

**Statement of  
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Bureau of Land Management  
Department of the Interior  
Before the  
Committee on Natural Resources  
Subcommittee on Oversight and Investigations  
Oversight Hearing  
*“The Status of Ivanpah and other Federal Loan-Guaranteed Solar Energy Projects on BLM  
Lands”*  
July 14, 2016**

Chairman Gohmert, Ranking Member Dingell, and Members of the Subcommittee, I am pleased to join you today to discuss the Bureau of Land Management’s (BLM’s) renewable energy program generally, as well as the status of the four solar projects that received loan guarantees.

The BLM is responsible for managing more than ten percent of the nation’s surface and nearly a third of its minerals. The BLM manages this vast portfolio on behalf of the American people under the dual framework of multiple use and sustained yield, which means management for a broad range of uses, including renewable and conventional energy development, livestock grazing, timber, recreation, and conservation.

When it comes to energy development, the BLM works to ensure such development occurs in the right places and that projects are managed safely and responsibly. As part of that effort, the Bureau has been updating its regulations and policies governing both conventional and renewable energy development to reflect current practices and technology.

**Renewable Energy Development on the Public Lands**

Facilitating the responsible development of renewable energy resources on public lands is a cornerstone of the Administration’s energy strategy. Prior to 2009, wind and geothermal energy projects approved on public lands had the capacity to generate approximately 2,500 megawatts (MWs) of power, and there was no solar energy development.

Since 2009, the BLM has approved 59 utility-scale renewable energy projects, including 35 utility-scale solar facilities, 11 wind farms, and 13 geothermal plants. When fully constructed, these projects will provide more than 15,000 MWs of power, enough electricity to power as many as 5.1 million homes, and will provide over 24,000 construction and operations jobs. These approvals helped the BLM successfully meet the goal of the Energy Policy Act of 2005 to authorize at least 10,000 MWs of renewable energy on public lands by 2015. Indeed, the BLM met that goal a full three years ahead of schedule. Today, the BLM continues to work toward the President’s goal of permitting 20,000 MWs of renewable energy on public lands by 2020.

Over the next two years, the BLM expects to process five renewable energy projects (four solar and one geothermal), providing an additional 1,002 MWs of generating capacity. These projects further the BLM's contribution to a diverse energy mix nationally.

### **Renewable Energy Siting & Permitting**

A central component of the BLM's renewable energy program is the Bureau's focus on improving the way it sites and reviews renewable energy projects. A key part of this effort is the Western Solar Plan, which was finalized in October 2012. This comprehensive plan provides a blueprint for utility-scale solar energy development on public lands in Arizona, California, Colorado, Nevada, New Mexico and Utah. It established solar energy zones (SEZs), which are areas of high energy generation potential, low resource conflicts, and access to existing or planned transmission. The plan also identified potential incentives for development within those zones (e.g., reduced project-specific review times), and established a process that the BLM could use to identify and establish additional zones in the future.

To date, the BLM has established 19 SEZs. If fully built out, projects in these SEZs could produce as much as 27,000 MWs of solar energy, or enough to power approximately 8 million homes. The value of these zones was illustrated in 2014 with the first successful competitive solar auction in the Dry Lake SEZ in Nevada. That auction netted \$5.8 million in bonus bids, and using the expedited review process established by the Western Solar Plan the review and approval of these projects were completed in 10 months, less than half the amount of time generally needed under the standard application-by-application process applied outside of SEZs.

In addition to helping guide development to the right places, the Western Solar Plan also provided a foundation for the BLM's current rulemaking process to update its right-of-way regulations to facilitate solar and wind energy development. These new regulations, which we anticipate finalizing later this year, will provide additional options for the BLM to offer areas competitively for solar and wind energy development and incentives for leasing within designated leasing areas, such as SEZs. The BLM is also continuing to utilize early coordination with its partners, including state, county and local agencies, tribal governments, the Bureau of Indian Affairs, the U.S. Fish and Wildlife Service (FWS), the National Park Service, and the Department of Defense to facilitate the review of these projects.

### **The DOE Loan Guarantee Program**

The Energy Policy Act of 2005 authorized the U.S. Department of Energy (DOE) to implement the Title XVII Loan Guarantee Program. That program provided for the issuance of loan guarantees to qualified innovative clean energy projects, including eligible solar projects. According to the DOE, the Loan Guarantee Program was designed to encourage commercial use in the United States of new or significantly improved clean energy technologies that reduce, avoid, or sequester greenhouse gas emissions.

These loan guarantees, issued by the DOE, were important to the successful construction and development of four solar projects on public lands -- the Ivanpah Solar Energy Generating Facility (\$1.6 billion in loan guarantees), the Desert Sunlight Solar Project (\$1.5 billion in a partial loan guarantee), the Genesis Solar Project (\$852 million in a partial loan guarantee), and the Crescent Dunes Projects (a \$737 million loan guarantee). The status of these projects is summarized below and additional details about the Ivanpah Project follow that discussion. The job numbers cited in this statement reflect the current job number estimates provided by the project sponsors.

For all solar energy projects permitted on public lands, including the four identified above, the BLM conducts a thorough environmental review, provides for extensive public involvement, and requires full reclamation bonding. Additionally, all approved projects are required to pay an annual base rent on a per-acre basis, as well as a MW capacity fee, to ensure that the public receives a fair return from such development.

### ***Crescent Dunes***

The Crescent Dunes Solar Project is located northwest of Tonopah, in Nye County, Nevada is a 110 MW power tower Concentrating Solar Power (CSP) plant. It uses concentrated solar energy to heat molten salt, which is used as the heat transfer and the storage medium for generating power. The project is the first CSP power tower with thermal energy storage in the United States, and is expected to generate 482,000 megawatt-hours of clean energy annually. The project is located on 2,250 acres of public lands and has generated 1,050 construction jobs with a permanent workforce of 38. To date, the project has paid \$1.4 million in rent and MW capacity fees.

### ***Desert Sunlight Solar Project***

The Desert Sunlight Solar Project, located near Desert Center in Riverside County, California, is a 550 MW photovoltaic (PV) project. It has been fully operational since January 2015 and will generate 1,060,000 megawatt-hours of clean energy annually. It occupies a total of 4,080 acres of public land, incorporating the solar facility and generation-tie line. The project generated 440 jobs at the peak of construction and has 15 permanent employees. Since becoming operational, the project has paid \$10.4 million in rent and MW capacity fees.

### ***Genesis Solar Project***

The Genesis Solar Project is a parabolic trough CSP plant located near Blythe, in Riverside County, California. The project has been operational since April 2014 and consists of two separate 125 MW solar generating facilities, which, combined, will generate 605,000 megawatt-hours of clean energy annually. The project is located on nearly 1,950 acres of BLM-managed lands, generated nearly 1,100 construction jobs, and has 47 permanent jobs. To date, the project has paid \$5.8 million in rent and MW capacity fees.

### *Ivanpah Solar Energy Generating Facility*

The Ivanpah Project, located in San Bernardino County, California, is a 370 MW power tower CSP project that was approved by BLM in collaboration with the California Energy Commission in 2010. It will generate 940,000 megawatt-hours of clean energy annually. The project covers approximately 3,471 acres of BLM-managed public land and incorporates three 459-foot tall power towers and 173,500 heliostat mirrors. The project, originally developed by BrightSource Energy, generated approximately 2,650 construction jobs at its peak and involves 86 permanent jobs. It is now owned primarily by NRG Energy. To date, the project has paid over \$7.6 million in rent and MW capacity fees.

### *Ivanpah Project's Performance*

Consistent with its practice, the BLM has been carefully monitoring operations at the Ivanpah Project to ensure they are consistent with the project's right-of-way grant.

Under the Federal Land Policy and Management Act, the BLM is obligated to verify, prior to approving a project, that a proponent has the financial and technical capability to operate its right-of-way grant. The BLM is also required to ensure that projects are bonded sufficiently to cover potential operational liabilities, as well as the costs of decommissioning and reclamation of the project site should the proponent be unable or unwilling to conduct those activities. After a project is approved, the BLM is obligated to collect fair market value for those authorized uses. The BLM does not regulate the specific amount of power produced or require a project to achieve a specific level of performance as part of its approvals. The Ivanpah Project is current meeting all of its financial obligations under the right-of-way grant.

### *Ivanpah Project's Avian Impacts*

The Department, through the FWS, is responsible for ensuring compliance with the Migratory Bird Treaty Act of 1918. In implementing that authority, the Department has long recognized that "take" of migratory birds may occur even when industries coordinate with the FWS, comply with best management practices, and follow the FWS's recommendations. Recognizing this challenge, the Department looks for opportunities to foster relationships with, and provide guidance to, industries during the development and maintenance of individual projects in order to minimize "take" that is foreseeable and avoidable.

Consistent with that approach, the BLM and its partner agencies have been and continue to be actively involved in the implementation of measures to avoid or minimize avian impacts associated with the Ivanpah Project. During the project review and approval process, the BLM worked with those partners and the proponent to develop a robust Avian and Bat Monitoring and Management Plan. A key component of that Plan is a comprehensive monitoring program designed to collect data regarding the Project's impacts, which is shared with a Technical Advisory Committee made up of representatives from the BLM, FWS, California Energy Commission, and California Department of Fish and Wildlife. That Committee reviews the data to determine whether additional or different mitigation measures should be implemented in

response to observed impacts. This approach is consistent with current guidelines developed by the FWS based on best available science.

As was disclosed during the Project's environmental review process, the Ivanpah Project has resulted in avian mortality, and, consistent with approved plans, the BLM is actively working with the proponent, FWS, and state agencies to address those impacts. To date, the project has deployed several different bird deterrence systems in an effort to identify the most effective. Those systems have not yet been operational for a sufficient amount of time to make a final determination as to efficacy. Moreover, as new measures, technology, and practices become available, the mitigation plans governing the Project are flexible enough to ensure that those measures can be incorporated into the Project as appropriate. The BLM continues to work with the FWS and other Federal and industry partners on systems to better quantify the actual impacts of solar energy generation at Ivanpah to birds and other wildlife.

#### *Addressing other Environmental Impacts*

In addition to mitigating avian impacts, the review and approval of the Ivanpah project identified a robust suite of measures to avoid, minimize or compensate for impacts to other resources. These include: (i) reducing the project's size from 4,073 acres to 3,471 acres, (ii) requiring the acquisition of more than 7,300 acres of habitat for the threatened Desert Tortoise and other species, (iii) constructing exclusion fences for Desert Tortoise along 50 miles of road, (iv) establishing a Desert Tortoise juvenile "head start" program to provide specialized care and protection for the first five years of life or until they survive in the wild on their own, and (v) relocating desert tortoises on the Project site to other nearby habitat. These measures allowed the FWS to conclude in Biological Opinions issued in 2010 and 2011 that the project was not likely to jeopardize the continued existence of that species; and serve as an example of how to achieve the purposes of conservation laws, while also facilitating the construction and operation of essential infrastructure and industrial development.

#### **Conclusion**

The BLM is continuing to make significant contributions to the nation's clean energy supply through the Western Solar Plan and other renewable energy initiatives. The BLM is committed to ensuring that energy development on public lands occurs in an environmentally sound and safe manner, and that the projects approved take appropriate steps to account for their impacts. We look forward to working with Congress as we continue these important programs.