

Southern California Edison
Circle City and Mira Loma-Jefferson PTC A.15-12-007

DATA REQUEST SET A1512007 ED-SCE-04

To: ENERGY DIVISION

Prepared by: DeShawn Spencer

Title: Engineer - Electric System Planning

Dated: 07/13/2016

Question 02:

Referencing the fifth bullet on PEA page 1-1, what substation source load is proposed to be transferred to the Circle City Substation?

Response to Question 02:

The fifth bullet on page 1-1 of SCE's PEA states "Construction of approximately six new underground 12 kV distribution getaways exiting the proposed Circle City Substation." The underground getaways are duct bank conduit systems through which distribution circuitry can be installed. When a new substation is constructed, it is typical for SCE to include the installation of getaway duct bank systems to accommodate the ultimate substation design. These are installed within the substation property and are terminated at either the first structure outside of the substation property or to the property line where they would be capped and available for future use.

SCE proposes to install four 12 kV distribution circuits as part of the initial installation and would utilize several of the getaway conduit systems to exit the substation. These four distribution circuits would initially transfer approximately 20 MVA of electrical demand to Circle City Substation from Chase and Jefferson Substations. In the years following when Circle City Substation is placed in-service, SCE would continue to transfer load from the adjacent substations to Circle City Substation as needed.

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Question 03:

Referencing the first bullet on PEA page 1-2, please identify the substation source of the relocated 33 kilovolt (kV) distribution circuit. Would the distribution load be re-connected to Circle City Substation?

Response to Question 03:

The first bullet on page 1-2 of SCE's PEA states "Relocation of approximately 1.9 miles of an existing overhead 33 kV distribution line to a new underground duct bank." As part of the construction of the proposed Mira Loma-Jefferson 66 kV Line, there is approximately 1.9 miles of an existing 33 kV distribution circuit that would be relocated from overhead to underground in order to accommodate the new 66 kV line. The substation source for the 33 kV circuit is Corona Substation and SCE's proposed project would not alter that. The distribution load served by the 33 kV circuit would remain on the 33 kV circuit and would not be served by Circle City Substation.

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Question 04:

The data indicates that Circle City Substation would have 20 megawatts (MW) of load. Would this load be supported by the six 12 kV circuits, and the 33 kV circuit?

Response to Question 04:

The initial electrical demand that would be served by Circle City Substation would be transferred from both Chase and Jefferson Substations. These transfers would occur through the use of existing 12 kV electrical facilities in conjunction with those new facilities associated with the four initially constructed 12 kV distribution circuits.

Circle City Substation would be a 66/12 kV substation and would not contain any 33 kV equipment or circuitry.

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Question 05:

The post project case indicates that Chase Substation would have a load reduction of approximately 13 MW (132 MW - 119 MW). Would this be a load transfer or departed load?

Response to Question 05:

The reduction in load at Chase Substation following the construction of Circle City Substation is due to a load transfer from Chase Substation to Circle City Substation.

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Question 06:

Would the reduction in load at Jefferson and Chase substations be due to load transfers to Circle City Substation?

Response to Question 06:

Yes, the reduction in loading at both Jefferson and Chase Substations would be a result of the load transfers to Circle City Substation.

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Question 07:

The post project case indicates that Jefferson Substation would have a load reduction of approximately 8 MW (135 MW - 127 MW). Would this be a load transfer or departed load?

Response to Question 07:

The reduction in load at Jefferson Substation following the construction of Circle City Substation would be due to a load transfer from Jefferson Substation to Circle City Substation.

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Question 08:

Please provide or identify the specific contingencies, if other than those listed in PEA Table 1-2, that cause the Mira Loma-Corona-Jefferson 66 kV line to overload, as identified in PEA Section 1.4.3 and Figure 1-4.

Response to Question 08:

There are no additional specific contingencies that cause the Mira Loma-Corona-Jefferson 66 kV line to overload other than those listed in the PEA Table 1-2 and Figure 1-4.

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Title: Title: Engineer - Integrated Grid Strategy & Engagement

Dated: 07/13/2016

Question 09:

For the purposes of screening alternatives, please provide the corresponding contingency files to run on the Positive Sequence Load Flow (PSLF) software (ver. 19) for the base cases provided.

Response to Question 09:

Please find attached the compressed file titled "A1512007ED-SCE-04Q09.zip" which contains the PSLF script and associated control file, called "Autocon2000.p" and "sce_autocon.cnt" respectively, which are used for performing contingency analysis. Additionally, please find a set of instructions as well as SCE's output files from the contingency analysis performed by SCE.

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Question 10:

Is the 2015 historical load data for the electrical needs area (ENA) substations available? If so, please provide.

Response to Question 10:

Included is an updated version of Table 1-1 on page 1-9 of the PEA. It has been updated to include the 2015 historical load data and updated forecasted load data for years 2016-2025.

Historical	2011	2012	2013	2014	2015
	All Values in MVA				
Maximum Operating Limit	420	435	435	435	435
Peak Demand - Normal Weather	377	364	369	364	371
Peak Demand - Criteria Projected	413	399	404	397	404
Reserve (Max. Oper. Limit - Criteria Proj.)	7	36	30	38	31
% Utilization (Criteria Proj. ÷ Max. Oper. Limit)	90%	84%	85%	84%	85%
	All Values in MVA				
Forecasted	2016	2017	2018	2019	2020
	All Values in MVA				
Maximum Operating Limit	435	435	435	435	435
Peak Demand - Normal Weather	375	381	387	392	398
Peak Demand - Criteria Projected	409	416	422	427	434
Reserve (Max. Oper. Limit - Criteria Proj.)	26	19	13	7	1
% Utilization (Criteria Proj. ÷ Max. Oper. Limit)	94%	96%	97%	98%	100%
	All Values in MVA				
Forecasted	2021	2022	2023	2024	2025
	All Values in MVA				
Maximum Operating Limit	435	435	435	435	435
Peak Demand - Normal Weather	405	412	423	432	433
Peak Demand - Criteria Projected	441	449	462	471	472
Reserve (Max. Oper. Limit - Criteria Proj.)	(7)	(14.3)	(27)	(36)	(37)
% Utilization (Criteria Proj. ÷ Max. Oper. Limit)	102%	103%	106%	108%	109%