Southern California Edison

WSD-011 – Resolution implementing the requirements of Public Utilities Code Sections 8389(d)(1), (2) and (4) related to catastrophic wildfire caused by electrical corporations subject to the Commission's regulatory authority

DATA REQUEST SET C a l A d v o c a t e s - S C E - 2 0 2 1 W M P - 0 1

To: Cal Advocates
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Received Date: 1/15/2021

Response Date: 2/11/2021

Question 009:
Regarding your PSPS circuit modeling capabilities:
a) Please describe your present circuit modeling capabilities with regard to PSPS thresholds ("PSPS circuit modeling capabilities"), including with what level of granularity they are able to determine how circuit hardening efforts or other changes to a line segment will affect PSPS thresholds.
b) Please describe any improvements to the present PSPS circuit modeling capability that you expect to enact in 2021.
c) Please describe the expected state of your PSPS circuit modeling capabilities at the conclusion of the 2020-2022 WMP cycle.

Response to Question 009:
a) Please generally see Chapter 8 of SCE's 2021 WMP Update that describes our PSPS practices and directional vision. SCE presently generates a circuit-specific PSPS de-energization threshold for each circuit that will be in scope for an upcoming event. These de-energization thresholds are created before every event because they take into account the latest information regarding a particular circuit's condition (e.g., wind-exacerbated maintenance items, load rolls that have affected circuit topology, deployed mitigations like covered conductor installation, etc.).

SCE uses this information to guide field patrol resources to verify circuit conditions and provide the latest situational awareness to the Emergency Operations Center before, during and after PSPS events. Please also see Section 8.2.2 in SCE's 2021 WMP Update which discusses additional variables used to guide PSPS decision making.

b) SCE currently generates one PSPS de-energization threshold for each circuit, but seeks to minimize de-energization footprints where possible, should certain isolatable segments not exceed that threshold. Please see Section 8.1.2 in SCE's 2021 WMP Update that includes PSPS expectations in 2021 and through the plan period. Please also see SCE's corrective action plan related to its PSPS program pursuant to CPUC President Marybel Batjer's letter issued January 19, 2021, in R.18-12-005, that will be filed on February 12, 2021.

c) As described in Section 8.1.2 in its 2021 WMP Update, SCE plans to assess the feasibility of replacing the current methodology for setting PSPS thresholds and triggers with a dynamic, machine-learning model that derives circuit thresholds and triggers. SCE began the development of this model in 2020 and will perform rigorous analysis and validation in 2021. Assuming final verification and successful side-by-side testing of the new model against SCE's current algorithm, SCE will gradually integrate this new data model into its situational awareness tools.

Once implemented, this new threshold modeling capability should allow SCE to create thresholds for all HFRA circuits based on asset-level data for probabilities of contact from foreign object or equipment failure.