

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

DATA REQUEST SET Cal Advocates - SCE - 2022 WMP - 15

To: Cal Advocates
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Job Title: Senior Engineer
Received Date: 6/29/2022

Response Date: 7/14/2022

Question 03:

- a) Please state whether (in 2022) SCE plans to coordinate protective devices with fuses' time overcurrent curves, or plans on operating protective devices in a fuse-saving mode (i.e. the recloser/circuit breaker trips before the fuse operates) while fast curve settings are in effect.
- b) Please explain the reasoning for SCE's choice(s) in part (a) of this question.

Response to Question 03:

- a. SCE's phase and ground Fast Curves are set to provide selective coordination time interval with downstream main line or branch line fuses.
- b. The reason SCE has elected to coordinate with downstream fuses is to provide better circuit reliability. By allowing the fuse to operate first before the next upstream protective device, fewer customers will be deenergized.

The use of Current Limiting Fuses also reduce the fault energy for short circuits downstream of the fuse. When the fault current is greater than the current limiting rating, the fuse design will actively limit the current and the fuse can clear the fault quickly. This limits the overall energy of a fault, which causes less damage to the conductors and line equipment and provides for a fast clearing of the fault. Current Limiting Fuses are also designed to prevent the release of hot or burning material when clearing a fault. The fast clearing times and current limiting capabilities can provide coordination with upstream Fast Curve settings to provide customer electric service reliability.