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Department of the Interior
Climate Change
And Ensuring that America Leads the Clean Energy Transformation
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Chairman Boxer, Ranking Senator Inhofe and members of the Committee, I am pleased to appear on the panel before you today to discuss climate change and the work underway at the Department of the Interior to transition our energy economy to one based on clean and renewable natural resources. Ensuring that America is at the forefront of this effort presents both significant challenges and tremendous opportunities for our nation. Thank you for your leadership on this important issue.

INTRODUCTION: ISSUE OF OUR TIME

We are entering a new day for energy production and use in the United States – a time of increased renewable energy from domestic sources and more efficient use of energy from all sources – together, these are the foundation of a clean energy era.

A new clean energy economy will deliver new jobs for Americans and strengthen our long-term economic and energy security. In the 1960s, President John Kennedy described to the nation a vision of getting America to the moon within 10 years. We were able to do it in less than 10. In the same way that the Apollo project worked then, today we are going to take our "moon shot" of the 21st century, which is getting us to energy independence. As President Obama has said, there is a choice before us: we can remain the world's leading importer of oil . . . or we can become the world's leading exporter of clean energy.

The United States is well-positioned to lead the clean energy transformation and Interior's land, energy, and natural resource management responsibilities offer significant opportunities. The Department of the Interior manages 500 million acres of land, one-fifth of the land mass of the United States and another 1.7 billion acres of the Outer Continental Shelf (OCS). This land base includes areas which boast some of the highest quality renewable energy resources available for development today: solar in the southwest; wind in the Atlantic, on the Great Plains and in the west; and geothermal in the west. We are working to develop these assets to help power President Obama's vision for a new energy economy. The scope of Interior's land ownership also gives us an important role in siting the new transmission lines needed to bring stranded renewable energy assets to load centers, all in an ecologically sensitive manner.

Since coming into office, Interior has prioritized the development of renewable energy on our public lands and OCS. American business is responding. Companies are investing in wind farms off the Atlantic seacoast, solar facilities in the southwest, and geothermal energy projects throughout the west. Power generation from these new energy sources produces virtually no greenhouse gases and, when installed in an environmentally sensitive manner, they harness abundant, renewable energy that nature itself provides and with minimum impact.

CLEAN ENERGY FUTURE

Since the beginning of the Obama Administration in January, we at the Department of the Interior have been focused on these issues, working with stakeholders and our federal, state, and local partners to take the appropriate actions to set the country on a course toward a clean new energy economy.

On April 9, 2009, the Secretary and Federal Energy Regulatory Commission (FERC) Chairman Jon Wellinghoff signed an agreement that clarifies our agencies' jurisdictional responsibilities for leasing and licensing renewable energy projects on the U.S. Outer Continental Shelf. The Memorandum of Understanding establishes a process for the Department and FERC to efficiently advance the development of wind, solar, wave, tidal and ocean current energy sources, while maintaining mandated consultation with the National Oceanic and Atmospheric Administration's authorities and responsibilities for stewardship of marine ecosystems and living marine resources.

In June of this year, the Department responded to a 2007 Congressional directive with a report that outlines a recommended framework for a national carbon storage program on public lands. Such a program may help develop cleaner energy and reduce greenhouse gasses. The report, titled, *Framework for Geological Carbon Sequestration on Public Land*, is an important step toward developing a national program that makes effective use of the vast underground carbon storage capacity of federal lands, the resource management expertise of Interior's Bureau of Land Management (BLM), and the science capabilities of the U.S. Geological Survey (USGS) to reduce harmful carbon dioxide emissions into the atmosphere.

On June 23, 2009, Interior announced five limited leases to construct meteorological towers in support of offshore wind energy development off the coasts of New Jersey and Delaware, the first of their kind ever offered by the Federal Government. The following week, the Secretary, along with Majority Leader Harry Reid, released "fast-track" initiatives for solar energy development on western lands. This means we will provide resources that expedite efficient, effective, and focused environmental review. Under these initiatives, federal agencies will work with western leaders to designate tracts of U.S. public lands in the west as prime zones for utility-scale solar energy development,

fund environmental studies, open new solar energy permitting offices and speed reviews of industry proposals.

Our nation's public lands offer some of the highest renewable energy potential in the country. The BLM has identified a total of approximately 20.6 million acres of public land with wind energy potential in the 11 western states and approximately 29.5 million acres with solar energy potential in the six southwestern states. There are also over 140 million acres of public land in western states and Alaska with geothermal resource potential.

There is also significant wind and wave potential in our offshore waters. The National Renewable Energy Lab, a Department of Energy national laboratory, has identified more than 1,000 gigawatts of wind potential off the Atlantic coast, and more than 900 gigawatts of wind potential off the Pacific Coast¹.

Renewable energy companies are eager to partner with the government to develop this renewable energy potential. We have an obligation to efficiently guide development in a way that is sensitive to anticipated and unintended environmental impacts to public trust resources and responsible with taxpayer dollars. Unfortunately, today, on BLM lands in our southwestern states, there is a backlog of over 158 solar energy applications. In addition, there are some 281 proposed wind development projects on BLM lands in the west. Moving forward with these projects would further our energy and climate goals while also creating engineering and construction jobs.

To help focus the Department of the Interior on the importance of renewable energy development, on March 11, 2009, the Secretary issued his first Secretarial Order. The order makes facilitating the production, development, and delivery of renewable energy on public lands and the OCS top priorities for the Department. These goals will be accomplished in a manner that does not ignore, but instead protects our signature landscapes, natural resources, wildlife, and cultural resources.

The order also established an energy and climate change task force within the Department, drawing from the leadership of each of the bureaus. The task force is responsible for, among other things, quantifying the potential contributions of renewable energy resources on our public lands and the OCS and identifying and prioritizing specific "zones" on our public lands where the Department can facilitate a rapid and responsible move to significantly increased production of renewable energy from solar, wind, geothermal, biomass sources, and incremental or small hydroelectric power on existing structures, and biomass sources. The task force is prioritizing the intra-Department permitting and appropriate environmental review of transmission rights-of-way applications on public lands for transmission lines to deliver renewable energy generation to consumers, and is working to resolve obstacles within the Department to renewable energy permitting, siting, development, and production on federal lands without compromising environmental values.

¹ <http://www.nrel.gov/wind/pdfs/40045.pdf>

Developing these renewable resources requires a balanced and mindful approach that addresses the impacts of development on water, wildlife and other natural resources while working closely with other federal agencies and state and local governments where necessary. We at Interior recognize this responsibility and it is not a charge the Secretary takes lightly.

At the same time, we must recognize that we will rely on conventional sources – oil, gas, and coal – for a significant portion of our energy for many years to come. Therefore it is important that the Department continue to responsibly develop these energy resources on public lands.

CARBON SINKS: GEOLOGICAL AND BIOLOGICAL

The challenges of addressing carbon dioxide accumulation in the atmosphere are significant. A variety of strategies are being investigated to reduce emissions and remove carbon dioxide from the atmosphere. Such strategies include “geologic carbon sequestration” – or the physical capture of carbon dioxide from major sources and subsequent injection into geologic formations and “biological carbon sequestration” – or the storage of carbon in our nation’s plants and soils in ecosystems across the country.

The Department of the Interior has experience overseeing the injection of carbon dioxide into certain geologic formations. Carbon dioxide (CO₂) injection techniques have useful practical applications in processes known as enhanced oil recovery (EOR), which currently take place on some public lands managed by the BLM. These processes are utilized for a different purpose than a carbon sequestration program – that is, allowing the recovery of additional energy resources from older oil and gas fields – but BLM’s experience in overseeing EOR operations may provide valuable insights into designing a carbon sequestration regulatory regime.

We anticipate the need for the BLM to collaborate with other federal agencies, tribes, states, the private sector, and public interest groups as we move forward in improving our understanding of carbon injection and storage and addressing legal and policy issues that may arise during development of geological carbon sequestration projects.

As the nation’s largest land manager, the BLM is entrusted with the multiple-use management of 253.3 million acres of land, and administers 700 million acres of sub-surface mineral estate of which the surface owners are federal agencies, states, or private entities. The Department diligently executes our responsibilities to make these resources available in an environmentally-sound manner. Within the framework of a transparent public process, and necessary federal, state and local agency consultation and coordination, we carefully consider habitat, groundwater, air and other resources; mitigate impacts through best management practices, stipulations and conditions of approval; and balance development with other uses across the landscape.

In addition to experience in administering a large-scale mineral leasing program, Interior has the expertise to contribute to geologic sequestration projects in other ways, as well.

For instance, we have an existing framework for issuing rights-of-way on public land that could serve future needs for carbon dioxide pipelines across public lands. Other programmatic and land management expertise, such as the experience of the BLM and the Fish and Wildlife Service (FWS) in evaluation of potential environmental impacts of projects, will facilitate this effort. The USGS will play an important role in recommending geologic criteria that may be incorporated into a set of “best practices” for geologic site selection.

Congress has already recognized Interior’s experience with geologic injection of carbon dioxide. Section 711 of the Energy Independence and Security Act (EISA; Public Law 110-140) required the USGS, as mentioned above, to complete a methodology to assess geologic CO₂ storage resources with input from the Department of Energy (DOE), Environmental Protection Agency (EPA), state geological surveys, and others. Currently, the USGS is in the process of assembling review comments and expert evaluations of the methodology so that it can be finalized. The USGS plans to apply this methodology in a national assessment of geologic storage resources in depleted oil and gas fields and saline formations. The initial stages of this assessment are funded in the President’s Budget for Fiscal Year 2010.

Section 713 of EISA directs the BLM to maintain records on, and an inventory of, the quantity of carbon dioxide stored within Federal mineral leaseholds. The BLM is currently implementing the carbon dioxide capture and storage provisions of the EISA and is nearing completion of an initial inventory of carbon dioxide stored within federal lands up to the end of Fiscal Year 2008 and will update this inventory annually. Section 714 of the EISA directs the Secretary of the Interior to submit a report to Congress containing a recommended framework for geological sequestration on public lands. Through the BLM, in coordination with the USGS, the EPA, the DOE, and other appropriate agencies, the Department examined criteria for identifying candidate geological sequestration sites in several specific types of geological settings.

The opportunities for carbon emissions reduction provided by the “biological sequestration” of carbon are additional important considerations. Plants and soils take up and store carbon in many ecosystem types, including but not limited to forests, grasslands, and wetlands. Pursuant to section 712 of the Energy Independence and Security Act of 2007 (P.L. 110-140), the USGS has the responsibility to conduct a national assessment of biologic carbon sequestration, ecosystem greenhouse gas fluxes, and potential effects of management practices and policies on ecosystem carbon sequestration and greenhouse gas emissions. The USGS is well underway with this work and is consulting with the Department of Energy, the Department of Agriculture and others in preparing this assessment. Combined with the work of other agencies, it will help to enhance the scientific information to support reductions in carbon emissions and increases in carbon sequestration through land use practices. Land management that stores carbon in our ecosystems has significant mitigation potential; Interior has the expertise to support carbon sequestration activities as part of its wide range of stewardship responsibilities, which also include restoration of wildlife habitat, ensuring a

clean and abundant water supply, and complementing land, wildlife, and natural resource management efforts in the face of a changing climate.

I also would like to point out that the Interior Department has been engaged in a variety of projects that will teach us a great deal about biological sequestration, ranging from wetlands restoration projects in the mid-Atlantic and southeast, to afforestation projects in the lower Mississippi Valley, and habitat restoration projects in the west. The methodologies that USGS is developing at the direction of Congress and the experience of our land managers in pursuing these projects as part of our broader ecosystem responsibilities should be useful to the committee as you develop an offsets program that credits verifiable carbon reductions that are associated with environmentally sound land management practices on private lands.

CONCLUSION

In all of these activities, the Department of the Interior is putting a premium on integrating our dual science and land management roles. Scientists in the USGS, the Fish & Wildlife Service, and the National Park Service, for example, are working hand-in-glove with our land, wildlife and water managers who are responsible for the more than 500 million acres of public lands that we oversee. We are focused on ensuring that the USGS and other bureau scientists are collecting and analyzing data that provide relevant scientific information about natural resource conditions, the impacts of climate change on our lands, water and wildlife, and identifying best management practices to support decision-making regarding our public lands that make use of the best available scientific knowledge. This is, and needs to be, an interactive process, as the nation's natural resource managers work with scientists and identify areas that would benefit from further research on and analysis of the reality of on-the-ground changes. Scientific information – baseline data, trends detection, modeling and forecasting, together with the effective dissemination of information and decision support tools – is key to understanding and addressing climate change and its effects.

Madame Chairman, a problem as complex as climate change takes the coordinated efforts of all the branches of the federal government, cooperation with states and localities and collaboration with leaders from around the world. The Department of the Interior stands ready with our shoulder to the wheel to contribute to this effort.

Thank you. I look forward to answering your questions.
