Southern California Edison
2023-WMPs – 2023-WMPs

DATA REQUEST SET C a l A d v o c a t e s - S C E - 2 0 2 3 W M P - 0 8

To: Cal Advocates
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Response Date: 4/10/2023

Question 10:
Referring to section 7.2.2.1 Projected Overall Risk Reduction, on p.221 on your WMP, SCE states that:
As part of IWMS, SCE uses MARS to help quantify risk at a particular point of time and then to demonstrate risk reduction. Please see Figure 7-1, where SCE has projected overall risk in HFRA for the years of 2023 through 2028 (represented by the blue dots), which covers the current WMP cycle and the forecast period in SCE's 2025 General Rate Case. SCE has assumed a steady state risk level for the years of 2029 through 2032 (represented by the red dots), as SCE has not currently planned or scoped incremental mitigations after 2028, other than the replacement of retired overheard bare distribution wire with covered conductor pursuant to SCE's design standards in HFRA.
a) What specific factors contribute to the large decrease in overall utility risk from 2023 to 2024?
b) Why is the projected risk reduction from 2023 to 2024 greater than the risk reduction forecast during the targeted undergrounding period of 2026-2028?
c) What specific factors lead SCE to forecast a relatively minor reduction in overall utility risk during the active targeted undergrounding period of 2026-2028?
d) Please explain the assumptions SCE made regarding the steady-state risk level for the years 2029-2032, particularly SCE's assumptions regarding the implementation of targeted undergrounding, covered conductor, and other mitigation measures during this period.
e) Does the replacement of retired overhead bare distribution wire with covered conductor in HFRA after 2028 indicate a shift in SCE's priorities or a change in the expected effectiveness of targeted undergrounding?

Response to Question 10:

a) What specific factors contribute to the large decrease in overall utility risk from 2023 to 2024?

a) A large portion of the risk reduction from 2023 to 2024 displayed in Figure 7-1 occurs in the highest risk circuits, all of which are scoped for covered conductor. Three of these circuits are also scoped for REFCL.

   SCE also notes that the calculations for Figure 7-1 use the MARS Framework, which does not account for risk factors such as egress. As discussed in Section 7.1.4.2, SCE has transitioned to scoping based on the three risk tranches developed under the IWMS Risk Framework, which is related to but distinct from the MARS methodology shown in Table 7-2.

b) Why is the projected risk reduction from 2023 to 2024 greater than the risk reduction forecast

during the targeted undergrounding period of 2026-2028?

b) Please see the response to part a) for additional details on the risk reduction from 2023 to 2024.

SCE has scoped approximately 520 underground miles for 2026-2028, which will target the undergrounding of lines where factors such as limited egress, terrain or fuel can create conditions that are difficult for most mitigations, except for undergrounding, to address without leaving a substantial amount of residual public safety risk. Figure 7-1 shows total risk for SCE's entire HFRA, which covers approximately 9,600 circuit miles. The 520 underground miles represent approximately 5% of all 9,600 HFRA miles. Even considering the high risk reduction effectiveness of targeted undergrounding and need for it in the locations where it is deployed, the scale of SCE's deployment of targeted undergrounding represents a small portion of all HFRA circuit miles. Hence in charts such as Figure 7-1, covered conductor—which SCE has scoped for 2,850 miles over the WMP period—shows a larger impact than targeted undergrounding.

c) What specific factors lead SCE to forecast a relatively minor reduction in overall utility risk during the active targeted undergrounding period of 2026-2028?

c) Please see the responses to parts a) and b) for explanations of why the curve reduces relatively more from 2023 to 2024, and then exhibits a more gradual slope through 2028. SCE also reiterates its discussion on mitigation selection and prioritization in Section 7.1.4.2. The risk data in Figure 7-1 uses the MARS methodology, which is a function of both risk probability and risk consequence. In contrast, SCE's IWMS Risk Framework is focused on consequence (see Section 6.2.1.2). Because of this difference, a given circuit may have a lower MARS score (i.e., high consequence but low probability) yet still be identified for potential undergrounding or covered conductor via the IWMS Risk Framework due to high consequence.

d) Please explain the assumptions SCE made regarding the steady-state risk level for the years 2029-2032, particularly SCE's assumptions regarding the implementation of targeted undergrounding, covered conductor, and other mitigation measures during this period.

d) SCE has assumed a steady state risk level for the years of 2029 through 2032 (represented by the red dots), as SCE has not currently planned or scoped incremental mitigations after 2028, other than the replacement of retired overheard bare distribution wire with covered conductor pursuant to SCE's design standards in HFRA.

e) Does the replacement of retired overhead bare distribution wire with covered conductor in HFRA after 2028 indicate a shift in SCE's priorities or a change in the expected effectiveness of targeted undergrounding?

e) The replacement of retired overhead bare distribution wire with covered conductor in HFRA does not represent a shift in SCE's priorities. SCE's design standards require covered conductor when replacing bare wire in HFRA. Targeted undergrounding is scoped based on SCE's IWMS Risk Framework, as described in WMP Section 7.1.4.2 (page 204).