

CALIFORNIA ENERGY COMMISSION

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

**DOCKET****09-AFC-10**

DATE FEB 4 2010

RECD FEB 4 2010

February 4, 2010

Dear Librarian:

DOCUMENT HANDLING FOR THE RICE SOLAR ENERGY PROJECT, APPLICATION FOR CERTIFICATION (09-AFC-10)

On October 21, 2009, Rice Solar Energy, LLC (applicant) submitted an Application for Certification (AFC) to construct and operate the Rice Solar Energy Project (RSEP) on private land in Riverside County, California. The project would include a generation tie line that would interconnect to the Western Area Power Administration's (Western's) Parker-Blythe #1 161-kilovolt transmission line and would be located partially on federal land managed by the Bureau of Land Management (BLM).

The BLM, Western, and the Energy Commission will coordinate in the preparation of a joint environmental analysis of the proposed project in a single National Environmental Policy Act (NEPA)/California Environmental Quality Act (CEQA) process. Under the Energy Commission's siting authority, the power plant project is subject to our certification process that examines engineering, environmental, public health, and safety aspects of power plant proposals and provides analyses pursuant to CEQA. When issuing a license, the Energy Commission is the lead state agency under CEQA, but produces several environmental and decision documents rather than 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 local libraries as well as libraries in Fresno, Eureka, Sacramento, San Francisco, 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 to 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 John Kessler, Energy Commission Project Manager, at (916) 654-4679, or by e-mail at JKessler@energy.state.ca.us or Hilarie Anderson, Project Assistant, at (916) 651-0479 or by email at HAnderso@energy.state.ca.us.

Sincerely,

Eileen Allen, Manager
Energy Facilities Siting and Compliance Office

Enclosure

PROOF OF SERVICE (REVISED 1/7/10) FILED WITH
ORIGINAL MAILED FROM SACRAMENTO ON 2/4/10

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CALIFORNIA ENERGY COMMISSION

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



February 4, 2010

To: MEMBERS OF THE PUBLIC

PUBLIC PARTICIPATION IN THE REVIEW OF THE RICE SOLAR ENERGY PROJECT, APPLICATION FOR CERTIFICATION (09-AFC-10)

On October 21, 2009, Rice Solar Energy, LLC (applicant) submitted an Application for Certification (AFC) to construct and operate the Rice Solar Energy Project (RSEP). On November 19, 2009, the applicant provided a Supplement to the AFC to satisfy the Energy Commission's informational requirements. On December 2, 2009, the Energy Commission accepted the AFC with the supplemental information as complete. The Energy Commission staff has now begun the data discovery and analysis phases of the project's 12-month licensing process.

Project Location

The proposed project is located in an unincorporated area of eastern Riverside County, California, immediately south of State Route (SR) 62 about 1 mile east of the junction with Blythe-Midland Road. The nearest permanent settlement is Vidal Junction, approximately 15 miles northeast, at the junction of SR 62 and U.S. Route 95. Blythe, California, is 40 miles south via Blythe-Midland Road. In addition to SR 62, nearby infrastructure includes the Arizona-California Railroad and the Colorado River Aqueduct, both of which run east-west just north of SR 62 and just north of and within 600 feet of the northern boundary of the RSEP. The project site is located in a very sparsely settled portion of the Sonoran Desert. A small crossroads settlement known as Rice was once located just west of the project area, at the junction of SR 62 and the Blythe-Midland Road, but it was abandoned and only ruins of former structures remain.

The RSEP project site was used during World War II as Rice Army Airfield. The proposed site has some historical interest in that General George Patton trained troops at this field to acclimate them to desert warfare involving infantry, artillery and air support forces. After World War II, the military disposed of the airfield, transferred it to the county and later sold it into private ownership. Rice Airfield was operated privately until it was abandoned between 1954 and 1958. Currently, Rice Army Airfield includes remnants of runways, dispersal pads, a concrete parade ground and concrete pads that were foundations for administrative structures, barracks, etc. The entire site has been recolonized by burrobush and native grasses, and partially by creosote bush scrub.

Project Description

The proposed RSEP project is a solar electric generating facility to be located on approximately 1,410 acres. RSEP would be a 150-megawatt (MW) concentrating solar thermal power project with a central receiver tower, sun-tracking heliostat field and an integral thermal storage system using liquid salt as the heat transfer and storage medium. When electricity is to be produced, the heated salt would be routed to a steam

generation system, which supplies steam for use in a high-efficiency reheat steam turbine-generator. The RSEP proposes to use dry cooling technology for steam condensation using an air-cooled condenser (ACC).

The RSEP includes the following proposed principal design elements:

- Up to 17,500, solar-tracking heliostats, or mirrors, in a circular array that would reflect solar energy to the central solar receiver tower;
- A 538-foot-high concrete solar receiver tower with a 100-foot-tall solar receiver and 15 foot crane (for a total height of 653 feet);
- A liquid salt circulation and thermal storage system featuring hot (approximately 1,050°F) and “cold” (approximately 550°F) salt storage tanks, capable of storing 70 million pounds (4.4 million gallons) of liquid salt (sodium nitrate/potassium nitrate mixture);
- A net 150-MW single condensing steam turbine generator (STG) system and associated equipment;
- A 20-cell ACC for condensation of the steam from the STG;
- An onsite switchyard to step up voltage from the generator output at 13.8 kilovolts (kV) to the transmission voltage of 161 kV (or future 230 kV) and to control flow of RSEP power via the generator tie line to the interconnection substation;
- For construction power, a 1.1-mile extension of the existing Southern California Edison 12-kV electrical distribution line from a location 175 feet east of the project parcel boundary, then running westward along the RSEP northern boundary paralleling State Route 62 and terminating at the administration building and construction laydown area;
- Three 5-acre wastewater evaporation ponds near the RSEP southern boundary; and
- A 30-acre stormwater detention pond located on a portion of the heliostat field along the RSEP southern boundary and the southern boundary road berm.

The proposed project would include two diesel-powered fire pumps and two emergency generators rated at 2.5 MW each. For the initial melting and conditioning of the salt prior to plant commissioning, two small boilers each employing ultra low nitrogen oxide (NO_x) burners, flue gas recirculation, and a four-step chemical scrubber would be used to mitigate emissions from the combustion of propane or compressed natural gas. An alternative process to control NO_x would be selective catalytic reduction (SCR) using aqueous ammonia.

The proposed 161-kV, 10.0-mile long generator tie line would begin at the RSEP switchyard and follow a south-east alignment before terminating at the interconnection with Western Area Power Administration's (Western's) Parker-Blythe #1 transmission line. The generation tie-line would be constructed partly on private land and partly on public land managed by the U.S. Bureau of Land Management (BLM), and would require construction of 4.6 miles of new unpaved access road and use of 5.4 miles of

existing dirt roads. A new substation would also be required at the point of interconnection with Western's existing transmission line. The new generator tie line would be three-phase, single-circuit constructed on steel monopole towers with the conductor for each phase installed in a vertical configuration, with capability to operate at 230-kV in the future.

RSEP would use an ACC (dry cooling) associated with steam condensation, significantly reducing the project's total water consumption. Other process water uses include boiler water used in the steam cycle (boiler makeup), heliostat mirror washing and cooling the steam turbine lubricating oil. The project would require up to 235 gallons per minute of raw water supply, to be drawn from one of two onsite wells. Each well would have sufficient capacity to supply water for the plant needs throughout the expected 30-year operational life of the plant. Groundwater for process needs would be used as-is for service, fire water and steam turbine lubricating oil cooling, and further purified for use as boiler makeup and mirror washing in the heliostat field. The process water treatment system includes multi-media filtration, reverse osmosis (RO), and electrodeionization (EDI). Groundwater for domestic purposes would be pretreated in a separate, small package treatment system. Wastewater from the plant processes would primarily be discharged into three evaporation ponds of approximately 5 acres each. During project operations, RSEP's maximum total project water consumption would be approximately 180 acre-feet per year.

If approved, the applicant proposes that construction of the generating facility, from site preparation and grading to startup testing, would take place from the second quarter of 2011 to the third quarter of 2013 (30 months total). The applicant also anticipates that the project would be in commercial operation by the fourth quarter of 2013.

BLM, Western and Energy Commission Joint Review Process

The BLM, Western, and the Energy Commission will coordinate 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.

Under federal law, the BLM is responsible for processing requests for rights-of-way to authorize the RSEP components proposed to be constructed and operated on land it manages including the generation tie line and substation. In processing applications, the BLM must comply with the requirements of the National Environmental Policy Act (NEPA), which requires that federal agencies reviewing projects under their jurisdiction consider the environmental impacts associated with the proposed project construction and operation. Similarly, Western must conform with NEPA in carrying out its responsibility to review and consider interconnection requests for tie-in to the federal transmission system as proposed by the applicant. Western and BLM will serve as co-lead agencies in conducting the NEPA process, and Western will serve as the NEPA document manager.

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. 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. 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).

Public Participation

Over the coming months, the Energy Commission will conduct a number of public workshops and hearings to determine whether the proposed project should be approved for construction and operation and under what set of conditions. 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.

Please direct your technical or project schedule questions to John Kessler, Energy Commission Project Manager, at (916) 654-4679, or by email at JKessler@energy.state.ca.us. If you desire information on participating in the Energy Commission's review of the proposed project, please contact the Energy Commission's Public Adviser's Office, at (916) 654-4489, or toll free in California at (800) 822-6228, or by email at PublicAdviser@energy.state.ca.us, or view the Energy Commission's website at http://www.energy.ca.gov/public_adviser/public_info.html for public information and comments in siting cases. If you require special accommodations, please contact Lourdes Quiroz at (916) 654-5146. News media inquiries should be directed to (916) 654-4989, or by email at mediaoffice@energy.state.ca.us.

The status of the proposed project, copies of notices, an 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/ricesolar>. You can also subscribe to receive e-mail notification of all notices at <http://www.energy.ca.gov/listservers>. By being on the mailing list, you will receive notices of all project-related activities and notices when documents related to the proposed project's evaluation are available for review. If you want your name removed from the mailing list, please contact Hilarie Anderson, Project Assistant, at (916) 651-0479, or by email at HAnderso@energy.state.ca.us.

AVAILABILITY OF THE AFC DOCUMENT

Copies of the AFC are available at the following libraries:

Parker Public Library
1001 Navajo Avenue
Parker, AZ 85344

Palo Verde Valley District Library
125 W. Chanslorway
Blythe, CA 92225

Lake Tamarisk Library
43880 Lake Tamarisk Drive
Desert Center, CA 92239

Copies are also available at the Energy Commission's Library in Sacramento, the California State Library in Sacramento, and at California public libraries in Eureka, Fresno, San Francisco, Los Angeles, and San Diego. In addition, copies will be distributed to those public agencies that would normally have jurisdiction except for the Energy Commission's exclusive authority to certify sites and related facilities.

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



BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

**APPLICATION FOR CERTIFICATION
FOR THE *RICE SOLAR ENERGY POWER
PLANT PROJECT***

Docket No. 09-AFC-10

***PROOF OF SERVICE*
(revised 1/7/10)**

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DECLARATION OF SERVICE

I, Hilarie Anderson , declare that on February 4, 2010, I served and filed copies of the attached, Library Letters. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [<http://www.energy.ca.gov/sitingcases/ricesolar>].

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

FOR SERVICE TO ALL OTHER PARTIES:

 x sent electronically to all email addresses on the Proof of Service list;

 x by personal delivery or by depositing in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

 x sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (***preferred method***);

OR

 depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION

Attn: Docket No. 09-AFC-10
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

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

Original Signature in Dockets
Hilarie Anderson