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



September 15, 2015

Christopher Myers California Public Utilities Commission Office of Ratepayer Advocates 505 Van Ness Avenue San Francisco, CA 94102

Re: Data Request on SCE West of Devers Upgrade Project Draft EIR/EIS CPUC Application No. A.13-10-020

Dear Mr. Myers:

The California Public Utilities Commission's (CPUC) Energy Division received a data request from the Office of Ratepayer Advocates (ORA) on September 10, 2015. These questions relate to information presented in the Draft EIR/EIS for the West of Devers Upgrade Project, published on August 7, 2015.

The attached pages present the ORA requests and our responses to each request. This response will be shared with the CPUC's service list for the proceeding and will be posted on the CEQA project website. Any questions on this information should be directed to me at (415) 703-2068.

Sincerely,

Billie Blanchard

Billie Blanchard Project Manager for West of Devers Upgrade Project Energy Division CEQA Unit

Attachment

cc: Mary Jo Borak, CPUC Supervisor CEQA Unit Molly Sterkel, CPUC Program Manager Greg Heiden, CPUC Legal Division Cleveland Lee, ORA Ryan Stevenson, SCE Delphine Hou, CAISO Tom Dougherty, CAISO John Kalish, Bureau of Land Management Frank McMenimen, Bureau of Land Management Susan Lee & Hedy Koczwara, Aspen Environmental Group Service List for Proceeding A.13-10-020 (by email; see list on following page)

Name		Title	Company	Representing
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MATT	STUCKY		ABENGOA SOLAR	
TANDY	MCMANNES		ABENGOA SOLAR LLC	
TIMOTHY	MCMAHON		ABENGOA SOLAR LLC	

Service List - A.13-10-020 (West of Devers Upgrade Project)

Attachment 1: Responses to ORA Data Requests on Draft EIR/EIS West of Devers Upgrade Project

Basic Project Objective 1 – Increase system deliverability by at least 2,200 MW

<u>ORA Request #1</u>: What metrics (e.g., presence of PPAs) did ED use to determine level of need in the project area?

- a. How if at all were the following metrics used?
 - i. Interconnection requests
 - ii. LGIAs [Large Generator Interconnection Agreements]
 - iii. PPAs [power purchase agreements]
 - iv. RPS Calculator [the CPUC's portfolio tool and renewable portfolio standard calculator]
- b. Why were the chosen metrics used?
- c. What metrics were eliminated, if any and why?

Response (general response presented first, followed by specific answers to items a, b, and c): The Draft EIR/EIS does not determine or define any level of need for the proposed West of Devers (WOD) Upgrade Project (Proposed Project). The Draft EIR/EIS establishes "Basic Project Objectives" in order to define a reasonable range of alternatives. The first Basic Project Objective aligns with the assessment in 2010 by CAISO that the Proposed Project would be a required Delivery Network Upgrade for 2,200 MW from five renewable energy generation projects (Draft EIR/EIS, p. A-7 and A-11). The West of Devers project was initiated by SCE as a result of the Transition Cluster Generation Interconnection study process in mid-2010. That study, based on CAISO queued generation projects and generation levels at the time, identified the West of Devers 220 kV system upgrades as necessary to support the deliverability of 2,200 MW of new generation in east Riverside County.

The power flow modeling presented in the Draft EIR/EIS that compared the SCE Proposed Project with the Phased Build Alternative was based on executed LGIAs, CAISO feedback regarding generators still in the queue upstream of the upgrades,¹ and tracking generation level changes over the past 5 years. The ZGlobal Power Flow Analysis identifies little change in the potential level generation since the original 2,200 MW that triggered the project in 2010 (Draft EIR/EIS Appendix 5, Attachment 2, pp. 4-6). Given this data, and given no specific generation level goals in SCE's Project Objectives (Draft EIR/EIS, Section A.2.1.2, p. A-5), the EIR/EIS Basic Project Objective #1 was set at the original 2,200 MW level. .

Specific responses to the ORA questions follow:

a. A lower and upper bound was established in the power flow analysis to develop the comparative analysis of the Proposed Project versus the Phased Build Alternative. The low end used the CAISO's 2024 Reliability Base Case for the SCE region as posted on the CAISO's secure market portal website. This provided a baseline of generation that is assumed to be on-line in 2024, including existing generation, queued generation with executed Generator Interconnection Agreements (GIAs). Projects with GIAs presumably also have necessary permitting, documented

¹ The EIR/EIS team submitted a data request to the CAISO in December of 2014. The request and response provided by the CAISO are on the CEQA unit website under "Data Requests": <u>http://www.cpuc.ca.gov/environment/info/aspen/westofdevers/westofdevers.htm</u>

construction status, and possible PPAs. Table A4 of the ZGlobal Power Flow Analysis report (Draft EIR/EIS Appendix 5, Attachment 2, p. 21) displays the generation and associated dispatch levels for the system in the vicinity of Devers (including eastern Riverside County), including existing fossil-fueled generators, existing renewable resources, and future RPS proxy generators, which are generic and not specific to any particular future renewable project. This base case and level of generation penetration established the lower bookend to compare the Phased Build alternative project to the Proposed Project directly. The higher generation analysis assumption used to test the Proposed Project and Phased Build Alternative used the generation penetration and dispatch levels established by using the Cluster 7 Phase 1 base case. This case includes all actively queued generation as shown in Table B7 of the ZGlobal Power Flow Analysis report (Draft EIR/EIS Appendix 5, Attachment 2, p. 29).

For this direct comparative assessment, PPAs were not relevant. The power flow analysis and deliverability objective do not account for PPAs.

- b. The purpose of the power flow study was to compare the loading of the Proposed Project with the Phased Build Alternative (Draft EIR/EIS, p. A-7). For this purpose, any base case reference could be used, as long as the base case conditions are not modified or altered between the two projects/alternatives being studied (Proposed Project and Phased Build Alternative). The only modification was to account for the direct configuration or topology of each project/alternative. Use of the 2024 Reliability Base Case was intended to provide a view of the future transmission and generation scenario that could be accepted by all parties, since it was developed by the CAISO in consultation or coordination with SCE, CEC and CPUC (and other stakeholders).
- c. No specific metrics were eliminated or avoided.

<u>ORA Request #2</u>: How was the assignment of existing transmission deliverability to earlier queued projects without PPAs considered when developing Basic Objective 1?

- a. Where in DEIR is this evaluation described?
- b. What supports this as reasonable?

<u>Response</u>: Section A.2 of the Draft EIR/EIS presents a detailed discussion of how SCE's Project Objectives (Section A.2.1.2) and the Basic Project Objectives defined by the CPUC and BLM align (Section A.2.3). The Draft EIR/EIS need not consider how deliverability may be assigned.

This approach is considered reasonable for the following reasons. Existing transmission (including the 2013 "West of Devers Interim Project") provides for deliverability of existing and some queued generation including Transition Cluster generation projects. However, the West of Devers Interim facilities would be removed by the Proposed Project. The CAISO, in its Generation Interconnection Study process, does not include PPAs as a requirement for determining deliverability. Active queued projects are the focus of CAISO consideration.

<u>ORA Request #3</u>: What assessment was made regarding whether additional capacity (RA) is needed from intermittent resources at a system level?

- a. If none, why not? Where is this explained in the DEIR?
- b. If an assessment was made,
 - i. What was the methodology used?
 - ii. What data and source of data used?

Response: The Draft EIR/EIS does not assess whether Resource Adequacy (RA) capacity may be needed. The focus of the EIR/EIS power flow modeling was on capacity requirements specific to supporting generation in eastern Riverside County. The analysis was based on the CAISO's summer peak 2024 Reliability Base Case, using the generation and dispatch levels set in that case. An upper level of generation penetration and dispatch level was established by using the Cluster 7 Phase 1 base case which essentially includes all actively queued generation. Additional RA capacity from a "system" perspective was not considered. Additional transmission capacity beyond the focus area of eastern Riverside County was not considered. Again, the approach to the power flow modeling analysis was to directly compare the transmission system topology of the two projects/alternatives (the Proposed Project and the Phased Build Alternative) using equivalent references and assumptions. The EIR/EIS power flow study showed that the Phase Build Alternative configuration provides for approximately 3,000 MW of capacity expansion, compared with the approximately 4,800 MW sought from the Proposed Project.

<u>ORA Request #4</u>: How was the reduced role of solar resources under the Effective Load Carrying Capability (ELCC) method in providing capacity considered regarding Objective 1?

- a. If not considered, explain why not?
- b. If considered, where is the methodology and data used shown in the EIR?

<u>Response</u>: The Effective Load Carrying Capability (ELCC) method was not directly used in the EIR/EIS power flow modeling. Please see the response to Request #3 above. Specific analysis that considers ELCC was not considered necessary to provide the comparison of the Proposed Project with the Phased Build Alternative. The power flow model considers generation coinciding with summer peak conditions, allowing an assessment of the different capabilities of the Proposed Project and the Phased Build Alternative. Hypothetically, applying a de-rating factor for solar generators for these intermittent resources would affect the two projects/alternatives equally.

Basic Project Objective 2 – To support achievement of State and Federal renewable energy goals

These goals are energy goals while the WODUP is being put forth as a Delivery Network Upgrade, which is to support RA capacity counting.

<u>ORA Request #5</u>: Why does the Energy Division consider the WODUP upgrades as needed to achieve these renewable energy goals?

- a. Where does DEIR state the need?
- b. What methodology and data were used?

Response: The Draft EIR/EIS does not determine or define any level of need for achieving renewable energy goals, aside from considering whether the project or an alternative can facilitate progress toward achieving RPS goals. Section A.2 of the Draft EIR/EIS presents a detailed discussion of SCE's

Project Objectives and the Basic Project Objectives defined by the CPUC and BLM (Section A.2.3). See pages A-12 and A-13 for discussion of Basic Project Objective 2, and the rationale for its inclusion in the EIR/EIS.

<u>ORA Request #6:</u> What independent security constrained production cost simulation studies were performed by ED to estimate potential congestion/renewable curtailment relief that could be attributed to WODUP?

- a. If none, why not?
- b. If done, what methodology and data used?
- c. Where is it included in DEIR?

<u>Response</u>: No production cost simulation studies were conducted for the Draft EIR/EIS. This information was not required in order to evaluate the feasibility of alternatives, or to compare alternatives and their environmental impacts.

Additional Project Alternative

<u>ORA Request #7</u>: A project of more reduced scope than the Phased Build alternative should be included among the alternatives. This alternative would be limited to the work identified in the Phase Build alternative that is located on the Morongo lands. The remaining portions of the line would not be upgraded and the series reactors and SPS would remain in service so that the total capacity of the transmission system would remain as it is today.

- 1. Would ED regard such an alternative as feasible?² If not, why not?
- 2. Would ED consider such an alternative as preferred if it had a lower environmental impact than the Phased Build alternative? If not, why not?
- 3. Would ED consider such an alternative as preferred if:
 - a. It met a restated Basic Project Objective 1 that focused on current PPA capacity in the Riverside East area?
 - b. It also met Basic Project Objective 2 on an energy basis?

<u>Response</u>: The purpose of these data requests is to allow interested members of the public to request clarifying information on the approach used in the Draft EIR/EIS, in order to submit comments on the Draft EIR/EIS. This ORA request would be appropriate as a comment on the Draft EIR/EIS. We suggest that this type of comment would be most valuable if the ORA reviews the process for evaluation of alternatives presented in detail in Appendix 5, Section 2 (Alternatives Screening Methodology). In addition, please review Appendix 5, Section 5 (Alternatives Eliminated from Detailed Consideration) to see how each alternative was evaluated. Please note that comments on the Draft EIR/EIS are due on September 22, 2015 and may be sent via email to: westofdevers@aspeneg.com.

² Note that a supplemental transmission investment for the Morongo tribe may need to be identified for this option.

Alternatives Screening Report

<u>ORA Request #8</u>: ORA is highly supportive of the ED's recognition that the attrition rate in the CAISO queue is high and therefore neither the queues nor the LGIAs, are a good indicator of transmission need.

The focus of the transmission analysis is the CAISO 2024 Summer Peak Reliability base case.³

- 1. How does the 3,754 MW of operating generation identified in Table A4 link back to the 2,200 MW identified in Basic Objective 1?
- 2. How does the 3,754 MW of operating generation identified in Table A4 link to the RPS portfolios provided by the CPUC and CEC to the CAISO?
- 3. How does the 3,754 MW of operating generation identified in Table A4 link back to the amount of executed PPAs in the area?

Responses:

- Table A4 (in Draft EIR/EIS Appendix 5, Attachment 2) presents the generation assumptions in the modeling of the 2024 Reliability Base Case. It is difficult to determine the linkage between the 2,200 MW level in Basic Project Objective 1 and the modeled generation because the generators in the CAISO Transition Cluster base case and in the 2024 base case cannot be individually identified and compared through CAISO queue system. In addition, several generators in the original list of 2,200 MW have since been withdrawn and several new generators have entered into the CAISO queue (Draft EIR/EIS p. A-11).
- Based on the 2024 CAISO Policy driven base case that reflect Commercial Interest portfolio, generation capacity modeled at the Colorado River Red Bluff interconnections equals about 3,800 MW. To further clarify the linkage between the portfolios and the generation table, SCE and / or CAISO would be the entities that are better-positioned to correlate generation in the base cases with the generation in the CAISO generation queue.
- 3. Please see the response to ORA Request #1.

<u>ORA Request #8:</u> With respect to the power system study methodology, please confirm that the 2,300 double contingencies studied include sequential, overlapping events (*N-1-1*).

<u>Response</u>: Yes, the 2300 double contingencies are included in the N-1-1 event analysis in the power flow analysis prepared for the Draft EIR/EIS.

³ Though the power system also investigated the system performance with the Cluster 7 Phase 1 generation pattern, the report finds the Phase Build alternative as a viable option and identifies the basis for this finding though it provides insufficient capacity to accommodate this generation pattern.

<u>ORA Request #9:</u> Note that the referenced Generator Interconnection and Deliverability Study Methodology Technical Paper indicates that the CAISO's Deliverability Study Methodology only considers single contingency and common mode *N-2* contingency analysis and bus outages.⁴

- 1. How would the findings of the technical study differ if *N-1-1* events were removed from the analysis?
- 2. The Screening Report should be expanded to include a GE PSLF ".epc file" that documents all the changes made to the CAISO 2024 Summer Peak Reliability base case for this portion of the SCE system, including the Phased Build alternative.

Responses:

- The power flow modeling prepared for the Draft EIR/EIS did not test this finding. However, zGlobal expects that the findings would not differ much from those presented in the study if the N-1-1 events were removed, because the worst double contingency is the outage of Devers-Valley 500 kV #1 and #2 circuits, which is an N-2 event, not N-1-1.
- The EIR/EIS team (i.e., zGlobal) can transmit GE PSLF ".epc file" to qualified parties, if specific requests are made. The ".epc" files, however, are useful only to those who have signed Non-Disclosure Agreements with CAISO and can access CAISO-secured website to retrieve CAISO base cases.

⁴ Generator Interconnection and Deliverability Study Methodology Technical Paper, p. 6. Note that this is a reasonable study methodology as normal planning practice is to allow generation redispatch between the initial and subsequent events.