

## CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET  
SACRAMENTO, CA 95814-5112**DOCKET****09-AFC-10**

DATE FEB 4 2010

RECD FEB 4 2010

February 4, 2010

**TO: AGENCY DISTRIBUTION LIST****REQUEST FOR AGENCY 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

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

HA

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<sub>x</sub>) 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<sub>x</sub> 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).

### **Agency Participation**

To ensure that the Energy Commission has the information needed in order to make a decision, the Energy Commission's regulations identify a special role for federal, state, and local agencies (See, Cal. Code Regs., tit. 20, section 1714, 1714.3, 1714.5, 1742, 1743, and 1744). As a result, we request that you conduct a review of the AFC and provide us with the following information:

- 1) a discussion of those aspects of the proposed site and related facilities for which your agency would have jurisdiction but for the exclusive jurisdiction of the Energy Commission to certify sites and related facilities;
- 2) a determination of the completeness of the list in the AFC of the laws, regulations, ordinances, or standards which your agency administers or enforces and would be applicable to the proposed site and related facilities but for the Energy Commission's exclusive jurisdiction;
- 3) a description of the nature and scope of the requirements which the applicant would need to meet in order to satisfy the substantive requirements of your agency but for the Energy Commission's exclusive jurisdiction, and identification of any analyses that the Energy Commission should perform in order to determine whether these substantive requirements can be met; and
- 4) an analysis of whether there is a reasonable likelihood that the proposed project will be able to comply with your agency's applicable substantive requirements.

The scope of your agency's comments on the AFC should encompass *significant* concerns, and substantive requirements that would be required for permitting by your Agency but for the Energy Commission's exclusive jurisdiction or certification. (Cal. Code Regs., tit. 20, section 1714.5, subd. (a)(2); emphasis added.) Please let us know if you need additional information or need to perform analyses or studies in order to resolve any concerns of your agency. (Cal. Code Regs., tit, 20, section 1714.5.)

The proposed project was found to be data adequate on **December 2, 2009**. The Energy Commission also conducted a Site Visit and Informational Hearing for the project on **January 25, 2010**. We request that all agency comments be provided to us by **March 15, 2010**, except for the Mojave Desert Air Quality Control District's

Preliminary and Final Determinations of Compliance, which should be provided by **April 2, 2010** and **June 18, 2010**, respectively. You may be asked to present and explain your conclusions at public and evidentiary hearings on the project. (See Cal. Code Regs., tit. 20, sections 1714.3, 1714.5, 1743, 1744.5, and 1748). Local agencies may seek reimbursement for reasonable costs incurred in responding to these requests. (Cal. Code Regs., tit. 20, section 1715).<sup>1</sup>

Enclosed is a copy of the AFC in electronic format (CD). If you would like to have a hard copy of the AFC sent to you, if you have questions, or if you would like to participate in the Energy Commission's review of the proposed project, please contact John Kessler, Energy Commission Project Manager, at (916) 654-4679, or by email at [JKessler@energy.state.ca.us](mailto:JKessler@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/ricesolar>. 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>.

Sincerely,

Eileen Allen, Manager  
Energy Facilities Siting and Compliance Office

Enclosure

---

<sup>1</sup> Please note that pursuant to 20 CCR 1715, reimbursement is not available to state and federal agencies.



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](http://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)**

**APPLICANT**

Jeffrey Benoit  
Project Manager  
Solar Reserve  
2425 Olympic Boulevard, Ste. 500 East  
Santa Monica, CA 90404  
[Jeffrey.Benoit@solarreserve.com](mailto:Jeffrey.Benoit@solarreserve.com)

Allison Shaffer  
Bureau of Land Management  
Palm Springs/South Coast Field Office  
1201 Bird Center Drive  
Palm Springs, Ca 92262  
[allison\\_shaffer@blm.gov](mailto:allison_shaffer@blm.gov)

Liana Reilly  
Western Area Power Administration  
PO Box 281213  
Lakewood CO 80228-8213  
[reilly@wapa.gov](mailto:reilly@wapa.gov)

**APPLICANT'S CONSULTANTS**

Andrea Grenier  
Grenier and Associates  
1420 East Roseville Parkway, Ste. 140-377  
Roseville, CA 95661  
[andrea@agrenier.com](mailto:andrea@agrenier.com)

**INTERVENORS**

**ENERGY COMMISSION**

ARTHUR ROSENFELD  
Commissioner and Associate Member  
[arosenfeld@energy.state.ca.us](mailto:arosenfeld@energy.state.ca.us)

Douglas Davy  
CH2MHILL  
2485 Natomas Park Drive, Ste. 600  
Sacramento, CA 95833  
[ddavy@ch2m.com](mailto:ddavy@ch2m.com)

Kourtney Vaccaro  
Hearing Officer  
[kvaccaro@energy.state.ca.us](mailto:kvaccaro@energy.state.ca.us)

**COUNSEL FOR APPLICANT**

Scott Galati  
Galati & Blek, LLP  
455 Capitol Mall, Suite 350  
Sacramento, CA 95814  
[sgalati@gb-llp.com](mailto:sgalati@gb-llp.com)

John Kessler  
Siting Project Manager  
[jkessler@energy.state.ca.us](mailto:jkessler@energy.state.ca.us)

**INTERESTED AGENCIES**

California ISO  
[e-recipient@caiso.com](mailto:e-recipient@caiso.com)

Deborah Dyer  
Staff Counsel  
[ddyer@energy.state.ca.us](mailto:ddyer@energy.state.ca.us)

Public Adviser's Office  
[publicadviser@energy.state.ca.us](mailto:publicadviser@energy.state.ca.us)

## DECLARATION OF SERVICE

I, Hilarie Anderson , declare that on February 4, 2010, I served and filed copies of the attached, Request for Agency Participation. 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:

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

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:

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](mailto:docket@energy.state.ca.us)

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

Original Signature in Dockets  
**Hilarie Anderson**