PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

February 14, 2020

Shannon Stewart
Senior Advisor - Infrastructure Licensing
Southern California Edison

Via email to shannon.c.stewart@sce.com

RE: CPUC Supplemental Data Request 2 for the Southern California Edison Alberhill System Project, A.09-09-022

Dear Ms. Stewart,

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 February 28, 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, Ecology & Environment, Inc., on all communications (ADiCarlantonio@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,

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: 2020-0213_Data Request No. 02_Table

DG #	Resource Areas/ Topic	SCE Data Submittal Item/Page	Data Gap Question	Response
DG-C-1	Cost Benefit	Data Request Item C – Planning Study ED-Alberhill-SCE-JWS-4: Item C/pg. 46 and 49	Page 46 of the Alberhill System Project Data Request Item C – Planning Study (ED-Alberhill-SCE-JWS-4: Item C) states that "Within each study area, an Opportunities, Concerns, and Constraints (OCC) evaluation was performed by Insignia Environmental in collaboration with SCE to assist in developing initial sites (locations for substations and/or BESS) and route segments (locations for transmission and subtransmission lines)." The footnote for this section states that "Insignia Environmental was contracted by SCE to develop the framework for the OCC evaluation in a web-based GIS mapping tool. Insignia's scope of work included developing initial sites and routes for each alternative, facilitating scoring of sites and routes by SCE SMEs, and performing environmental cost estimating services for preferred sites and routes." Page 49 of the Alberhill System Project Data Request Item C – Planning Study (ED-Alberhill-SCE-JWS-4: Item C) has a footnote on the "Environment" Project Element in Table 8-1. This footnote states that "Environmental cost estimating was performed by Insignia Environmental." Please provide the Insignia Environmental studies referenced above including the environmental cost estimation, the OCC evaluation, and site and routing evaluations. Please also provide Insignia's environmental costing work.	
DG-C-2	Cost Benefit	Data Request Item C – Planning Study ED-Alberhill-SCE-JWS-4: Item C/pg. 46	On Page 46 of the Alberhill System Project Data Request Item C – Planning Study (ED-Alberhill-SCE-JWS-4: Item C) a footnote states that "Insignia Environmental was contracted by SCE to develop the framework for the OCC evaluation in a web-based GIS mapping tool." Please provide the list of data sources that was used to produce this mapping tool as well as when the data source was created. If possible, provide access to the mapping tool for evaluation. Describe, in detail, how the web-based tool was used to facilitate the OCC evaluation.	
DG-C-3	Cost Benefit	Data Request Item C – Planning Study ED-Alberhill-SCE-JWS-4: Item C	Can you explain why an in-service date of 2022 is used for the cost-benefit analysis rather than 2025?	
DG-C-4	Cost Benefit	Data Request Item C – Planning Study ED-Alberhill-SCE-JWS-4: Item C	The Planning Study mentions that it makes sense to do an "incremental cost-benefit analysis" where alternatives with widely disparate benefits are compared; when this is conducted, the ASP is superior to all other alternatives. Where can we find these results?	
DG-C-5	Sensitivity Analysis	Data Request Item C – Planning Study ED-Alberhill-SCE-JWS-4: Item C	Please make available the results of the sensitivity analysis and explain in more detail how the DER forecasts/electrification forecasts are considered, as well as the scenario where BESS costs are reduced 50%.	
DG-MISC-16	Forecast	n/a	From Shannon Stewart (SCE) per 1/21/19 email follow up from webinar: "The Quanta Technology (QT) Conventional Forecast implicitly incorporates DERs by considering historical load data only, i.e., historical DER adoption trends that are embedded in historical load data are carried forward in the forecast without modification." Can you better explain this point? E.g., does that mean historical DER adoption rates are carried forward, without adjusting for CEC IEPR-developed DER growth forecasts?	
DG-MISC-17	Geospatial-Grid	n/a	Please provide circuit GIS data (single line diagram including line segments, whole feeders, and all line segment information, with phase count information and object ID that matched relational data for lookup).	
DG-MISC-18	Geospatial-Grid	n/a	Please provide transformer locational data (and all transformer data e.g. transformer age, ID #, rating) for primary/substation transformers and secondary/service transformers. Preference for full distribution planning area.	
DG-MISC-19	Geospatial-Grid	n/a	Please provide powerflow models and the powerflow model used for need determination for the distribution planning area.	

DG #	Resource Areas/ Topic	SCE Data Submittal Item/Page	Data Gap Question	Response
DG-MISC-20	Geospatial-Grid	n/a	Please provide the circuit protection equipment (e.g. switches and reclosers) locational data (GIS file) matching the powerflow model.	
DG-MISC-21	Geospatial-Grid	n/a	Please provide the power quality equipment (e.g. tap changers and bank capacitors) locational data (GIS file).	
DG-MISC-22	Geospatial-SCE Load Data	n/a	Please provide SCE associated customer load and system AMI/meter locational data (all geospatial information and service address ID, minimum one year, preferably 3 years, in .csv/.xlsx file).	
DG-MISC-23	Geospatial-DG - PV	n/a	Please provide location and specifications of DG-PV installed and in queue for interconnection system-wide (.csv/.xlsx file).	
DG-MISC-24	Geospatial-DG - BTM & FTM Storage	n/a	Please provide location and specifications of DG battery storage installed and in queue for interconnection system-wide (in .csv/.xlsx file).	
DG-MISC-25	Geospatial-DG	n/a	Please provide location and specifications of all additional DG installed and in queue for interconnection system-wide (in .csv/.xlsx file). Specifications include nameplate capacity, tilt, azimuth, installed location.	
DG-MISC-26	Geospatial-SCADA	n/a	Please provide available geographic location of SCADA data for each transformer bank and feeder (5 years historical data, in .csv/.xlsx file).	
DG-MISC-27	Geospatial-Grid	n/a	Please provide customer class and rate structure (in .csv/.xlsx file).	
DG-MISC-28	Relational-Grid	n/a	Please provide association/relational data for circuit GIS data (e.g. line segment to feeder, line segment to line segment and how they are all tied together). Preference for all circuits within the full distribution planning area (.csv/.xlsx file).	
DG-MISC-29	Relational-Grid	n/a	Please provide association/relational data for transformer locational data (e.g. transformer to line segment or feeder ID and how they are all tied together) for primary/substation transformers and secondary/service transformers (.csv/.xlsx file).	
DG-MISC-30	Relational-Grid	n/a	Please provide association/relational data for circuit protection equipment locational data (GIS) matching powerflow model (.csv/.xlsx file).	
DG-MISC-31	Relational-Grid	n/a	Please provide association/relational data for power quality locational data (e.g. tap changers in .csv/.xlsx file).	
DG-MISC-32	Relational-Grid	n/a	Please provide association/relational data for metering/monitoring locational data (e.g. PMU, SCADA, in .csv/.xlsx file).	
DG-MISC-33	Relational-Load	n/a	Please provide AMI/meter association/relational data – (e.g. associated feeder/line segment, in .csv/.xlsx file).	
DG-MISC-34	Relational-DG - PV	n/a	Please provide association/relational data for all DG-PV installed and in queue for interconnection system-wide (in .csv/.xlsx file).	
DG-MISC-35	Time Series - Load	n/a	Please provide AMI data – 15 min intervals (kW, kWh) or hourly (8760) 3 years of historical data. Requested format is CSV, with timestamp in UTC (if in local time, please specify the timezone and daylight savings flag, or the offset from UTC) (in .csv file).	
DG-MISC-36	Time Series - Future load growth	n/a	Please provide 10 year forecast by year at the subtransmission substation and distribution substation level, often expressed as peak demand, under normal conditions and heat storm conditions (in .csv/.xlsx file).	
DG-MISC-37	Time Series - Future load growth	n/a	Please provide 10 year forecast by year at the subtransmission substation and distribution substation level, often expressed as peak demand, under normal conditions and heat storm conditions (in .csv/.xlsx file).	
DG-MISC-38	Time Series - Power flow analysis	n/a	Please provide Future known new block loads, by feeder, indicating relevant customer class (all data in forecast including assumptions made, shape of demand of buildings, magnitude of load growth,	

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			etc., in .csv/.xlsx file).	
DG-MISC-39	Time Series - DER growth forecast	n/a	Please provide 10 year DER forecast, disaggregated to circuit level or busbar level, for EV, EE, PV, AAPV, DR, and storage (in .csv/.xlsx file).	
DG-MISC-40	Time Series - SCADA	n/a	Please provide available SCADA time series data for each transformer bank and feeder (5 years historic data, in .csv/.xlsx file).	