PACIFIC GAS AND ELECTRIC COMPANY
Wildfire Mitigation Plans
Rulemaking 18-10-007
Data Response

PG&E Data Request No.:	CalAdvocates_035-Q09		
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PG&E Witness:		Requester:	Matthew Yunge, PE

QUESTION 09

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.

ANSWER 09

a) PG&E does not forecast PSPS on a circuit level for distribution scope. PG&E's PSPS process uses meteorology weather models and fire probability models at their native 2 x 2 km granularity to highlight locations and sections of circuits that have concurrence of an increased probability for large fires and increased probability of wind-related outage on PG&E's system. PG&E describes these models, including their granularity, in section 4.2.A of P&E's 2021 WMP Filing – note, all additional section references in this response are for the 2021 WMP Filing. On the transmission system, PG&E forecasts its transmission PSPS guidance at each transmission structure instead of by line level.

For 2020, transmission lines were also scoped into PSPS when the transmission vegetation risk index was exceeded on lines that would experience gusty winds. LiDAR data for transmission is captured annually, providing up-to-date vegetation data for PSPS decision-making. This data is used to develop the vegetation LiDAR Risk Score Model, described in section 7.3.5.8, which informs the PSPS transmission line scoping process, described in section 8.2.2.

At present, PG&E has not yet quantified adjustments to current PSPS guidance for locations that have been hardened or where enhanced vegetation management has been performed. PG&E is evaluating the performance of these areas during wind events to help quantify and justify any adjustments to PSPS guidance.

PG&E uses models to provide insights for the System Hardening and Enhanced Vegetation Management programs. Information about these models can be found in section 4.5.1 and the current plan for covered conductors can be found in section 7.3.3.17.1.

b) In 2021, PG&E is assessing how to incorporate the presence of known, high risk vegetation conditions adjacent to powerlines into PSPS decision making. This assessment may result in PG&E executing PSPS in 2021 for powerlines where high priority vegetation tags have been identified, including on lines that may not have met the 2020 PSPS event criteria. For further information about the methodology that PG&E uses for PSPS see generally section 4.2.A. In addition, PG&E plans on potentially including fire spread modeling from Technosylva into current fire probability models, described in section 7.3.2.4.

c) PG&E has provided extensive plans for PSPS modeling throughout the 2021 WMP. Please see sections 4.5.1, 8.1 and 8.3 for more details.