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

January 20, 2011

DOCKET
09-AFC-4
DATE 01/20/11
RECD. 01/20/11

Mr. Greg Lamberg Senior Vice President
RADBACK ENERGY
145 Town and Country Drive, Suite 107
Danville, CA 94526

RE: OAKLEY GENERATING STATION PROJECT (OGS) (09-AFC-4)
DATA REQUEST No. 74

Dear Mr. Lamberg:

Pursuant to Title 20, California Code of Regulations, Section 1716, the California Energy Commission staff seeks the information specified in the enclosed data request. The information requested is necessary to: 1) more fully understand the project, 2) assess whether the project could result in significant environmental impacts, 3) assess potential mitigation measures.

This data request (No. 74) is being made in the area of Transmission System Engineering. A written response to the enclosed data request is due to the Energy Commission staff on or before February 22, 2011, or at such later date as may be mutually agreeable. However, you are strongly encouraged to submit the information as soon as possible so that the information can be incorporated into the Final Staff Assessment that is anticipated to be published in late February 2011.

If you are unable to provide the information requested, need additional time, or object to providing the requested information, please 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, and the grounds for any objections (see Title 20, California Code of Regulations, Section 1716 (f)).

If you have any questions, please call me at (916) 651-3765 or email me at pmartine@energy.state.ca.us .

Sincerely,

Pierre Martinez, AICP
Project Manager

PROOF OF SERVICE (REVISED 8/13/10) FILED WITH
ORIGINAL MAILED FROM SACRAMENTO ON 1/20/11
MS

Technical Area: Transmission System Engineering
Author: Laiping Ng and Mark Hesters

INTRODUCTION

Staff needs to determine the system reliability impacts of the project interconnection and to identify the interconnection facilities including downstream facilities needed to support the reliable interconnection of the proposed Oakley Generating Station (OGS). The interconnection must comply with the Utility Reliability and Planning Criteria, North American Electric Reliability Council (NERC) Planning Standards, NERC/Western Electricity Coordinating Council (WECC) Planning Standards, and California Independent System Operator (California ISO) Planning Standards. In addition the California Environmental Quality Act (CEQA) requires the identification and description of the "Direct and indirect significant effects of the project on the environment." For the compliance with planning and reliability standards and the identification of indirect or downstream (i.e. beyond the first point of interconnection with the grid) transmission impacts, according to the previous guidelines staff relies on the Phase I Interconnection Study Report (Phase I Study) and Phase II Interconnection Study Report (Phase II Study) as well as review of these studies by the agencies responsible for insuring the adjacent interconnecting grid meets reliability standards, in this case, the Pacific Gas & Electric (PG&E) and/or California ISO. The interconnection studies analyze the effect of the proposed project or cluster of generating projects on the ability of the transmission network to meet reliability standards. When the studies determine that the project will cause the transmission to violate reliability requirements, the potential mitigation or upgrades required to bring the system into compliance are identified. The mitigation measures often include modification (such as reconductoring of an existing transmission line or expansion or modification of an existing substation) and construction of downstream transmission facilities. The CEQA requires identification of potential indirect environmental impacts from project-related downstream facilities.

BACKGROUND

Staff has received a copy of the Phase I Study, the Phase II Study, and subsequent update to Appendix A of the Phase II Study for the interconnection of the proposed OGS. The study was performed by the California ISO and PG&E.

The Phase II Study shows that the power flow study was conducted under 2013 summer peak and 2013 summer off-peak system conditions with, and without, the PG&E Greater Bay Area Transition Cluster Group six generation interconnection queue projects or 1,159 MW new generating power output in the greater bay area of PG&E, including the proposed 651 MW OGS. The cluster study identified a large number of reliability criteria violations for new overloads on the downstream transmission facilities under normal (N-0) system conditions, California ISO Category B contingency conditions (N-1, L-1 & G-1), and California ISO Category C contingency conditions (N-2, T-1-1). In order to eliminate the identified overloads, preferred mitigation options include reconductoring the overloaded

lines with higher size conductors, and rerating an existing 230 kV transmission line. Where the mitigation requires the reconductoring of existing transmission facilities, CEQA requires the identification of potential environmental impacts and measures that might be taken to mitigate these impacts.

DATA REQUEST

74. Provide a general environmental (screening-level) analysis sufficient to meet the CEQA requirements for indirect project impacts for reasonably foreseeable consequences of the OGS project for reconductoring the following transmission lines:

    - 18.3-mile-long Contra Costa PP – Delta Pumps 230kV transmission line.
    - 21-mile-long Las Positas – Newark 230kV transmission line.

    The 8-mile-long Kelso – Tesla 230kV transmission line that was also identified as requiring reconductoring has been evaluated in staff's analysis of the Mariposa Energy Project (MEP) and therefore staff can rely on that analysis for the OGS project. Staff suggests that you model your response based on the analysis done for the MEP project (Data Responses, Set 1D – Transmission Line Reconductoring Analysis).

    The information to be provided shall include the following for each transmission line:

    1. The location, rating and age of the line.
    2. A basic, layperson's discussion of the reconductoring process for the line, identifying the techniques used, equipment required, vehicles (land and air), personnel required, parking and staging areas needed, and time needed to complete the reconductoring. This shall include:
        - Candidate locations (if available) and average acreage needed for tension and pulling stations, or, alternatively, the approximate number of pulling and tension sites and the average acreage per site.
        - Stringing method (slack or tension)
        - Need for reel or other storage near the lines.
        - Method and access (cherry picker, climbing tower, etc) to unclip the old conductor, install sheaves, and clip in the new conductor and "tension" lines.
        - General methodology for any needed tree trimming and brush clearing.
    3. How access to the line and towers would be accomplished, including identifying any existing or needed access road to pull sites and staging areas.
    4. If known, the location of any tower that would need to be modified or replaced, a basic description of the work that would be done to the tower (such as depth of ground disturbance and area of ground disturbance) , and a description of the potential impacts of that work.
    5. Identity of any substations that will be added, expanded, or modified as a result of the reconductoring.

6. Recent aerial photographs (less than 5 years old) and topographic maps of the applicable line segments (i.e., the segments that would be replaced) with the transmission towers plotted on the photographs.
7. Identification of any sensitive habitats along the route by examining aerial photographs, conducting site visits (if necessary), searching available databases (such as the Natural Diversity Database) and literature searches, etc.
8. Legible map(s) depicting biological resources (habitat, nesting areas, etc.) within 500 feet of the outside edges of the right of way for the transmission line corridor.
9. Identification of known cultural resource sites within ½ mile of the route 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.
10. If any portion of the line is more than 45 years old, describe modifications/upgrades, if any, that have been made previously and provide any information indicative of the historic significance of the existing transmission line segment to be reconductored.
11. If an existing substation needs to be modified as a result of the proposed project, and it is more than 45 years old, describe modifications/upgrades, if any, that have been made previously, and provide any information indicative of the historic significance of the existing substation.
12. Legible map(s) showing existing land uses within 500 feet of the outside edges of the right of way, including identification of any school, hospital, daycare center, other sensitive receptors, and residential and commercial areas.
13. Identification of any potentially significant impact to the environment that may occur as the result of the reconductoring, construction technologies that are available to mitigate an impact, and mitigation measures that would reduce the impact to a less than significant level, including the standard environmental mitigation measures developed generically by the transmission owner and/or the CPUC for reconductoring projects.
14. Identity of any agency or other interested party with jurisdiction or permit approval authority over any part of the reconductoring project.
15. In general, provide facts to support conclusions about the potential for impacts and feasible mitigation, including impact avoidance measures.

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 *OAKLEY GENERATING STATION*

Docket No. 09-AFC-4
PROOF OF SERVICE
(Revised 8/13/2010)

APPLICANT

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DECLARATION OF SERVICE

I, Maria Santourdjian, declare that on January 20, 2011, I served and filed copies of the attached Oakley Generating Station Project (09-AFC-4) Data Request No. 74. 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/contracosta/index.html].** The document has 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;

_____ by personal delivery;

__x__ by delivering on this date, for mailing with the United States 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 "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-4
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, 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
Maria Santourdjian