STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

August 7, 2008 VIA MAIL AND EMAIL

Susan Nelson, Project Manager
Southern California Edison Company
2244 Walnut Grove Avenue
Rosemead, CA 91770

SUBJECT: Data Request No. 3 for the San Joaquin Cross Valley Loop Project (A.08-05-039)

Dear Ms. Nelson:

As the California Public Utilities Commission (CPUC) proceeds with our review of Southern California Edison (SCE)'s Application and Proponent's Environmental Assessment (PEA) for the San Joaquin Cross Valley Loop Project, we have identified additional information required to complete our analysis of the Proposed Project. Please provide the information requested on the pages attached to this letter.

We would appreciate your prompt response to this data request by August 19, 2008, which will help us maintain our schedule for analysis and processing of this application. Please submit your response in hardcopy and electronic format to me and also directly to our environmental consultant, ESA, at the mail and e-mail addresses noted below. If you have any questions please direct them to me as soon as possible.

Sincerely,

Jensen Uchida
CPUC CEQA Project Manager
Energy Division
Phone: (415) 703-5484
JMU@cpuc.ca.gov

Environmental Science Associates
Attn: Doug Cover
1425 N. McDowell Blvd., Suite 105
Petaluma, CA 94954
dcover@esassoc.com

Data Request #3
San Joaquin Cross Valley Loop Project

Proposed Project

1. Provide the type of structure (e.g., lattice tower) and heights above ground associated with the existing structures that would be removed and replaced along the 1.1 mile segment from Rector Substation to the north.

2. Provide a description of the activities that would be allowed within the SCE ROW (e.g., under the transmission line) after project completion. If crops are allowed, please specify any crops that would be restricted.

3. What area and/or radius around each pole and/or lattice tower would be required by SCE to remain clear of vegetation and/or agricultural crops in perpetuity?

Alternatives

4. SCE's San Joaquin Valley Comprehensive Study, dated 4/29/2004 (Study) includes, as part of system alternative 2 in the Study, a 175 MVAR SVC at Rector. Review of substation work contained in the PEA for the proposed project and alternative routings did not mention the installation of the SVC device. Has the need for the SVC been eliminated?

   a) Has a SVC device been installed at Rector Substation since the 2004 Comprehensive Report was prepared?

   b) If so, what is its MVAR rating?

   c) If not, will a SVC device need to be added to the system in the near future?

   d) If an SVC device has not been installed and will not be required in the near future, explain why the need has changed since 2004.

5. Regarding reconductoring of the existing system and towers:

   a. Would reconductoring both BC – Rector lines and both Vestal – Magunden lines with 666.6 kcmil ACSS/TW conductors as described in the 2004 Comprehensive Report be a viable project alternative meeting the forecasted electrical loads of Rector and Vestal Substations?

   b. Would SVCs or other devices be needed in addition to reconductoring to ensure system stability?

   c. What would be the approximate cost of the reconductoring alternative?

   d. When were the present conductors of the Big Creek – Springville - Magunden and Big Creek - Rector - Vestal - Magunden 220 kV Transmission lines installed? (Address each line segment.)

   e. What is the expected remaining service life for the conductors of each of the 220 kV transmission line segments identified in Question a) above? (Or: When would replacement of the conductors become necessary due to normal degradation?)

   f. What would be the cost difference for reconductoring with 666 kcmil ACSS/TW versus using 605 kcmil ACSR, should reconductoring be necessary as a result of degradation?

g. Can the existing towers be reinforced or otherwise modified to carry larger conductors (say 1033 kcmil) for significantly less cost than for replacement with new structures?

6. Regarding reconstruction of both BC1 & BC 3 - Rector lines:

   a. Would upgrading the BC1 & BC 3 - Rector Lines to 1033 kcmil conductors solve the capacity issues at Rector without inducing system instability?

   b. If instability is a problem with such a line upgrade, could the addition of reactors or other devices to the system correct the instability?

   c. Considering constraints limiting reconstruction work to low load demand seasons when lines can be taken out of service, how long would it take to complete the project?

   d. What would the estimated cost of a line reconstruction project be as described above?

7. With respect to a new system alternative that would consist of reconstructing the two existing Big Creek – Rector – Vestal – Magunden 220kV lines with a new double circuit 220kV line, with bundled 1033 ACSR conductor, please address the following questions:

   a. Would such a project afford sufficient voltage support at Rector during outage of the Rector-Big Creek section?

   b. At approximately what load level (coincident Rector and Vestal loads) would such system need reinforcement?

   c. How would this load level compare to the load level at which the proposed project would required reinforcement?

   d. How many miles of the line would be located within National Parks or Forrest lands, thereby requiring additional permitting?

8. It was discussed with SCE on the July 9 and 10, 2008 site meeting and field trip that route Alternative 4 would locate the loop connection point 7 miles to the southeast compared to Alternative 1 lengthening the BC3-Rector segment, increasing line impedance, and significantly reducing electrical performance compared to the other routing options. The diminished electrical performance was given as a reason for rejecting Alternative Route 4. With respect to Routing Alternative 4 contained in the PEA, please respond to the following questions:

   a. Does this alternative meet NERC, WECC and CAISO reliability criteria? If not please identify what criteria is violated and under what conditions.

   b. Is this alternative electrically feasible? If not please identify all reasons why it is not. (Note: this question focuses only on electrical feasibility and not economics).

   c. It is understood that this alternative may result in the need for future system upgrades earlier than routing alternatives 1, 2, & 3. Please identify the load level (as measured by the coincident load at Rector and Vestal substations) at which each of the four routing alternatives contained in the PEA would require additional system upgrades? (Note: As a minimum, data for Alt 1 and 4 should be supplied, data for alt 3 would be helpful; given it is the shortest of the routing alternatives).

d. Please provide studies and associated data that was relied upon in reaching the decision in the PEA that "…the Alternative 4 route is the least effective at meeting the project objectives of increasing transmission line capacity between Big Creek..."(PEA, pg 2-9).

e. How important would the Rector-Springville segment of the proposed Big Creek 3 loop to Rector be for preventing line overloads and maintaining the capacity and stability of Rector Substation in the event of an outage on the Big Creek 3 - Rector segment alone or in conjunction with any other 220 kV lines of the Big Creek to Magunden transmission system?

f. Would 7 miles of increased length (and impedance) for the Big Creek 3 - Rector portion, of the Big Creek-Rector-Springville loop, have as much detrimental effect on the system and Rector Substation performance as would a similar increase in length of the Rector-Springville segment? Explain why.

g. Could the differences in system electrical performance of Route 1 vs. Routes 2, 3, or 4 operating normally or during critical outages be considered a wash? If not please explain.

9. Routing alternatives 1, 2 and 3 all share common right-of-way with the existing two Big Creek-Rector lines. NERC/WECC criteria classify the simultaneous loss of all lines in an R/W as a Category D event requiring such events to be studied and evaluated. What evaluation of this event has been conducted and specifically how much load dropping would be required?

10. The recent draft C3ET Study Plan identifies the possible construction of a new 230 kV DCTL between Magunden and Rector Substations. This line is identified as part of eight of the 14 alternatives and variations noted for study by the CAISO. (See below).

    Please identify the extent that earlier construction of this facility (Magunden-Rector 230 DCTL) would serve as an alternative to construction of the SJXVL. Please identify, document and discuss all reasons why the new Magunden-Rector 230 DCTL may not serve as an alternative.

Central California Clean Energy Transmission (C3ET) Project

Study Plan

JULY 25, 2008 DRAFT

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2.5 Proposed Alternatives

In order to ensure a robust alternative analysis, numerous alternatives have been conceptually identified.

[The alternatives may be augmented as appropriate during this analysis, in order to meet reliability criteria and other study objectives for the 20 year reliability study horizon.]

Figure 4 lists proposed C3ET alternatives that are covered in the technical study.

DCTL = Double-Circuit Tower Line, SCTL = Single-Circuit Tower Line

Figure 4. List of Proposed Alternatives

Figure 7 through Figure 32 show the C3ET project alternatives in geographic diagrams. Note that the diagrams are approximate and shall not be used as a reference for transmission line routes and station locations.

1 Fresno 230 kV Reconductoring Magunden – Rector 230 kV DCTL ("SCE-1")

2 Midway – E2 500 kV DCTL Magunden – Rector 230 kV DCTL ("SCE-1")

2a Midway – E2 500 kV DCTL with S2 Loop-In

2b Midway – E2 500 kV DCTL with S2-S3 Loop-In, Whirlwind – S3 500 kV Line

2c Midway – E2 500 kV DCTL with S2 Loop-In, Midway – Vincent #3 Upgrade

2d Midway – Gregg 500 kV DCTL Magunden – Rector 230 kV DCTL ("SCE-1")

3 Midway – E2 500 kV SCTL with S2 Loop-In

4 Whirlwind – E2 500 kV DCTL with S2 Loop-In

5 Midway – E2 230 kV DCTL Magunden – Rector 230 kV DCTL ("SCE-1")

6 Fresno – Big Creek 230 kV inter-tie

7 Midway – McCall – E2 230 kV DCTL Magunden – Rector 230 kV DCTL ("SCE-1")

8 Gates – Gregg 230 kV DCTL Magunden – Rector 230 kV DCTL ("SCE-1")

9 Raisin 230 kV Switching Station Magunden – Rector 230 kV DCTL ("SCE-1")

10 New generation 1000 MW in Fresno Magunden – Rector 230 kV DCTL ("SCE-1")

Environmental Impact Assessment

Cultural Resources

11. Please provide all archeological, paleontological, and historic technical reports with site forms.

12. Please provide all correspondence between Native Americans, NAHC and other interested parties that has taken place since the PEA was published.

13. Please provide the Section 106 Report for historic 1919 Big Creek – Rector Line.

Geology

14. Please provide all geologic and/or geotechnical report(s) for the project. During the meeting at Rector Substation on July 9, 2008, SCE staff mentioned that a geotechnical report was available. It was not clear whether the geotechnical report covered only Alternative 1, or also Alternatives 2 and 3. If a geologic/geotechnical report has also been prepared for Alternative 4 (Yokohl Drive area), please provide a copy of the report.

15. On Page 4-147, Section 4.6.7 Alternative 3 of the PEA, it is indicated that "there is also a mapped landslide on Stokes Mountain (NRCS, 2008)". Please provide the map of the landslide on Stokes Mountain from the referenced NRCS website. This issue was discussed with Ms. Erika Wilder of SCE during the site tour.

16. On page 4-147, Section 4.6.8 References of the PEA, a reference was cited "MACTEC, 2007, Report of Geologic Consultation, Proposed Cross Valley Tower Alternate Location, Stokes Mountain, October 22, 2007". Please provide the MACTEC report dated October 22, 2007.