

Bureau of Land Management  
Solar Energy Program  
Record of Decision signed October 12, 2012

BIA Utility-Scale Solar Energy Development Workshop  
February 20, 2013



# Solar Energy Programmatic EIS

**Co-Lead Agencies:** BLM & DOE

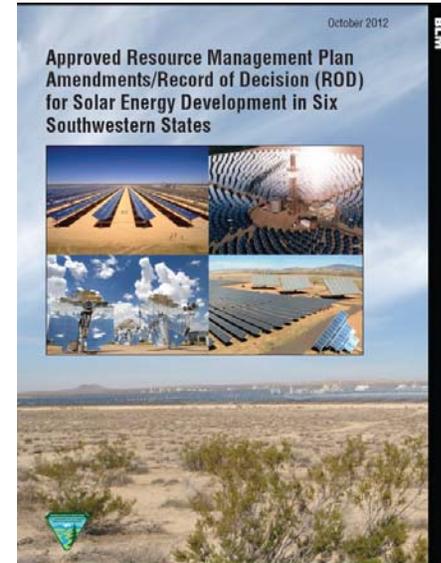
**Geographic Area:** Arizona, California, Colorado, Nevada, New Mexico and Utah

**Technologies Assessed:** Parabolic Trough, Power Tower, Dish Engine and Photovoltaic

**Utility-Scale:** 20 MWs or greater in size

**Objectives:**

- Facilitate near-term utility-scale solar energy development on public lands
- Minimize potential negative environmental, social and economic impacts
- Flexibility to consider a variety of solar projects (location, size, technology)
- Optimize existing transmission infrastructure and corridors
- Standardize and streamline the authorization process



# Solar Energy Program

## Landscape-level planning for utility-scale solar energy development on public lands

**Exclusions** – Areas that are not available for utility-scale solar energy rights-of-way

**Solar Energy Zones** – Priority areas that are well suited for utility-scale production of solar energy

**Variance Areas** – Areas that may be available for utility-scale solar energy rights-of-way if variance process requirements are met (i.e., good projects in good locations)

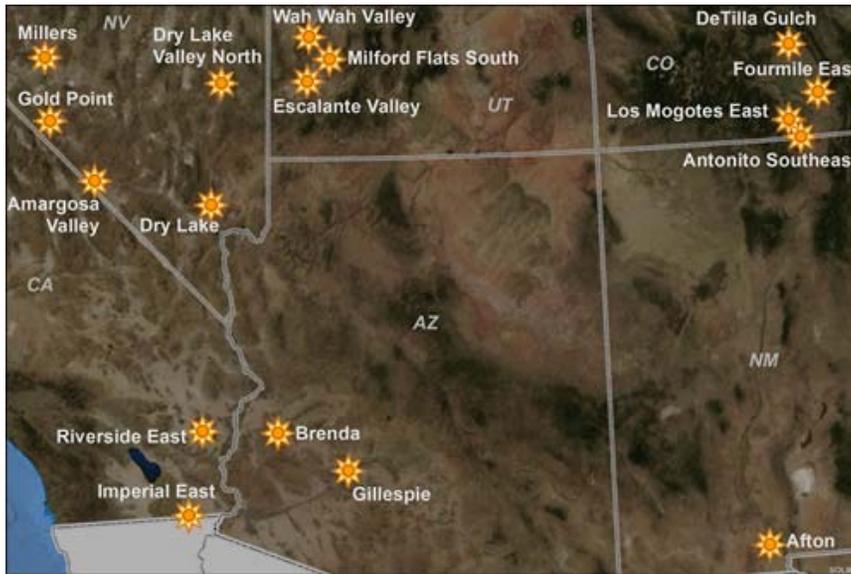
**Design Features** – Avoidance and minimization measures to ensure environmentally responsible development and delivery of solar energy

# Exclusion Areas

- Exclusion areas are defined as areas that are not available for location of utility-scale solar energy rights-of-way under any conditions.
- The identification of exclusion areas allows the BLM to support the highest and best use of public lands by avoiding potential resource conflicts and reserving for other uses public lands that are not well suited for utility-scale solar energy development.
- The Program includes 32 categories of exclusions that reflect specific geographic boundaries, and the presence of specific land use designations and resources or conditions (e.g., designated or proposed critical habitat for ESA-listed species)

State	Estimated Exclusion Areas (acres)
AZ	5,800,301
CA	10,049,207
CO	7,187,130
NV	31,684,298
NM	7,599,145
UT	16,288,481
<b>Total</b>	<b>78,608,562</b>

# Solar Energy Zones (SEZs)



State	SEZs	Acres
AZ	2	5,966
CA	2	153,627
CO	4	16,308
NV	5	60,395
NM	1	29,964
UT	3	18,658
<b>Total</b>	<b>17</b>	<b>284,918</b>

- An area within which the BLM will prioritize and facilitate utility-scale production of solar energy and associated transmission infrastructure development.
- Relatively large areas that provide highly suitable locations for utility-scale solar development: locations where solar development is economically and technically feasible, where there is good potential for connecting new electricity-generating plants to the transmission distribution system, and where there is generally low resource conflict.

# SEZ Incentives

## **Facilitate Faster and Easier Permitting**

- Streamlined authorization process for future projects in the following areas: Land Use Planning, NEPA, NHPA, ESA, Tribal Consultation, Public Involvement

## **Improve and Facilitate Mitigation**

- Commitment to develop regional mitigation plans for SEZs

## **Facilitate the Permitting of Needed Transmission to SEZs**

- Incentives and commitments to bring transmission to SEZs; for example the BLM will engage in ongoing and comprehensive regional transmission planning efforts

## **Provide Economic Incentives for Development in SEZs**

- Reduce overall cost (e.g., lower cost recovery, fixed or lower MW capacity fees, longer phase-in period for rental payments, restructured bonding requirements)
- Reduce uncertainty

# Regional Mitigation Plans for SEZs

- Solar Energy Program includes a commitment to develop regional mitigation plans for SEZs
- Intended to simplify and improve the mitigation process for SEZs:
  - Effectively mitigate impacts of solar development (regional perspective)
  - Increase certainty for solar developers
  - Establish a consistent approach across BLM jurisdictions
  - Maintain incentives for developing in a SEZ
  - Transparent and collaborative process
- A pilot effort is ongoing in the Dry Lake SEZ in Nevada that will result in a mitigation plan for the Dry Lake SEZ and a framework for developing regional mitigation plans that other SEZs will be expected to follow (April 2013 target completion date)

# Identification Protocol for New SEZs

- Protocol includes four primary steps:
  - Assess the demand for new or expanded SEZs;
  - Establish technical and economic suitability criteria;
  - Apply environmental, cultural, and other screening criteria; and
  - Analyze proposed SEZs through a planning and NEPA process.
  
- BLM will assess the demand for new or expanded SEZs at least once every 5 years in each of the six states covered by the Program
  
- The process allows for petitions for new SEZs to be submitted to the BLM by stakeholders
  
- Offices should consider the need for new SEZs as part of ongoing land use plan revisions; nominations may be made through the scoping process

# Variance Areas

State	Estimated Variance Areas (acres)
AZ	3,380,877
CA	766,078
CO	95,128
NV	9,076,145
NM	4,184,520
UT	1,809,759
<b>Total</b>	<b>19,312,506</b>

- BLM-administered lands outside of exclusion areas and Solar Energy Zones that may be available for a utility-scale solar energy right-of-way with special stipulations or considerations.
- The BLM will evaluate right-of-way applications for utility-scale solar energy development in variance areas on a case-by-case basis based on environmental considerations; coordination with appropriate Federal, state, and local agencies and tribes; and public outreach.

# Variance Process

- Process consists of factors to be considered (rather than prescriptions). Allows flexibility to adapt as data and science improve and technologies change, recognizes the variability and tradeoffs associated with individual applications, and allows for satisfactory protection of resources of concern.
- The responsibility for demonstrating that a proposal in a variance area will avoid, minimize, and/or mitigate impacts to sensitive resources will rest with the applicant.
- Process represents a pre-NEPA project evaluation.
- Decision to deny a variance application is appealable; requires a rationale basis and adequate administrative record.

# Areas of Potential Conflict

## ➤ **Protocol for Desert Tortoise**

- USFWS identified certain lands within the variance areas that may be important for desert tortoise connectivity
- Developers that propose projects in variance areas that overlap priority desert tortoise connectivity habitat will be required to meet with the BLM and USFWS early in the process to discuss survey protocols and evaluation criteria

## ➤ **Protocol for Units of the National Park System**

- NPS identified lands within the variance areas where utility-scale solar energy development poses a high potential for conflict with the natural, cultural, and/or visual resources administered by the NPS
- Developers that propose projects in variance areas that overlap NPS high potential conflict areas will be required to meet with the BLM and NPS early in the process to discuss survey protocols and evaluation criteria

# Programmatic Design Features

- Mitigation requirements that are required for all utility-scale solar energy projects on BLM-lands to avoid and/or minimize adverse impacts (SEZ and variance lands).
- Not all design features will apply to all projects; some variations may be appropriate. Applicant must work with the BLM to address proposed variations; will require appropriate analysis and disclosure as part of individual project authorizations.
- Additional mitigation measures may be identified and required during individual project development and environmental review.
- Not intended to be duplicative of other Federal, state, and local requirements; consolidate requirements to the extent practicable.

# Monitoring & Adaptive Management

- Required design features and additional mitigation measures will be identified in project authorizations for individual projects. These measures will be monitored by project developers and the BLM to ensure their continued effectiveness through all phases of development.
- In cases where monitoring indicates that mitigation measures are ineffective, the BLM will take steps to determine the cause and take corrective action using adaptive management strategies (and use this information to inform the authorization of future projects).
- BLM is developing a long-term solar monitoring and adaptive management plan based on BLM's Assessment, Inventory and Monitoring (AIM) Strategy.

# Where to Go for More Information

## Solar PEIS Project Web Site

<http://solareis.anl.gov>

- **Copies of relevant documents**
- **SEZ-specific analysis and information**
- **Follow-on studies**
- **Maps and shapefiles (including FWS and NPS conflict areas)**
- **Solar Mapper**
- **New site under development to support implementation**