

PACIFIC GAS AND ELECTRIC COMPANY
Wildfire Mitigations Plans Discovery 2026-2028
Data Response

PG&E Data Request No.:	SPD_004-Q005
PG&E File Name:	WMP-Discovery2026-2028_DR_SPD_004-Q005Supp01
Request Date:	May 1, 2025
Requester DR No.:	CONF-SPD-PGE-WMP2026-004
Requesting Party:	Safety Policy Division
Requester:	Edwin Schmitt
Date Sent:	May 13, 2025 (Original) Supp01: May 30, 2025

SUBJECT: MITIGATION COST EFFICIENCY ASSESSMENT (SPD-PGE-WMP2026-004)

QUESTION 005

Fill in the data requested in the attached workbook titled “Decision Tree Results by Circuit Segment.xlsx”. This workbook is modeled upon the *PGE_2023_WMP_R0_Section_642_Atch01.xlsx* workbook that was submitted with the PG&E 2023-2025 Base WMP and the PG&E response to a CalAdvocates Data Request that included the workbook titled *WMP-Discovery2023- 2025_DR_CalAdvocates_041-Q005Atch01.xlsx*.

- a. Follow the Field Descriptions in the “Instruction” spreadsheet to complete the corresponding cells in the “Primary”, “S&S” and “DistTotal” spreadsheets.
- b. Responses in the “Primary” spreadsheet must be limited to the primary lines found on the corresponding “Circuit Segment Name” listed in Column A.
- c. Responses in the “S&S” spreadsheet must be limited to the secondary and service lines found on the corresponding “Circuit Segment Name” listed in Column A.
- d. Responses in the “DistTotal” spreadsheet must include both the primary, secondary and service lines found on the corresponding “Circuit Segment Name” listed in Column A.
- e. If any of the data requested in this dataset workbook would be impacted by the Administrative Law Judge Ruling described in Questions 1 and 3, provide a second version of this dataset using a risk-neutral, linear scaling function and using the disaggregated approach to reliability cost calculation recommended in the SPD Evaluation Report.

ANSWER 005 SUPPLEMENTAL 01

As indicated in the previous response to this question, PG&E is providing the following tranche-level data in attachment “*WMP-Discovery2026-2028_DR_SPD_004-Q005Supp01Atch01.xlsx*”, worksheet ‘EORM WLDFR Values’, ‘EORM EPSS Values’, ‘EORM PSPS Values’¹:

¹ The provided values are from the February 2025 vintage.

- Pre-Mitigated Ignition LoRE
- Pre-Mitigated Ignition Safety CoRE (Natural Units)
- Unscaled Ignition Pre-Mitigated Safety CoRE (\$)
- Pre-Mitigated Ignition Reliability CoRE (Natural Units)
- Unscaled Pre-Mitigated Ignition Reliability CoRE (\$)
- Pre-Mitigated Ignition Financial CoRE (Natural Units)
- Unscaled Pre-Mitigated Ignition Financial CoRE (\$)
- Unscaled Pre-Mitigated Ignition Risk (\$)
- Pre-Mitigated Outage Program LoRE
- Pre-Mitigated Outage Program Safety CoRE (Natural Units)
- Unscaled Outage Program Pre-Mitigated Safety CoRE (\$)
- Pre-Mitigated Outage Program Reliability CoRE (Natural Units)
- Unscaled Pre-Mitigated Outage Program Reliability CoRE (\$)
- Pre-Mitigated Outage Program Financial CoRE (Natural Units)
- Unscaled Pre-Mitigated Outage Program Financial CoRE (\$)
- Unscaled Pre-Mitigated Outage Program Risk (\$)
- Unscaled Pre-Mitigated Overall Risk (\$).

PG&E is also providing the mapping between circuit segments to tranches for WLDfR, EPSS, and PSPS in the respective 'EORM WLDfR Mapping', 'EORM EPSS Mapping', and 'EORM PSPS Mapping' tabs. The fields pertaining to "Ignition" would refer to the WLDfR mapping and WLDfR values. For the fields pertaining Outage Programs, refer to the EPSS and PSPS values and mapping.

As indicated in the previous response to this question, PG&E is providing the following data in attachment "*WMP-Discovery2026-2028_DR_SPD_004-Q005Supp01Atch01.xlsx*", worksheet 'Primary':

- Miles of OH (columns AN:AS)
- Miles of UG (columns AT:AY)
- Miles of Line Removal (columns AZ:BE)
- Total Miles of System Hardening (columns BF:BK)
- Total Expenditure of OH Completed in Year (columns EF:EH)
- Total Expenditure of UG Completed in Year (columns EL:EN)
- Total Expenditure of Line Removal Completed in Year (columns ER:ET)
- Total Expenditure of System Hardening Completed in Year (columns EX:EZ).

Please note the following regarding the data provided:

- The information provided includes PG&E's System Hardening and Community Rebuild work.
- The information reported in the provided template may not fully represent System Hardening and Rebuild work in its entirety because the provided circuit segment list is based on WDRM v4. There are miles and costs associated to circuit segments that are not present in the provided template, therefore that data is not

included in this response.

- Regarding expenditures:
 - Expenditure values reported are represented in thousands (\$000).
 - The “Total Expenditure of System Hardening Completed in Year” field is not a direct sum of the preceding values of OH, UG, and Line Removal expenditure for that year. This value may include additional costs that are not part of the categories in the provided template, such as project management costs.
 - Forecasted 2026-2028 costs are currently not broken out into circuit segments. As an alternative, PG&E is providing program-level forecasts for these years. Values are represented as thousands (\$000).

Year	Total OH Forecasted Expenditure (\$000)	Total UG Forecasted Expenditure (\$000)	Total Line Removal Forecasted Expenditure (\$000)	Total System Hardening Forecasted Expenditure (\$000)
2026	\$284,906	\$1,153,619	\$22,418	\$1,460,943
2027	\$197,265	\$1,060,346	\$17,607	\$1,275,218
2028	\$197,501	\$1,184,019	\$17,645	\$1,399,165

- As a reminder, comparing the reported expenditures and the reported miles will not yield an accurate unit cost because a project’s costs may be spread across multiple years.

Unit cost is calculated using total costs-since-inception (multi-year) and total miles completed (which can be multi-year) of the subprojects that are 100% complete in the associated year. Unit cost is not calculated by dividing the total program cost spent by the total miles completed in a given year because it would:

- Inaccurately include both the readiness/pre-construction costs for future subprojects that are not yet complete and the post-construction/closeout costs for previously completed subprojects; and
- Inaccurately include subprojects with partially completed miles at year-end.

ANSWER 005

Please see attachment “*WMP-Discovery2026-2028_DR_SPD_004-Q005Atch01.xlsx*.” In this delivery, PG&E is providing the data fields in the table below, subject to the following clarifications. As discussed at PG&E’s meeting with the SPD on May 9, 2025, PG&E is also providing its assessment of the fields that it has determined are not possible to provide as requested and what it proposes to provide in lieu of those fields. PG&E also provides a brief explanation of each field that PG&E has determined is not possible to provide. Please note that, as PG&E’s subject matter experts continue to engage with this data request, further clarifications and challenges may emerge.

Please note that PG&E is still determining the dates by which those fields not provided with this delivery or identified below can be produced. PG&E is working diligently to respond to this request and will endeavor to provide as many fields as reasonably possible on May 30, 2025. PG&E will provide updates to SPD as timelines are determined, and appreciates SPD's patience.

PG&E will endeavor to respond to this data request to the fullest extent possible.

Data Fields Included in May 13, 2025 Delivery:

Field Topic	Field Name	Notes
Circuit Segment Description	<i>Circuit Segment Name</i>	N/A
Circuit Segment Description	<i>Circuit Name</i>	N/A
Circuit Segment Description	<i>Circuit ID</i>	N/A
Circuit Segment Description	<i>Nominal Voltage</i>	N/A
Circuit Segment Description	<i>Length of Circuit Segment</i>	N/A
Tranches	<i>2024 RAMP Tranche</i>	<p>PG&E has added a column in each of the Primary, S&S, and DistTotal tabs to delineate between HFRA and non-HFRA.</p> <p>Please note that there may be some circuit segments that do not match, noted with a "#N/A." The 2024 RAMP uses WDRM v3 circuit segments (January 2022 vintage) whereas 2026-2028 WMP uses WDRM v4 circuit segments (January 2023 vintage), and there have been changes in circuit segments over time.</p>

Fields PG&E Will Provide on May 30, 2025

At this time, PG&E expects to provide the following fields on May 30, 2025:

- Miles of OH
- Miles of UG
- Miles of Line Removal
- Total Miles of System Hardening
- Total Expenditure of OH Completed in Year
- Total Expenditure of UG Completed in Year

- Total Expenditure of Line Removal Completed in Year
- Total Expenditure of system Hardening Completed in Year

PG&E is still determining the dates by which those fields not provided with this delivery or identified here can be produced.

Fields PG&E has Determined Cannot be Provided as Requested

In addition to the limitations described below, please note that the following mitigation programs are not unitized by circuit mile and cannot be provided as such. Unless otherwise noted, PG&E will provide the total number of units mitigated per circuit segment:

- Expulsion Fuse Replacement
- Surge Arrestor Replacement
- Aerial Inspection
- Ground Inspection
- Non-Pole Backlog
- Tree Removal
- Down Conductor Detection (DCD)
- Line Sensors
- Pole Backlog
- Pole Clearing.

Further, in addition to the limitations described below, please note that the following mitigation programs do not forecast work at the circuit-segment level. As a result, PG&E cannot provide the Units/Miles, Total Expenditure, or Present Value Cost for 2026, 2027, or 2028 for these mitigation programs:

- Expulsion Fuse Replacement
- Surge Arrestor Replacement
- Aerial Inspection
- Ground Inspection
- Non-Pole Backlog
- Tree Removal
- Line Sensors
- Pole Backlog
- Pole Clearing.

Further, in addition to the limitations described below, please note that, for the following mitigation programs, PG&E is unable to determine actual expenditure and present value cost of specific work done on a circuit segment. For these mitigation programs, PG&E will provide estimates for these fields based on the average cost to complete one unit of the mitigation program.

- Expulsion Fuse Replacement
- Surge Arrestor Replacement
- Aerial Inspection

- Ground Inspection
- Non-Pole Backlog²
- Tree Removal
- Line Sensors
- Pole Backlog
- Pole Clearing.

Further, in addition to the limitations described below, PG&E does not track breakaway connector installations and cannot provide any fields related to this mitigation program.

Finally, PG&E is still determining the feasibility of providing circuit-segment level CBR values.

Field Topic	Field Name	Reason Impossible as Requested	Proposed Alternative, if Any
Circuit Segment EORM Values	<i>All</i>	PG&E's EORM values are not calculated to the circuit segment level, but at the "tranche" level.	PG&E will provide tranche-level data for this field (i.e. the data will be identical for all segments in a given tranche) by May 30.
WDRM v4	<i>Unadjusted Pre-Mitigated CoRE</i>	Base consequence, suppression, and egress are computed as one model result and cannot be disaggregated.	N/A
WDRM v4	<i>Unadjusted Pre-Mitigated Risk</i>	Base consequence, suppression, and egress are computed as one model result and cannot be disaggregated.	N/A
WDRM v4	<i>Post-Mitigated LoRE</i>	WDRM v4 model was developed as a predictive model and cannot be used to quantify mitigation effectiveness.	N/A

² Due the wide variety of possible conditions addressed in a non-pole backlog corrective notification, PG&E is still determining the best means of approximating cost fields for this mitigation program.

WDRM v4	<i>Unadjusted Post-Mitigated CoRE</i>	WDRM v4 model was developed as a predictive model and cannot be used to quantify mitigation effectiveness.	N/A
WDRM v4	<i>Adjusted Post-Mitigated CoRE</i>	WDRM v4 model was developed as a predictive model and cannot be used to quantify mitigation effectiveness.	N/A
WDRM v4	<i>Unadjusted Post-Mitigated Risk</i>	WDRM v4 model was developed as a predictive model and cannot be used to quantify mitigation effectiveness.	N/A
WDRM v4	<i>Adjusted Post-Mitigated Risk</i>	WDRM v4 model was developed as a predictive model and cannot be used to quantify mitigation effectiveness.	N/A