

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

PG&E Data Request No.:	WSD_010-Q11		
PG&E File Name:	WildfireMitigationPlans_DR_WSD_010-Q11		
Request Date:	March 15, 2021	Requester DR No.:	WSD to PGE – Data Request – 20210315
Date Sent:	March 18, 2021	Requesting Party:	Wildfire Safety Division
PG&E Witness:		Requester:	Ryan Arba

QUESTION 11

PG&E does not utilize a separate RSE for each grid hardening measure, but instead utilizes one RSE for its System Hardening Program (e.g. in Table 12, Covered Conductor Installation does not have an RSE, but instead references the System Hardening Program). Regarding the PG&E's RSE calculations found in Table 12 for its System Hardening Program:

- a. How is this RSE value calculated? Provide a breakdown on how PG&E determined the reduction in risk for system hardening, including specifically covered conductor, and how PG&E determined the RSE based on that risk reduction value. Include all appropriate work papers and inputs into the final value.
- b. What is the risk reduction value for covered conductor? Include all appropriate work papers and inputs into the final value.
- c. How confident is PGE regarding the accuracy of the RSE value for System Hardening? Explain the rationale behind the confidence given there is no current verification methodology for any RSE calculations according to Capability 41c of the 2021 Maturity Survey.

ANSWER 11

- a. The RSE value for system hardening is determined by calculating the Risk Reduction divided by the cost of the program. The methodology for calculating the RSE value and the Risk Reduction value is described in the 'RSE Lite Tool Methodology' as part of the workpaper package of '2021WMP_Section7.3_Atch01'. Specifically, for covered conductor, PG&E utilizes the effectiveness at the sub-driver level as described in the 2020 RAMP Report, and the associated inputs and outputs can be seen in workpaper 'ERRATA_7.3.3_RSE Input Template_EO_WLDFR.xlsm'. As additional reference, attached also is the workpaper from 2020 RAMP Report 'EO-WF-25_Mitigation Effectiveness WP.xlsx', where in tabs 'M2 | Summary Analysis' and 'M2 | SME Input' details the review of each combination of basis cause, supplemental cause, failed/involved equipment and condition to arrive at effectiveness.
- b. The risk reduction calculation does not reflect specific projects but is instead prepared at a portfolio level and represents the 30 year net present value

discounted back to the installation year. Based on the number of miles expected to be performed each year, the calculated risk reduction value for covered conductor is 2,386 (2020), 1,134 (2021), and 2,747 (2022). The risk reduction value for RSE accounts for long term mitigation benefits, discounted over time. The methodology for calculating the risk reduction value is described in 'RSE Lite Tool Methodology' as a part of the workpaper package of '2021WMP_Section7.3_Atch01'.

- c. PG&E conducted a thorough review of over 3,000 historical failure combinations to determine the potential effectiveness of the program. As PG&E deploys System Hardening across our HFTD territory, verification of effectiveness based on data on those miles will increase the confidence of the effectiveness of the program.

Capability 41c of the maturity survey looks at whether initiatives portfolio-wide can be verified with historical or experimental pilot data. We will not be able to verify our portfolio of initiatives with historical or experimental data because for some initiatives such as Community Engagement, we will not have historical or experimental data, which is the basis for our response to Capability 41c in the maturity survey. However, for a specific program like System Hardening, as compared to the entire portfolio, RSEs are expected to be verified by data gathered from the implementation of the program.