

Southern California Edison
2023-WMPs – 2023-WMPs

DATA REQUEST SET Cal Advocates - SCE - 2023 WMP - 08

To: Cal Advocates
Prepared by: Eric X Wang
Job Title: Sr. Manager
Received Date: 4/5/2023

Response Date: 4/10/2023

Question 13:

Referring to section 8.1.2.1.1 Covered Conductor, on p.253 of your WMP, SCE states that: In 2022, the main driver of secondary ignitions was Equipment/Facility Failure [EFF] in approximately 70% of cases, followed by CFO in approximately 15% of cases. SCE estimates a small portion of its secondary system (10%) is still bare open wire and weather resistant aluminum which are outdated technology. SCE plans to replace these in the coming years.

- a) What are the primary causes of equipment/facility failure (EFF) in secondary ignitions?
- b) How does SCE plan to address the causes identified in response to the previous part, to further reduce the risk of wildfire ignitions?
- c) Please provide an estimate of the expected reduction in ignitions or improvement in overall wildfire safety that will result from upgrading open wire secondaries and weather-resistant aluminum conductors to multiplex conductors.
- d) How effective have SCE's enhanced vegetation management measures been in reducing the number of secondary ignition events or mitigating their impact?
- e) Please provide any available data, analyses, or case studies regarding the effectiveness of enhanced vegetation management at mitigating secondary ignitions.
- f) How effective have SCE's enhanced inspection measures been in reducing the number of secondary ignition events or mitigating their impact?
- g) Please provide any available data, analyses, or case studies regarding the effectiveness of enhanced inspections at mitigating secondary ignitions.
- h) Please describe SCE's timeline and prioritization plan for the replacement of the remaining 10% of secondary system lines that consist of bare open wire and weather-resistant aluminum.

Response to Question 13:

a) What are the primary causes of equipment/facility failure (EFF) in secondary ignitions?

Based on SCE's Fire Investigation Preliminary Analysis (FIPA) analysis, the primary causes of equipment/facility failure (EFF) in secondary ignitions are conductor or connector failures.

b) How does SCE plan to address the causes identified in response to the previous part, to further reduce the risk of wildfire ignitions?

As SCE has stated in its WMP (page 756), SCE added questions to the inspection survey in Q2 of 2021 (e.g., copper vise connector, no non-exempt connector present) to capture potential secondary conductor or connector failures. Additional training was provided to Electrical System Inspectors

(ESI) not only on the inspection form but on the specific issues to look for while performing the inspections, such as damaged secondaries. Also, as stated on pp. 252-253, SCE modified its covered conductor design standard to include the replacement of open wire secondary or weather-resistant aluminum (OWS or WAL) with multiplex secondary conductors. This change will be incorporated into the Wildfire Covered Conductor Program (WCCP) construction starting in 2024. Multiplex secondary conductor is insulated conductor that provides additional wildfire mitigation benefits compared to OWS and WAL and will be updated to the new standard when WCCP is installed. Additionally, in the third quarter of 2020, SCE implemented a requirement to tape exposed secondary connectors.

c) Please provide an estimate of the expected reduction in ignitions or improvement in overall wildfire safety that will result from upgrading open wire secondaries and weather-resistant aluminum conductors to multiplex conductors.

The expected reduction in ignitions depends on the scope and timing of the replacements. Overall, based on the SME input as well as the historical drivers of secondary conductors, the mitigation effectiveness is estimated at about 65% for ignitions related to secondary systems.

d) How effective have SCE's enhanced vegetation management measures been in reducing the number of secondary ignition events or mitigating their impact?

In 2022 SCE launched a targeted secondary vegetation inspection program. This program inspected approximately 1,000 secondary structures and perform trimming as necessary. SCE has not seen vegetation-related ignitions at those locations where the work was performed.

e) Please provide any available data, analyses, or case studies regarding the effectiveness of enhanced vegetation management at mitigating secondary ignitions.

See response to part (d).

f) How effective have SCE's enhanced inspection measures been in reducing the number of secondary ignition events or mitigating their impact?

Since SCE added questions to the inspection survey in Q2 of 2021, there has been an increase in inspection repair notifications from 4,502 in 2021 to 8,322 in 2022 related to secondary conductors. Preliminary analysis shows that the decrease in secondary ignitions which has a negative correlation with the increase of secondary inspection repair notifications. Or more simply put, as more secondary-related repair notifications have been created and associated repairs performed, there has been a decrease of secondary related ignition correspondingly.

g) Please provide any available data, analyses, or case studies regarding the effectiveness of enhanced inspections at mitigating secondary ignitions.

Please see the response to part f.

h) Please describe SCE's timeline and prioritization plan for the replacement of the remaining 10% of secondary system lines that consist of bare open wire and weather-resistant aluminum

Secondary replacements would follow the prioritization of the Wildfire Covered Conductor Program and will be replaced if the connected primary is in scope for CC.