

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 12:

What is the planned remedy for the overloaded 220/66 kV transformer banks at Mira Loma Substation?

Response to Question 12:

SCE uses the Positive Sequence Load Flow (PSLF) modeling software specifically for load flow analysis for its transmission and subtransmission lines. SCE does not use the PSLF software for analysis of the adequacy of capacity at its substations including the 220/66 kV transformers at Mira Loma Substation.

SCE's planning activities for substations, including the Mira Loma 220/66 kV transformer banks, do not demonstrate any overload conditions throughout the current 10-year forecast. The forecasted loading is kept to a level that is below the capacity through the planned use of the Mira Loma Peaker generator (connected to the 66 kV bus and modeled in the PSLF files) and through the planned transfer of Bain 66/12 kV Substation from the Mira Loma System to the Etiwanda System in 2022.

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Question 13:

From the base case data provided, the ENA substations (i.e., Chase, Corona, and Jefferson) indicate 436.8 MVA load in the post project case and 456.2 MVA in the pre-project case. The post project case seems to indicate the Max Operation Limit of these three substations would still be extended. It is presumed these values are the 1 in 10 or peak demand-criteria projected. Please verify.

Response to Question 13:

The pre-project total electrical demand in the ENA is the summation of the loads of Chase, Corona, and Jefferson Substations. The post-project total electrical demand in the ENA is the summation of the loads of Chase, Corona, Jefferson, and Circle City Substations. As identified from the Positive Sequence Load Flow (PSLF) load flow files, the initial load transfers from Chase and Jefferson Substations to Circle City Substation would be approximately 20 MVA. Adding this additional 20 MVA to 436 MVA (post-project) and the total is 456 MVA, or the pre-project value.

The pre-project Max Operating Limit of the ENA is 435 MVA and is the summation of the capacities of Chase, Corona, and Jefferson Substations. Following the construction of Circle City Substation, the post-project Max Operating Limit of the ENA would be approximately 508 MVA (435 MVA from existing substations + 73 MVA from the initial installation of Circle City Substation). In total, the additional capacity provided by the proposed project increase or “extends” the combined Max Operating Limit of the ENA.

SCE’s distribution substation planning forecasts utilize a 1-in-10 year heat storm as its criteria projected peak demand.

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To: ENERGY DIVISION
Prepared by: Alisa Krizek
Title: Environmental Project Manager
Dated: 07/13/2016

Question 14:

The last sentence of the second paragraph on PEA page 3-18 states that all 66 kV subtransmission line structures would be designed consistent with the Avian Power Line Interaction Committee (APLIC)'s Suggested Practices for Raptor Protection on Power Lines: the State of the Art in 2006. However the APLIC's suggested practices for raptor protection on power line was last updated in 2012. Please confirm that the proposed structures would be designed consistent with the APLIC's most recent suggested practices (i.e., 2012).

Response to Question 14:

Subtransmission facilities would be designed consistent with the Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006 (Avian Power Line Interaction Committee, 2006) where feasible. Subtransmission facilities would also be evaluated for potential collision reduction devices in accordance with Reducing Avian Collisions with Power Lines: The State of Art in 2012 (Avian Power Line Interaction Committee 2012).