

Q's & A's
Release of Draft Solar Energy Programmatic EIS
December 16, 2010

What is the purpose of the Solar Energy Programmatic EIS?

The Solar Energy Development PEIS is being prepared by the U.S. Department of Energy, Energy Efficiency and Renewable Energy Program and the U.S. Department of the Interior, Bureau of Land Management (the Agencies) in order to assess environmental impacts associated with the development and implementation of agency-specific programs that would facilitate environmentally responsible utility-scale solar energy development in six western states (Arizona, California, Colorado, New Mexico, Nevada, and Utah).

What types of technologies are addressed in the PEIS?

The PEIS analyzes potential environmental impacts associated with the development, operation, and decommissioning of utility-scale solar energy projects; i.e. solar energy projects that can generate 10 MW or more of electricity to be put directly into the electricity transmission grid. The following technologies are included in the PEIS analysis:

- Concentrating Solar Power (CSP)
 - parabolic trough (including with Fresnel lens)
 - dish
 - tower
- Photovoltaic (PV) - flat panel and concentrating.

Why was the PEIS limited to just six states? What does that mean for solar energy development in other states?

The BLM made an early decision that only lands with the very best solar resources should be considered for utility-scale development—those which have high solar insolation and direct normal radiation values, low slope, and relatively few resource conflicts. In 2008, when the Solar PEIS was initiated, BLM had received solar energy applications in all six states included in the Solar PEIS. Currently, there are no applications pending in Utah or Colorado. The policies included in the PEIS could be extended to other states, but any additional land use plan amendments and corresponding NEPA review would be addressed by local BLM offices. One important note is that BLM's proposed Solar Energy Program applies only to facilities which have a generating capacity of 20 megawatts or more. Smaller-size facilities intended to support community use, will be addressed through local land use planning, giving BLM field offices discretion and flexibility to best meet those needs.

How will the PEIS affect pending solar energy applications?

The Draft PEIS proposes to make all future solar energy applications, as well as those that are pending on the date that BLM issues its Record of Decision (ROD) on the Final PEIS, subject to the provisions of the new Solar Energy Program adopted in the ROD

Why did BLM identify the Solar Energy Development Program as its preferred alternative?

The Solar Energy Development Program alternative will help prioritize responsible renewable energy development within Solar Energy Zones, where the environmental issues and potential resource conflicts have been studied and are well understood, but it leaves the door open to consider carefully sited projects in other locations that are suitable for solar energy development to meet the Nation's need for clean renewable energy. BLM's objectives for a new solar energy program include facilitating near-term development by standardizing its authorization process in close coordination with state and federal partners and other stakeholders while ensuring that potentially adverse resource impacts are avoided or minimized. At the same time, BLM wants the flexibility to consider a variety of projects by location, facility size, technology, etc., and to optimize existing transmission infrastructure and corridors.

What are the benefits of BLM's proposed Solar Energy Program?

The Solar PEIS will serve as the foundational environmental document for comprehensive, landscape-level planning and siting decisions for solar energy development on public lands throughout the desert southwest. It will inform future decisions about utility-scale solar energy decisions by providing a thorough environmental analysis of available solar resources and potential environmental, cultural and historic resource conflicts to which future projects may tier under NEPA. The environmental analysis contained in the 25 EIS's that make up the Solar PEIS will underpin BLM policies and procedures affecting solar energy development on public lands in the West. While the solar energy projects approved to date have been thoroughly analyzed under the National Environmental Policy Act, with full public participation, BLM believes that it is prudent and necessary to have a comprehensive, uniform strategy for solar energy development on BLM-managed lands that is well understood by industry and the public.

Will BLM's proposed Solar Energy Program have Best Management Practices (BMP's)?

Typically, Best Management Practices (also known as BMPs), are considered to be "state of the art" with respect to responsible development activities. While perceived as optimal, however, they are not always considered mandatory and may be applied "after the fact" as a type of mitigation measure. The Solar PEIS takes a different approach, using what are described as "Design Features." These are mandatory requirements "hard coded" into the program. The environmental review assumes that these requirements will be followed in all cases and considers the impact on resources with that in mind. In the Solar PEIS, impacts from solar energy development and proposed mitigation requirements are generally described in Chapter 5. Those mitigation requirements are then, for the most part, carried forward as required design features in BLM's program. This assures that development which occurs will be the most environmentally responsible possible and will be uniformly applied across all BLM offices.

What issues were raised during public scoping and how have they been addressed?

The most frequently voiced comments included the need to place greater emphasis on distributed generation and to limit solar facilities to previously disturbed or privately owned land. Many commentators were passionate about the need to protect desert landscapes, vegetation, wildlife, and water resources. Others were equally passionate about the need to move toward a sustainable, renewable energy future. The Draft PEIS looks at all elements of the affected environment and cultural resources and gives a candid assessment of the likely impacts from solar energy development. This information is more general across the 6-state study area, but very specific with regard to proposed Solar Energy Zones. The Draft does not reach conclusions about which or what areas of the proposed SEZs should be identified for priority solar development, but gives a clear picture of the tradeoffs. We are counting on the public to stay engaged and give us their opinions on SEZs.

Why doesn't the Draft PEIS consider a distributed generation alternative?

Distributed solar energy generation, typically described as rooftop solar, is an important component in meeting the future energy needs of the United States. However, these systems typically generate less than 10,000 kW, and have limitations such as the ability to be integrated into the electricity transmission grid, cost, and lack of electricity storage, among others. Distributed generation, by itself, cannot meet the country's goals for renewable energy development. Ultimately, both utility-scale and distributed generation solar power will need to be deployed at increased levels. Section 211 of the Energy Policy Act of 2005 requires the BLM to try to approve non-hydropower renewable energy projects on public lands with a generation capacity of at least 10,000 MW of electricity 2015; this level of renewable energy generation cannot be achieved through distributed generation systems, and the BLM is compelled to undertake actions that will facilitate large-scale solar energy production.

How did the PEIS address wildlife concerns?

Wildlife species are addressed in general at the programmatic level across the 6-state study area and more specifically in each individual SEZ section. Wildlife values were an important consideration in identification of proposed SEZs, and the extensive nature of the SEZ analyses presents a detailed discussion of specific species, including, in some cases, proposed mitigation for individual species. The Solar Energy Development Program Alternative excludes a variety of land categories for the benefit of wildlife, such as designated and proposed critical habitat, Areas of Critical Environmental Concern, Desert Wildlife Management Areas, and conforms to existing land use plan and other management decisions that provide protections for sensitive species. Both action alternatives have many policies and design features geared toward protection of wildlife. Appendix J includes information on species listed under the Endangered Species Act and BLM-designated sensitive species that occur on BLM-administered lands included under the three alternatives considered in the PEIS. Information in the appendix includes listing status, suitable habitat types, and occurrence of these species in alternative areas.

How did the PEIS address water?

Water is a serious issue and is thoroughly addressed in the PEIS. The document identifies water requirements for each type of solar energy technology and each phase of activity (siting, construction, operation, decommissioning). Water resources and water availability are described

at the programmatic level in Chapter 4, Affected Environment, for the six-state study area. The anticipated impacts and potential mitigation measures relating to water resources are set forth in Chapter 5. Each proposed SEZ section addresses water issues in detail and described potential mitigation measures for that specific area. The proposed mitigation is carried forward in the design features identified in Appendix A.

Does the PEIS identify new transmission corridors?

No new transmission corridors were identified in the PEIS. The BLM recently completed a PEIS evaluating issues associated with the designation of energy corridors on federal lands in 11 western states, including the six states addressed in the Solar PEIS, and, based on that effort, designated a series of energy corridors across the western states. The need for additional electricity transmission corridors on BLM-administered lands was considered during preparation of the Solar PEIS; however, BLM concluded that the majority of BLM-administered lands with developable solar resources are not constrained from development due to a lack of existing transmission lines or designated transmission corridors. The PEIS evaluates the potential impacts associated with constructing and operating interconnections from solar energy facilities to the transmission grid, and conservatively assumes that land disturbance impacts from transmission line upgrades will be similar to impacts from construction of new transmission lines, recognizing that upgrades may not be sufficient in all cases and entirely new lines may be needed.

Does the PEIS address competitive leasing for solar energy development?

The Solar PEIS focuses on impacts from solar energy development. It does not include a detailed framework for competitive leasing; however, the option to offer lands within Solar Energy Zones on a competitive basis is included in BLM's proposed policies.

How will issuance of the PEIS affect ongoing BLM Land Use Planning activities?

The new program would be applicable to all utility-scale solar energy development on BLM-administered lands in the six-state study area and, therefore, would be applied by BLM at the local level in coordination with other land use planning decisions. The PEIS will potentially result in the amendment of 91 different land use plans in the 6-state study to adopt the solar energy program as it relates to planning. We intend for the programmatic requirements of the Solar PEIS to be applied even as conditions and land use plan decisions across the six-state study area change. For example, the proposed Solar Energy Program would exclude all Areas of Critical Environmental Concern (ACECs) from utility-scale solar energy development, including ACECs identified in a subsequent plan revision. Similarly, all lands within the National Landscape Conservation System would be excluded from utility-scale solar energy development. That exclusion would apply to any units created by future legislation.

What is the connection between the PEIS and BLM's Rapid Ecoregional Assessment efforts?

The BLM has recently adopted a landscape level framework for the integration of science and management decisions referred to as Rapid Ecoregional Assessments (REA). REAs are

currently underway across the west, synthesizing existing information about resource conditions and trends, highlighting and mapping areas of high ecological value, and gauging their potential risk from climate change, wildfires, invasive species, energy development (including renewable energy), and urban growth. BLM will use results of the REAs to identify key management priorities for the public lands within specific Ecoregions. The proposed Solar Energy Program is designed to consider and conform to new management direction and land use plan amendments that result from REAs.

How will the PEIS affect the Desert Renewable Energy Conservation Planning effort now underway in California?

BLM is a partner in California's recently launched Desert Renewable Energy Conservation Plan (DRECP), intended to advance state and Federal natural resource conservation goals in the Mojave and Colorado Desert regions of southern California, while also facilitating timely and streamlined permitting of renewable energy projects. The DRECP, scheduled for completion some time after the Final Solar PEIS, will include a strategy that identifies and maps areas for renewable energy development and areas for long-term natural resource conservation. This initiative could result in additional amendments to BLM land use plans related to renewable energy development, including solar energy development.

How is the BLM incorporating lessons learned from the process so far into its future plans for renewable energy development?

BLM has recently approved 8 utility-scale solar energy applications—6 in California and 2 in Nevada. Many agencies, as well as individuals and organizations, participated in the review of these projects. The Department has made a commitment to identify what worked well and what needs improvement in concert with other parties. "Lessons learned" will then be incorporated into processing of future projects and in the Record of Decision for the Final PEIS.

What are the next steps for BLM?

With respect to the Solar PEIS, BLM will continue to work with co-lead Department of Energy, cooperating agencies, consulting parties, and the public during the 90-day comment period. At the end of March, it will begin reviewing comments and making appropriate revisions. A Final PEIS is expected in the fall of 2011 with a Record of Decision issued shortly thereafter. During 2011, BLM will also continue to work on several high priority solar energy projects that are ready to move forward with individual environmental impact statements.

What are the next steps for DOE?

As noted above, DOE will continue to serve as co-lead with BLM on the development of the PEIS. Additionally, DOE administers other programs that serve to accelerate the domestic commercial deployment of innovative and advanced clean energy technologies at a scale sufficient to contribute meaningfully to the achievement of our national clean energy objectives. The Solar Demonstration Program for Concentrating Solar Technologies at the Nevada National Security Site will serve to enable advanced technologies to bridge the gap between system development and commercial deployment. The Loan Guarantee Programs enable DOE to work

with private companies and lenders to mitigate the financing risks associated with clean energy projects, thereby encouraging their development on a broader and much-needed scale.

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