

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

PG&E Data Request No.:	TURN_011-Q004		
PG&E File Name:	WMP-Discovery2023_DR_TURN_011-Q004		
Request Date:	May 1, 2023	Requester DR No.:	TURN-PG&E-11
Date Sent:	May 8, 2023	Requesting Party:	The Utility Reform Network
DRU Index #:		Requester:	Tom Long

SUBJECT: SYSTEM HARDENING/RISK ASSESSMENT

QUESTION 004

Regarding Attachment 2023-04-06_PGE_2023_WMP_R2_Section 6.4.2_Atch01, an earlier version of which is referenced on page 195, fn. 77 of the WMP (R1):

- a. Please add a column to this spreadsheet and provide the unique circuit segment identifier requested in 1(b)(i) above and 2(a) and 3 above.
- b. In Excel, please provide all supporting data and properly link cells in this spreadsheet to support the “mitigated risk” calculations in tab “Data_RR” (columns L, O, R, and U for undergrounding). Many of them link to documents on PG&E’s internal server/workbooks.
- c. Please define and explain the following column headings on the “Data_RR” tab:
 - i. “weighted_composite_for_system_hardening_wildfire_risk_mean;”
 - ii. HFTD mileage (please indicate whether this is overhead or underground mileage);
 - iii. Baseline wildfire risk (and please indicate if this is the same as the WDRMv3 model).
- d. If “HFTD Mileage” is not overhead circuit miles, please add a column to this spreadsheet that provides overhead circuit miles for each circuit segment.
- e. Please explain how, and whether, PG&E has incorporated an overhead to underground conversion ratio in its calculation of mitigated risk. Please provide cell references for where this is incorporated.
- f. Please confirm that the sum of all risk mitigated for undergrounding in 2023, 2024, and 2025, is 2,321 units, which represents 10 percent of baseline wildfire risk.
 - i. If not confirmed, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.
 - ii. If confirmed, does PG&E agree that this means these calculations indicate PG&E will reduce wildfire risk by 10 percent through its undergrounding program from 2023-2025? Please explain why or why not.
 1. If PG&E disagrees with the 10 percent figure, please provide the correct percentage of wildfire risk PG&E expects to mitigate through its

undergrounding program. Please provide all supporting workpapers, calculations, and assumptions in Excel.

ANSWER 004

- a) Please see sheet "Model Data", Column B, in attachment "*WMP-Discovery2023_DR_TURN_011-Q004Atch01.xlsx*".
- b) Please see attachment "*WMP-Discovery2023_DR_TURN_011-Q004Atch01.xlsx*". Data_RR links to Model Data sheet in this attachment.

The "Model Data" tab summarizes the calculation of risk reduction per circuit segment based on the workplans in sheet "Workplan". To prevent overcounting the risk reduction, the UG workplan needs to be adjusted for the overhead to underground conversion rate of 1.25 as well as the workplan miles exceeding the workplan target.

As an example, below is a sample calculation:

An individual CPZ has 10 miles of UG planned work in 2023, with 20 miles of overall mileage and 100 points of risk.

In 2023, PG&E's workplan has 534 miles, but only 350 miles are in the workplan target. As such, each UG plan work on a CPZ is multiplied by 350/534.

Additionally, 350 UG miles is expected to be realized by UG replacing 280 miles of overhead. Both these measures are used to ensure not to overcount the risk reduction realized.

The resulting calculation would be as follows:

$$(10 \text{ miles}) * (350/534) * (1/1.25) = 5.25 / 20 \text{ miles} = 26.25\%$$

The risk reduction calculation would be as follows:

$$26.25\% * 100 \text{ risk points} * 99\% = 26 \text{ risk reduction points}$$

- c)
 - i. Weighted_composite_for_system_hardening_wildfire_risk_mean is the column field name from WDRM v3. This is more commonly referred to as "Mean Risk" in discussion about risk from the Wildfire Distribution Risk Model.
 - ii. HFTD mileage represents the HFTD overhead conductor mileage
 - iii. Baseline wildfire risk is represented as the WDRM v3 * enterprise MAVF calibration factor (11.41) as discussed in Section 7.2.2.2.
- d) Not applicable.
- e) Yes. This is incorporated into the calculation of mitigated risk. Please see tab "Workplan" Cells B3:E3 with the reduction by the OH-to-UG factor on cells H4:K4. For example, the 2023 WMP target is 350 miles of Underground; therefore, the total OH miles impacted in 2023 is $350/1.25 = 280$ miles.
- f) The values are correct. It is relevant to note that approximately 600 of the ~2,700 (~24%) miles in the undergrounding portfolio were selected and scoped based

on WDRM v2. The risk reduction calculations are based on WDRM v3. As noted in WMP Section 8.1.2.2, by 2025 95 percent of the portfolio addresses the top risk from WDRM v3, and in 2026, almost 100 percent of the targeted annual undergrounding miles are focused on the top risk from WDRM v3. Additionally, a portion of PG&E's undergrounding portfolio in 2023-2024 is focused on wildfire community rebuild, which somewhat reduces the portfolio's impacts on the ignition risk reduction score as compared to a portfolio that was completely selected based on risk and not influenced by where wildfires had propagated, thus requiring rebuild. Note, when including 2026 forecasted undergrounding targets, the total four year (2023-2026) estimated ignition risk reduction is approximately 18%.