

**CALIFORNIA ENERGY COMMISSION**

1516 NINTH STREET  
SACRAMENTO, CA 95814-5512  
www.energy.ca.gov

**DOCKET  
09-AFC-5**DATE AUG 27 2009RECD. AUG 27 2009

August 27, 2009

Dear Librarian:

**DOCUMENT HANDLING FOR THE ABENGOA MOJAVE SOLAR PROJECT (09-AFC-5)**

On August 10, 2009, the California Energy Commission received an Application for Certification (AFC) from the Mojave Solar, LLC to construct and operate the Abengoa Mojave Solar project (AMS). The AMS is a proposed 250-megawatt (MW) facility that would utilize parabolic trough technology to solar heat a heat transfer fluid. This heat fluid would be used to generate steam in solar steam generators which produces electrical power. The AMS project is proposed for a 1,765 acre site nine miles northwest of the Town of Hinkley in San Bernardino County.

If approved, construction of the generating facility, from site preparation and grading to commercial operation, is expected to take place from the third quarter of 2010 to the third quarter of 2012 (24 months total). If approved, the applicant anticipates that the project would be on line and in commercial service by the fourth quarter of 2012.

The project is under the Energy Commission's siting authority. The power plant certification process examines engineering, public health and safety, and environmental aspects of power plant proposals and provides analyses pursuant to the California Environmental Quality Act (CEQA). When issuing a certificate, the Energy Commission is the lead state agency under CEQA, and its process is functionally equivalent to the preparation of an Environmental Impact Report.

The Energy Commission's siting process is open to the public and incorporates the input of the public as well as local, state, and federal agencies. To facilitate public participation in our review process, the Energy Commission has sent copies of the AFC to libraries in the project area, and to libraries in Eureka, San Francisco, Sacramento, Fresno, Los Angeles, and San Diego.

Please make the enclosed AFC available for those who may wish to be informed about the project. We request that you not allow the AFC or any of its contents be removed from the library. To increase accessibility of the document, we ask, if possible, that you cross reference it as a general reference work under the title and author categories, as well as under such subjects as "Energy Commission," "electricity," "energy/generation," "power plant siting," or any other relevant subject.

Thank you for your cooperation. If you have any questions, please contact Craig Hoffman, Energy Commission Project Manager, at (916) 654-4781, or by email at [CHoffman@energy.state.ca.us](mailto:CHoffman@energy.state.ca.us) or April Albright, Project Assistant, at (916) 653-1640, or by email at [AAlbright@energy.state.ca.us](mailto:AAlbright@energy.state.ca.us)

Sincerely,

**Original signed by**  
Eileen Allen, Manager  
Energy Facilities Siting and Compliance Office

Enclosure

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August 27, 2009

**To:** MEMBERS OF THE PUBLIC

**PUBLIC PARTICIPATION IN THE REVIEW OF THE ABENGOA MOJAVE SOLAR PROJECT, DISTRIBUTION OF APPLICATION FOR CERTIFICATION (09-AFC-5)**

On August 10, 2009, Mojave Solar, LLC submitted an Application for Certification (AFC) to construct and operate the Abengoa Mojave Solar (AMS).

**Project Location**

The proposed project site is located approximately nine miles northwest of the Town of Hinkley in unincorporated San Bernardino County, approximately halfway between the City of Barstow and Kramer Junction (Highway 395 / Highway 58 junction). Project access is provided by Harper Lake Road, which is located approximately twenty miles west of Barstow along the Highway 58 corridor. The project site is approximately six miles north of where Harper Lake Road intersects with Highway 58. The existing Solar Electric Generating Stations VIII and IX facilities, owned by NextEra™ Energy Resources, are located immediately northwest of the project site.

The project site is comprised of private property that was historically used as the Lockhart Ranch complex. The property has served as an agricultural and cattle center for over sixty years and, in that capacity, has utilized water from ground wells; farming activities have included flood irrigation and ultimately the pivot system of irrigation of quarter section areas. Currently there are no ranching or residential activities on the property, and there is only one active pivot irrigation field in production on the site. The property is designated Rural Living (RL) by the San Bernardino County General Plan and also zoned Rural Living (RL).

**Project Description**

The proposed AMS project is a solar electric generating facility to be located on approximately 1,765 acres. The project would utilize solar parabolic trough technology to activate a heat transfer fluid. The proposed collector fields of parabolic trough solar collectors are modular in nature and comprise many parallel rows of solar collectors, aligned on a north-south axis. Each solar collector has a linear, parabolic-shaped reflector that focuses the sun's radiation on a linear receiver known as a heat collection element located at the focus of the parabola.

As heat transfer fluid is circulated through the solar field, light from the sun reflects off the solar collector's parabolic troughs and is concentrated on the heat collection elements located at the focal point of the parabola. This heat transfer fluid provides a high-temperature energy source which is used to generate steam in solar steam

generators. As this steam expands through the steam turbine generators, electrical power is generated.

The project would have a combined nominal electrical output of 250 megawatts (MW) from twin, independently-operable solar fields, each feeding a 125-MW power island. The twin solar fields would be 884 acres and 800 acres respectively and joined at a transmission line interconnection substation to form one full-output transmission interconnection. An additional 81 acres shared between the plant sites would be utilized for receiving and discharging offsite drainage improvements.

The sun would provide 100 percent of the power supplied to the project through solar-thermal collectors; no supplementary fossil-based energy source (e.g., natural gas) is proposed for electrical power production. However, natural gas for the AMS project's ancillary purposes, such as the auxiliary boilers, space heating, and the like would be supplied by an existing natural gas pipeline that runs to the project boundary; no offsite pipeline facilities are proposed as a part of this project. Each power island would also have a diesel engine-driven firewater pump for fire protection and a diesel engine-driven backup generator for power plant essentials.

The AMS project is proposing to connect to Southern California Edison Company's Kramer-Cool Water 230-kV transmission line which is located adjacent to the southern border of the proposed project site. All AMS project-related transmission facilities would be within the project boundaries except the connection within the existing transmission right-of-way adjacent to the site.

The AMS project proposes to use wet cooling towers for power plant cooling and owns adjudicated water rights to the Harper Valley Groundwater Basin for this purpose. The Mojave Water Agency administers these water rights. According to laboratory analysis of groundwater samples collected from the active Ryken well, which is within the project vicinity, the expected groundwater supply will be brackish and therefore not suitable for municipal supply or other potable uses. The solar project proposes to utilize 2,163 acre-feet of water per year, for 30 years. The AMS project through ownership or purchase options has rights to 10,478 acre-feet of groundwater per year.

Water from onsite groundwater wells will be treated and used for cooling tower makeup, process water makeup, and other industrial uses such as Solar Collector Array (SCA) washing, as well as to supply water for employee use (e.g., drinking, showers, sinks, and toilets). No offsite backup cooling water supply is planned and no off-site water pipelines are included with this application; multiple onsite water supply wells would be used.

The project will include four – 5-acre evaporation ponds for industrial wastewater. The ponds will be lined to contain any deposits from the cooling and water treatment processes. A sanitary septic system and onsite leach field will be located on-site to dispose of sanitary wastewater on each power island.

If approved, construction of the generating facility, from site preparation and grading to commercial operation, is expected to take place from the third quarter of 2010 to the third quarter of 2012 (24 months total). If approved, the applicant anticipates that the project would be on line and in commercial service by the fourth quarter of 2012.

### **Energy Commission's Facility Certification Process**

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. The Energy Commission is the Lead Agency under the California Environmental Quality Act (CEQA), but through its certified regulatory program produces several environmental and decision documents rather than an Environmental Impact Report. The issuance of a certificate by the Energy Commission is in lieu of any local, state or federal permit (to the extent permitted by federal law).

As part of our review process, the staff of the Energy Commission works closely with local, state and federal agencies to ensure that all laws, ordinances, regulations and standards are addressed in the Energy Commission's final decision. The first step in the review process is for the Energy Commission staff to determine whether or not the AFC contains all the information required by our regulations. When the AFC is deemed data adequate, we will begin the discovery and issue analysis phases. At that time a detailed examination of the issues will occur.

### **Public Participation**

Over the coming months, the Energy Commission will conduct a number of public workshops and hearings to determine whether and under what conditions the proposed project should be approved for construction and operation. The workshops will provide the public as well as local, state and federal agencies the opportunity to participate in reviewing the proposed project. The Energy Commission will issue notices for these workshops and hearings at least ten days prior to the meeting. If you are not currently receiving these notices and wish to be placed on the mailing list, please contact April Albright, Project Assistant, at (916) 653-1640, or by email at [AAlbright@energy.state.ca.us](mailto:AAlbright@energy.state.ca.us)

If you desire information about participating in the Energy Commission's review of the proposed project, please contact the Energy Commission's Public Adviser by phone at (916) 654-4701 or toll free in California at (800) 822-6228, or by email at [pao@energy.state.ca.us](mailto:pao@energy.state.ca.us). Technical or project schedule questions should be directed to Craig Hoffman, Energy Commission Project Manager, at (916) 654-4781, or by email at [choffman@energy.state.ca.us](mailto:choffman@energy.state.ca.us)

The status of the proposed project, copies of notices, a copy of the AFC, and other relevant documents are also available on the Energy Commission's Internet web site at <http://www.energy.ca.gov/sitingcases/abengoa>. You can also receive email notification of all project related activities and availability of reports by subscribing to the Listserve at <http://www.energy.ca.gov/listservers/index.html>.

**Note: Please retain this letter behind the front cover of the AFC. Thank You.**