

Southern California Edison
2023-WMPs – 2023-WMPs

DATA REQUEST SET O E I S - P - W M P _ 2 0 2 3 - S C E - 0 0 3

To: Energy Safety
Prepared by: Jonathan Brownstein
Job Title: Manager
Received Date: 5/11/2023

Response Date: 5/16/2023

Question 07:

Regarding SCE's Use of Fast Curve Settings:

- a. Provide the following data for all outages experienced in 2023 on circuits with fast curve settings enabled via Excel:
 - i. Circuit impacted by outage
 - ii. Circuit segment impacted by outage
 - iii. Cause of outage (in line with QDR Table 6 drivers)
 - iv. Number of customers impacted
 - v. Number of customers belonging to vulnerable populations (such as Access and Functional Needs, Medical Baseline, and Social Vulnerability Index) impacted
 - vi. Duration of outage
 - vii. Response time to outage
 - viii. Customer minutes

Response to Question 07:

SCE interprets Question 7 to request outage data in the first quarter of 2023 for distribution circuits with fast curve capability when fast curve settings were activated and where the fault could have been detected by the fast curve settings. Please see the file titled "*Outages_FC_Installed_Circuits_2023_DR.xlsx*" for the requested information.

SCE's data shows that installation of Fast Curve settings has not affected reliability, as there has been no increase in unplanned outages on Fast Curve-enabled circuits overall in the five years since SCE began deployment of this wildfire mitigation tool, as compared to historical outage data for these circuits.¹ Unplanned outages occur for a variety of reasons (e.g., faults due to animal or vegetation contact) and cannot be causally linked to the operation of fast curve settings. Based on available SCE data, these types of outages would have occurred with or without Fast Curve settings due to hazards beyond SCE's control. The main difference is quicker reaction time to a fault and enhanced public safety. Consequently, the fact that fast curve settings were activated when an

¹ Most Fast Curve-enabled circuits experienced no increase in outages after deployment of Fast Curve Settings as compared to historical average outage count (2015-2017), with a majority of the circuits experiencing fewer outages. For the remainder, no association between outages and Fast Curve settings has been established.

outage occurred does not mean that the outage is caused by the operation of fast curve settings.

SCE uses protection settings on protective devices, such as circuit breakers at substations or remote-controlled automatic reclosers on poles, across its entire electric system to maintain the reliability of power and prevent damage to equipment caused by an electrical disruption or fault, such as a metallic balloon getting caught in a power line. Protective devices detect and respond to fault conditions to prevent a potentially more dangerous and uncontrolled reaction. Fast Curve settings reduce the response time of protective devices and turn off power faster when an electrical disruption or fault is detected on SCE's system as compared to normal operating conditions. This difference in response timing further reduces ignition potential and thus wildfire risk.

SCE's outage data does not associate outages with specific circuit segments. Instead of "Circuit Segment," SCE provides "Restoration Location," meaning the section of the circuit that was used to re-energize customers once repairs were completed.

SCE has provided the data on Critical Care Customers, as SCE does not have a formal definition for vulnerable customers. These values represent customers on the entire circuit and can overestimate the number of customers impacted by outages in cases when the outage is on a localized portion of the circuit and does not impact the entire circuit.

Data for response time to an incident is not readily available, as SCE does not track arrival time of the crew for instances not involving hazard conditions such as 911 or wire down calls.