

Southern California Edison
WODUP A.13-10-020

DATA REQUEST SET A.13-10-020 WODUP ED-SCE-13

To: ENERGY DIVISION
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Question ALT-25:

ALT-25 Follow-up to SCE response on ALT-18a and 19c.

In SCE response to ALT-19c.2b, Note 2 explains that the Sag/Ten report for single-conductor Drake 795 ACCR and the double-bundled Drake 795 ACCR contain the same results. In view of this statement, please clarify why the conductor evaluation table, included in the response for ALT-18a, shows violations for the double-bundle Drake 795 ACCR. Similarly, please explain why the table shows 43% clearance violations for single-conductor 1033.5 ACSR but 49% clearance violations for the double-bundle 1033.5 ACSR.

Response to Question ALT-25:

The differences on the provided sag clearance violations between the single-conductor and double-bundled configurations for both the Drake 795 ACCR and 1033.5 ACSR conductor types were due to the different limiting tension criteria applied for the structure strength evaluations, which were not expressly noted on the previous responses for ALT-18.a and ALT-19.c.

The applied conductor tensions for the single-conductor configuration were limited based on SCE allowable tension criteria (e.g. 35% of the conductor rated breaking strength at G.O. 95 Light Loading condition), which resulted in higher allowable tensions and therefore less sag than the following double-bundled configurations. For the double-bundled conductor configurations, on the other hand, the conductor applied tensions were based on the lesser of either the SCE allowable tension criteria (similar to the single-conductor case) or the existing deadend towers' phase conductor longitudinal capacities (i.e., not to exceed 12,000 lbs. per sub-conductor), which for certain spans resulted in lower allowable tensions and therefore greater sags and more sag clearance violations than the single-conductor analysis for the same conductor type.