

Southern California Edison
R.18-10-007 – SB 901

DATA REQUEST SET S E D - S C E - 0 0 4

To: SED
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Response Date: 3/12/2019

Question 02 a-b: How does SCE use splice data when analyzing its conductors specifically in HFRA's? For example, do the number of splices, type of splice, age of splice, proximity of splices to adjoining or adjacent splices become factors in evaluating the condition, and probability of failure of conductor segments?

- a. If so, explain how what criteria and factors are used to determine the likelihood (probability) of OHC failure?
- b. Does SCE have a threshold or benchmark based on OHC likelihood of failure which determines when a segment or length of OHC will be replaced?

Response to Question 02 a-b:

- a) SCE standards require that when a splice or splices are identified in a span during pole replacement work, the splice count and splice type be taken into account to provide additional guidance as to whether the conductor and/or splices shall be replaced. Where non-compression splices are identified and the conductor is of sufficient size to withstand peak projected load and fault duty at that location, they are typically replaced with compression splices. If multiple (more than two) splices are present on the span and/or the conductor is determined to require replacement based on forecasted peak load or expected short circuit duty, the span will be replaced with an appropriately-sized conductor in accordance with current standards.
- b) SCE utilizes peak projected load and conductor ampacity ratings along with conductor damage curves and available short circuit duty at the conductor location as the primary determination of OHC failure likelihood. Additionally, SCE relies on visual inspection by qualified electrical workers during routine overhead inspections and whenever work is being executed. Historical wire down events also tracked and used as a weighting factor to prioritize line segments that have a history of down wire events. These evaluations are augmented with splice type and count as described above to determine replacements.