

Southern California Edison
2022-WMPs – 2022 Wildfire Mitigation Plan Updates

DATA REQUEST SET O E I S - S C E - 2 2 - 0 0 8

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Question 04:

Covered conductor risk

a. In Table 5.3-1 of SCE's 2022 WMP Update, SCE lists that 50% of the covered conductor work in 2022 will be completed in the top 25% of risk. Describe where the remaining 50% of work will be completed, and why only 50% is being completed in the top 25%.

Response to Question 04:

Below is the breakdown for the 2022 covered conductor scope at different risk percent:

Target % for Top 25% Relative Risk	Target % between 25% and 50% Relative Risk	Target % between 50% and 75% Relative Risk	Target % bottom 25% Relative Risk
50%	26%	11%	13%

As can be seen from the table above, 76% of SCE's covered conductor scope in 2022 is targeted to the top 50% of relatively risky circuit segments based on outputs of the risk model. The balance of covered conductor work is installed pursuant to many of the reasons identified below. SCE notes that while a small minority of its 2022 scope addresses some less *relatively* risky circuit segments, these circuit segments still present *absolute* (e.g., quantity of acres burned or structures impacts) wildfire risk and must be hardened at some point in time.

SCE's 2022 covered conductor scope is not entirely in the top 25% relative riskiest circuit segments due to operational and practical considerations. SCE planned the majority of its 2022 covered conductor scope using its Wildfire Risk Reduction Model (WRRM) which calculates risk by multiplying the probability of ignition (POI) with the consequence at each pole.¹ SCE took these risk scores and aggregated them to the circuit segment level. A circuit segment includes the poles between transformers or switches, and is generally 3-5 spans.

To avoid a piecemeal approach that would result in multiple crew deployments and/or outages to a given area, a covered conductor project will often bundle multiple circuit segments into a single overall project. While the circuit segments in the same area generally have a similar consequence

¹ SCE scoped more circuit segments than it forecasts it will complete in 2022 due to permitting, customer constraints, and other issues. The scope that is not completed in 2022 will roll over to 2023.

score, their POI can vary to a greater degree. Accordingly, there can be lower risk circuit segments mixed in with higher risk circuit segments. It would not be prudent to avoid installing covered conductor on these lower risk circuit segments, because while they may be lower risk on a relative basis, they are still risky on an absolute basis and need to be hardened. By hardening them alongside the higher risk segments, SCE avoids the higher costs of sending out crews multiple times to the same area as well as reduces the burden to customers in the form of less outages.

SCE will also install covered conductor on circuit segments frequently impacted, or expected to be impacted, by PSPS. These circuit segments will not necessarily be in the top 25% relative riskiest circuit segments as determined by WRRM from a wildfire risk perspective, but as noted above, these circuit segments are within the overall population of high-risk circuits and must be hardened to mitigate the impacts of PSPS.

In addition, in the field, operational reasons can factor into a decision to install covered conductor beyond the particular circuit segment explicitly identified by the wildfire risk analysis. For example, to adhere to construction methods, SCE prudently extends covered conductor installation to the next contiguous structure with equipment or the next structure that is a dead-end, even if those structures are outside of the range of the initial scoping predicted by the risk model.

Pole loading is another operational consideration when installing covered conductor. The extra weight and the associated wind loading of covered conductor becomes a concern where it meets with a bare conductor, which can in turn require guying. In many cases, guying can be challenging if there is a lack of locations for the guying, easement requirements, etc. Hence it may be necessary to extend the installation of covered conductor to a point where there is sufficient space for a guy wire or to extend to a location where a guy wire is not needed.

Finally, given the long and variable lead times for covered conductor, different versions of SCE's WRRM were used to scope portions of SCE's 2022 scope. SCE selected the most recent version used to determine 2022 scope to develop the table above. As each new version of the risk model incorporates updated data and assumptions, the risk ranking of circuit segments can change. However, because it takes ~16-24 months for covered conductor to be installed (from scoping to completion), it is not practical or reasonable to continuously adjust the scope of covered conductor deployed based on the outputs of the latest risk model version.