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# 2009 DOE Solar Energy Technologies Program Peer Review

Technical Track: Concentrating Solar Power

**Project:** Programmatic Environmental Impact Statement  
To Develop and Implement Agency-Specific  
Programs for Solar Energy Development

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# Relationship to Solar Program Goals



## Goals:

**By facilitating utility-scale solar developments, the EIS will increase deployment of solar technologies, and ultimately help to reduce costs of solar energy to competitive levels.**

## Solar Programmatic Environmental Impact Statement:

**This EIS evaluates impacts associated with utility-scale solar energy development, identifying environmental guidelines and mitigation measures applicable to DOE-supported utility-scale projects, and to projects approved on Bureau of Land Management-administered lands.**

## Argonne's Qualifications:

**Argonne has successfully conducted several EISs related to energy development, including the Trans-Alaskan Pipeline Renewal EIS (BLM 2002), the Imperial-Mexicali 230-kV Transmission Lines EIS (DOE and DOI 2004), the Wind Energy Development Programmatic EIS (BLM 2005), the Outer Continental Shelf Alternative Energy Development PEIS (MMS 2007), the Oil Shale/Tar Sands PEIS (BLM 2008) and the West-Wide Energy Corridor PEIS (DOE and BLM 2008).**

# Accomplishments to Date:



- May-Aug 2008** Published Notice of Intent; Conducted 11 Public Scoping Meetings; Evaluated Scoping Comments
- Sept-Dec 2008** Synthesized data on technologies (PEIS addresses trough, tower, dish, and PV) and began environmental assessment; defined BLM lands to be available for application under the alternatives; refined DOE's Purpose and Need and Alternatives; worked with Cooperating Agencies (DOD) and related projects (WGA WREZ Study; California RETI Study)
- Jan-Feb 2009** Completed assessment for technology impacts and identified draft mitigation measures; completed identification of exclusion areas for BLM lands, began Cumulative Impacts Assessment

## Budget Considerations:

As of Jan. 2009, \$1.1 M of a \$2 M budget to bring the PEIS to Public Draft stage has been spent. The Draft is scheduled for release August 2009.

# Alternatives:



Alternatives for DOE: (1) **No Action**, or

(2) **Develop a Programmatic Environmental Strategy** to further integrate environmental considerations into the analysis and selection of DOE-Supported projects.

Alternatives for BLM: (1) **No Action**, or

**Develop a Program of policies and mitigation measures** to apply to projects on BLM-administered lands receiving ROW authorizations (applicable for lands available under one or more action alternatives).

Certain BLM-administered lands will be excluded from solar development due to existing regulations (for example, Wilderness Areas and National Monuments).

Lands with slope of greater than 5% would also generally be excluded.

# Analytical Methods:



**Methods:** The impacts of the alternatives are assessed for the following resources areas and values:

Land Use	Water Resources and Availability
Air Quality (including Emissions Avoided)	Ecological Resources and T&E Species
Visual Resources	Acoustic Environment
Socioeconomics	Environmental Justice
Paleontology and Cultural Resources	Geologic Setting
Transportation	Health and Safety

Assessments consider applicable regulations and BLM guidance, and compare the impacts of parabolic trough, power tower, dish engine, and PV technologies. A key result will be a comprehensive set of mitigation strategies and measures for all relevant resource areas that will be consistently applicable for utility-scale solar energy development projects supported by DOE or on BLM-administered lands.

# Relevance/Impact of the Solar PEIS:



1. How will the Solar PEIS impact solar energy development?
  - The Solar PEIS will help minimize environmental impacts by establishing consistent, technology-specific strategies and mitigations for solar projects.
  - The Solar PEIS will decrease project implementation time by identifying BLM lands available, amending land use plans, and clarifying requirements for developers.
  - The Solar PEIS will provide public information on the environmental impacts and benefits of solar energy development.

# Future Activities



## 1. FY09 Planned Activities

- a) Conduct Cooperating Agency review of Preliminary Draft (May-June)
- b) Publication of Draft for Public Comment (August 09)

## 2. FY10 and Beyond

- a) Publication of Final PEIS – approximately June 2010
- b) The PEIS analyses will form the basis of technology performance goals to be implemented for DOE-supported projects.
- c) BLM's Record of Decision will amend land use plans to facilitate solar development on public lands.