

PACIFIC GAS AND ELECTRIC COMPANY
PG&E Ref. DRU17009-Case-EUP-SB 884
Data Request OEIS

Requester Event Ref. No.

Requester DR No. Energy Safety-DR EUP-26-01 Bow Tie Models and Mitigation Effectiveness Studies

Requester: Khaikin, Sam

Request Date: January 21, 2026

Response Date: February 02, 2026

Question No. 001:

Please provide PG&E's current bow-tie model schematics and workpapers submitted with the PG&E 2027 GRC that support PG&E's Enterprise Risk Model for the wildfire, PSPS, and EPSS risks, including both risk neutral and risk scaled versions. The workpapers requested are the updated GRC workpapers corresponding to the workpapers submitted for the Wildfire Risk in PG&E's 2024 RAMP [A.24-05-008] submitted as Exhibit PG&E-4.

Response to Question No. 001 Response No. 001:

Please see attachment “*PGE_DR-EUP-26-01_20260202_RESPONSE_Q001_ATCH001*” for the requested information.

1. Inside the zip file is a subfolder labeled **2027GRC Risk Models** containing folders labeled **EO - WLDFR (errata)**, **EO - WEPSS (errata)**, and **EO - WSPSP (errata)**.

Inside each of the EO - WLDFR (errata), EO - WEPSS (errata), and EO - WSPSP (errata) folders, there are EO-WLDFR-2a_Bow Tie, EO-WEPSS-2a_Bow Tie, and EO-WSPSP-2a_Bow Tie files that provide the corresponding bow-tie for that risk. These bow-ties reflect the scaled risks. Also, in each bowtie file there is a **RiskScore_Neutral** worksheet that reflects the risk neutral version of risk scores.

Other related workpapers in the zip file are:

- WP 1-13_PG&E 2027 GRC Risk Values_Errata11.10.25
- WP 1-14_GRC Mitigations and Controls and their CBRs_Errata11.10.25
- WP 1-16_CBR without risk-averse scaling function_Errata.11.10.25

In its 2027 GRC Application, PG&E applied the same risk scaling function used in its 2024 RAMP Application. Please refer to Figure 2-7 on page 2-28 of A.24-05-008, PG&E's 2024 RAMP, Exhibit (PG&E-2), Ch.2.

** Please note files referenced in response to this question were provided to the OEIS via ESFT on February 3, 2026. They were not uploaded via the E-File system due to their size.*

Question No. 002:

Please explain the process patrol crews follow to inspect power lines before restoring service after PG&E initiates a Public Safety Power Shutoff (PSPS) event.

- a. What specific information is collected during these patrols?

- b. How is the information collected from patrols documented and incorporated into PG&E's risk modeling processes?

- c. If patrol crews observe a "near miss" (for example, vegetation contacting a line that could have resulted in an ignition), is this information captured?

If so:

- i. What specific information is captured regarding near misses?
- ii. How is the information recorded?
- iii. Is the information used in risk modeling? If so, provide specific details on how, when, and in which risk models this information is used.
- iv. What qualifies as a near miss for purposes of data collection when inspecting power lines after a PSPS event?

Response to Question No. 002 Response No. 001:

When a PSPS qualified damage or hazard is identified, the following information is collected by the patroller:

- a. Latitude/longitude;
- b. Inspection date;
- c. Inspection time;
- d. Inspector;
- e. Task Force Lead;
- f. Issue type;
- g. Issue cause;
- h. Issue description;
- i. 3rd Party utility damage;
- j. SAP Equipment ID;
- k. Would arcing have occurred?;
- l. Fuel bed description; and
- m. Photographs.

b. PG&E crews use the Inspect App to collect information related to damage and hazards identified during PSPS restoration patrols. Records of PSPS qualified damages and hazards are retained and provided to requestors for analysis or modeling. PG&E uses patrols and hazards information to inform PSPS avoided ignitions in our WDRM v4 and WLDFR risk bowtie model.

For WDRM v4, PSPS damages and hazards are included as a type of failure in the failure probability models and uses an assumed ignition rate in the ignition probability model. Essentially, the events are included as failures and ignitions, so the model algorithms are trained on events that include PSPS conditions.

For additional information please see attachment “*PGE_DR-EUP-26-01_20260202_RESPONSE_Q002_ATCH002.pdf*.”

c.

i.-iii. The PSPS Damage & Hazard documentation process does not currently collect information on near misses. Vegetation in contact with conductors causing no damage during a PSPS event would be classified as a hazard for documentation purposes in PG&E's Inspect App.

iv. As stated above, PG&E does not document near misses, which would be an instance where no damage or hazard occurred, but had circumstances been different, then a damage or hazard likely would have occurred (an example is a tree falling parallel to a circuit and had it fallen in another direction, it could have resulted in downed conductors). PG&E deprecated near misses after October 2020. However, PG&E does continue collecting information on all damages and hazards (example: vegetation contacting a line with no damage to the line).

Question No. 003:

Please explain the process patrol crews follow to inspect power lines after an EPSS-related outage occurs.

- a. What factors does PG&E consider when determining whether to dispatch a crew to inspect the line?
- b. What specific information is collected during these patrols?
- c. How is the information collected from patrols documented and incorporated into PG&E's risk modeling processes?
- d. If patrol crews observe a "near miss" (for example, vegetation contacting a line that could have resulted in an ignition), is this information captured? If so:
 - i. What specific information is captured regarding near misses?
 - ii. How is the information recorded?
 - iii. Is the information used in risk modeling? If so, provide specific details on how, when, and in which risk models this information is used.
 - iv. What qualifies as a near miss for purposes of data collection when inspecting power lines after an EPSS-related outage?

Response to Question No. 003 Response No. 001:

The process of patrols and inspections related to EPSS related outages are outlined in attachments "*PGE_DR-EUP-26-01_20260202_RESPONSE_Q003_ATCH003.pdf*" and "*PGE_DR-EUP-26-01_20260202_RESPONSE_Q003_ATCH004_CONF.pdf*."

- a. Crews are dispatched for all EPSS related outages unless restoration is completed prior to crews arriving onsite as outlined in TD-2700P-26 and TD-1400P-07.
- b. Crews will provide any identified data pertinent to outage or circuit operation, including but not limited to what is outlined in GO95 and GO166.
- c. All data related to the EPSS outages are relayed to the Distribution Control Center (DCC). The DCC updates the ILIS reports (Integrated Logging Information Systems), which feeds the outage damage data which in turn is used for the WDRM v4 and WLDFR risk bowtie model.
- d.
 - i. Please see the response to subpart (b) above.
 - ii. Please see the response to subpart (b) above.
 - iii. Please see the response to subpart (c) above.
 - iv. Please see the response to subpart (c) above.

Question No. 004:

Regarding Table 6-1, Mitigation Effectiveness Alone and in Combination, of PG&E's 2026-2028 WMP,1 please provide the supporting data on which the "Blended Average Effectiveness" values are based for each of the System Hardening Mitigations in the table. This data should correspond to the spreadsheet that PG&E provided to TURN in response to TURN's Data Request 002, Question 5 (filename: WMP-Discovery2026-2028_DR_TURN_002-Q005Atch01. xlsx)

Response to Question No. 004 Response No. 001:

Please see attachment "*PGE_DR-EUP-26-01_20260202_RESPONSE_Q004_ATCH005.xlsx*" for the supporting data on which the "Blended Average Effectiveness" values are based on for each System Hardening Mitigations in the table. This file was submitted and referenced in response to WMP-Discovery2026-2028_DR_TURN_002_Q05.