

Southern California Edison
WODUP A.13-10-020

DATA REQUEST SET A.13-10-020 WODUP ED-SCE-07

To: ENERGY DIVISION
Prepared by: Scott Lacy, P.E.
Title: Project Engineer
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Question ALT-15.A:

Tower Relocation. In response to scoping comments, Aspen is exploring project alternatives that would alter the positions of the proposed 220 kV towers to be further from homes, but located within the existing ROW in a manner that retains adequate width in the ROW for unspecified future expansion. SCE has identified an interest in taking “reasonable measures to facilitate this expansion in the future” (previously noted in the 12/6/2013 Response to Question 02.c, during CPUC Completeness Review). Please answer the following questions:

A.) In Segments 4 through 6, the proposed towers would be located closer to homes than existing towers along the southern edge of the ROW, while retaining an empty space at least 175 feet wide from the centerline of the northernmost proposed 220 kV tower to the northern edge. What would be the minimum spacing required by SCE between a 220 kV transmission line and a 500 kV transmission line in the WOD corridor? If this depends upon whether the 500 kV line is single circuit or double circuit, please provide the spacing for both. Also, please explain if this distance depends on whether lattice steel towers or tubular steel poles are used for the 500 kV line, if so provide both.

Response to Question ALT-15.A:

The minimum spacing required between a 220 kV double-circuit structure and a 500 kV single-circuit structure is 100 feet from center-to-center, with an additional 100 feet typically required from the center of the 500 kV structure to the edge of the ROW, resulting in a total distance requirement of 200 feet from the center of the 220 kV structure to the edge of the ROW.

The minimum spacing required between a 220 kV double-circuit structure and a 500 kV double-circuit structure is 100 feet from center-to-center, with an additional 75 feet typically required from the center of the 500 kV tower to the edge of the ROW, resulting in a total distance requirement of 175 feet from the center of the 220 kV structure to the edge of the ROW.

The minimum spacing required between structures is not dependent upon structure type (TSP versus LST).

Because it is unknown at this time whether the remaining portion of the ROW would be

configured as a single-circuit or double-circuit transmission line, or even what voltage those additional facilities would ultimately be, prudent planning would leave the largest possible distance at this time, to allow for maximum line siting flexibility in the future.

Please note that the current placement of the proposed towers, and their relative distance from the southern edge of the ROW in Segments 4 and 6, have been determined based on not only the need to reserve the largest possible amount of ROW available for future expansion, but also to be placed in locations that would allow for the most efficient and safe working environment for the construction of these new towers in close proximity to the existing lines that operate through that corridor. For a majority of the ROW length in these two Segments, the two new towers can be built to completion with only one outage on the existing single-circuit tower line, which would result in the shortest construction schedule and the least amount of short-term construction impacts to the residents adjacent to these construction areas. As has been discussed in other responses, SCE anticipates that only single-line outages will be allowable by CAISO for extended periods to facilitate construction of the Proposed Project. If the new tower lines were to be redesigned farther north, to allow for added separation from the southern edge of the ROW, the construction of the northern tower would impinge within the safe working distance away from the existing double-circuit tower line that runs along the north side of Segment 6 and the center of Segment 4. The construction efforts necessary for that tower placement would therefore be significantly extended, because SCE would have to initially build the new southern tower line, string those two new circuits, and then return to the same areas again to perform similar construction activities, such as foundation construction, tower assembly and erection and line stringing, for the second (northern) tower line. Also, given that it would be more difficult to obtain the necessary double-line outages, it would be much more likely that installation of additional shoo-fly facilities would be necessary through these two Segments.

In addition to the additional construction time, moving the towers in Segments 4 and 6 would also extend the time to complete final engineering because it would require changes to the tower placement designs and all related access and stub roads, structure construction areas, and site grading activity design work. This would also impact material procurement and other critical path schedule activities. While SCE has not conducted a rigorous analysis of all of these schedule impacts and depending on the amount and extent of changes to the tower locations, it is reasonable to expect that the overall project schedule would be extended by at least 12 months.