

Southern California Edison
2025-WMPs – 2025-WMPs

DATA REQUEST SET Cal Advocates - SCE - 2025 WMP - 05

To: Cal Advocates
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Response Date: 4/12/2024

Question 04:

Required Progress Item #2 for ACI SCE-23-09 is:

Provide an analysis demonstrating its process for the selection of undergrounding projects, which must include:

- Location-specific ignition driver analysis.
- Location-specific undergrounding effectiveness compared to combinations of mitigations (such as covered conductor, early fault detection, falling conductor protection, other added protection, and sensitive relay profile).
- Developing an estimate of the cumulative risk exposure of its mitigation initiative portfolio taking into account the time value of risk as part of mitigation comparisons.
- PSPS risk when choosing mitigations and locations, including supporting materials for how PSPS risk was calculated (such as frequently deenergized circuits selected for undergrounding).¹²

SCE states in response to Required Progress Item #2 that its Integrated Wildfire Mitigation Strategy (IWMS) takes into account location-specific drivers, as after the initial IWMS tranche assignment SCE subject matter experts “review local ignition drivers such as vegetation, windspeeds and equipment, and also consequence drivers such as fuel load, population proximities, and terrain.”¹³

- a) Does SCE’s IWMS quantitatively take into account local ignition drivers?
- b) If yes, please explain how.
- c) If no, please explain why not.
- d) How do SCE’s subject matter experts determine what the “local ignition drivers” are at a particular location and how important or significant each one is?
- e) How do SCE’s subject matter experts determine what the “consequence drivers” are at a particular location and how important or significant each one is?

¹² SCE 2025 WMP Update at 62

¹³ SCE 2025 WMP Update at 62

Response to Question 04:

a) Does SCE's IWMS quantitatively take into account local ignition drivers?

SCE uses IWMS to prioritize and determine frequency of interim mitigations such as asset and vegetation inspections. As part of this process, SCE uses its probability of ignition (POI) models, which quantitatively consider local risk drivers. For longer-term mitigations such as covered conductor and undergrounding, IWMS does not use the outputs of POI models given that they fluctuate year to year based on asset conditions.

b) If yes, please explain how.

Please see response to part a).

c) If no, please explain why not.

SCE relies on a careful examination of risk drivers by a team of subject matter experts (SMEs) that includes experts in fire science, risk management, and engineering. While SCE considers the same risk drivers within its POI models, SCE does not rely on them directly given that they fluctuate year to year based on asset conditions (e.g. asset age). For mitigations that have a useful lifespan of 45 years or more, SCE determined that it was prudent to assess these on a qualitative basis, where SME judgment and experience can determine which drivers are likely to be long term fixtures and factor significantly into the risk of catastrophic fire.

d) How do SCE's subject matter experts determine what the "local ignition drivers" are at a particular location and how important or significant each one is?

As stated in SCE 2025 WMP Update (p. 62), "a team of SMEs from SCE's Wildfire Safety, Fire Science, Enterprise Risk Management, and Engineering groups reviews, refines, and revises the initial output from the previous step using inspection photographs, satellite imagery, maps, and other data sources to consider local conditions, as well as the presence of local drivers, which may alter the initial designation. During this process, they review local ignition drivers such as vegetation, windspeeds and equipment, and also consequence drivers such as fuel load, population proximities, and terrain."

Generally, when the team of SMEs review a project for undergrounding, the SMEs perform a detailed review of location-specific drivers that could not be mitigated with covered conductor. For example, in evaluating undergrounding in Severe Risk Areas, the presence of heavy trees near SCE's distribution lines could mean that covered conductor would not mitigate a heavy limb flying into the line or having a heavy tree fall onto the line. Or, having poles nearby a road in a Severe Risk Area means that even with covered conductor, the poles could be subject to being hit by a car. There is not a one-size-fits-all criteria or quantification of the significance of the drivers, but the team of SMEs spend thousands of hours reviewing locations targeted for undergrounding.

Please see attached “*CalAdvocates-SCE-2025WMP-05-04_TUG One Pager.pdf*” with a few examples of SCE’s review of locations targeted for undergrounding.

e) How do SCE’s subject matter experts determine what the “consequence drivers” are at a particular location and how important or significant each one is?

The IWMS model output is mainly consequence based (e.g., egress constrained location where people or a community has limited evacuation routes in a fire, the acres of damage that could result in a fire, circuits needing to be PSPS in an extreme wind event, etc.). Similar to the response to part (d), SCE’s team of SMEs spend thousands of hours reviewing location-specific consequence drivers such as fuel, population proximity and terrain. All of these factors contribute to the way in which wildfires may propagate across the landscape, which may not be fully encapsulated within metrics such as fire size, namely how immediate people and/or structures could be potentially impacted.

Please see attached “*CalAdvocates-SCE-2025WMP-05-04_TUG One Pager.pdf*” with a few examples of SCE’s review of locations targeted for undergrounding.