# BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA DOCKET 07-AFC-5 IN THE MATTER OF:

**DOCKET NO. 07-AF** 

APPLICATION FOR CERTIFICATION FOR THE IVANPAH SOLAR ELECTRIC

GENERATING SYSTEM

NOTICE OF <u>RESCHEDULED</u> PUBLIC SITE VISIT AND INFORMATIONAL HEARING

**BUREAU OF LAND MANAGEMENT SCOPING HEARING** 

On August 31, 2007, Solar Partners I, LLC, Solar Partners II, LLC, Solar Partners IV, LLC and Solar Partners VIII, LLC (Solar Partners), submitted a single Application for Certification (AFC) to the California Energy Commission to develop three solar thermal power plants and shared facilities in close proximity to the Ivanpah Dry Lake, in San Bernardino County, California on federal land managed by the Bureau of Land Management (BLM). The proposed Ivanpah Solar Electric Generating System (ISEGS) project would generate 400 megawatts (MW). The Energy Commission has exclusive jurisdiction to license this project and is considering the proposal under a twelve-month review process established by Public Resources Code section 25540.6. The BLM is conducting its own concurrent process to determine whether to approve an amendment to the 1980 California Desert Conservation Area Plan and a right-of-way grant

PLEASE TAKE NOTICE that the Energy Commission has designated a Committee of two commissioners to conduct proceedings on the Application. The Committee has scheduled a public Site Visit and Informational Hearing to discuss the proposed project and the BLM will conduct a Public Scoping Hearing as described below:

authorizing the construction and operation of the ISEGS on federal lands.

#### FRIDAY, JANUARY 25, 2008

Site Visit begins (bus leaves) at 12:15 p.m. Public Informational/Scoping Hearing begins at 1:00 p.m.

#### PRIMM VALLEY GOLF CLUB

Banquet Room
4 miles southwest of Primm Nevada
Yates Well Road, Northwest of Interstate-15
Exit I-15 at Yates Well Road
San Bernardino County, California
Wheelchair Accessible
(Map Attached)

Prior to the Informational Hearing, members of the public are invited to join the Committee on a tour of the proposed site. The Applicant will provide transportation to and from the site. For reservations, contact the Energy Commission Public Adviser's Office at (916) 654-4489 or 1-800-822-6228 or e-mail at: [pao@energy.state.ca.us]. Please make your reservation on or before Tuesday, January 22, 2008, so that we can assure you a space.

[NOTE: This event was originally scheduled for January 4, 2008. The Committee was unable, due to flight cancellations caused by a massive rain storm in Sacramento, to travel to the event location, necessitating its rescheduling to the above date. Those who were able to make it to the site on January 4 were able to attend an informal site visit.]

#### **Background**

On October 31, 2007, the Energy Commission began review of the ISEGS. The review process will take approximately twelve months. During the review period, the Energy Commission will determine whether the proposed project complies with applicable laws related to public health and safety, environmental impacts, and engineering requirements. The Informational Hearing scheduled by this Notice is sponsored by the Energy Commission to inform the public about the project and to invite public participation in the review process.

As the lead agency under the California Environmental Quality Act (CEQA), the Energy Commission is responsible for reviewing and ultimately approving or denying all applications to construct and operate thermal electric power plants, 50 MW and greater, in California. The Energy Commission's facility certification process carefully examines public health and safety, environmental impacts and engineering aspects of proposed power plants and all related facilities such as electric transmission lines and natural gas and water pipelines.

Under federal law, the BLM is responsible for processing applications for rights-of-way to authorize the proposed project and associated transmission lines and other facilities to be constructed and operated on land it manages. In processing applications, the BLM must comply with the requirements of the National Environmental Policy Act (NEPA), which requires that federal agencies consider the environmental impacts associated with the projects they approve.

Pursuant to a Memorandum of Understanding, the BLM and the Energy Commission Staff intend to conduct a joint environmental review of all three plants in a single NEPA/CEQA process. It is in the interest of the BLM and the Energy Commission to share in the preparation of a joint environmental analysis of the proposed project to avoid duplication of staff efforts, to share staff expertise and information, to promote intergovernmental coordination at the local, state, and federal levels, and to facilitate public review by providing a joint document and a more efficient environmental review process.

#### Purpose of the Informational/Scoping Hearing

The power plant licensing process, which incorporates requirements equivalent to CEQA, considers all relevant engineering and environmental aspects of the proposed project. The licensing review process provides a public forum allowing the Applicant, Commission staff, governmental agencies, adjacent landowners, and members of the general public to consider the advantages and disadvantages of the project, and to propose changes, mitigation measures, and alternatives as necessary. Information gathered during the hearing will be considered in the CEQA/NEPA analysis for the project.

The informational hearing scheduled in this Notice provides an opportunity for members of the community in the project vicinity to obtain information, to offer comments and concerns, and to view the project site. The Applicant will explain plans for developing the project and the related facilities and the Energy Commission staff will explain the administrative licensing process and Staff's role in reviewing the application. The BLM staff will also explain the role of their agency and conduct a Public Scoping Hearing as is described in Attachment A to this Notice—BLM's Public Scoping Notice.

#### **Project Description**

The ISEGS would be constructed in three phases: two 100-MW phases (known as Ivanpah 1 and Ivanpah 2) and a 200-MW phase (Ivanpah 3). They would be located in southern California's Mojave Desert, to the west of Ivanpah Dry Lake, in San Bernardino County, 4.5 miles southwest of Primm, Nevada, and 3.1 miles west of the California-Nevada border in Townships 16 and 17 North, Range 14 East, San Bernardino Meridian.

The proposed project includes three solar concentrating thermal power plants, based on distributed power tower and heliostat mirror technology, in which heliostat (mirror) fields focus solar energy on power tower receivers near the center of each heliostat array. Each 100-MW phase would require approximately 850-acres (or 1.3 square miles) and would have three tower receivers and arrays; the 200-MW phase would require approximately 1,600 acres (or 2.5 square miles) and would have 4 tower receivers and arrays. The three phases would share common facilities including an administration building, operations and maintenance building, substation, access road, and reconductored transmission lines. The total area required for all three phases including the shared facilities would be approximately 3,400-acres (or 5.3 square miles). Construction of the entire project is anticipated to begin in the first quarter of 2009, and completed in the last quarter of 2012.

In each solar plant, one Rankine-cycle reheat steam turbine receives live steam from the solar receiver boilers and reheat steam from one solar reheater located in the power block at the top of its own tower. The reheat tower would be located adjacent to the turbine. Additional heliostats would be located outside the power block perimeter road, focusing on the reheat tower. Final design layout locations are still being developed. The solar field and power generation equipment would be started each morning after sunrise and shut down in the evening. Each plant also includes a partial-load natural

gas-fired steam boiler, which would be used for thermal input to the turbine during the morning start-up cycle to assist the plant in coming up to operating temperature more quickly. The boiler would also be operated during transient cloudy conditions, in order to maintain the turbine on-line and ready to resume production from solar thermal input, after the clouds pass. Each plant uses an air-cooled condenser or "dry cooling," to minimize water usage in the site's desert environment. Water consumption would be mainly to wash heliostats. Auxiliary equipment at each plant includes feed water heaters, a deaerator, an emergency diesel generator, and a diesel fire pump.

Electricity would be produced by each plant's solar receiver boiler and the steam turbine generator. The heliostat mirrors would be arranged around each solar receiver boiler. Each mirror tracks the sun throughout the day and reflects the solar energy to the receiver boiler. The heliostats would be 7.2-feet high by 10.5-feet wide (2.20-meters by 3.20-meters) yielding a reflecting surface of 75.6 square feet (7.04 square meters). They would be arranged in arcs around the solar boiler towers asymmetrically.

Ivanpah 1, 2 and 3 would be interconnected to the Southern California Edison (SCE) grid through upgrades to SCE's 115-kV line passing through the site on a northeast-southwest right-of-way. Upgrades include a new 220/115-kV breaker and-a-half substation between the Ivanpah 1 and 2 project sites. The existing 115-kV transmission line from the El Dorado substation would be replaced with a double-circuit 220-kV overhead line that would be interconnected to the new substation. Power from Ivanpah 1, 2 and 3 would be transmitted at 115-kV to the new substation.

Natural gas for the ISEGS would be supplied from the Kern River Gas Transmission Company pipeline about 0.5 miles north of the Ivanpah 3 site.

Raw ground water would be drawn from one of two wells, located east of Ivanpah 2, which would provide water to all three plants. Each well would have sufficient capacity to supply water for all three phases. Actual water use is not expected to exceed 100 acre feet per year for all three plants. Groundwater would go through a treatment system for use as boiler make-up water and to wash the heliostats. No wastewater would be generated by the system, except for a small stream that would be treated and used for landscape irrigation.

The engineering and environmental details of the proposed project are contained in the AFC. Copies of the AFC are available at the local public agencies that are involved in the review process and at the following libraries: Fresno County Library; San Diego Public Library; UCLA, University Research Library; Barstow Branch Library; San Bernardino County Library; Humboldt Library; San Francisco Public Library; the Energy Commission's Library in Sacramento, and the California State Library in Sacramento.

#### Proposed Schedule and Issue Identification Report

To assist the parties and public in understanding the process, Energy Commission staff shall file a proposed schedule for project review. Staff shall also file an Issue Identification Report summarizing the major issues. Staff's report shall indicate whether Applicant's data responses have been timely and describe any additional information

necessary to resolve issues of concern. Staff filed its proposed schedule and report on December 28, 2007 and the Applicant filed its response on December 31, 2007. Copies of those documents are available on the Commission's web site at: [www.energy.ca.gov/sitingcases/ivanpah/]. We encourage the parties to file updated reports and responses prior to the rescheduled Informational Hearing.

#### **Public Adviser and Public Participation**

The Energy Commission Public Adviser's Office is available to assist the public in participating in the application review process. For those individuals who require general information on how to participate, please contact the Public Adviser's Office at (916) 654-4489 or 1-800-822-6228 or e-mail: [pao@energy.state.ca.us]. If you have a disability and need assistance to participate in this event, contact Lourdes Quiroz at 916-654-5146 or e-mail: [lquiroz@energy.state.ca.us].

#### Information

Questions of a legal or procedural nature should be directed to Paul Kramer, the Hearing Officer, at (916) 654-5103 or e-mail: [pkramer@energy.state.ca.us].

Technical questions concerning the Project should be addressed to Jack Caswell, the Staff Project Manager, at (916) 653-0062, or e-mail at: [jcaswell@energy.state.ca.us].

Technical questions concerning the BLM permitting process should be addressed to Tom Hurshman, Project Manager at (970)240-5345, or e-mail at: **[tom\_hurshman@blm.gov]**.

Media inquiries should be directed to Claudia Chandler, Assistant Executive Director for Media and Public Communications at (916) 654-4989 or e-mail at: [mediaoffice@energy.state.ca.us].

Information concerning the status of the project, as well as notices and other relevant documents, may be viewed on the Energy Commission's Internet web page at: [www.energy.ca.gov/sitingcases/ivanpah/].

Dated: January 8, 2008, at Sacramento, California.

JEFFREY D. BYRON

Commissioner and Presiding Member Ivanpah AFC Committee

JAMES/D. BOYD

Vice Chair and Associate Member

Ivanpah AFC Committee

Mailed to Lists: POS,7255, 7256, 7257, 7258

Proof of Service List (Revised on 12/7/07) filed with Original Document. Mailed from Sacramento on 1/9/09 MIC )

#### Attachment A

#### **BUREAU OF LAND MANAGEMENT**

# PUBLIC SCOPING NOTICE IVANPAH SOLAR ELECTRIC GENERATING SYSTEM ENVIRONMENTAL IMPACT STATEMENT

#### BUREAU OF LAND MANAGEMENT NEEDLES FIELD OFFICE

#### **DESCRIPTION OF PROJECT**

Solar Partners I, LLC, Solar Partners II, LLC, Solar Partners IV, LLC and Solar Partners VIII, LLC (Solar Partners) submitted applications to the Bureau of Land Management (BLM) to develop three solar thermal power plants and shared facilities in close proximity to the Ivanpah Dry Lake, in San Bernardino County, California on federal land managed by the BLM. The proposed Ivanpah Solar Electric Generating System (ISEGS) project would occupy approximately 3,400 acres and would generate 400 megawatts (MW) of electricity. The proposed projects would be constructed in three phases, as follows, 100 MW (Ivanpah 1), 100 MW (Ivanpah 2) and 200 MW (Ivanpah 3). The site is located in Townships 16 and 17 North, Range 14 East, San Bernardino Meridian, and is approximately 4.5 miles southwest of Primm, Nevada. It is anticipated that the energy output of the plants will serve California and assist the state in meeting its renewable energy portfolio standards and goals. These concentrating solar plants would utilize distributed power tower and heliostat (mirror) technology, in which heliostat fields focus solar energy on power tower receivers near the center of each heliostat array. The total 400 MW project would incorporate 13 power towers and approximately 272,000 heliostats (each is 7 square meters in size). Each of the three proposed plants would have an individual power block with steam turbine, an air-cooled condenser, switchyard, and a generation tie-line. The three plants would share access roads, two groundwater wells and water lines, an administrative/maintenance complex, a new substation, and a new 5.3 mile natural gas pipeline. The shared facilities would be constructed in the first phase. The plants would be interconnected to the Southern California Edison (SCE) grid by SCE through upgrades to SCE's 115 kV line passing through the site and a new substation. The three plants would take approximately 4 years to construct, and are expected to operate at last 50 years. Construction of the project is anticipated to begin in the first quarter of 2009, with construction being completed in the last quarter of 2012.

#### RELATIONSHIP TO EXISTING PLANS AND DOCUMENTS

Resource Management Plans – The Proposed project affects lands in the BLM Needles Field Office within the California Desert District. The proposed ISEGS project would require an amendment to the 1980 California Desert Conservation Area (CDCA) Plan, as amended. The CDCA Plan and the Federal Land Policy Management Act of 1976 (FLPMA), both recognize that the CDCA will be managed for multiple uses, including solar energy. BLM will consider approval of the proposed Project in a manner that avoid or reduces impacts to public lands. This action responds to federal law and BLM's policy allowing the use of public lands for renewable energy, specifically section 211 of the Energy Policy Act of 2005 (119 Stat. 594, 660) and BLM's Solar Energy Development Policy, which was issued on April 4, 2007, and established a framework to process applications for ROWs and directs the BLM

to be responsive to solar energy project applicants while protecting the environment.

**Right-of-Way Authorizations** – Title V of FLPMA provides authority for BLM to issue rights-of-way grants across federal lands.

#### NATIONAL ENVIRONMENTAL POLICY ACT

On reviewing the right-of-way applications filed by Solar Partners for the ISEGS project, the BLM has determined that the proposal would constitute a major federal action that could significantly affect the quality of the human environment. Pursuant to the National Environmental Policy Act (NEPA) and the Council on Environmental Quality regulations on implementing NEPA, the BLM is preparing an EIS that will describe and evaluate the potential impacts of the ISEGS project, no action, and any other alternatives to the proposed action. The purpose of an EIS is to provide the public and decision makers with sufficient information to understand the environmental consequences of the proposal and to identify and develop appropriate mitigation measures to minimize environmental impacts. The impact analysis presented in the EIS will result in a Record of Decision for the project.

Pursuant to a Memorandum of Understanding, the BLM and the California Energy Commission (CEC) intend to conduct a joint environmental review of all three plants in a single NEPA/ CEQA process. It is in the interest of the BLM and the CEC to share in the preparation of a joint environmental analysis of the proposed project to avoid duplication of staff efforts, to share staff expertise and information, to promote intergovernmental coordination at the local, state, and federal levels, and to facilitate public review by providing a joint document and a more efficient environmental review process.

One early element of the NEPA process is scoping. Scoping activities are conducted early in the process to:

- determine reasonable alternatives to the proposed action that will be considered in the document;
- identify environmental and socioeconomic issues of concern related to the proposed project; and
- determine the depth and range of analyses for issues addressed in the document

This scoping statement has been prepared to enable government agencies, the general public, and other interested parties to participate in, and contribute to, the analysis process. Public input is important in establishing the scope of analysis for any NEPA document, and the BLM encourages public participation.

#### PRELIMINARY RESOURCE MANAGEMENT ISSUES AND CONCERNS

The following issues and concerns have been identified to-date as relating to the proposed action. This list is not meant to be all-inclusive, but rather to serve as a starting point for public input. Once all issues and concerns have been gathered through scoping and BLM consideration of the project, corresponding resource disciplines will be identified to conduct analysis for individual issues and concerns.

- potential effects on biological resources within the analysis area including species listed under the Endangered Species Act
- social and economic impacts to local communities

- potential impacts to sensitive soils within the project area and stabilization of those soils
- potential impacts to the Ivanpah Dry Lake that could result from changing or interrupting drainage and runoff patterns
- reclamation of disturbed areas and control of invasive and nonnative plants
- potential impacts to cultural and historical resources within the analysis area
- cumulative effects a large construction project when combined with other ongoing and proposed developments including other alternative energy projects on federal and private lands
- potential impacts to visual resources

#### INTERDISCIPLINARY TEAM

Based upon current understanding of issues, concerns, and opportunities, an interdisciplinary team (IDT) made up of resource specialists from the CEC and from the BLM has been identified. The following disciplines are represented on the ID team.

- Archaeology and Cultural Resources
- Lands and Minerals
- Soils
- Hydrology
- Civil Engineering
- Wildlife Resources
- Biological Resources
- · Recreation and Visual Resources
- Rangeland Management

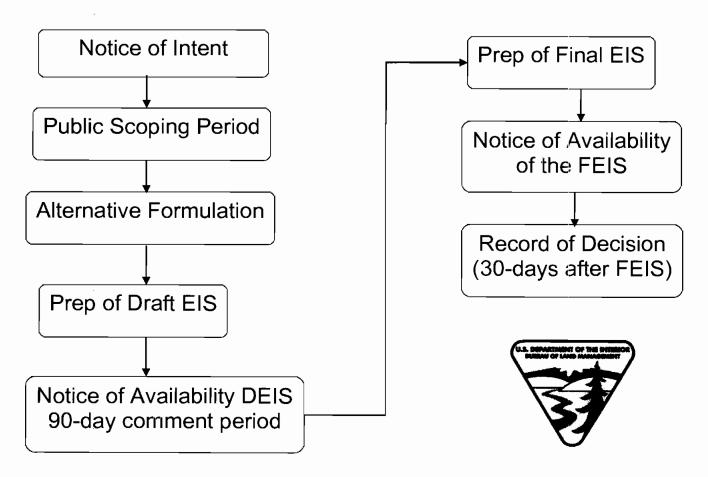
#### TIMING NEEDS AND REQUIREMENTS

Government agencies, the public, and other interested parties are encouraged to participate throughout the environmental analysis process to help in identifying the level of analysis needed, alternatives to be considered, issues or concerns that should be assessed, mitigation opportunities, and any other comments or ideas to help ensure that the analysis process is comprehensive.

After scoping is completed, the CEC and BLM will prepare a Preliminary Staff Assessment/ Draft Environmental Impact Statement (PSA/DEIS) and this document will be released to the public for review and comment. CEC and BLM will again ask the public to participate in hearings/meetings designed to gather formal comments relating the adequacy of the PSA/DEIS.

The BLM scoping period for this project ends on January 31, 2008. Please submit your comments to the BLM's Needles Field Office, attention George R. Meckfessel, Planning and Environmental Coordinator, 1303 South U.S. Highway 95, Needles, Calif., 92363-4228, or by fax (760)326-7099 or by e-mail 690@ca.blm.gov attention Ivanpah SEGS:

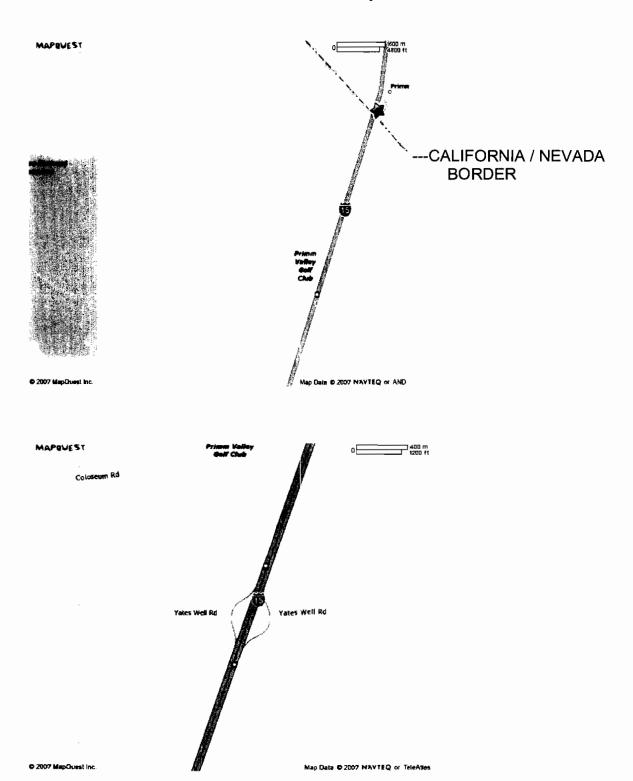
### **BLM NEPA Process for EIS**



#### **PRIMM VALLEY GOLF CLUB**

4 miles Southwest of Primm Nevada Northwest of Interstate Highway 15

Take Yates Well Road off ramp San Bernardino County, California



## BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA

APPLICATION FOR CERTIFICATION
FOR THE IVANPAH SOLAR ELECTRIC
GENERATING SYSTEM

DOCKET NO. 07-AFC-5

PROOF OF SERVICE (Revised 12/7/07)

<u>INSTRUCTIONS:</u> All parties shall 1) send an original signed document plus 12 copies <u>OR</u> 2) mail one original signed copy AND e-mail the document to the web address below, AND 3) all parties shall also send a printed <u>OR</u> electronic copy of the documents that <u>shall include a proof of service declaration</u> to each of the individuals on the proof of service:

CALIFORNIA ENERGY COMMISSION Attn: Docket No. 07-AFC-5 1516 Ninth Street, MS-14 Sacramento, CA 95814-5512 docket@energy.state.ca.us

#### **APPLICANT**

Solar Partners, LLC
John Woolard, Chief Executive Officer
Alicia Torre, Project Manager
1999 Harrison Street, Suite #500
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ATorre@BrightSourceEnergy.com

Steve De Young Ivanpah solar Electric Generating System Project Manager 4155 Arbolado Drive Walnut Creek, CA 94598 steve4155@astound.net.

#### APPLICANT'S CONSULTANTS

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#### COUNSEL FOR APPLICANT

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#### INTERESTED AGENCIES

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Electricity Oversight Board 770 L Street, Suite 1250 Sacramento, CA 95814 esaltmarsh@eob.ca.gov

- \* Tom Hurshman, Project Manager Bureau of Land Management 2465 South Townsend Ave. Montrose, CO 81401 tom hurshman@blm.gov
- \* Sterling White, Field Manager Bureau of Land Management Needles Field Office 1303 South Highway 95 Needles, CA 92363 Sterling\_White@blm.gov

#### **INTERVENORS**

#### **ENERGY COMMISSION**

JEFFREY D. BYRON Presiding Member jbyron@energy.state.ca.us

JAMES D. BOYD Associate Member jboyd@energy.state.ca.us

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Public Advisor pao@energy.state.ca.us

#### **DECLARATION OF SERVICE**

I, <u>Maggie Read</u>, declare that on <u>January 9, 2007</u>, I deposited copies of the attached <u>Notice of Rescheduled Public</u> <u>Site Visit and Informational Hearing & Bureau of Land Management Scoping Meeting</u> in the United States mail at <u>Sacramento</u>, <u>California</u> with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

#### <u>OR</u>

Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct,