# Creating a New Energy Frontier

*Our success will also require freeing ourselves from the dangerous dependence on foreign oil by building a clean-energy economy….*

***President Barack Obama***
***March 26, 2009***

The Department of the Interior has a major role in the creation of a new energy frontier with clean, secure, and reliable energy sources. The Department's vast landholdings and management jurisdiction are key to realizing this vision. The Administration has set an ambitious goal to ensure that 25 percent of the Nation's energy is generated by renewable sources by 2025. Through responsible development of onshore and offshore resources, the Department can assist the Nation in enhancing its domestic supplies of renewable and fossil-based energy. In addition, the Department's leadership in science and land-based knowledge of the Nation's resources can facilitate development to increase the delivery of renewable energy to consumers. Most importantly, this can all be accomplished while preserving land health and without compromising environmental values.

The Department manages 500 million surface acres of public land, 700 million acres of onshore subsurface mineral estate, and the 1.76 billion acres that make up the Outer Continental Shelf. Many of these lands and offshore areas offer extensive, as-yet untapped opportunities for development of wind, wave, solar, geothermal, hydroelectric, and biomass-based energy. There is wind energy potential on 20.6 million acres of public land, solar potential on an additional 29.5 million acres, and over 140 million acres of public land with geothermal potential. The Nation's forests and rangelands offer the potential for expanded development of biomass-based energy sources. There is also significant solar, wind, and wave potential offshore. The National Renewable Energy Laboratory in Golden, Colorado, recently identified significant wind potential off both the Atlantic and Pacific coasts.

To advance the vision of a clean energy economy, the Secretary issued a Secretarial Order 3285 that establishes the production, development, and delivery of renewable energy as a top priority for the Department. The order establishes an Energy and Climate Change Task Force to lead this new agenda and to identify specific zones of public land where Interior efforts can facilitate a rapid and responsible move to large-scale production of solar, wind, geothermal, and biomass energy.

On Earth Day, April 22, 2009, the President took a bold step to open a new energy frontier. He an-

**NEW ENERGY FRONTIER FUNDING INCREASES**
**(dollars in millions)**

| | BLM | MMS | USGS | FWS | BIA | Total |
|---|---|---|---|---|---|---|
| Renewable Energy | 16.1 | 24.0 | 3.0 | 3.0 | 4.0 | 50.1 |
| Conventional Energy | 11.9 | 5.0 | | | | 16.9 |
| Audits and Compliance | 2.5 | 4.9 | | | 1.0 | 8.4 |
| **Total** | **30.5** | **33.9** | **3.0** | **3.0** | **5.0** | **75.4** |

nounced the completion of final rules that establish a process to grant leases, easements, and rights-of-way for orderly, safe, and environmentally responsible renewable energy development activities, such as the siting and construction of offshore wind farms, on the OCS. This new framework will enhance the Nation's energy security and create the foundation for a new offshore energy sector that will employ Americans developing clean and renewable energy.

**Overview** — The 2010 budget includes $584.3 million for Interior's energy programs, with increases of $50.1 million to advance renewable energy goals. There is an increase of $16.1 million for Bureau of Land Management activities that are key to the development of production and transmission facilities, including planning, environmental assessments and analyses, permitting, and leasing. The Minerals Management Service's 2010 budget includes increases totaling $24.0 million for the development of a renewable energy leasing program on the Outer Continental Shelf. The 2010 budget includes $4.0 million for the Bureau of Indian Affairs to facilitate the development of renewable energy on lands managed by BIA and the Tribes; $3.0 million for the U.S. Geological Survey to develop scientific information that will inform renewable energy development; and $3.0 million for the Fish and Wildlife Service to ensure the protection of fish and wildlife throughout the development process.

The Administration recognizes that this transition to clean energy will not happen overnight, and that the Nation will continue to rely on conventional energy resources for some time. To address the ongoing needs for domestic energy supplies, the Administration's energy strategy includes the continued development and, where appropriate, expansion of domestic sources of oil and gas. The 2010 budget request includes increases of $16.9 million for BLM and MMS to continue onshore and offshore programs that support 30 percent of current domestic energy production.

Responsible development of domestic energy supplies includes management of resources and revenues in a manner that ensures that taxpayers receive a fair return from development of these public resources and that development is in compliance with laws, regulations, and lease terms. The budget includes $8.4 million to implement a series of improvements in revenue collection, oversight, and validation of energy development activities. Increased funding will be used to improve the management of renewable and non-renewable energy resources with improved production reporting, risk-based compliance reviews and audits, and accountability and verification processes.

The 2010 budget also proposes legislative reforms including a new excise tax on certain offshore oil and gas production, user fees for processing oil and gas drilling permits, and a new fee on nonproducing leases in the Gulf of Mexico to encourage expedited development. The Department is also undertaking a strategic review of royalty rates from energy development on Federal lands and will implement appropriate royalty reforms and rate adjustments once the review is complete. The budget assumes these reforms will increase Federal oil and gas revenue royalty by $1.5 billion over the next ten years.

> *We have to connect the sun of the deserts and the wind of the plains with the places where people live.*
>
> **Ken Salazar, Secretary of the Interior**
> **March 11, 2009**

## RENEWABLE ENERGY

The Energy Information Agency's 2009 Annual Energy Outlook predicts strong growth in renewable fuel use, particularly in the liquid fuels and electricity markets. The growth would be spurred by the renewable fuel standard in the Energy Independence and Security Act of 2007, Renewable Portfolio Standard programs at the State level, higher prices for conventional energy sources, and increased opportunities for credits and investments included in the 2009 American Recovery and Reinvestment Act. As of November 2008, 28 States and the District of Columbia had enacted renewable portfolio standards that require that a specified share of the electricity sold in the State come from renewable energy sources.

Although Interior's vast public lands have long been a significant source of mineral exploration and development, they have not been extensively used to develop renewable energy resources. There is enormous potential to develop wind resources offshore and in the plains and intermountain States, geothermal resources throughout the U.S., and solar power in the South and Southwest. The Department can facilitate the expanded use of public lands for these purposes and the siting of long-range transmission lines to link centers of renewable energy production with major cities.

The 2010 budget lays the foundation for change, providing resources that will allow the Department to work closely with the Department of Energy and Federal Energy Regulatory Commission to facilitate the siting of transmission lines and renewable energy production facilities in a sound manner that protects the environment. Expanded access to the public lands is needed to support the production of all renewable energy types, including geothermal, wind, solar, and biomass.

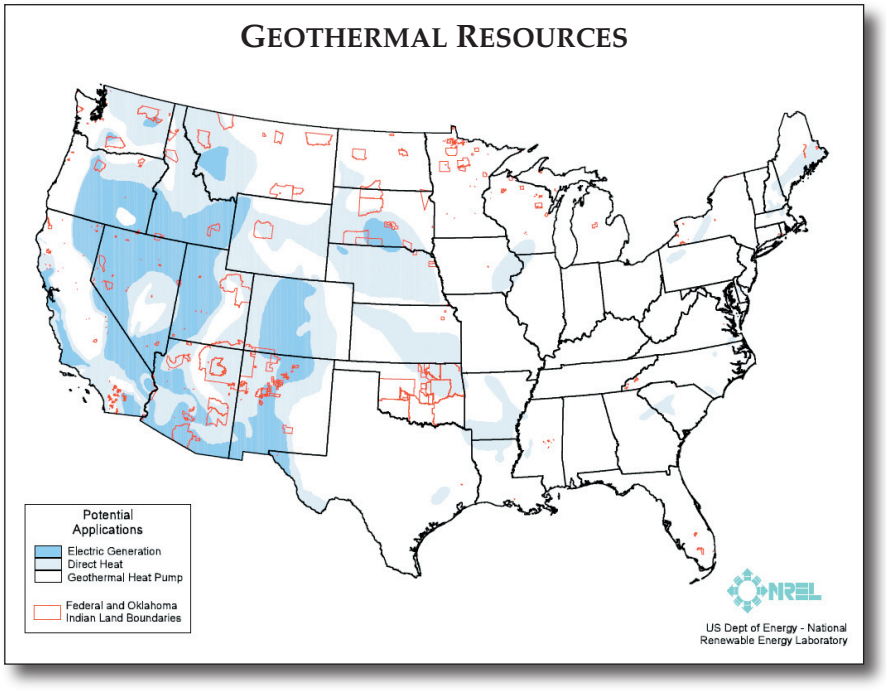
**Bureau of Land Management** — The BLM is responsible for the management of public lands and regulation of energy access through a program of permitting, inspection, and monitoring. A significant portion of the existing and potential geothermal resources in the United States are on lands managed by BLM. The BLM currently manages 530 geothermal leases, 58 of which are producing and generate enough electricity to power over 1.2 million homes. Demand for electrical power and direct-use from geothermal leases is increasing. In 2008, $36.5 million in royalties, rents, and bonuses from geothermal leases on Federal lands was collected.

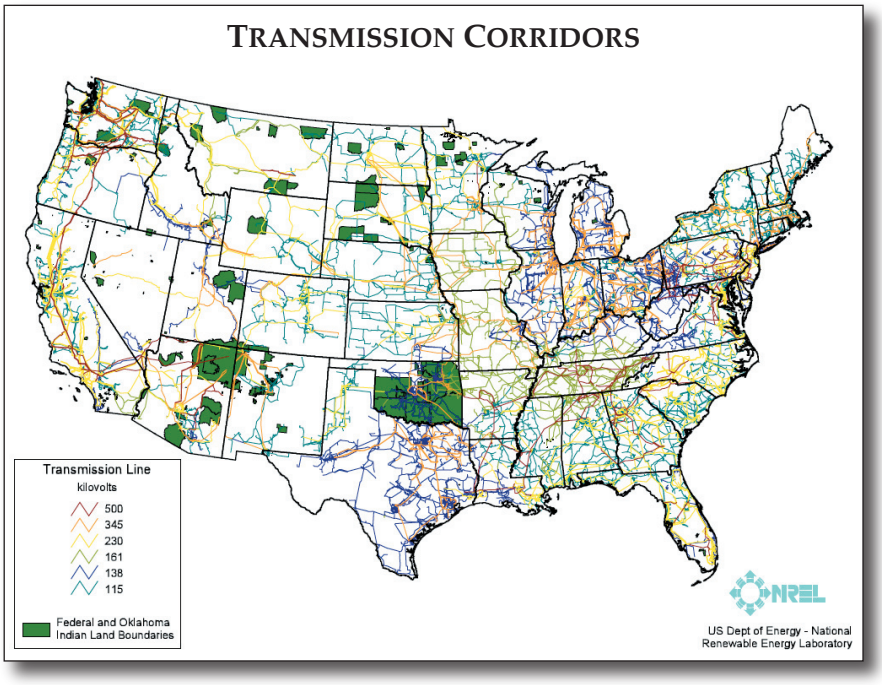
In recent years, the States have demonstrated the potential for expanded renewable energy generation. In 2007, the State of Texas commissioned additional facilities and now derives two percent of its total energy generation from wind energy. The Solar One project, a private enterprise which is the first commercial site for generating solar electricity in Nevada, is now on-line and has the capacity to generate 60 megawatts of power. The Kramer Junction project, a much larger private operation in California, consists of nine solar fields and has the capacity to produce 354 megawatts at peak output. This project provides enough solar electricity to meet the residential needs of city with 250,000 people. Section 211 of the Energy Policy Act of 2005 established an expectation that BLM should seek to accelerate authorizations for renewable energy projects on BLM-managed lands.

In recent years, Interior has not had the resources to respond to the increasing demand for renewable energy authorizations. In the Southwest, there is a backlog of nearly 200 solar energy applications, and there are applications for over 240 proposed wind development projects on BLM lands in the West.

The 2010 budget request includes an increase of $16.1 million for BLM to expedite authorization of these projects. The BLM will apply its successful pilot office strategy authorized by the Energy Policy Act of 2005, which has provided an effective and efficient approach to reviewing and permitting oil and gas development projects, to the renewable energy permitting process.

Specifically, BLM will use $11.1 million to support four Renewable Energy Coordination Offices in California, Nevada, Wyoming, and Arizona and smaller scope renewable energy teams in New Mexico, Idaho, Utah, Colorado, and Oregon. The BLM has created one-stop service centers by locating land management agency personnel together with other Federal and State regulatory agency personnel. Increased funding for the Renewable Energy Coordination Offices will allow BLM to process complicated applications in an efficient manner. In addition, these offices will have the capability to conduct broad-scale studies and plans that must be completed prior to processing individual permits and authorizations. The presence of other Federal and State regulatory agency personnel in the coordination offices afford renewable energy developers the convenience and efficiency of addressing regulatory requirements with a single point of contact.






Interior will also coordinate closely with the Department of Energy, States, Tribes and others in the development of a new electricity grid. The map shown above illustrates a DOE proposal to locate transmission corridors to strengthen the Nation's energy reliability. The 2010 budget will provide additional resources for BLM to conduct the necessary planning, analysis, and environmental protection that is needed to site these corridors on public land.

The coordination offices will use $5.0 million to develop regional environmental studies that are necessary to process wind, solar, and geothermal energy development permit applications. The studies will be developed for broad application across entire watersheds where renewable energy resources are prevalent and will bring greater efficiency to the permitting process. In cooperation with USGS and other bureaus, BLM will prepare ecological assessments in five western habitats to identify the impacts of solar energy development projects on western ecosystems.

**Bureau of Indian Affairs** — Throughout Indian Country there are large tracts of land that remain underdeveloped for energy relative to the rest of the United States. Consequently, Indian lands have the potential to provide substantial renewable energy production to meet increasing national demand. Indian Country encompasses some of the premier wind regimes in the U.S. and also contains vast tracts of forest and grassland with significant potential resources for biomass power generation. With the funding increases requested in the 2010 budget, Indian Affairs will assist the Tribes in identifying, developing, and managing these resources, while ensuring they receive appropriate revenue and environmental protection.

Specifically, the 2010 budget includes $4.0 million for BIA to complete technical studies, such as grid interconnectivity analyses, economic analyses, and transmission studies. This will allow Tribes to enter into power purchase agreements and to engage the energy industry and the investment community in meaningful discussions that will lead to renewable energy development on tribal trust land. The BIA will provide Tribes with technical assistance, training, marketing, outreach, and funding for special needs, such as feasibility studies and the development of business plans.

Over 90 Indian reservations include renewable energy resources, including geothermal, wind, biomass, solar, and tidal power. To date, BIA has provided direct wind development assistance to 25 Tribes by way of either financial assistance or technical support. The BIA is currently assisting eight tribes in negotiations with developers of wind farms, while several other Tribes are in the final stages of wind farm development. The 2010 budget increase will allow BIA to advance these projects and conduct an additional 13 geothermal and ten woody biomass projects that will increase available sources of renewable energy and foster job growth. The BIA will also develop standard procedures for the regulatory approval, compliance, and monitoring associated with this development.

*Indian Country offers some of the premier wind energy sites in the U. S. I look forward to exploring with Tribes the potential for wind, geothermal, biomass and solar energy development that exists on those lands.*

**Ken Salazar, Secretary of the Interior**
**February 10, 2009**

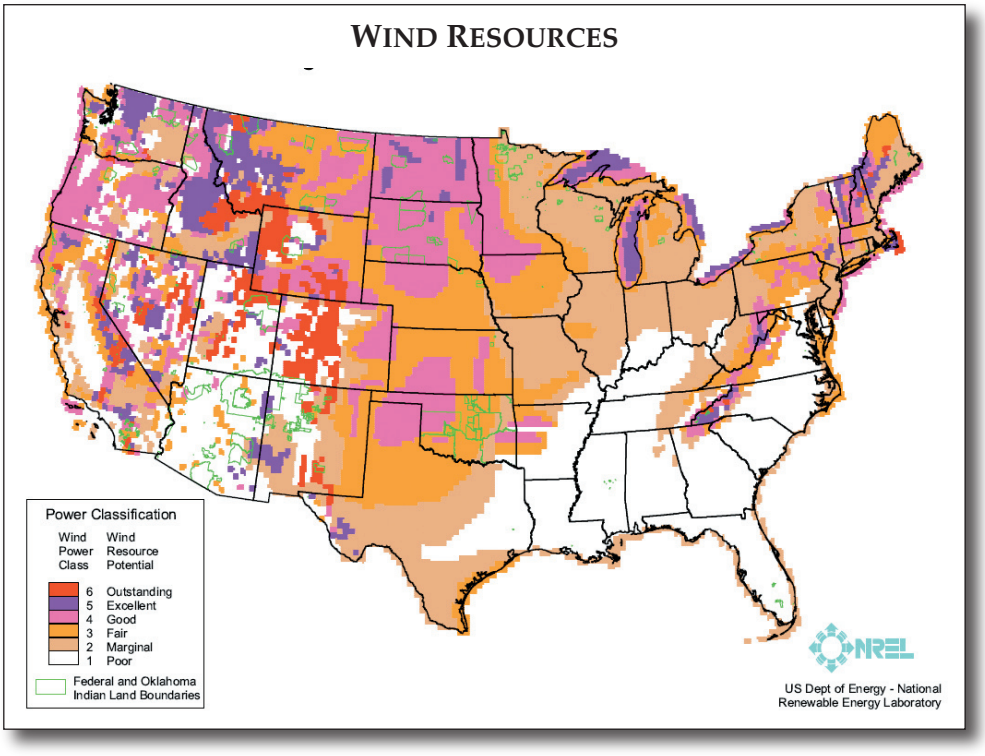
**Minerals Management Service**—The Outer Continental Shelf contains unexplored sources of renewable energy that are readily available and adjacent to major urban centers where demand is high. The OCS is a critical development area necessary to achieve the Nation's energy security and development goals. The OCS will play a significant role in the President's goal to produce 25 percent of the Nation's energy from renewable sources by 2025.

The Energy Policy Act of 2005 gave MMS a significant new mandate to implement a comprehensive offshore renewable energy program on the OCS. The Act gave MMS the authority to grant leases, easements, or rights-of-way for activities on the OCS that produce or support production, transportation, or transmission of energy from sources other than oil and gas.

Proposed regulations to govern the program were published in 2008. To finalize the regulations, Secretary Salazar worked with the Federal Energy Regulatory Commission Chairman, Jon Wellinghoff, to reach an agreement regarding the process by which permits and licenses related to renewable energy resources in offshore waters are to be handled. This process is detailed in an agreement between MMS and FERC and resolves outstanding jurisdictional questions that had the potential to delay permitting and development of offshore renewable energy projects. Under the agreement, MMS has exclusive jurisdiction related to the offshore production, transportation, or transmission related to wind and solar energy whereas FERC has responsibility for the issuance of licenses and exemptions from licensing for operations and construction related to wave energy.

As discussed earlier, on Earth Day, April 22, 2009, the President announced the completion of final regulations that sets forth the process that MMS will follow for OCS renewable energy leasing. It is expected that the promulgation of these final regulations will trigger a substantial number of applications for wind farm development on the OCS, particularly along the Atlantic coast.

To help secure the Nation's energy and environmental future, the 2010 budget request includes an increase of $24.0 million for the development of a robust OCS renewable energy leasing program that includes collaboration with coastal States, Tribes, and other stakeholders. Secretary Salazar has opened up a dialog with communities and citizens across the country, hosting four regional public meetings to discuss the future of offshore energy development on the OCS. These meetings feature the results of a report commissioned from Interior scientists in MMS and USGS, which reports significant wind energy potential off the coasts of the lower 48 States.

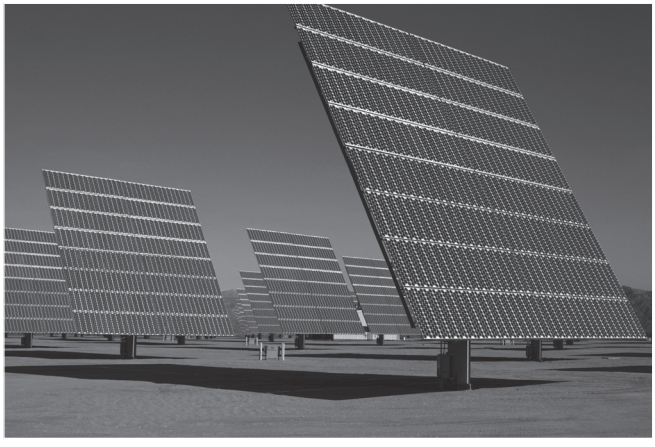


*As we develop the energy and resources on our public lands, we must do so with an eye to future generations and an ear to local communities.*

**Ken Salazar, Secretary of the Interior**
**February 2, 2009**

The 2010 budget for MMS includes an increase of $6.5 million to fund environmental studies to address physical, biological, and social resource issues in the areas where renewable energy applications are initially expected. Anticipated activities include addressing site characterization, facility construction, operation, monitoring, and decommissioning. This baseline environmental information will be used by MMS to determine areas within the OCS that are available for the development of renewable energy sources. Funding will also support technical studies to address safety, hardware, and engineering issues associated with the interaction between renewable energy technologies, the marine environment, and the development of conventional energy sources.

The initiative includes an increase of $15.6 million to support leasing activities, both competitive and noncompetitive, which are likely to occur in areas that are now available for leasing on the OCS. This initiative will support preparatory work to initiate leases for up to four competitive renewable energy lease sales, or comparable noncompetitive leases for individual renewable energy projects, and to prepare limited leases for offshore resource data collection and technology testing. The MMS will conduct environmental and technological studies and prepare related analyses. Efforts will be focused off the coast of States such as New Jersey that have selected energy projects with developers through a competitive process, entered into a power purchase agreement, or established aggressive alternative energy development or incentive initiatives.



**U.S. Geological Survey** — An effective renewable energy strategy requires scientific analysis that can point to the areas that have the most potential for development, evaluate the impacts from the development, and support decisionmaking to avoid or mitigate impacts.

The 2010 budget includes an increase of $3.0 million for USGS to develop scientific information to inform renewable energy development decisions. The USGS will investigate an array of renewable energy sources to develop comprehensive data concerning the nature of wind, solar, biofuels, and geothermal systems.

In 2008, USGS completed a three-year project to produce a new national assessment of geothermal resources capable of producing electric power as part of the Energy Policy Act of 2005. Expanding on this assessment, USGS will study geothermal systems in greater depth by focusing on the western resources in Alaska and Hawaii. The new information will support the viability of geothermal energy development in these areas.

Research will also focus on how to mitigate the effects of wind power systems on bird and bat mortality. The USGS plans to develop an adaptive model of wind generator risk for turbine siting and operation to determine the conditions associated with avian mortality. The USGS will develop tools and studies to monitor bird migrations and weather events to predict strikes and guide future wind power siting and operation decisions. Research conducted on offshore wind farming will also assess its impact to the seafloor habitat. Seafloor information will be used by MMS as it considers renewable energy development proposals on the OCS.

The USGS will work with other bureaus to develop protocols for solar energy projects in order to minimize wildlife and habitat impacts. A multi-discipline biomass research initiative will identify strategies to mitigate the effects and evaluate the influence of biofuels development on ecosystems, including the effects of various biofuels such as corn, soybean, and switchgrass under various climate scenarios. Land use and land cover will be monitored to determine the impact of biofuels production on water use and availability. Additional life-cycle evaluations of biofuels production in relation to greenhouse gases, energy inputs, and production potential will also be analyzed.

**Fish and Wildlife Service** — To address increased demand to site and develop renewable energy projects, the 2010 budget includes an increase of $3.0 million to allow FWS to streamline environmental reviews and enhance conservation planning activities to minimize the wildlife and habitat impacts from the siting of renewable energy and transmission projects.

The FWS will accelerate the development of its Information, Planning, and Consultation System, a decisionmaking tool that assists implementation of alternative energy projects. The FWS will use this system to expedite reviews required under the Endangered Species Act for landscape-level planning efforts initiated by industry, States, Tribes, and local governments engaged in the development of renewable energy projects and associated transmission infrastructure. Funding will also increase the number of biologists who will provide technical expertise and resource information as the projects are being developed to avoid adverse effects from their development.

## Supporting Conventional Energy Production

The Department's conventional energy programs are an important component of the Nation's energy portfolio. Roughly one-third of the energy produced in the United States each year comes from Federal lands and waters managed by Interior. Production on the OCS is expected to increase as new deepwater production comes on line, based on recent discoveries in the deep and ultra-deep waters of the Gulf of Mexico. Similarly, there is potential for increased onshore production of conventional energy supplies in certain areas.

Interior's energy programs also provide significant economic returns to the U.S. Treasury and to States. Mineral revenues collected by MMS, which have averaged about $13 billion per year over the last five years, are distributed and disbursed to 38 States, 41 Indian Tribes, some 30,000 American Indian mineral royalty owners, and to various U.S. Treasury accounts.

The 2010 budget includes increases of $16.9 million that will allow the Department to responsibly develop mineral resources on public lands and waters, using sound information to manage energy resources in a way that provides States, stakeholders, and affected communities with the opportunity to provide input.

**Bureau of Land Management** — Federal onshore lands contain significant oil and natural gas resources. The BLM manages these resources through a program comprised of planning, permitting, leasing, and monitoring. The 2010 budget proposes to repeal Section 365 of the Energy Policy Act, which currently makes available an estimated $21 million in mandatory receipts for oil and gas program operations. The budget fully offsets this loss of mandatory funding with an increase of $11.9 million in appropriated funds and an increase of $9.1 million anticipated from fees collected for processing applications for permits to drill.

**Minerals Management Service** — The Outer Continental Shelf is a vital source of domestic oil and gas. The OCS is estimated to contain 60 percent and 40 percent of the remaining undiscovered oil and gas resources, respectively, in the U.S. based upon a national assessment released by MMS in 2006. Production of energy on the OCS will continue to be a key component of the Administration's energy strategy. The 2010 budget seeks increased resources to ensure an effective OCS program that facilitates industry development in appropriate areas to meet the Nation's ongoing resource needs.

Deepwater activity in the Gulf of Mexico has increased significantly due to recent lease sales and an increase in exploratory activities. There is a large inventory of leases waiting to be drilled, with 12-15 new deepwater rigs expected to arrive by 2010. This additional activity and the need for environmental information for the Alaska Planning Areas are the basis for an increase of $5.1 million requested in 2010.

## Audits and Compliance

Accurate, reliable, and complete production data is vital to managing both the renewable and conventional energy resources on the OCS, the public

lands managed by BLM, and lands held in trust for Indian Tribes. Reliable and effective audit and compliance programs are necessary to ensure collection of revenues from energy programs in BLM, MMS, and BIA. The 2010 budget includes increases totaling $8.4 million for these bureaus.

**Bureau of Land Management**—The BLM's capability to verify production information is a crucial aspect of ensuring the Federal government receives a full return from the development of energy resources on the public lands. The 2010 budget includes $2.5 million for BLM to improve production accountability and increase the number of accountability reviews conducted annually.

**Minerals Management Service** — In order to enhance public and trust benefits, promote responsible use, and realize fair value, program increases of $4.7 million are requested for MMS to improve production reporting for Federal and Indian properties; enhance production accountability and verification processes used to ensure that royalties are paid; and provide data necessary for identifying and targeting gas plants and companies for audits and compliance reviews. The data will be used to support a risk-based compliance strategy that will ensure that MMS increases audit and compliance coverage, while focusing on the highest risks. The MMS will identify properties and companies where audits or compliance reviews are warranted based on risk assessments.

**Bureau of Indian Affairs** — The 2010 budget request includes an increase of $1.0 million for BIA to ensure energy projects are conducted in a safe and environmentally sound manner by conducting audits and compliance inspections.