

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



September 16, 2020

Alex Gutierrez
Senior Advisor - Infrastructure Licensing
Southern California Edison

Via email to Alex.Gutierrez@sce.com

RE: CPUC Supplemental Data Request 6 for the Southern California Edison Alberhill System Project, A.09-09-022

Dear Mr. Gutierrez,

Upon further review of Southern California Edison's supplemental data response to the additional analyses requested in Decision 18-08-026, the Energy Division requests the information contained in Attachment 1 to this letter. Responses should be submitted to the Energy Division and Ecology and Environment, Inc. in electronic format. We request that SCE respond to this data request by September 30, 2020. Inform us as soon as possible if you cannot provide specific responses by this date. Delays in responding to this data request may cause delays in the supplemental analysis review process.

Direct questions to Joyce Steingass at (415) 703-1810 or by e-mail (address below). Please copy the CPUC's consultant, Amy DiCarlantonio and Grant Young, Ecology & Environment, Inc., on all communications (ADiCarlantonio@ene.com, GYoung@ene.com). Energy Division reserves the right to request additional information at any point during the proceeding and subsequently during project construction and restoration should Application (09-09-022) be approved.

Sincerely,

A handwritten signature in black ink, appearing to read "Joyce Steingass".

Joyce Steingass, P.E.
CPUC Project Manager
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-3298
Joyce.Steingass@cpuc.ca.gov

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CC: Amy DiCarlantonio, Project Manager, Ecology and Environment, Inc.
Grant Young, Deputy Project Manager, Ecology and Environment, Inc.

Attachment 1: 2020-0916_Data Request No. 06_Table

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DG #	Resource Areas/ Topic	SCE Data Submittal Item/Page	Data Gap Question	Response
DG-MISC-43 Supplemental	Reliability	N/A	<p>Supplemental follow-up to DG-MISC-43 from Data Request 5.</p> <p>Provide updated data similar to that provided in Items D and E to include: 2019 values for SAIDI and SAIFI, and if available, MAIFI, and CAIFI numbers from 2009-2019 for the following locations:</p> <ol style="list-style-type: none"> Each of the transformers at Valley South substation (per transformer if available) Entire Valley South substation (per substation) SCE system 	
DG-MISC-47 Supplemental	Capacity	N/A	<p>Supplemental follow-up to DG-MISC-47 from Data Request 5.</p> <p>Given the geographic proximity of the Valley North and Valley South system subs, what-specific permanent load shifts were considered via tie lines? If none were considered, why not? It appears that a number of factors may be influencing the amount of load and distributed generation in the Valley North system that may facilitate the North absorbing some of the need of the Valley South system.</p>	
DG-MISC-48 Supplemental	Capacity	N/A	<p>Supplemental follow-up to DG-MISC-48 from Data Request 5.</p> <p>Were any power flow studies performed on potential tie lines between the Valley North and Valley South system? Were any other planning studies performed that focused on load shift between the north and south systems? If so, provide the studies.</p>	
DG-MISC-54	Contingency Data	N/a	<p>Tabulate the N-0, N-1, and N-1-1 (or N-2) contingencies that result in reliability violations at Valley South substation for all scenarios that impact downtime. Specify how this data is used in tabulating unserved MWs. Clarify whether the violation duration data used is historical SCE data or NERC statistical data. Provide this data for the:</p> <ul style="list-style-type: none"> base case case modelling ASP cases modelling each of the proposed alternatives 	
DG-MISC-55	Cost Benefit	A.09-09-022 CPUC-JWS-4 Q.01g Attachment 4 of 5_Appendix A_Quanta Technology_Cost Benefit Analysis of Alternatives	<p>Are the alternatives' annual costs specified in the spreadsheets provided, "non-discounted"?</p> <p>Capital Expenditures: Construction cost streams (contained in "COSTS A.09-09-022 ED-Alberhill-SCE-Supplemental Data Request 003 Question DG-G....xlsx") are provide below. Are these annual "highlighted" figures, shown in Table 1 below, for all alternatives (i.e. shown for Alberhill) "non-discounted"? Also, are the annual revenue streams, not shown, related to BESS alternatives "non-discounted", as well?</p> <p>Also, computational checks were performed on Capex (Capital Expenditure) and PVRR (Present Value Revenue Requirements) for all the alternatives. For our verification, provide the methodology (written, detailed) (with equations/spreadsheet) utilized in deriving the PVRR.</p> <p>SEE TABLE 1 BELOW THE DATA REQUEST TABLE</p>	

Attachment 1: 2020-0916_Data Request No. 06_Table

DG #	Resource Areas/ Topic	SCE Data Submittal Item/Page	Data Gap Question	Response
DG-MISC-56	Cost Benefit	A.09-09-022 CPUC-JWS-4 Q.01g Attachment 4 of 5_Appendix A_Quanta Technology_Cost Benefit Analysis of Alternatives	Table 2 below displays O&M costs from 2022-2034 among the various alternatives under review. Are these O&M figures “non-discounted”? Also provide a detailed methodology for your inclusion of these O&M costs and Capital expenditures into the final PVRR figure (cited above). SEE TABLE 2 BELOW THE DATA REQUEST TABLE (Operation and Maintenance Costs)	
DG-MISC-57	CEC Forecast Data	N/A	Explicitly cite and share the CEC load forecast data that was given to Quanta for their study.	
DG-MISC-58	Power Flow Data	N/A	Provide full PSLF base cases representing ASP and the eleven alternatives. Provide the contingency files used by Quanta to conduct the reliability analyses.	
DG-MISC-59	Reliability	N/A	Describe how the Period of Flexibility Deficit (PFD) results were derived. Were they based on the reliability indices (CAIDI, SAIDI, & SAIFI) or were they calculated from contingency results?	

TABLE 1: DG-MISC-55

Alberhill System Project	TOTAL	PRIOR	2019.00	2020.00	2021.00	2022.00	2023.00	2024.00	2025.00	2026.00	2027.00	2028.00
Licensing	27.35	24.30	1.05	1.84	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substation	215.47	0.00	0.00	0.00	10.37	74.24	108.55	22.30	0.00	0.00	0.00	0.00
<i>Substation Estimate</i>	<i>196.36</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>9.48</i>	<i>67.75</i>	<i>98.92</i>	<i>20.22</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
<i>Owners Agent (10% of construction)</i>	<i>19.10</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.89</i>	<i>6.49</i>	<i>9.64</i>	<i>2.08</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
Corporate Security	4.26	0.00	0.00	0.00	0.00	0.00	2.53	1.73	0.00	0.00	0.00	0.00
Bulk Transmission	52.59	0.00	0.00	0.00	2.54	18.14	26.49	5.42	0.00	0.00	0.00	0.00
Subtransmission	51.02	0.00	0.00	0.00	2.46	17.60	25.70	5.25	0.00	0.00	0.00	0.00
Transmission Telecom	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00
Distribution	3.67	0.00	0.00	0.00	0.00	1.26	1.84	0.57	0.00	0.00	0.00	0.00
IT Telecom	6.65	0.00	0.00	0.00	0.00	1.96	3.33	1.36	0.00	0.00	0.00	0.00
RP	34.40	15.64	0.00	0.00	1.84	15.00	1.92	0.00	0.00	0.00	0.00	0.00
Environmental	28.10	0.00	0.00	0.00	1.35	6.88	11.25	8.62	0.00	0.00	0.00	0.00
Subtotal Direct Cost	423.66	39.94	1.05	1.84	18.72	135.09	181.62	45.40	0.00	0.00	0.00	0.00
Subtotal Battery Cost	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Uncertainty	121.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	121.28	0.00	0.00	0.00
Total with Uncertainty	544.94	39.94	1.05	1.84	18.72	135.09	181.62	45.40	121.28	0.00	0.00	0.00
Total Capex	544.94	39.94	1.05	1.84	18.72	135.09	181.62	45.40	121.28	0.00	0.00	0.00

PVRR	545.00
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TABLE 2: DG-MISC-56 - Operation and Maintenance Costs

Total O&M	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Alberhill	\$ 4.73	\$ 4.84	\$ 4.96	\$ 5.09	\$ 5.22	\$ 5.35	\$ 5.48	\$ 5.62	\$ 5.76	\$ 5.90	\$ 6.05	\$ 6.20	\$ 6.35
SDG&E	\$ 3.78	\$ 3.87	\$ 3.97	\$ 4.07	\$ 4.17	\$ 4.28	\$ 4.38	\$ 4.49	\$ 4.61	\$ 4.72	\$ 4.84	\$ 4.96	\$ 5.08
SCE Orange County	\$ 6.72	\$ 6.89	\$ 7.06	\$ 7.24	\$ 7.42	\$ 7.60	\$ 7.79	\$ 7.99	\$ 8.19	\$ 8.39	\$ 8.60	\$ 8.82	\$ 9.04
Meniffee	\$ 2.61	\$ 2.68	\$ 2.74	\$ 2.81	\$ 2.88	\$ 2.95	\$ 3.03	\$ 3.10	\$ 3.18	\$ 3.26	\$ 3.34	\$ 3.42	\$ 3.51
Mira Loma	\$ 2.16	\$ 2.21	\$ 2.27	\$ 2.33	\$ 2.38	\$ 2.44	\$ 2.50	\$ 2.57	\$ 2.63	\$ 2.70	\$ 2.76	\$ 2.83	\$ 2.90
Valley South to Valley North	\$ 1.32	\$ 1.35	\$ 1.39	\$ 1.42	\$ 1.46	\$ 1.49	\$ 1.53	\$ 1.57	\$ 1.61	\$ 1.65	\$ 1.69	\$ 1.73	\$ 1.78
Valley South to Valley North to Vista	\$ 1.94	\$ 1.98	\$ 2.03	\$ 2.08	\$ 2.14	\$ 2.19	\$ 2.24	\$ 2.30	\$ 2.36	\$ 2.42	\$ 2.48	\$ 2.54	\$ 2.60
Centralized BESS	\$ 2.41	\$ 2.47	\$ 2.53	\$ 2.60	\$ 2.66	\$ 3.67	\$ 3.76	\$ 3.85	\$ 3.95	\$ 4.05	\$ 5.27	\$ 5.41	\$ 5.54
Valley South to Valley North and Distributed BESS	\$ 1.37	\$ 1.40	\$ 1.43	\$ 1.47	\$ 1.51	\$ 1.54	\$ 1.58	\$ 1.62	\$ 1.66	\$ 1.70	\$ 1.75	\$ 1.79	\$ 1.84
SDG&E and Centralized BESS	\$ 4.44	\$ 4.55	\$ 4.66	\$ 4.78	\$ 4.90	\$ 5.02	\$ 5.15	\$ 5.28	\$ 5.41	\$ 5.54	\$ 5.68	\$ 5.83	\$ 5.97
Mira Loma and Centralized BESS	\$ 3.36	\$ 3.44	\$ 3.53	\$ 3.62	\$ 3.71	\$ 3.80	\$ 3.90	\$ 3.99	\$ 4.09	\$ 5.12	\$ 5.25	\$ 5.38	\$ 5.52
Valley South to Valley North and Centralized BESS	\$ 2.16	\$ 2.21	\$ 2.27	\$ 2.33	\$ 2.38	\$ 2.44	\$ 2.50	\$ 2.57	\$ 2.63	\$ 2.70	\$ 2.76	\$ 2.83	\$ 2.90
Valley South to Valley North to Vista and Centralized BESS	\$ 2.10	\$ 2.15	\$ 2.21	\$ 2.26	\$ 2.32	\$ 2.38	\$ 2.44	\$ 2.50	\$ 2.56	\$ 2.62	\$ 2.69	\$ 2.76	\$ 2.82