

STATE OF CALIFORNIA
PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

Edmund G. Brown Jr., Governor



October 30, 2015

Jack Horne
Southern California Edison
8631 Rush Street, General Office 4 – G10Q (Ground Floor)
Rosemead, CA 91770

Re: Data Request No. 6 for the Mesa 500-kV Substation Project (CPUC Proceeding A. 15-03-003)

Mr. Horne:

Upon further review of Southern California Edison's Proponent's Environmental Assessment (PEA), the Energy Division requests the information contained in Attachment 1 to this letter. In an effort to expedite scheduling per SCE's request, we request that the responses to this item be provided to us within 14 days.

The Energy Division reserves the right to request additional information at any point in the process. Questions relating to the Mesa 500-kV Substation Project should be directed to me at (415) 703-1966 or lisa.orsaba@cpuc.ca.gov.

Sincerely,

MJ Orsaba

Lisa Orsaba,
California Public Utilities Commission
Energy Division

CC: Claire Hodgkins, Ecology and Environment, Inc.
Kristi Black, Ecology and Environment, Inc.

Attachment 1: Data Request #6

Item #	Reference/ Page #	Title	Request
DR#6 Q.1	DR#2 Q.7	Alternatives: Reduced Substation Alternative (Two 1200-MVA 500/230- kV Transformer Banks)	<p>CPUC is evaluating an alternative that would involve construction of the Mesa Substation as proposed but with only two 1200 MVA 500/220-kV transformer banks. Provide the following information about a reduced substation alternative that would consist of two 1200 MVA 500/220-kV transformer banks:</p> <ul style="list-style-type: none"> A. State whether SCE concurs that two 1200 MVA 500/230-kV transformer banks would address overloading on the Serrano corridor following the 230-kV N-1-1 contingency and voltage issues following the 500-kV N-1-1 contingency. B. If SCE does not concur in (A), provide substantiation, such as a power flow diagram. C. If SCE concurs in (A), provide a schematic that shows the substation layout for this alternative. <p>SCE stated in its response to Data Request #2, Q.7 that a minimum of three 1200 MVA 500/220-kV transformer banks are necessary to maintain compliance with reliability standards. If two 1200 MVA 500/220-kV transformer banks address the system problems in discussed in (A):</p> <ul style="list-style-type: none"> D. Explain <i>whether</i> and <i>why</i> a third 1200 MVA 500/220-kV transformer bank is needed to meet reliability standards.
DR#6 Q.2	N/A	Alternatives: Reduced Substation Alternative (One 1600-MVA 500/230- kV Transformer Bank)	<p>Provide the following information about a reduced substation alternative that would involve one 1600-MVA 500/230-kV transformer bank.</p> <ul style="list-style-type: none"> A. State whether SCE concurs that one 1600-MVA transformer bank would address overloading on the Serrano Corridor following the 230-kV N-1-1 contingency and voltage issues following the 500-kV N-1-1 contingency. B. If SCE does not concur in (A), provide substantiation, such as a power flow diagram. C. If SCE concurs in (A), provide a schematic that

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			shows the substation layout for this alternative.
DR#6 Q.3	N/A	Alternatives: Load Shedding and Reconductoring	<p>CPUC is evaluating an alternative that would involve load shedding in Mission Viejo and reconductoring the Serrano – Villa Park #1 and Serrano – Villa Park #2 transmission lines to increase their capacity. Reconductoring would utilize three 1500-ampere conductors per phase.</p> <p>The intent of load shedding in Mission Viejo would be to address the voltage issues following the 500-kV N-1-1 contingency. The intent of reconductoring the Serrano– Villa Park #1 and Serrano–Villa Park #2 transmission lines would be to increase their capacities to prevent overload on either line following the 230-kV contingency. Preliminary analysis indicates this alternative could address the 230-kV contingency and 500-kV contingency.</p> <p>Provide the following information regarding this potential alternative to allow for full analysis:</p> <ul style="list-style-type: none"> A. State whether SCE concurs that the load shedding and reconductoring alternative would meet the objectives of the proposed project (i.e., addressing overloads following the 230-kV N-1-1 contingency and voltage issues following the 500-kV N-1-1 contingency). B. If SCE does not concur in (A), provide substantiation, such as a power flow diagram. C. If SCE does concur in (A), provide a description of work that would need to be done to implement this alternative, including, if relevant: <ul style="list-style-type: none"> a. Tower replacement or modification b. Reconductoring c. Access road construction/alteration d. Substation modifications e. Telecommunications work
DR#6 Q.4	N/A	Alternatives: Load Shedding and Line	CPUC is evaluating an alternative that would involve load shedding in Mission Viejo and opening the Lewis –

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		Opening	<p>Barre 230-kV transmission line and the Villa Park – Barre 230-kV transmission line following the 230-kV N-1-1 contingency.</p> <p>The intent of load shedding in Mission Viejo would be to address the voltage issues following the 500-kV N-1-1 contingency. The intent of opening the 230-kV lines is to prevent overload on the Serrano – Villa Park 230-kV line following the 230-kV N-1-1 contingency. Preliminary analysis indicates that this alternative could address the 230-kV N-1-1 contingency.</p> <p>Provide the following information regarding this potential alternative to allow for full analysis:</p> <ul style="list-style-type: none"> A. State whether SCE concurs that the load shedding and line opening alternative would meet the objectives of the proposed project (i.e., addressing thermal overloads following the 230-kV N-1-1 contingency and voltage performance issues following the 500-kV N-1-1 contingency). B. If SCE does not concur in (A), provide substantiation, such as a power flow diagram. C. If SCE does concur in (A), provide a description of work and actions that would need to be done to implement this alternative, including, if relevant: <ul style="list-style-type: none"> a. Substation modifications b. System adjustments
DR#7 Q.5	Traffic Impact Analysis	Driveway to Potrero Grande Drive at Atlas Avenue	<p>SCE’s revisions to the Project Description included the addition of a temporary driveway from Potrero Grande Drive, near the intersection with Atlas Avenue. The driveway would be used during Phase I of construction. One factor used to determine LOS for intersections and road segments was the number of driveways per mile.</p> <p>To verify whether this change would affect the results of the Traffic Impact Analysis, update the LOS analysis in the study to take into account the additional driveway</p>

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			during Phase I of construction.