

CALIFORNIA ENERGY COMMISSION

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



June 11, 2012

DOCKET**11-AFC-4**

DATE JUN 11 2012

RECD. JUN 11 2012

Todd Stewart, Senior Director of Project Development
BrightSource Energy, Inc.
1999 Harrison Street, Ste. 2150
Oakland, CA 94612

**RE: RIO MESA SOLAR ELECTRIC GENERATING FACILITY (11-AFC-4)
DATA REQUESTS, SET 2B (Nos. 173 - 185)**

Mr. Stewart:

Pursuant to Title 20, California Code of Regulations, Section 1716, the California Energy Commission staff seeks the information specified in the enclosed data requests. The information requested is necessary to: 1) more fully understand the project and alternatives, 2) assess whether the facility will be constructed and operated in compliance with applicable regulations, 3) assess whether the project will result in significant environmental impacts, 4) assess whether the facilities will be constructed and operated in a safe, efficient and reliable manner, and 5) assess potential mitigation measures.

This set of data requests (Nos. 173 – 185) is being made in the areas of Cultural Resources. Written responses to the enclosed data requests are due to the Energy Commission staff on or before July 11, 2012.

If you are unable to provide the information requested, need additional time, or object to providing the requested information, you must send a written notice to both the Committee and me within 20 days of receipt of this notice. The notification must contain the reasons for not providing the information, the need for additional time, or the grounds for any objections (see Title 20, California Code of Regulations, Sec.1716 (f)). If you have any questions, please call me at (916) 651-3765 or email me at pierre.martinez@energy.ca.gov.

Sincerely,

Pierre Martinez, AICP
Project Manager

cc: Docket (11-AFC-4)
Proof of Service List

PROOF OF SERVICE (REVISED 6/4/12) FILED WITH
ORIGINAL MAILED FROM SACRAMENTO ON 6/11/12

CJ

Technical Area: Cultural Resources
Author: Elizabeth Bagwell, Ph.D
Glenn Farris, Ph.D

BACKGROUND

The Cultural Resources Technical Report (CRTR) provided by the applicant as part of the Application for Certification (AFC) refers to a number of features as a “cleared circle” and identifies them as “naturally occurring plant scar.” However, no supporting evidence for this determination was provided.

DATA REQUESTS

173. Please provide the following additional information about each feature referred to as a “cleared circle” that the URS CRTR identifies as a “naturally occurring plant scar,” including but not limited to the 35 features mentioned as part of sites CA-Riv-1746, CA-Riv-1748, CA-Riv-6538, PVM-MK-056, PVM-MN-060, and PVM-MN-067:
- a. Photographs of each cleared circle.
 - b. A list of attributes used by URS to define prehistoric cleared circles on the project site;
 - c. A list of attributes used by URS to define historic cleared circles on the project site;
 - d. A list of attributes associated with "plant scars" by McAuliff and McDonald 2005 and used by URS to define naturally occurring cleared circles on the project site;
 - e. A description of each cleared circle detailing the specific attributes identified in each case, consistent with established attributes for cleared circles and their causes, and justification for the determination of the type of each cleared circle.

BACKGROUND: POTENTIAL BURIED TRASH PITS FROM DTC SITES

During the period 1942-1944 when the Desert Training Center (DTC) was active, the project area was subject to periodic use as a field training site, especially for armored forces backed by infantry units. These training exercises often entailed overnight or longer bivouacs resulting in archaeological sites whose surface manifestations have been duly recorded by the applicant’s cultural resource specialists, although they were restricted to recording only the artifacts and features seen on the surface. Army field manuals on “Military Sanitation and First Aid” (FM-21-10) directed soldiers to bury their solid waste adjacent to the site of the bivouac. Based on the information provided to date by the applicant and their consultants, it is unclear how many and where these types of resource may occur. Given the expectation of extensive ground disturbance during the installation of the approximately 85,000 solar panels for each of the two towers to be built, plus other subsurface disturbances, the chances of encountering and disturbing such deposits is a concern because the deposits form cohesive time

capsules of even more historical value than the surface deposits that are subject to disturbance by wind, floods, and relic hunters.

DATA REQUESTS

174. Please submit a plan for staff review and approval for the testing of short-term bivouac sites to determine if subsurface concentrations of metal objects are present. At a minimum, the plan needs to include a map showing the locations of proposed test sites, justification for site selection, and an explanation of the methodology for testing. If necessary, staff will meet with the applicant and/or their consultant to finalize the test sites and methodology.
175. Following staff's approval of the testing plan (DR174), please test specified sites, using metal detectors or magnetometer devices, to identify potential hot spots of subsurface concentrations of metal objects.
177. Please add the locations of the surveyed features on the site maps for the individual sites.
178. Please incorporate the findings into the eligibility evaluation of any sites on which they appear, in terms of their potential importance under California Register of Historic Resources Criterion 4 (National Register of Historic Places Criterion D) to provide information on the history of the sites as contributors to the DTC Cultural Landscape.

BACKGROUND

Staff finds the exact limits of the planned ground disturbance along the proposed transmission line difficult to interpret using the confidential cultural resources site maps provided in the URS cultural resources technical report.

DATA REQUESTS

179. Please provide a single U.S. Geological Survey quadrangle map for the transmission line corridor, at a scale of 1:24,000, depicting the following items:
 - a. Locations of all previously known and newly identified cultural resources, identified for the current project, as shown on previously provided maps within the CRTR;
 - b. Each planned transmission pole location;
 - c. Each proposed pull site;
 - d. The BLM Right of Way (ROW) boundary for the transmission line and all its components;
 - e. 50-foot Energy Commission-required survey buffers on either side of the transmission line and access road, and 200-foot buffer beyond the project site boundary.

Technical Area: Alternatives
Author: Susan Lee
Emily Capello

BACKGROUND

The AFC Alternatives Section 6.4, Off-Site Alternatives, discusses alternative sites that were part of the screening analysis for off-site alternatives to the Rio Mesa Solar Energy Generating Facility (Rio Mesa SEGF) project site. Of these off-site alternatives, the project applicant carried forward only “MWD Property East of the Project Site” and the “Sonoran West” sites for further AFC Analysis. Section 6.4.4 of the AFC, Off-Site Alternative G – Sonoran West Site, provides additional detail regarding the alternative; however, minimal additional detail is provided for some of the resource areas and is needed to compare this alternative with the proposed project site.

DATA REQUESTS: SONORAN WEST SITE

180. Please provide the following additional information:

- a. Information on the slope of the alternative site. Include shape files of the site boundaries and a map showing a possible project site and footprint. Describe the topography and elevations in the areas;
- b. Information on the site access from public roads in the area;
- c. Please provide a detailed map showing the route for a transmission line interconnection at the Colorado River Substation. Estimate a cost for the generation tie line to the Colorado River Substation and compare those costs to the known or estimated transmission costs for the Rio Mesa SEGF project;
- d. Information and a map showing a potential connection to a gas pipeline in the vicinity;
- e. Details on the individual water supply wells in the area, including the number of wells and current uses. Discuss any water allocations for agricultural use, and identify the potential source(s) of water for this alternative;
- f. Information on habitat types and protected plant and wildlife species that could be present in the area. Include data obtained from a California Natural Diversity Database (CNDDDB) record search for the area, and a map illustrating CNDDDB data and distribution;
- g. Information on the sensitivity of the area for cultural resources and the potential for discovery of cultural artifacts. Include information based on a California Historic Resource Information System literature search and contact with the Native American Heritage Commission. This information should be provided as a legible map depicting the cultural sites, and must be submitted under confidential cover.

- h. Description of the economic viability of this alternative compared to the Rio Mesa SEGF project.

BACKGROUND

Staff is seeking clarification and expansion of the applicant's responses to Data Requests Set 1B (Data Request No. 85), submitted to the project applicant on February 27, 2012 and responded to on March 28, 2012. Data Request No. 85 focused on the feasibility of adding energy storage capabilities to the proposed Rio Mesa SEGF. Specifically, staff is seeking clarification in the applicant's response (e) which states that the Rio Mesa site does not support storage because it would require the addition of at least 18 percent more heliostats to the solar field.

DATA REQUESTS

181. Please explain in detail why the energy storage technology option would require an 18 percent increase in the number of heliostats.

BACKGROUND

Staff is seeking clarification and expansion of the applicant's responses to Data Requests Set 1B (Data Request No. 90), submitted to the project applicant on February 27, 2012 and responded to on March 28, 2012. Data Request No. 90 provides a table that lists the direct impacts to jurisdictional waters for on-site alternatives. Impacts of a 500 MW MWD-only alternative to waters of the U.S. were estimated at 28.2 acres within the project boundary. Specifically, staff is seeking the following:

DATA REQUESTS

182. Please clarify the estimate of acres of disturbance within the revised fence line.
183. Please provide updated Tables DR 90-1 and DR90-2 with estimates of the direct impacts to jurisdictional waters within the revised 500 MW fence line.
184. Please provide an updated figure that shows the waters of the U.S. overlain with an outline of the revised proposed project.
185. Please estimate the area and megawatts of a project that would avoid all impacts to waters of the U.S. and describe the feasibility of such a project.



**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 *RIO MESA SOLAR*
*ELECTRIC GENERATING FACILITY***

**DOCKET NO. 11-AFC-04
PROOF OF SERVICE
(Revised 6/4/12)**

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DECLARATION OF SERVICE

I, Cenne Jackson, declare that on June 11, 2012, I served and filed copies of the attached, dated June 11, 2012. This document is accompanied by the most recent Proof of Service list, located on the web page for this project at: [<http://www.energy.ca.gov/sitingcases/riomesa/index.html>].

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit or Chief Counsel, as appropriate, in the following manner:

(Check all that Apply)

For service to all other parties:

- Served electronically to all e-mail addresses on the Proof of Service list;
- Served by delivering on this date, either personally, or for mailing with the U.S. Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "e-mail preferred."

AND

For filing with the Docket Unit at the Energy Commission:

- by sending electronic copies to the e-mail address below (preferred method); **OR**
- by depositing an original and 12 paper copies in the mail with the U.S. Postal Service with first class postage thereon fully prepaid, as follows:

CALIFORNIA ENERGY COMMISSION – DOCKET UNIT
Attn: Docket No. 11-AFC-4
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

OR, if filing a Petition for Reconsideration of Decision or Order pursuant to Title 20, § 1720:

- Served by delivering on this date one electronic copy by e-mail, and an original paper copy to the Chief Counsel at the following address, either personally, or for mailing with the U.S. Postal Service with first class postage thereon fully prepaid:

California Energy Commission
Michael J. Levy, Chief Counsel
1516 Ninth Street MS-14
Sacramento, CA 95814
mlevy@energy.state.ca.us

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Originally signed by Cenne Jackson