

STATEMENT OF

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**“THE GROWING NATURAL GAS SUPPLY & DEMAND IMBALANCE : THE ROLE THAT
PUBLIC LANDS & FEDERAL SUBMERGED LANDS COULD PLAY IN THE SOLUTION ”**

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Madam Chairman and Members of the Subcommittee, thank you for the opportunity to appear here today to discuss natural gas supply and demand issues. Today, I would like to outline the critical role the Federal lands and resources play in meeting our Nation's needs for natural gas, briefly discuss the supply and demand for natural gas, and identify short-term and long-term solutions for meeting our Nation's energy needs. I am accompanied by Bob Anderson, the Bureau of Land Management's (BLM's) Deputy Assistant Director of Minerals, Realty and Resource Protection; and Michael Hunt, the Minerals Management Service's (MMS') Resource Evaluation Division Chief.

Our Energy Future

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

President Bush's National Energy Policy report laid out a comprehensive, long-term energy strategy for securing America's energy future. While most of the media coverage focuses on the production of traditional energy sources, energy conservation and efficiency and the expanded innovation, production and consumption of energy from alternative and renewable sources are also critical components of the President's balanced and comprehensive policy.

Good stewardship of the resources dictates that we use energy judiciously and conserve resources whenever possible for the benefit of future generations. Thus, fossil fuel development is only a part of the solution to our Nation's energy issues. Americans have already made great strides in using energy more efficiently. Since 1973, the United States economy has grown nearly three times faster than energy use. Had we continued to use energy as intensely as in the 1970's, the United States would have consumed about 177 quadrillion BTUs of energy last year, compared to actual consumption of approximately 99 quadrillion BTUs. To put that in perspective, the 78 quadrillion BTUs saved is more than the total amount of energy produced in the United States from all sources – oil, gas, coal, nuclear, renewable – in the year 2000.

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

Between 1975 and 2000, total renewable energy production in the United States increased from about 4.8 to 6.8 quadrillion BTUs, supplying about seven percent of the nation's energy consumption in 2000. By 2020, renewable energy production is forecast to rise to about 9.0 quadrillion BTUs, but still will account for only about seven percent of consumption.

Thus, for the present and as far as the future can be reasonably forecast, renewable energy is likely to remain an incremental source of supply supplementing fossil fuels as our primary source of energy. Renewable and alternative energy sources are currently considered a "step" energy technology, but they can be an important component to a diversified domestic energy portfolio. At the Department of the Interior, Secretary Norton has convened two conferences focused on renewable resources.

In an effort to help encourage innovative, alternative and renewable energy uses on Federal offshore lands, on June 20, 2002, the Administration officially transmitted to Congress proposed legislation to help facilitate the permitting of these type of projects. The legislation is in direct support of the President's National Energy Policy initiative to simplify permitting for energy production in an environmentally sound manner. It would allow the Secretary of the Interior to grant an easement or right-of-way for a range of OCS energy related projects – including renewable energy projects such as offshore wave, wind, or solar energy projects – and would provide a transparent and uniform permitting process. In turn, this regulatory certainty should help expedite such projects and their associated benefits. We hope that Congress will enact this legislation prior to the end of its current legislative session.

Energy Production from Federal Resources

As the Assistant Secretary for Land and Minerals Management at the Department of the Interior, I have the administrative and managerial responsibility for the Bureau of Land Management (BLM), Minerals Management Service (MMS), and the Office of Surface Mining Reclamation and Enforcement (OSM). All of these bureaus are undertaking significant initiatives to comply with the President's National Energy Policy, and are working diligently to promote the environmentally sound production of our Nation's energy resources. The BLM and MMS have authorities to offer lands under their jurisdiction to produce mineral and energy (renewable and non-renewable) resources in an environmentally-sustainable manner.

The Department of the Interior manages more than 500 million surface acres of land, with the BLM managing 262 millions surface acres and more than 700 million subsurface acres of Federal mineral estate. MMS manages approximately 1.76 billion acres of offshore Federal mineral estate. These lands and resources currently account for 30% of total domestic energy production – including 48% of geothermal production, 35% of natural gas production (24% offshore and 11% onshore), 35% of coal production, 30% of oil production (25% offshore and 5% onshore), 20% of wind power, and 17% of hydropower production.

Importance of Natural Gas / Supply-Demand Equation

Natural gas is an important cornerstone of President Bush's National Energy Policy for two very important reasons. First, we have significant resources of natural gas in the United States. Second, natural gas is an efficient and clean-burning fossil fuel.

Regarding supply, our country's total proven reserves of natural gas in 2000 exceeded 177 Tcf. In addition, experts estimate that there are 617 Tcf of undiscovered natural gas resources. However, according to the 1999 report of the Department of Energy's Advisory Committee and the National Petroleum Council, 29 Tcf of the Rocky Mountain states' natural gas and approximately 76 Tcf of the Outer Continental Shelf natural gas are inaccessible for development.

On the demand side, meanwhile, the United States currently uses about 23 Tcf of natural gas annually. The U.S. produces approximately 19 Tcf (84%) of its annual natural gas demand and imports the remaining 4 Tcf (16%) from Canada. The U.S. Energy Information Administration (EIA) in its *Energy Outlook 2002* reference case projects that the demand for natural gas will rise to just under 34 Tcf by 2020.

Looking at environmental benefits, natural gas produces fewer emissions than other fossil fuels. It is simply the cleanest-burning fossil fuel. Natural gas development has significant bipartisan support due to these benefits.

But these two factors – supply and environmental benefits of using natural gas – create future challenges, because they encourage increasing demand. We see a nationwide trend towards the

use of natural gas. Heating and electricity generation have traditionally been the predominant uses of natural gas. Because of Clean Air Act standards and the availability of clean-burning natural gas, an increasing number of our electric generating plants are switching to natural gas for power generation. In fact, an overwhelming majority of new electric generation projects will be fueled by natural gas. This will lead to a dramatic increase in demand for natural gas in the next 10 to 20 years.

In recent years, we have learned through hard experience how high natural gas prices negatively affect households, farmers, businesses and our economy as a whole. For example, the sharp natural gas price increases during the winter of 2000-2001 brought higher utility bills to many consumers. Low income families were especially hard hit. More than 5 million consumers applied for federal and state assistance – an increase of 1 million over the previous winter.

Farmers also felt the impact of higher gas prices that winter. Farmers paid twice the 1999 price of fertilizer because of higher prices for natural gas, which is a major component in fertilizer production. Many farms, which are already operating on the economic edge, simply cannot survive these higher costs.

Whether we will have reliable supplies of natural gas to meet this growing demand is a question I have been asking industry, petroleum economists, and experts at the Department of the Interior and the Department of Energy. On the demand side, the factors that impact it are the strength of the economy and the extremes of the weather. Factors that affect supply include the price of oil and gas, access to reliable sources, and availability of infrastructure. The consensus is that in order to meet long-term demand we will have to look to imports of liquified natural gas and piped gas from Canada, Alaska, and the Gulf of Mexico. But liquified natural gas terminals, pipelines in Alaska and Canada, and drilling in the Gulf are capital intensive and take time. These factors in the short term suggest that domestic production and transportation will not meet rapid increases in demand. At a recent meeting on oil and gas production in the United States, one expert noted that as a result of declining reserves in the Gulf of Mexico and a slow-down in drilling in 2001, the line between the Nation's gas surplus and gas shortage is increasingly narrow.

Short Term Solutions/Role of Coalbed Methane

Given the importance of natural gas to all Americans – to provide electricity, to heat our homes, and to support our industrial needs – as stated by the President, we should not rely on good fortune to avoid a natural gas shortage. That is why his National Energy Policy encourages the environmentally-responsible development of natural gas to meet the near term natural gas demand. Without readily available gas, our electricity-reliant economy could suffer. Two areas currently being considered are the shallow waters of the Gulf of Mexico and the Rocky Mountain States.

The shallow waters of the Gulf of Mexico hold the greatest promise for new resources of natural

gas to meet the nation's near term gas needs. MMS is taking steps to develop economic incentives to spur industry activity in this area of the Gulf. MMS is issuing royalty relief for production from new wells drilled to deep horizons (greater than 15,000 feet total depth). This deep gas play, expected to hold between 5 and 20 Tcf of gas, can be developed quickly due to existing infrastructure in the shallow waters of the Gulf. MMS also issued a final rule on July 2, that allows companies to apply or lease suspensions for exploration of subsalt resources.

Coalbed methane, a natural gas, accounts for about 9% of the total natural gas reserves in the United States. The Rocky Mountain States of New Mexico, Utah, Colorado, Wyoming, and Montana hold an estimated 30 to 48 Tcf of undiscovered natural gas resources associated with coal. This represents the second largest gas resource in the United States behind the Gulf of Mexico. The EIA refers to this area as a possible "Persian Gulf for natural gas." While many areas of the United States are experiencing declining natural gas reserves, the Rocky Mountain resources are largely untapped and the amount of newly discovered gas in the area is increasing on a daily basis. The majority of the coalbed methane is in the Federal mineral estate. As good stewards of these domestic natural gas reserves, we should develop these resources in an environmentally-responsible manner to sustain our nation's quality of life in the face of our increasing demand for natural gas.

Over the short-term, coalbed methane can be developed more economically and more quickly than other deep reservoir onshore gas or deepwater offshore gas. Coalbed methane from public lands can and should play a role in meeting our increasing demand. The Secretary and I support multiple use of the public lands. These public uses can co-exist on public lands, if properly managed. We do not believe the public lands and resources should be put off limits to development. Today over 50% of our petroleum products are imported. Thirty percent of our total domestic energy production comes from Federal lands and resources. Without the contribution of public resources, the country's energy supply would be almost entirely from other countries. That does not seem prudent when we have the domestic resources to meet our needs and those resources can be developed in a much more environmentally responsible manner than in other areas of the world. And, of significance for the public lands states that are anywhere from 30% to 80% Federally-managed, the development of coalbed methane can help western rural economies by creating jobs, new wealth, and tax revenue.

But like all natural resource development, coalbed methane presents environmental and social challenges that must be addressed. Environmental concerns and issues associated with the production of coalbed methane vary significantly from basin to basin depending on water quality, gas reserves, and topography. The BLM is working with State, Federal and tribal governments, surface owners, environmental groups, and industry to address these issues, including what to do with the produced waters and how to reduce the impacts of gas production and transportation on surface owners. I am confident that technology, best practices, and creative thinking can address these challenges.

Long Term Solutions – Offshore

To meet our natural gas demand in the medium and long term (5 to 10 years and beyond) without increasing imports, we need to maintain or increase domestic natural gas production – both onshore and offshore. MMS 2000 Resource Assessments estimates approximately 58% of our country's undiscovered natural gas resources lie under the OCS. The production from this area currently contributes a quarter of our nation's gas supply. Over 362 Tcf of undiscovered natural gas resources remain to be explored and developed in the OCS. We estimate over 23 Tcf of discovered reserves remain to be produced.

As I mentioned before, development of the deep water Gulf of Mexico, which holds the prospect of supplying the majority of the future offshore natural gas production, is capital intensive, and because of the long lead times required, new deep water reserves won't be available to the U.S. market for possibly another decade. MMS continues to provide royalty relief, on a targeted basis, for new deep water leasing. The continued use of royalty relief in the deep waters of the Gulf provides the needed economic incentive to keep industry moving forward on new technologies and exploring deeper water frontiers.

Additionally, in the 15- to 20-year range, the technology to produce clean burning natural gas hydrates from offshore, which are present in volumes hundreds of times larger than conventional gas resources, may be perfected and may contribute to meet our energy needs.

Long Term Solutions – Onshore

As the Subcommittee knows well, we will not be able to solve the imbalance between the supply of and demand for natural gas without the ability to access that resource. To address this access issue, the National Energy Policy emphasizes the importance of the ongoing interagency Energy Policy and Conservation Act (EPCA) study which will identify where the onshore resources are and the extent and nature of any planning impediments to accessing them. The initial report will be completed in November as required by the Act. All information gathered as a result of the EPCA effort will be integrated into the BLM's ongoing land use planning efforts which is a cornerstone for future energy production from public lands. The BLM has also prioritized a number of land-use planning efforts that have major oil and gas components.

Once natural gas has been discovered and produced, it must be transported via a pipeline to the end user. The National Energy Policy also identifies the necessity for a comprehensive, long-term solution to deliver natural gas and other energy resources to industry and consumers in a reliable and safe manner. Federal lands are important to the rights-of-way needs of the energy industry and utilities, especially in the western United States. BLM estimates that 90% of the oil and gas pipelines and electric transmission line rights-of-way cross western Federal lands. The BLM alone administers approximately 85,000 rights-of-way, including approximately 23,000 oil and gas pipeline rights-of-way.

Our challenge is to improve and expand the existing network of pipelines and transmission lines to meet the increased demand for energy. One way to meet that challenge is to identify and

designate right-of-way utility corridors on public lands in collaboration with the Western Governor's Association and the Western Utility Group, an industry coalition. The designation of utility corridors through BLM land use plans provides an important tool in the planning and location of future pipelines and assists in the processing of rights-of-way applications on the public lands.

Conclusion

Madam Chairman, as you know, the natural gas resources of the Federal lands, both onshore and the OCS, provide us with an immense opportunity to maintain a quality of life of all Americans. As the Department of the Interior continues to promote the environmentally-sound recovery of the Nation's natural gas resources, we will continue to operate under Secretary Norton's leadership and vision for managing the public resources – through communication, cooperation, and consultation in the service of conservation. The essence of this goal is to continue to forge new and stronger partnerships with other Federal and state agencies, Tribal governments, and all of our stakeholders – including Congress – to create greater opportunities for the responsible development of this important energy resource.

Thank you for the opportunity to testify before you today. This hearing offers a unique and timely opportunity to educate all Americans about natural gas – an energy source that plays a vital role to our current and future well being. I welcome any questions the Subcommittee may have.

ATTACHMENT

DOI Natural Gas Development Initiatives

Both the Bureau of Land Management (BLM) and the Minerals Management Service (MMS) are undertaking initiatives to comply with the President's National Energy Policy and to increase our Nation's natural gas production. A brief overview our important work related to the responsible development of our Nation's natural gas resources follows:

Onshore Natural Gas Development Bureau of Land Management Initiatives

The BLM administers the minerals underlying on-shore Federal lands – a total of about 700 million acres of mineral estate throughout the Nation. As mentioned, these lands account for about 11 percent of natural gas production nationwide. Major components of the BLM's Federal onshore oil and gas program include: 1) land-use planning; 2) leasing; 3) post-lease authorizations, such as drilling permits; and 4) inspection and enforcement (I&E) activities. The BLM has a significant role in meeting the President's National Energy Policy goal to provide for the environmentally-sound development of natural gas on Federal lands. Some of these initiatives are outlined below.

Land-Use Planning

The BLM is currently undertaking a major effort to update the land use plans which are the basis for all of its actions. Of BLM's twenty-one high-priority plans scheduled for completion by 2004, ten have major oil and gas energy components. These will authorize the continued development of oil and gas resources in Alaska, Colorado, Montana, New Mexico, Utah and Wyoming. In particular, the Bureau's planning efforts related to natural gas development in the Powder River Basin of Wyoming and Montana continue to progress with the goal of providing for the responsible development of the Nation's significant natural gas resources in this region.

Access / "EPCA" Inventory

As the Subcommittee knows well, we will not be able to solve the imbalance between the supply of and demand for natural gas without the ability to access our natural gas resources. To address the access issue, the President's National Energy Policy emphasizes the importance of the ongoing inter-agency Energy Policy and Conservation Act (EPCA) study. Under the Congressionally-mandated EPCA study, the BLM is working closely with U.S. Geological Survey, the U.S. Forest Service, the Department of Energy (DOE) and DOE's Energy Information Administration to produce a scientific inventory of both oil and natural gas resources and reserves. The inventory also identifies the extent and nature of any restrictions or impediments to the development of these resources. Five areas within the Rocky Mountain

Region were identified as priority areas for study: the Powder River, Green River, Uinta/Piceance and San Juan/Paradox Basins and the Montana Thrust Belt. This inventory is underway and completion of the five priority natural gas producing basins is on schedule to meet Congress' November 2002 statutory deadline.

As we complete the initial EPCA inventory, the BLM plans to analyze the data and look for opportunities to improve the Bureau's management of the oil and natural gas resources on Federal lands specifically to address the access issue. All information gathered as a result of the EPCA effort will be integrated into the BLM's ongoing land use planning efforts. By integrating the information into the BLM's planning process, extensive opportunities will be available for the public to provide comments and recommendations on the specific application of the information. Any changes made as a result of the EPCA project will be made in full compliance with all Federal statutes – those addressing environmental processes (National Environmental Policy Act) and substantive environmental protections.

Permitting / Timeliness

Another important component of access is the certainty of being able to produce the natural gas to meet rising demands in an economically timely manner. Industry must have confidence that it can develop the natural gas to receive a fair and a viable rate of return for its investment. The BLM recognizes the importance of minimizing delays in its permitting role. The Bureau is working on various actions to expedite internal administrative processes, such as the processing of Applications for Permits to Drill.

This is one of the Bureau's important tasks in implementing the President's National Energy Policy. In March of this year, the Bureau conducted an outreach meeting in Denver to open communications between the agency and the public regarding the processing of drilling permits. The BLM continues to cooperate and consult with all interested parties, including the oil and gas industry and environmental interests, regarding its efforts to more efficiently process drilling permits. The Bureau is also looking at revising guidance to its field offices and the oil and gas industry as a part of this effort. This serves to advance the conservation of both the mineral resources and other important public land values. In other efforts, the BLM is aggressively pursuing the use of electronic commerce in its oil and gas program. This would allow industry to file electronic applications and forms. By utilizing new technologies, both the Federal Government and the BLM's stakeholders can benefit from increased efficiency.

Transportation & Infrastructure

Once natural gas has been discovered and is ready for production, a means of transportation, primarily by pipeline, is then required. The President's National Energy Policy identifies the necessity for a comprehensive, long-term solution to deliver natural gas and other energy resources to industry and consumers in a reliable and safe manner. Public lands are important to the rights-of-way needs of the energy industry and utilities, especially in the western U.S. It is

estimated that 90 percent of the oil and gas pipeline rights-of-way in the western U.S. are dependent to some extent on right-of-way authorizations on public lands. The BLM alone administers some 85,000 rights-of-way, including approximately 23,000 oil and gas pipeline rights-of-way. The BLM processes more than 600 pipeline right-of-way authorizations annually, and the number of applications has increased by more than 10 percent each year during the last couple of years. The demand for additional energy infrastructure is expected to increase this workload by as much as 15-20 percent per year over the next 5 years.

Our challenge is to improve and expand the existing infrastructure of pipelines and transmission lines to meet the increased demand for energy infrastructure, including oil and natural gas pipelines. The BLM is responding to these challenges through several initiatives and efforts. As part of its efforts to implement the President's National Energy Policy and recognizing the existing backlog of right-of-way applications and the anticipated increase in the number of future applications, the BLM has prioritized the processing of energy related rights-of-way. The BLM has assigned additional Project Managers to selected major energy related right-of-way projects, especially interstate projects, to assist in their expeditious processing. The BLM is also working closely with the Federal Energy Regulatory Commission (FERC) in developing cooperative procedures for the improved streamlining of natural gas pipeline projects. Finally, the BLM has also taken the initiative to identify and designate right-of-way utility corridors on the public lands in collaboration with the Western Utility Group, an industry coalition, and the Western Governors' Association. The designation of utility corridors through BLM land use plans provides an important tool in the planning and location of future pipelines and assists in the streamlined processing of future right-of-way applications on the public lands. In order to pursue these efforts, additional resources are being dedicated to the processing of these right-of-way applications, and an increase of \$1.6 million is included in the President's FY 2003 Budget request for energy rights-of-way.

Offshore Natural Gas Development Minerals Management Service

Since the publication of the 1999 National Petroleum Council study indicating the impending natural gas supply shortfall in the first quarter of the 21st Century, MMS has taken the initiative to implement a number of incentives to augment natural gas production from the Gulf of Mexico OCS. Some of these initiative include:

Shallow Water Deep Gas Initiative

Production in the shallow water areas of the Gulf of Mexico has been steadily declining – some 13 percent from 1997 through 1999. Increasing gas production from OCS deep water areas is keeping that production in balance. However, deeply buried sediments underlying the shallower waters of the continental shelf remain virtually unexplored. Of more than 35,000 wells drilled in the Gulf of Mexico, only about 5 percent were drilled deeper than 15,000 feet total well depth. MMS estimates that there could be 5 to 20 Tcf – with a most likely value of 10.5 Tcf – of recoverable natural gas present in the deep portion of the OCS. Realizing the emerging natural

gas potential of this area of the OCS, as well as higher exploration/development costs and a higher geologic risk, in March, 2001, MMS instituted a royalty relief incentive on the first 20 billion cubic feet of production from natural gas wells drilled at greater than 15,000 feet total well depth for the Central and Western Gulf of Mexico planning area. This relief applies to new leases acquired since Sale 178 held in early 2001. Since that time, MMS had been developing a program to apply a similar type of economic incentive to existing older leases that are drilled to deep depths. Proposed regulations have been drafted and are currently undergoing Departmental review.

Suspensions of Operations for Exploration Under Salt Sheets

In general, exploring and developing areas under salt sheets is more difficult in many instances than other types of development on the OCS. There are instances where oil and gas companies begin to conduct timely analysis of geophysical data early in their primary lease term; however, data may be inconclusive because of problems caused by existence of salt sheets. Realizing this fact, MMS issued a final rulemaking on July 2, 2002, that would modify existing requirements for suspensions of operations for oil and gas leases that have salt sheets associated with them. Specifically, the rule allows companies to apply for a suspension of operations prior to drilling a well on a lease in order to have time to perform and complete the necessary geophysical analysis.

OCS Deep Water Royalty Relief

The Deep Water Royalty Relief Act of 1995 provided a substantial fiscal stimulus to new leases issued between 1996 and 2000 and located in water depths of 200 meters or greater in the Central and Western Gulf of Mexico. As a result, the number of deep water leases increased dramatically by 2000. At this time, the mandatory royalty relief provisions of the Act related to new leases has expired. However, in order to maintain the momentum and positive benefits associated with that program, MMS instituted a follow-up policy in 2001, which has continued the strong trend of leasing and production in deep water.

The discretionary deep water royalty relief program instituted by MMS in 2001 has been modified slightly for 2002. As currently formulated, new tracts offered in the Central and Western planning areas of the Gulf of Mexico are eligible to receive royalty suspensions on a specific amount of initially-generated production – 5 million barrels of oil equivalent (BOE) in water depths of 400-800 meters; 9 million BOE in water depths of 800-1600 meters; and 12 million BOE in water depths of greater than 1,600 meters. These volumes are not affected by the status or level of production generated on the field to which a lease is assigned, which was the case under the Deep Water Royalty Relief Act (1996-2000 period). Currently, under MMS regulations, eligibility for relief depends on the prices of production, with ceiling prices being equivalent to those which applied under the Act, plus adjustments for inflation.