres (18.55 percent)
- No Surface Occupancy 384,700 acres (38.56 percent)
- Controlled Surface Use and or Timing Limitations 258,700 acres (25.93 percent)
- Standard Terms Only 24,700 acres (2.48 percent)

Finally, in September 1997 a Record of Decision was issued for 1,862,453 acres in the Rocky Mountain Division and the Jefferson Division of the Lewis and Clark National Forest with the following leasing availability designations:

- Legally Unavailable 614,458 acres (33 percent)
- Administratively Available 1,247,995 acres (67 percent)

Of the Administratively Available lands the following designations were enacted:

- No Lease 356,111 acres (19.12 percent)
- No Surface Occupancy 363,033 acres (19.49 percent)
- Controlled Surface use 393,793 acres (21.14 percent)
- Controlled Surface Use and or Timing Limitations 135,058 acres (7.25 percent)
- Standard Lease Terms 0 acres (0 percent)

It is important to note that for the Rocky Mountain Division no lands were offered for lease. Only certain lands will be offered for lease in Central Montana in the Jefferson Division of the Lewis and Clark National Forest.

The summary of these three combined Forest Service decisions is as follows:

- Total Forest Service Acres 5,009,453 acres
- Legally Unavailable 1,262,358 acres (25.2 percent)
- Legally Available 3,747,095 acres (74.8 percent)
  - Administratively/Discretionary Unavailable 194,100 acres (3.87 percent)
  - No Lease 356,111 acres (7.10 percent)
  - No Surface Occupancy 1,227,033 acres (24.15 percent)
  - Controlled Surface Use and or Timing Limitations 1,529,251 acres (30.53 percent)
  - Standard Lease Terms 440,600 acres* (8.80 percent)

*94 percent of these available acres are in the Beaverhead National Forest These combined decisions have potentially cost the State of Montana 10 to 30 TCF in natural gas reserves. This equates to tens of billions in revenues for local and state government.

In October 1997 Mike Dombeck, Head of the U.S. Forest Service, issued a memo to all employees of the USFS stating the following:

Recently, Forest Supervisor Gloria Flora and the staff of the Lewis and Clark National Forest made a decision to not allow any further exploration for oil and gas on the Rocky Mountain Front. The decision was widely and positively covered by the media, including several national outlets. This decision was based primarily on the will of the people who responded to the draft EIS and preferred alternative. If collaborative stewardship is to be a cornerstone of our working relationship with the American people, we must, as the Lewis and Clark National Forest has done, demonstrate that the will of all people will be one of our key bases for decisions, along with sound science and resource objectives. This is true conservation leadership.

When you have people in the highest positions of government praising their employees for eliminating access and locking up the resource base then you create an environment that fosters opposition to Congressionally mandated Multiple-Use land

policies. The greatest concern of our industry following these decisions was the copycat phenomenon that would ensue following, in particular, the No-Lease Decision of the Lewis and Clark Forest. This perceived threat to responsible resource development and to basic access is now coming to fruition in the State of Wyoming in the recently released Preferred Alternative for the Bridger-Teton Forest. The Forest Service decision to adopt a No Lease policy even after a 10-year process to prepare the Bridger-Teton Land and Resource Management Plan is in total disregard for the science and detailed planning that went into the document. This latest decision by the Forest Service bypasses Congressional directives for multiple-use and places another 370,000 acres in a de-facto wilderness classification and more resources off limits.

Following these decisions, of course, was the designation of Monument status for almost one-half million acres along the Upper Missouri River and the Clinton Administration's Roadless Initiative that locked up over 6 million acres of Forest Service land in Montana.

Attitudes must change!

- NIMBY: Not in my back yard
- BANANA: Build Absolutely Nothing Anywhere Near Anyone
- NOPE: Not On Planet Earth

Our country cannot afford the radical swings of policy that can adversely effect our environment or our national security. Responsible development with utmost care for the environment is not mutually exclusive!

The problem facing this industry and this Nation is reasonable access to resources! The National Petroleum Council went further in its recommendations by stating that The Council believes that unprecedented and cooperative effort among industry, government, and other stakeholders will be required to develop production from new and existing fields and build infrastructure at sufficient rates to meet the high level of demand indicated in this study.

Specific examples of the regulatory burden and inefficiencies are everywhere. As an independent exploration company Ballard Petroleum (BPL) has dealt with many of the Regional BLM and Forest Service offices throughout the western U.S.

In the Manti-LaSal Forest of Utah it took BPL 10 months to receive a permit to drill a single well. The well was drilled in two weeks time on Forest Service lands and subsequently plugged. We then left the area for the winter months and came back to reclaim the well pad per USFS regulations. The USFS intervened and requested changes to the previously approved USFS reclamation plan. These changes then had to be re-submitted and re-approved. This process took the entire summer and early fall period. The USFS instructed reclamation to begin just prior to the fall snow period. BPL began reclamation knowing that there was a significant chance of snow and that operations would be forced to stop due to heavy snows. The snow came, we were forced to leave and then subsequently served with a non-compliance letter for not reclaiming the well pad in a timely manner. If BPL had been left alone, BPL would have properly reclaimed the location in June and July of 2000. Instead, the USFS bureaucracy cost BPL the entire summer period of decent working weather due to the USFS mandated changes to a previously approved USFS reclamation plan!

Another example of stifling regulatory oversight experienced by BPL was in the Powder River Basin of Wyoming in 1999/2000. In order to permit a single well on the USFS administered Thunder Basin Grasslands it took BPL 6 months to receive an approved permit to drill. It took 8 days to drill the well.

Generally speaking, when operating in the Powder River Basin of Wyoming, it takes one week to two weeks to drill 5000 to 12000 feet in depth. It takes the Forest Service a minimum of 6 months to permit a single well as opposed to 30–45 days for the BLM to permit the same. The industry in the United States needs to drill thousands of new wells every year to arrest the natural decline of known resources and to develop new reserves to meet this Nation's energy needs. If you examine production volumes in this country you will find that all producing areas are declining in production except for one area in Wyoming, the Powder River Basin.

In the Rocky Mountain States of Montana, Wyoming, Colorado and Utah there are 44,655,799 acres of Forest Service lands and 45,771,563 available acres of BLM lands. (1995 statistics) The National Petroleum Council report identifies additional resources by region in excess of 300 TCF in the Rocky Mountain Foreland Basins and Overthrust Province. Continued restriction of access to these resource areas will only drive investment away. Our Federal, state and local economies will continue to lose revenues. Our nation will continue to lose good paying natural resource jobs and will become even more dependent on imports of all resources, not just natural gas and oil.

Montana and the Western States have a wealth of natural resources that can be responsibly developed. Eastern Montana can supply the Nation with super-compliant low sulphur coal. Coalbed Natural Gas is just beginning to be developed in Montana and could supply several TCF for future energy needs. Montana's Overthrust province may hold in excess of 20 TCF but is currently out of reach because of recent USFS decisions. The representatives for the western States need to take a much more aggressive role in Federal lands decisions or their state economies will suffer!

The Oil and Gas Industry can address the concerns voiced by the National Petroleum Council pertaining to investment, drilling fleet expansion, technological advancement, training skilled workers and contracting lead times for development.

Our industry cannot solve government lands access issues without unprecedented cooperation from our government! Federal surface ownership in the western U.S. totals more than 252 million acres. The Forest Service needs to have a specific mandate from Congress that directs that prudent, environmentally sound resource development needs to be considered on an equal footing with current environmental and sense of place issues that are dominating the decision processes. Public land managers of the Forest Service are ignoring Congressional mandate that directs the Forest Service to support, facilitate, and administer the orderly exploration, development, and production of mineral and energy resources on National Forest System lands to help meet the present and future needs of the nation.

There are those in the government and the press that are very quick to point the accusatory finger of blame at industry, but please examine the facts and your sacrosanct positions. The government, in aggregate, is the largest natural gas producer in our country and therefore benefits enormously from this resource base. At the same time the government is further restricting access to the resource base at an alarming pace, both onshore and offshore through moratorium, No Surface Occupancy, No Lease declarations and regulatory overlap of Timing Limitations and Controlled Surface Use stipulations.

The greatest impediment to securing our Nation's natural gas resources for energy generation is our own Federal Government! Since the early 1980's there has been an enormous amount of discussion/reporting on the ever-increasing volumes of imports and potential energy shortages. Well, the energy shortages are here (California and the Northwest United States), imports are at all time highs and government continues to reduce access to oil and gas minerals on public lands. Our country has just experienced something that many of us only thought happened in Third World nations and portions of the Former Soviet Union rolling black outs and power shortages. With snow pack and moisture levels at record lows in the Northwest and low levels of natural gas in storage the individual consumer and all of business has not seen the end of the energy shortages and high power bills!

As a Nation it is easy to sit back and enjoy low inflation and a vibrant economy while putting off the nagging question of energy policy when the raw commodity is cheap. Now that energy has everyone's attention our Nation rushes to govern, as more often than naught, by crisis. My brother served in Desert Storm, for cheap oil. He came home—others did not! Leadership demands that this Nation describe a course that best meets the demand for energy, in high or low commodity price environments, that protects our citizenry and arguably the strongest economy on earth.

If you can't access the basic resources don't be surprised when you reach for the light switch and there is no light!

[Attachments to Mr. Fisher's statement follow:]

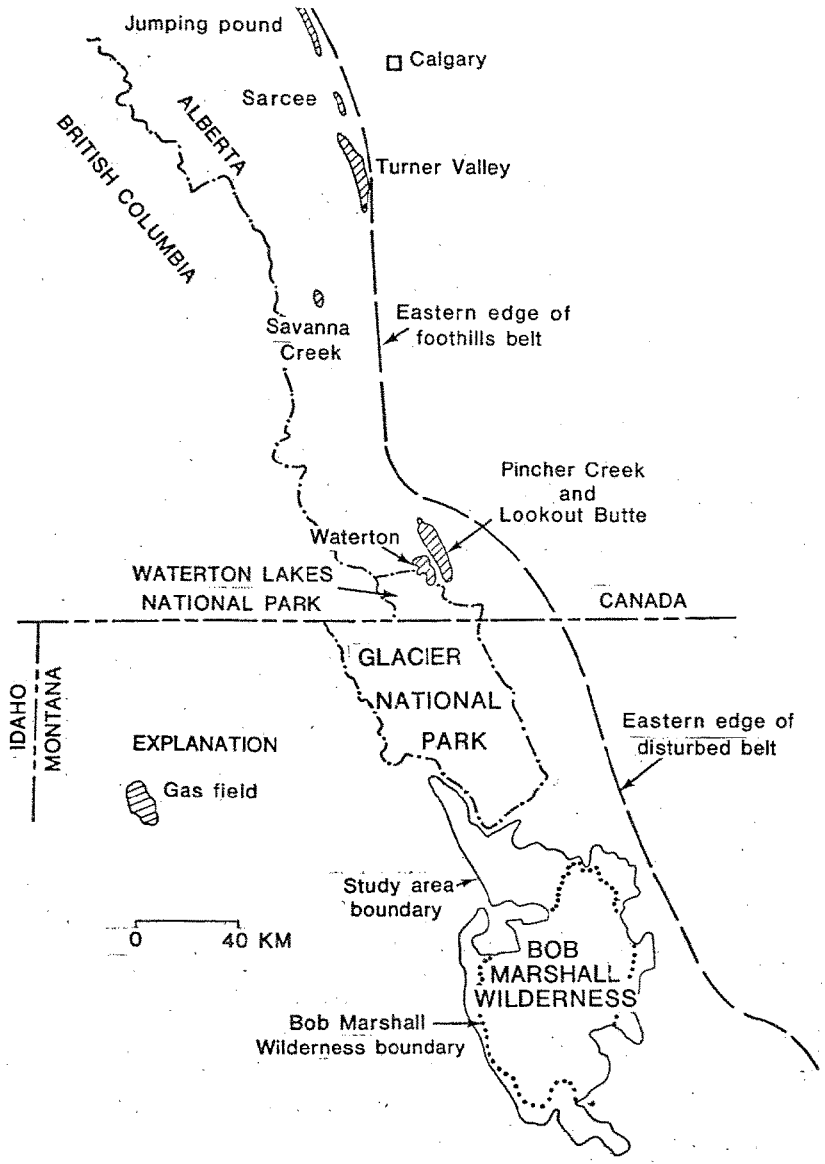


Figure 15.-Map showing Bob Marshall Wilderness and gas fields in southern Alberta Foothills (cross hashed pattern)

C A N A D A
ROCKY MOUNTAIN REGION

Mrs. CUBIN. The Chair now recognizes Mr. David Alberswerth.

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

Mr. ALBERSWERTH. Thank you, Madam Chairman. Before I start, I couldn't help but notice that the staff has identified me that I am with the BLM. And I can assure you that the current management at the BLM would be dismayed to hear this. Thank you very much for the opportunity to testify on behalf of the Wilderness Society today on this important topic of the public lands' contribution to domestic natural gas supplies.

My name is David Alberswerth and I am the director of the Wilderness Society's Bureau of Land Management Program. Prior to joining the Wilderness Society staff last year, I served the Clinton Administration within the Department of Interior as special assistant and senior advisor to the Assistant Secretary for Land and Minerals Management. It is the Wilderness Society's hope that in exercising its oversight role regarding this important matter, the Subcommittee will seek to be as objective as possible in reviewing the extent of natural resources on our public lands and the environmental values that also reside on those lands that can be placed at risk by natural gas exploration and development activities.

For although natural gas extracted from our public lands is an important component of our Nation's well being, the environmental, wildlife, watershed, and wilderness values of those lands are also vitally important to Americans. Some suggest that these two interests are incompatible, or that we cannot meet our energy needs without sacrificing some of our most precious lands. The Wilderness Society believes that we can meet our energy needs without sacrificing our most treasured natural landscapes. In fact, America has a proud tradition of combining a strong economy with strong environmental values, and we urge the Subcommittee to be guided by both goals. A review of some pertinent facts, which I will set forth below, demonstrates clearly that this is possible.

One fact of central importance that I wish to draw to the Subcommittee's attention is that the vast majority of public lands managed by the BLM in the overthrust belt States 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 95 percent of BLM lands in those states, including split estate State lands, were available for oil and gas leasing.

Although there have been some changes in the land status of some of the lands indicated on the attachment to my testimony, the data here is still essentially valid, and I would suggest it would be in the Subcommittee's interest to request an update of that data from the BLM for the Subcommittee's consideration of next week's hearing on the same topic. In addition, the Subcommittee should ask the Interior Department for its report to Vice President Cheney's energy policy task force, which I understand is being finalized this week and will be submitted to the task force.

I think, given the Subcommittee's charter here for oversight of Federal land policies and their relationship to energy development,

that the direction that the Vice President's task force is headed is of vital importance to this Committee. It is also relevant to any discussion of our public land energy policies to understand that the BLM has been carrying out a robust onshore oil and gas leasing program for the past decade. For example, the Clinton Administration issued oil and gas leases on more than 26 million acres of public lands during the last 8 years.

Mr. ALBERSWERTH. There are nearly 50,000 producing oil and gas wells on the public lands. Thousands of new drilling permits have been issued during the past 8 years, 3,400 by the BLM in fiscal year 2000 alone. Production of natural gas from onshore and offshore Federal lands has steadily increased from 1991 to the present.

Now, 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 to onshore public lands 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 areas such as steep slopes or areas where other mineral activities are taking place; in other words, places where oil and gas activities could pose extreme environmental or safety 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 habitat such as elk calving areas or sage grouse leks where operations at certain times of the year could pose severe threats to wildlife. The basic types of stipulations imposed by the BLM are described in more detail in my written statement.

Although industry public relations campaigns frequently emphasize the benign nature of contemporary exploration and development practices and technologies, when required by the BLM to utilize these technologies to minimize environmental impacts the industry is reluctant to do so, as we have been hearing here today. In fact, in testimony delivered before the Full Committee last week, the Independent Petroleum Association of the Mountain States specifically singled out protection of elk habitat as an example of an unnecessary environmental precaution. The witness' candor was refreshing. Clearly the oil and gas industry cares little for the concerns shared by most Americans that environmental values on our public lands be protected. However, the purpose of these stipulations which the industry disdains is simply to ensure that these advanced technologies touted elsewhere are used to minimize the impact of energy production on environmentally sensitive public lands.

In conclusion, I had planned to talk about everybody's favorite natural gas report here today. I hope everybody would agree on the basic data in there. Our conclusion from reviewing that report is that there is about a 40-year supply of natural gas without having to go into the sensitive areas that the industry is complaining about that they would like to go into.

In any event, in conclusion, if we are careful we can pursue energy policies that allow and even encourage increased natural gas use while protecting sensitive public lands and the environmental values that all Americans have a right to have protected, but our policies must also recognize that there are adverse impacts to natural gas development and valid safety concerns with natural gas distribution issues that should not be swept under the carpet in a headlong drilling and development frenzy.

Thank you very much.

[The prepared statement of Mr. Alberswerth follows:]

Madame Chairman and Members of the Subcommittee, thank you for the opportunity to testify on behalf of The Wilderness Society and its 180,000 members on the important matter of the contribution of public lands to domestic natural gas supplies. My name is David Alberswerth, and I am the Director of The Wilderness Society's Bureau of Land Management Program. Prior to joining The Wilderness Society staff last year I served the Clinton Administration within the Department of the Interior as Special Assistant and Senior Advisor to the Assistant Secretary for Land and Minerals Management, and Deputy Director of the Office of Congressional and Legislative Affairs.

It is The Wilderness Society's hope that in exercising its oversight role regarding this important matter, the subcommittee will seek to be as objective as possible in reviewing the extent of natural gas resources on our public lands, and the environmental values that also reside on those lands that can be placed at risk by natural gas exploration and development activities. For although natural gas extracted from our public lands is an important component of our nation's well-being, the environmental, wildlife, watershed, and wilderness values of those lands are also vitally important to Americans.

Some suggest that these two interests are incompatible, or that we cannot meet our energy needs without sacrificing some of our most precious lands. The Wilderness Society believes that we can meet our energy needs without sacrificing our most treasured national landscapes. In fact, America has a proud tradition of combining a strong economy with strong environmental values, and we urge the subcommittee to be guided by both goals. A review of some pertinent facts, which I will set forth below, demonstrates clearly that this is possible.

One fact of central importance that I wish to draw to the subcommittee'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 testimony the BLM's synopsis of the availability of BLM lands in those states for oil and gas leasing, exploration and development (see attachment I). Though there have been some changes in the land status of some of the lands indicated on the attachment since this information was prepared by the BLM in 1995, the data here is still essentially valid. I suggest that it would be in the subcommittee's interest to request an update of this information from the BLM for the subcommittee's consideration at next week's hearing on the same topic.

It is also relevant to any discussion of our public land energy policies to understand that the BLM 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 II). 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 III). Thousands of new drilling permits have been issued during the past eight years - 3,400 by the BLM in FY 2000 alone (see attachment IV). In fact, production of natural gas from onshore and offshore federal lands has steadily increased from 1981 to the present (see attachment V).

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" to onshore public lands 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 or safety 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 are not in use by certain wildlife species. In some cases, the BLM imposes "No Surface Occupancy" leases, whereby the lessee is required to access the oil and gas resource from off-site. Such "NSO" stipulations are also designed to protect wildlife habitats, while making the resource available for extraction. The types of special imposed to protect environmental values can be summarized as follows:

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

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, with the BLM's responsibility to manage other resources on the public lands. Although industry public relations campaigns frequently emphasize the benign nature of contemporary exploration and development technologies, when required by the BLM to utilize these technologies to minimize environmental impacts, the industry is reluctant to do so. However, the purpose of most of these stipulations, about which the industry now appears to complain, is simply to ensure that these advanced technologies are used to minimize environmental impacts of energy production on environmentally sensitive public lands. These stipulations do not reduce our nation's access to its energy resources.

With respect to the national forests, the national forests currently supply 0.4% of total US 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% 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.

I would like to turn now to estimates of natural gas resources and their relationship to the public lands. A 1999 report published by the National Petroleum Council, *Natural Gas: Meeting the Challenges of the Nation's Growing Natural Gas Demand,* indicates that there is a "natural gas resource base" in the lower 48 states of 1,466 trillion cubic feet of gas (TCF) (pp.7-8, *Summary Report*). (The figure does not include estimated gas resources in Alaska, estimated at Prudhoe Bay to be in the neighborhood of 25 TCF.) The report also estimates that, although current yearly consumption is approximately 22 TCF, that figure will increase to 31 TCF by 2015 (p.5).

In addition, the NPC report estimates that approximately 105 TCF of this estimated gas resource base is entirely off-limits to development, including 29 TCF from federal lands in the Rocky Mountain states, and 76 TCF from OCS areas off the Atlantic coast, the eastern Gulf of Mexico, and the Pacific coast (p.13). If we add to that figure the 9.4 TCF estimated by the Advanced Resources International analysis of the Forest Service's new roadless policy to be unavailable,[1] we have approximately 115 TCF of the 1,466 TCF lower-48 gas resource base off-limits to extraction. The *Summary Report* also indicates that 108 TCF in the Rocky Mountain states "are available with restrictions." These lands in fact are available for development under the stipulations outlined above, so should not be counted as unavailable for development.

If we eliminate the 115 TCF from the NPC's estimated "natural gas resource base" of 1,466 TCF, we are left with 1,351 TCF available for future extraction. At a 31 TCF per year consumption rate, that is enough gas to meet America's anticipated needs for approximately 40 years. Given this, it is difficult to understand the urgency with which the industry is pressing its case that it needs to invade some of America's most

beautiful and environmentally sensitive landscapes, or reduce the environmental protection afforded wildlife and other values on the public lands, in order to meet anticipated future demands for natural gas.

In conclusion, if we are careful, we can pursue energy policies that allow and even encourage increased natural gas use, while protecting sensitive public lands and the environmental values that all Americans have a right to have protected. But our policies must also recognize that there are adverse impacts to natural gas development, and valid safety concerns with natural gas distribution issues, that should not be swept under the carpet in a headlong drilling and development frenzy.

---

[1] "...with implementation of the proposed roadless areas, about 9.4 Tcf of gas beyond that determined as no 'access' in the 1999 NPC study would be impacted as 'standard lease terms' and "access restrictions" resources move into the 'no access' category." *Undiscovered Natural Gas and Petroleum Resources Beneath Inventoried Roadless and Special Designated Areas on Forest Service Lands analysis and Results*, Advanced Resources International, Inc., November 20, 2000, p. 3.

Attachment I

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.

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

	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

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%	

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

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

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: Dillion 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

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.

Attachment II

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

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1

Attachment III

From Public Rewards from Public Lands + 1999, BLM, p. 4

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.

Attachment IV

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	1,823
2000									3,496

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

Attachment V

For Immediate Release: January 17, 2001 Contact: Mike Gauldin (202) 208-6416

STRONG RECORD FOR ENERGY PRODUCTION ON FEDERAL LANDS DURING CLINTON ADMINISTRATION

The Interior Department has maintained a robust energy production program on our public lands at the same time that it has taken steps to protect special lands through both Congressional and administrative action. The Department's oil, gas and coal program, administered by the U.S. Department of the Interior through the Bureau of Land Management and the Minerals Management Service, has continued energy development on federal lands at a pace that matches, or exceeds, production levels during the Reagan years, and during the previous Bush Administration.

Secretary Babbitt commented that "The facts tell a clear story: the President's actions in protecting special landscapes will not adversely affect our nation's ability to produce energy on those federal lands that are appropriate for oil, gas or coal development. We are producing more energy from our federal lands than ever before, but we are doing so in a prudent manner."

The protection of special lands in this Administration through Congressional action, or under the Antiquities Act, will not have an impact on the continuation of appropriate energy development on federal lands. The lands set aside as national monuments are not currently relied upon for significant energy supplies, and the amount of Bureau of Land Management land that the President has placed in protected status amounts to less than 2% of the BLM lands that are potentially available for energy development.

The Administration's record in promoting responsible oil and gas development in Alaska also is strong. The Interior Department offered for lease nearly 4 million acres of the National Petroleum Reserve in Alaska, the largest federal lease sale in Alaska since the mid-1950s. Secretary Babbitt commented that "it is outrageous for the oil and gas industry to clamor for access to the pristine lands in the Arctic National Wildlife Refuge at the same time that industry has barely begun to tap the significant new resources made available during this Administration in the National Petroleum Reserve."

The Interior Department also supports the natural gas industry's utilization of the 25 trillion cubic feet of natural gas supplies that are currently available in the Prudhoe Bay area. Despite the availability of this enormous block of Alaskan natural gas, however, the oil and gas industry has not invested in infrastructure to bring this gas to market. Instead, it continues to request access to the pristine lands in the Arctic National Wildlife Refuge to explore for additional supplies of oil and gas.

Secretary Babbitt summarized: "These facts demonstrate that the industry's request to open up the Arctic Refuge is a political issue, not an energy issue. Drilling should not be allowed in the Refuge. Readily-available natural gas supplies should be brought to market, and exploration and development should go forward in the National Petroleum Reserve while we preserve the Arctic Refuge -- one of the last, unspoiled, intact ecosystems in the world."

-DOI-

Production of Oil, Gas, and Coal from Offshore and Onshore Federal & Indian Lands 1981 to 2000

	Oil *(Barrels x 10^6)*	**Gas** *(BCF)*	**Coal** *(short tons x 10^6)*
Clinton Administration *(1993-2000*)*	18,615	156,705	8,477
Bush Administration *(1989-1992)*	10,788	73,933	4,004
Reagan Administration *(1981-1988)*	25,154	142,674	6,983

*(CY2000 data is preliminary)

Outer Continental Shelf Leasing						
	Reagan Administration		Bush Administration		**Clinton Administration**	
	1981-1988 (8 years)		***1989-1992 (4 years)***		***1993-2000 (8 years)***	
	Total OCS	**Gulf of Mexico**	**Total OCS**	**Gulf of Mexico**	**Total OCS**	**Gulf of Mexico**
Tracts Leased	6,509	4,948	2,754	2,669	7,091	7,032
Million Acres Leased	34.7	26.0	14.2	13.8	37.7	37.5

Mrs. CUBIN. Thank you, Mr. Alberswerth, and thank all of you for your testimony.

My first question will be of Mr. Downey. I understand that you have some geologic experience on the North Slope of Alaska. Can you describe for me, please, how much gas Prudhoe Bay and satellite fields could provide to the lower 48 States and how long it would take to get that down?

Mr. DOWNEY. Sure, I think the key thing is that in Prudhoe Bay, the 30 or 40 trillion cubic feet that are there are not available at all for going to a pipeline, not for many years, and the reason is simple physics. It is the gas at Prudhoe Bay that moves the oil out so that it flows to the pipeline. As soon as you take the gas out, the oil stops flowing. So the only time that any reasonable person would start tapping into the gas at Prudhoe Bay is long down the road when we run out of oil in Prudhoe Bay. All the rest is wishful thinking.

Mrs. CUBIN. Can you identify for me some of the high gas potential areas in the United States, the lower 48, that have serious access problems?

Mr. DOWNEY. I would defer to some of the other people who have had firsthand experience as to access, as I have never myself permitted a well in those areas. I would say that I think the Rocky Mountains is going to be one of the great gas provinces of the United States. We had a wonderful technical conference a few months ago in which people were pointing out an entirely new development of gas, and of a gas accumulation that is largely restricted to the Rocky Mountains, and I think you all are going to be a major exporter of gas to save California in the years to come.

Mrs. CUBIN. Could you explain to me why Mexico isn't a potential source of natural gas?

Mr. DOWNEY. They are a user. We supply gas to them, about, I think, 140 million cubic feet of gas per day. They need all they can get, and they are buying from us. Not much of a chance they will turn around and stop buying and start exporting.

Mrs. CUBIN. One last question, Mr. Downey, if you don't mind. Is there any gas potential in the OCS off our northeastern United States that are akin to the Sable Island discovery and project off of Nova Scotia that Mr. Markey referred to?

Mr. DOWNEY. Sure, there is potential, because we haven't been allowed to explore there, but all you have to do is go across the State line into Canada. They are finding all sorts of gas in that same setting and, thanks to Canada, they are keeping northeast United States warm with offshore Canadian gas while northeastern states refuse to allow it to be drilled and produced from their own offshore. I hope Canada stays friendly.

Mrs. CUBIN. Isn't that the truth? It really makes you wonder, doesn't it?

My next question, I guess, will be for Mr. Alberswerth. You talk about the 95 percent of BLM land that is available for oil and gas leasing. Does that include land that has no prospects at all for oil and gas production?

Mr. ALBERSWERTH. That 95 percent, Madam Chairman, is within the overthrust belt States of Montana, New Mexico, Colorado, Utah and Wyoming, and the information that I presented was based on

information developed by the BLM in response to a question as to what the potential availability of oil and gas resources were in those States. It is probably not as precise as one might want. I am sure that there are lands, you know, incorporated in that analysis by the BLM that may not have oil and gas potential, but I couldn't tell you where they are. It would be a good question to perhaps ask the BLM, you know, if they could do a better job of disaggregating that information.

Mrs. CUBIN. Well, hopefully in the study that is being done by the USGS, or will be soon done by the USGS, they can get that information. I think all of the information that we need is really out there. It is just a matter of someone bringing it all together, focusing on it and applying it to reality.

Mr. ALBERSWERTH. That is right, and I want to make clear, though, it doesn't include States like Idaho and Nevada, for example.

Mrs. CUBIN. It did not?

Mr. ALBERSWERTH. No, ma'am, it does not include those States which are generally considered to not have a great deal of oil and gas potential. So we had asked information from States where there was an ongoing oil and gas program.

Mrs. CUBIN. As you know, the subsurface of the U.S. Forest Service land is managed by the BLM, but BLM will not lease any Forest Service land for oil and gas without Forest Service approval, is that correct?

Mr. ALBERSWERTH. That is correct, and that 95 percent figure, I just want to be very clear about this, does not include Federal oil and gas on national forest lands. It is only BLM-managed surface and subsurface State or Federal minerals under privately owned lands. As you know, in your State of Wyoming there is a lot of split estate land, so it does not include minerals on national forests.

Mrs. CUBIN. Is the 95 percent adjusted for areas like the BLM lands in southwest Wyoming where layering of multiple overlapping restrictions of wildlife protection leaves such a small window of availability of time and so for all practical purposes they can't drill because the time is too short?

Mr. ALBERSWERTH. Well, see that is a dispute here. I mean—.

Mrs. CUBIN. Pardon me.

Mr. ALBERSWERTH. That is a dispute.

Mrs. CUBIN. Okay.

Mr. ALBERSWERTH. The 95 percent are lands that are available for oil and gas leasing and development, much of which is in fact subject to the sorts of environmental protections that members of the previous panel and others have objected to. For example, the seasonal elk habitat, no surface occupancy stipulation there is correct. In our view, those are appropriate protections that have been proposed.

Mrs. CUBIN. Sure.

Mr. ALBERSWERTH. In an attempt by the BLM to try to reach this balance, you know, where you allow oil and gas activities but they are trying to protect seasonal elk habitat or other types of wildlife habitat.

Mrs. CUBIN. I want to look at that language again just a second. 95 percent of BLM land is available for oil and gas leasing, and you

are saying that doesn't count any of the BLM land in Idaho. Is that what you said?

Mr. ALBERSWERTH. Yes, the 95 percent figure, if you look carefully at the attachments, is in the States of Montana, Wyoming, New Mexico, Utah and—.

Mrs. CUBIN. And another one.

Mr. ALBERSWERTH. Colorado, excuse me. That is right. It does not include any other Western State and I should add, too, you know, there is an oil and gas program that is fairly significant in the State of California, but this whole debate about restrictions seems to be centered in overthrust belt States. So that is where that information is concentrated.

Mrs. CUBIN. But all of those nine, that 95 percent that you are talking about has restrictions, I don't mean every single square foot has restrictions but across the 95 percent there are other restrictions in place due to regulations, rules, things other than land designations, right?

Mr. ALBERSWERTH. I would assume so.

Mrs. CUBIN. And land designations, wilderness study areas, for example, would be included in that or not?

Mr. ALBERSWERTH. No, ma'am. My understanding is, and it may be worth asking the BLM about this, that the 95 percent excludes wilderness study areas. In other words, wilderness study areas are in the 5 percent where oil and gas leasing is not allowed.

Mrs. CUBIN. And you know, I think that the 95 percent figure can be very misleading because it is like I said with the coal in Black Hills National Forest, if you do drill on 95 percent of it or you can mine in 95 percent of it but you can't mine where the coal is, it doesn't do you much good, and I think that is the claim a lot of people have made in a lot of the objections I have personally heard.

Now a question for Mr. Fisher. Can you tell me your comparative experiences in permitting wells between the Forest Service, BLM and various State Oil and Gas Conservation Commissions? And the reason I ask this is because I am curious about a bill—not curious about, obviously I think it is a good idea or I wouldn't be writing a bill about it, but allowing the State Conservation Commissions to administer programs permitting wells. So just give me an idea of your experiences in dealing with those regulatory agencies.

Mr. FISHER. From a standpoint of the Forest Service, generally the rules that are in place right now prohibit obtaining a drilling permit in less than 6 months. They can take upwards, I believe, to 10 months and my personal experience is, drilling a 9,000 foot well in the Powder River Basin on grasslands administered by the Forest Service, 6-1/2 months to get a permit.

Drilling a 3,500-foot overthrust test in the Manti-La Sal Forest in Utah, 10 months for a two-acre disturbance.

Mrs. CUBIN. Forest Service.

Mr. FISHER. Forest Service, Manti-La Sal. I spent $700,000 on a rig and the well cost me $400,000 to drill. I drilled the well in two weeks. There are some very disproportionate costs associated with conducting business on the Forest Service. When we get to the BLM, the BLM usually takes 30 to 45 days to process an APD. They are quite efficient, I think. They do a good job at it. When

they have concerns, you have longer periods of time to get an APD, specific wildlife concerns or something that is special to or unique to an area, and those are understandable and you have to mitigate them.

Mrs. CUBIN. Is that in the Powder River Basin that you are speaking of?

Mr. FISHER. I have permitted BLM in the Powder and down in Colorado, Utah, Montana. All four States I have done business in.

Mrs. CUBIN. Okay.

Mr. FISHER. The BLM is fairly efficient at it and you have more personnel within that agency that have, or are ex-oil field if you will. They have some knowledge of the oil and gas industry. What I find, there is a very large gap between the knowledge base in the Forest Service in oil and gas operations and in the BLM, and that large gap I think has served the industry very poorly in the last decade on a lot of decisions that have been made concerning Forest Service lands. We have done a lot of effort to try to educate the Forest Service and, to put it bluntly, I think we are wholly ignored in the State of Montana when it comes to current technologies and smaller footprint technologies.

Mrs. CUBIN. What do you mean by wholly ignored?

Mr. FISHER. We bring the data to them from service companies, from drilling contractors, from our known experience, explaining closed mud systems, explaining directional drilling multiple wells from a single pad, what our limitations are. In overthrust provinces you are not going to reach out much more than a mile. There are technologies now that could reach up to five miles, but you are in soft sediment, you are in offshore type situations. Alaska is different, but they can reach upwards of five miles in Alaska. Not in the lower 48. We do not have the tools, we do not have the technology, and it is much more complex geology.

To the extent that I gave a lot of testimony on the Lewis and Clark, that I participated in the Helena National Forest debate and the results of those, I think when we talk about pendulums swinging one way or the other, whether or not the environment is the driving force in the decision process or the resource is the driving force, if the pendulum swings in either direction it is bad because something is ignored, and I am here to tell you in the State of Montana the resource development on Forest Service lands was wholly ignored in favor of environment exclusively, and those are the results of the decisions. So—.

Mrs. CUBIN. Do you think there is a significant difference in the environmental protection outcomes between those different agencies, including the State ConservationCommission?

Mr. FISHER. I don't think the State does as good a job, if you will. If I permit on fee minerals, if I permit on State, the State of Montana has some fairly strict application of environmental laws through NEPA standards which are much like NEPA and so that permitting on State lands can be quite difficult if there are environmental concerns, but generally State lands are not in uniquely sensitive environments. Now there some along the Rocky Mountain front and other areas without a doubt.

Mrs. CUBIN. So between Forest Service and BLM, is there a significant difference between them in the resulting environmental protection that comes from those, you know, that they put out?

Mr. FISHER. I don't believe so. The standards are relatively the same. I think the Forest Service a lot of times has different environments to deal with than the BLM. But then the BLM comes in after the Forest Service makes the decision and then administers the APD and you go through an entire other round of environmental analysis through the APD process.

Mrs. CUBIN. Does one or the other have a higher standard, I guess is what I am trying to say.

Mr. FISHER. I would say that the Forest Service without a doubt has a higher standard to meet for environmental protection.

Mrs. CUBIN. Yes, that was the question, the way I should have put it in the first place. Well, I would like to thank you gentlemen for being here, taking your time today and would ask that you would respond to any questions that the Subcommittee members would like to ask but weren't able to do that. So thank you very much.

The Subcommittee on Minerals and Energy is now adjourned.

[Whereupon, at 4:17 p.m., the Subcommittee was adjourned.]

[Additional material supplied for the record follows:]

[A statement submitted for the record by Red Cavaney, President and CEO, The American Petroleum Institute, follows:]

American Petroleum Institute

1220 L Street, Northwest
Washington, D.C. 20005-4070
202-682-8100

Red Cavaney
President & CEO

March 26, 2001

Honorable Barbara Cubin
Chair
House Resources Subcommittee on Energy and Mineral Resources
U.S. House of Representatives
Washington, D.C. 20515

Dear Madam Chair:

I am writing to request that you accept the following attached statement for the record from the American Petroleum Institute (API) with regard to your March 15, 2001, Subcommittee hearing entitled: "Domestic Natural Gas Supply and Demand: The Contribution of Public Lands and the Outer Continental Shelf."

The statement is designed to correct what API members believe were material distortions of the hearing record by the witnesses for the Natural Resources Defense Council (NRDC) and for the Wilderness Society.

In particular, the NRDC witness, in her testimony and in the study submitted by the Wilderness Society witness for the record, concluded that only a small percentage of public lands is off limits to leasing and development.

Those conclusions amount to significant distortions of the facts for a number of reasons detailed in the attached. Importantly, they gloss over the most significant point: the percentage of government lands available for leasing is a meaningless figure without knowing whether the leases can be developed.

In many instances, lessees cannot obtain the permits needed to develop leases. In others, development is rendered uneconomic by unnecessarily restrictive operating stipulations. Imagine leasing a car but being told you cannot use a starter motor or keys. Would you really pay to lease a car if it couldn't run? Similarly, a lease that cannot be developed is a lease in name only – and certainly not relevant to the topic of your hearing.

The NRDC and Wilderness Society witnesses surgically selected certain data, and omitted other significant data to attempt to prove their inaccurate assertions. For example, while the numbers presented by the Wilderness Society do show that only about 3.5 percent of the BLM lands in Wyoming, Utah, New Mexico, Montana, and Colorado is strictly off limits to development, oil and gas resources in those states are not distributed uniformly across Bureau of Land Management (BLM) lands. Specifically, while the Wilderness Society says only 3.5 percent of BLM lands are off-limits, the NPC study identifies another 3.2 percent that are subject to No Surface Occupancy. The NPC study indicates that this 6.7 percent of BLM lands represents 15 percent of the BLM natural gas resources, which are either off-limits or significantly impinged.[1]

[1] From National Petroleum Council [1999], *Natural Gas: Meeting the Challenges of the Nation's Growing natural Gas Demand.*

An equal opportunity employe

More important, however, is the role of non-standard lease stipulations. The Wilderness Society's data show that seasonal and other non-standard stipulations restrict access to an additional 32 percent of BLM lands. However, this impacts access to 47 percent of the natural gas resources estimated to exist on BLM lands. When all restricted and off-limit lands are combined 38.7 percent of BLM lands are affected, affecting 62 percent of the natural gas resources on BLM lands.

Further, BLM is not the only federal land management agency making such restrictions. These witnesses have omitted the U.S. Forest Service, the Bureau of Indian Affairs and the departments of Defense and Energy in their computation of federal multiple-use lands that are restricted to oil and gas development. In total, the National Petroleum Council estimates that some 137 Tcf of natural gas resources lie beneath Federal land in the Rockies that is either off limits to exploration, or heavily restricted. This is 48 percent of the natural gas resources on all Federal lands in the region.

In addition to this total, a recent Department of Energy study concluded that more than 11 trillion cubic feet (Tcf) of natural gas was summarily placed off limits late last year alone by the USFS "Roadless" rule.

But stipulations are not the only impediments to bringing the oil and natural gas to America's consumers. Inadequate agency resources in many BLM offices and required but outdated resource management plans often make it difficult to get drilling permits, seriously delaying viable projects for up to 100 days, or sometimes years. In the Rawlins, Wyoming BLM office, for example, thousands of Applications for Permits to Drill are awaiting action because of manpower shortages. In the Buffalo, Wyoming office, thousands more cannot even be submitted because the resource management plans (RMP) for the coal bed methane plays in the area are woefully out of date. This is because the "Reasonable Foreseeable Development" (RFD) figures, estimates of future development, failed to recognize the interest in developing coal bed methane. Updating these RMPs and RFDs takes the BLM two or more years to complete thus preventing any further oil and gas activity in that area until the plans are finished.

Please accept this cover letter and our attached statement in their entirety for inclusion in the record of the Subcommittee's March 15, 2001 hearing. Thank you.

Sincerely,

Red Cavaney

cc: Members of the House Resources Committee
w/ Attachment

Wilderness Society Submission Seriously Underestimates Access Concerns

In testimony before the House Resources Subcommittee on Energy and Mineral Resources on March 15, 2000, the Wilderness Society claimed that more than 95 percent of BLM lands in the Rocky Mountain states are available for oil and gas leasing. What they ignored was the fact that much the leased acreage in these states is off limits or carries restrictions above and beyond the normal environmental stipulations, some of which effectively make development of leases impossible. *And a lease that can't be developed is a lease in name only.*

The Wilderness Society was attempting to discredit the oil and natural gas industry's claim that access to multiple-use government lands in the West constitutes a significant barrier to oil and gas supply development. In doing so, they inadvertently document the extent of the challenge industry faces.

These numbers, taken from the Wilderness Society report, are shown in Table 1. The numbers show that only about 3 percent of the lands in these five states are strictly off limits to leasing. The authors conclude that there is no basis for industry's claim that access is a significant barrier to oil and gas development in the Western states. This conclusion is unjustified, even based on the limited data presented by the Wilderness Society. When considered in the larger context of the more detailed study conducted by the National Petroleum Council, a very different picture emerges.

While the numbers shown in Table 1 do show that only about 3.5 percent of the lands in those five states are strictly off limits to development, hydrocarbon resources are not distributed uniformly across these lands.

Table 1. BLM Managed Acreage by Type of Lease Stipulation

Lease Stipulations	Wyoming	Utah	New Mexico	Montana	Colorado	Total
Standard	14,017,426	14,163,789	22,964,000	10,554,888	7,584,926	69,285,029
Seasonal/Other	13,063,905	5,721,690	2,817,630	6,906,313	7,700,472	36,210,010
NSO	778,672	1,378,477	257,000	330,998	848,995	3,594,142
Off Limits	723,794	883,816	1,336,550	425,482	645,101	4,014,743
Total Leases	28,583,797	22,147,772	27,375,180	18,217,681	16,779,494	113,103,924
Seasonal/Other	45.7%	25.8%	10.3%	37.9%	45.9%	32.0%
NSO	2.7%	6.2%	0.9%	1.8%	5.1%	3.2%
Off Limits	2.5%	4.0%	4.9%	2.3%	3.8%	3.5%
Restricted or Off Limits	51.0%	36.0%	16.1%	42.1%	54.8%	38.7%

When one matches natural gas resource with those lands off limits[1], a different picture emerges. Specifically, while the Wilderness Society says only 6.7 percent of BLM lands are off-limits (3.5 percent) or subject to NSO (3.2 percent), this encompasses 15 percent of the natural gas resources.

Furthermore, the Wilderness Society's data confirms the significance of seasonal and other non-standard stipulations. Their data show that these stipulations restrict access to an additional 32 percent of the land area! The NPC study indicates that this limits access to 47 percent of the natural gas resources estimated to exist on BLM lands. When all restricted and off-limit lands are combined, 38.7 percent of BLM lands are affected. However, this covers 62 percent of the natural gas resources estimated to exist on BLM lands.

More troubling, the significance of these stipulations is dismissed by the Wilderness Society as evidence of an attempt by government to balance the industry's desire for access with the government's responsibility for managing other resources on those lands, and of industry's reluctance to utilize its technology to mitigate environmental impacts. This cavalier dismissal of the problem of lease stipulations is simply not justified. Industry's willingness to develop and utilize new technology to achieve environmentally responsible operations is well documented[2]. Furthermore, not all non-standard lease stipulations were counted as restrictions in the NPC study[3]. The stipulations with which industry has been raising concerns are those stipulations, which effectively preclude economic development without commensurate environmental benefit.

And the BLM is not the only federal land management agency involved with such restrictions.[4] When one considers the implications for resources for restrictions imposed by all federal agencies, the impact is higher, with 48 percent of the remaining gas resources on federal lands in the Rockies is off limits or in restricted areas, as seen in Table 2. The NPC study points out that the Rocky Mountains are estimated to contain remaining resources of more than 280 TCF, nearly half of which is subject to no access or restricted access. Moreover, this does not account for the growth in such restrictions since completion of the study, such as the Forest Service roadless area initiative, which has removed more than another 11 TCF from the stock of accessible resources.

Furthermore, it does not count resources found on nearly 10 million acres of non-federal land in the Rockies which is surrounded by federal lands, and also effectively precluded from development.

Table 2. Estimated Natural Gas Resources Under Federal Lands in the Rocky Mountains Belt (TCF)

Total	282
Unavailable	29
Restricted	108
Available for Standard Lease	172
Percent Unavailable	10%
Percent Restricted	38%

Additionally, other de facto restrictions exist even on government lands that are available for leasing with standard stipulations. Inadequate agency resources and outdated resource management plans (RMP) often seriously delay viable projects driving up costs unnecessarily. For example, BLM offices with major manpower problems include

Pinedale, Rawlins and Buffalo, Wyoming, Little Snake, Colorado, and Farmington, New Mexico. These delays easily can exceed 100 days and are often much longer. In the Buffalo, Wyo. BLM office, thousands of Applications for Permits to Drill (APD) are in queue because of manpower shortages, and thousands more cannot even be submitted because the resource management plans for the coal bed methane plays in the area are woefully out of date. This is because the "Reasonable Foreseeable Development" (RFD) figures, estimates of future development, failed to recognize the interest in developing coal bed methane. Updating these RMPs and RFDs takes the BLM two or more years to complete thus effectively preventing any further oil and gas activity in that area.

Finally, some have argued that gas production from federal lands in the West has been growing and thus there is no access problem. This is a flawed argument. It is absolutely true that gas production from federal lands in the five Rocky Mountain states has been growing. During the 1990s, that production rose more than 77 percent. It is also true that acreage leased has fluctuated sharply during this time, so that there have been selected periods over which leasing has actually gone up. However, as this paper states, the most significant problem is not getting a lease, but rather meeting the lease stipulations and permitting requirements to bring that lease to producing status. If we look at the acreage in producing status, we get a more meaningful picture. The number of acres on federal land in the five states of the Rocky Mountains has decreased 19 percent since 1990. The fact is that we have achieved the 77 percent production growth with a 19 percent decline in producing acreage, owing to the liberal application of successful new technology that has greatly expanded the estimated resource potential of the area. The growth in production is not indicative of growing access, but in spite of restricted access this performance is indicative of the enormous potential of the federal onshore lands in the Rocky Mountains. Imagine what could be done if industry had broader access to the lands with such potential.

03.22.01 (F) EP

---

[1] From National Petroleum Council [1999], *Natural Gas: Meeting the Challenges of the Nation's Growing Natural Gas Demand.*

[2] See, for example, US Department of Energy [2000], Environmental Benefits of Advanced Oil and Gas Exploration and Production Technology.

[3] For example, timing limitations that restrict activity on the lease up to three months per year, or controlled surface use areas of less than 100 acres were not counted as restricted.

[4] Other federal agencies managing such lands include the Forest Service, the Bureau of Indian Affairs, The Departments, of Defense and Energy, among others.