

CALIFORNIA ENERGY COMMISSION
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TO: AGENCY DISTRIBUTION LIST (LOCAL)

REQUEST FOR AGENCY PARTICIPATION IN THE REVIEW OF THE BEACON SOLAR ENERGY APPLICATION FOR CERTIFICATION (08-AFC-2)

On March 14, 2008, the California Energy Commission received an Application for Certification (AFC) from Beacon Solar, LLC (Beacon Solar), a subsidiary of Florida Power & Light Energy, LLC (FPL). The proposed project is a concentrated solar electric generating facility proposed on an approximately 2,012-acre site in eastern Kern County, California. The project would use established parabolic trough solar thermal technology to produce electrical power using a steam turbine generator fed from a solar steam generator. The solar steam generator receives heated heat transfer fluid from solar thermal equipment comprised of arrays of parabolic mirrors that collect energy from the sun.

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 final decision of the California Energy Commission.

Project Description

Beacon Solar's primary objective for the proposed project is to construct, operate and maintain an efficient, economic, reliable, safe and environmentally-sound solar powered generating facility. This facility is intended to help meet the State of California objectives mandated by SB 1078 (California Renewable Portfolio Standard Program); AB 32 (California Global Warming Solutions Act of 2006); and other local mandates adopted by the State's municipal electric utilities for the long term wholesale purchase of renewable electric energy for distribution to their customers.

The project site is located in eastern Kern County at the western edge of the Mojave Desert. The project site is located along the California State Route (SR)-14 corridor, approximately four miles north-northwest of the northern boundary of California City, approximately 15 miles north of the Town of Mojave, approximately 17 miles north of Edwards Air Force Base, and approximately 24 miles northeast of the City of Tehachapi. Koehn Lake (usually dry) is located approximately five miles to the east-northeast, and Red Rock Canyon State Park is located approximately four miles to the north.

The project would have a nominal electrical output of 250 megawatts (MW). The solar thermal technology would provide 100 percent of the power generated by the plant; no supplementary energy source (e.g., natural gas combustion to generate electricity) is proposed. The project would utilize two auxiliary boilers fueled by natural gas to reduce startup time and to keep the temperature of the heat transfer fluid above its relatively high freezing point (54 degrees Fahrenheit (°F)). To provide fuel to the boilers, a new 17.6-mile, eight-inch gas pipeline would be constructed (entirely within already-

disturbed rights of way) to connect the project to an existing Southern California Gas Company pipeline west of California City.

The project site has been previously disturbed by intensive farming and is in close proximity to transmission infrastructure. Beacon Solar has filed an electrical interconnection request for the project with the Los Angeles Department of Water and Power (LADWP). LADWP's 230 kilovolt (kV) Barren Ridge Switching Station is located across California State Route 14 (SR-14) approximately 1.5 miles southwest of the project site. Beacon Solar is seeking approval of the following two similar options for interconnecting the project to LADWP's transmission system, only one of which would eventually be built:

Option 1: Construction of a new, approximately 3.5-mile 230 kV transmission line (approximately 1.6 miles within the 2,012-acre plant site boundary), that would run west from the power block across SR-14 and south across private property to the Barren Ridge Switching Station.

Option 2: Construction of a new, approximately 2.3-mile 230 kV transmission line (approximately 1.6 miles within the plant site boundary), that would run west across SR-14 to a new project switching station to be constructed at the location where the project's transmission line first meets LADWP's existing transmission right-of-way (ROW). A second, 230 kV transmission line slightly over one mile long would then be constructed east of and adjacent to the existing Los Angeles Department of Water and Power ROW from the new project switching station down to the Barren Ridge Switching Station.

Both options are being pursued at this time because a final route cannot be selected until the System Impact Study and Facilities Study are completed by LADWP, a more a detailed design is completed, and the associated transmission line route easements are secured for the option selected.

The project would use a wet cooling tower for power plant cooling. Water for cooling tower makeup, process water makeup, and other industrial uses such as mirror washing, would be supplied from onsite groundwater wells, which also would be used to supply water for employee use (e.g., drinking, showers, sinks, and toilets). A package water treatment system would be used to treat the groundwater to meet potable standards for employee use and a septic system and onsite leach field would be used to dispose of sanitary wastewater.

It is estimated that the project would use approximately 1,600 acre feet per year of groundwater. According to pumping test data provided in the AFC, groundwater supply wells on the plant site have sufficient capacity (at least 2,000 gallons per minute) to meet the project's water supply requirements. According to the AFC, the project's groundwater usage would slow down (by less than 20 percent) the rate of groundwater level recovery in the area over recent years that has resulted from the cessation of agricultural activities on and around the project site.

If approved, Beacon Solar plans to begin project construction in the third quarter of 2009 and take approximately 25 months for project completion. Commercial operation is planned for the third quarter of 2011.

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 it produces several environmental and decision documents rather than an Environmental Impact Report.

The first step in the review process is for 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 data discovery and issue analysis phases. At that time, a detailed examination of the issues will occur.

Over the coming months, the Energy Commission will conduct a number of public workshops and hearings on the proposal to determine whether the proposed project should be approved for construction and operation and under what set of conditions. These workshops will provide the public as well as local, state and federal agencies the opportunity to ask questions about, and provide input on, the proposed project. The Energy Commission will issue notices for these workshops and hearings at least 10 days prior to the meeting.

Agency Participation

We request that you provide any written comments you may have regarding the disclosure of potential issues of concern by **April 9, 2008**. Please address your comments to Bill Pfanner, Project Manager, 1516 9th Street, MS-15, Sacramento, CA 95814, or email to bpfanner@energy.state.ca.us. Your agency may also present its comments and recommendations in person at the Energy Commission's **April 23, 2008** Business Meeting. The limited purposes of that meeting will be to determine whether the AFC is data adequate in accordance with our regulations and to assign a committee of two Commissioners to oversee the proceeding.

When the AFC is accepted as data adequate, your participation in the proceeding will continue to be valuable and encouraged and will allow you to identify and try to resolve issues of concern to your agency. There may be specific requests for agency review and comment during the proceedings after the AFC has been determined to be data adequate. Local agencies may seek reimbursement for costs incurred in responding to these requests. However, comments provided in response to this request during data adequacy are not reimbursable under Energy Commission guidelines.

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Enclosed is a copy (CD) of the AFC in electronic format. If you would like to have a hard copy of the AFC sent to you, if you have questions, or if you would like additional information on reimbursement or on how to participate in the Energy Commission's review of the proposed project, please contact Bill Pfanner, Project Manager, at (916) 654-4206, or by email at bpfanner@energy.state.ca.us. The status of the proposed project, copies of notices, electronic version 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/beacon>. By being on the mailing list, you will receive notices of all project related activities and documents related to the proposed project's evaluation and review. You can also subscribe to receive e-mail notification of all notices at <http://www.energy.ca.gov/listservers>.

Sincerely,



Eileen Allen, Manager

Energy Facilities Siting and Compliance Office

Enclosure