PACIFIC GAS AND ELECTRIC COMPANY
Wildfire Mitigation Plans Discovery 2023
Data Response

PG&E Data Request No.:	TURN_001-Q001		
PG&E File Name:	WMP-Discovery2023_DR_TURN_001-Q001		
Request Date:	April 4, 2023	Requester DR No.:	TURN-PG&E- 1
Date Sent:	April 7, 2023	Requesting Party:	The Utility Reform Network
DRU Index #:		Requester:	Tom Long

SUBJECT: ACI PG&E-22-34

QUESTION 001

Regarding ACI PG&E-22-34, which found that "PG&E's current process of prioritizing wildfire mitigations assigns a high priority to undergrounding and does not demonstrate adequate weight to risk model outputs or RSE estimates" and which detailed the showing that PG&E must make in this WMP to show the required progress:

a. Does PG&E's 2023-2025 WMP or supporting documentation provide a comparison of the RSEs (either at a tranche level or more aggregated level) for undergrounding compared to the RSEs of alternative mitigation techniques, such as covered conductor?

   i. If so, please provide the relevant citations, identifying the specific content that provides this information by page number and specific paragraphs, tables or figures (i.e., not just a multi-range page citation).

   ii. If so, please describe what PG&E believes those RSE comparisons demonstrate.

b. Referring to the third bullet under "Required Progress" on page 968 of PG&E's WMP, does PG&E's 2023-2025 WMP explain how PG&E incorporates RSE estimates and risk model outputs that compare undergrounding with alternative mitigation techniques, such as covered conductor, at a project level early in the decision-making process, to allow PG&E to adjust the scope and pace of PG&E's undergrounding program as necessary based on the analyses performed?

   i. If so, please provide the relevant citations, identifying the specific content that provides this information by page number and specific paragraphs, tables or figures (i.e., not just a multi-range page citation).

   ii. Whether or not this information is provided in PG&E's 2023-2025 WMP, please state whether, and if so, how PG&E incorporates RSE estimates and risk model outputs that compare undergrounding with alternative mitigation techniques, such as covered conductor, at a project level early in the decision-making process. Please provide all documents showing that this comparison of RSE estimates and risk model outputs is included in PG&E's decision-making process.

c. Please explain whether and, if so, how PG&E's quantitative analysis takes into account the PSPS risk for a particular location when deciding whether to undertake an undergrounding project or an alternative mitigation technique in that location. For example, all other things being equal, does undergrounding fare worse in the quantitative analysis for a location deemed to have no or low PSPS risk compared to a location deemed to have high PSPS risk, and, if so, how is this difference in PSPS risk reflected in the quantitative analysis? Please provide all documents showing how PSPS risk is included in PG&E's decision-making process for whether undergrounding or another mitigation technique is used for a particular location.

d. The first paragraph on page 969 states: "For instance, on average, it takes 1.25 UG install miles to replace 1 OH mile."

   i. Please explain how this average was calculated, including an identification of the undergrounding projects (identified by date and location) on which the calculation was based.

   ii. Please provide all supporting data for this statement, in Excel workbook format.

e. Regarding the Simplified Wildfire Risk Spend Efficiency (SWRSE) measure discussed on page 969 (second paragraph) of PG&E's 2023-2025 WMP:

   i. Does this measure allow comparisons of the cost effectiveness of undergrounding projects with other alternative mitigation techniques?

   ii. If the answer to "i" is yes, please explain how SWRSE allows comparisons among alternative mitigation techniques.

ANSWER 001

a) No, PG&E's 2023-2025 WMP does not provide a comparison of the RSEs for undergrounding compared to the RSEs of alternative mitigations. However, this information, RSEs at the tranche and aggregated level for wildfire mitigations including undergrounding, is provided in PG&E's 2023 General Rate Case – in response to Energy Division data request ED_001.

b) Yes, the 2023 WMP explains how PG&E performs this analysis. PG&E evaluated the outputs from its Wildfire Distribution Risk Models (WDRM) to determine the highest risk miles in its service territory. The primary approach for selecting system hardening miles used two risk prioritization methodologies: (1) the top 20 percent of circuit segments based on the 2021 WDRM v2; and (2) the Wildfire Feasibility Efficiency (WFE) ranked circuit segments based on the 2022 WDRM v3.

   PG&E uses the Simplified Wildfire RSE (SWRSE) or WFE in evaluating undergrounding projects. The SWRSE includes the components of the RSE, including wildfire risk and cost.

   In executing the system hardening program, PG&E first uses a scoping criterion that identifies the highest risk areas, and then selects the appropriate risk mitigation approach for that circuit which may include undergrounding, remote grid installation, line removal, or overhead hardening (depending on the local

circumstances). Since late 2021, PG&E has prioritized undergrounding as the preferred approach to reduce the most system risk. Once a circuit is selected for undergrounding, PG&E evaluates each proposed circuit segment quantitatively and qualitatively to mitigate the maximum amount of risk and evaluate feasibility and executability.

i. Please see Section 8.1.2.1, page 339, Overview of the Activity and Section 8.1.2.2, p. 342-343, Overview of the Activity for the requested information.

ii. PG&E does not have documentation comparing different mitigation alternatives at the project level. PG&E uses the Simplified Wildfire RSE (SWRSE) or Wildfire Feasibility Efficiency (WFE) in evaluating undergrounding projects. The SWRSE includes the components of the RSE including wildfire risk and cost. PG&E uses the SWRSE to identify where it can most efficiently reduce risk given the terrain feasibility at a particular location.

c) We currently do not use the PSPS risk in our quantitative decision-making when deciding whether to undertake an undergrounding project or an alternative mitigation. However, when evaluating potential undergrounding locations, PG&E considers project locations that would reduce PSPS customer impacts and may adjust project scope to further address PSPS impacts.

d) i. The original estimated conversion of overhead to underground mileage was based on subject matter expertise. We currently do not track at scale the overhead miles removed and replaced through undergrounding. Based on a manual review of 19 projects completed in 2022, we removed approximately 12.7 overhead miles and replaced them with 16.3 underground miles. Based on this subset of data, which is generally consistent with our overall portfolio, the conversion factor from overhead to underground is 1.3.

ii. Please see attachment 'WMP-Discovery2023_DR_TURN_001-Q001_Atch01' for the requested information.

e) i. No, the SWRSE measure helps PG&E to evaluate construction feasibility of undergrounding projects.

ii. Not applicable, please see the response to subpart (i) above.