

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

PG&E Data Request No.:	OEIS_001-Q007		
PG&E File Name:	WMP-Discovery2023_DR_OEIS_001-Q007		
Request Date:	April 5, 2023	Requester DR No.:	P-WMP_2023-PG&E-001
Date Sent:		Requesting Party:	Office of Energy Infrastructure Safety
DRU Index #:		Requester:	Colin Lang

**SUBJECT: REGARDING APPENDIX B ITEMS THAT ARE CURRENTLY OPTIONAL OR “BY REQUEST” ONLY**

**QUESTION 007**

Provide the following, which are outlined in the 2023-2025 Wildfire Mitigation Plan Technical Guidelines, Appendix B. If the data is tabular (formulas, tables, graphs, charts) provide it in MS Excel. If the data is text-heavy, provide the information in MS Word.

- a) Detailed Model Documentation for each model and sub-model discussed in PG&E’s response to Section 6.1.2 Summary of Risk Models (Technical documentation should be presented according to ASTM E 1472 – Standard Guide for Documenting Computer Software for Fire Models.).
  - i) Include a list of assumptions and known model limitations according to ASTM E 1895 – Standard Guide for Determining Uses and Limitations of Deterministic Fire Models.
  - ii) Present verification and validation documentation according to the SFPE’s Guidelines for Substantiating a Fire Model for a Given Application or ASTM E 1355 – Standard Guide for Evaluating the Predicting Capability of Deterministic Fire Models.

At a minimum, the documentation must include:<sup>1</sup>

- (1) Purpose of the model/problem identification,
- (2) Model version,
- (3) Theoretical foundation,
- (4) Mathematical foundation,
- (5) External dependencies,
- (6) Model substantiation, and
- (7) Sensitivity

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<sup>1</sup> As outlined in 2023-2025 WMP Technical Guidelines, Appendix B, pp. B-6 to B-7.

- b. Model Substantiation:<sup>2</sup>
  - i. For each model, provide documentation of the following model substantiation studies:
    - (1) Validation data,
    - (2) Model verification,
    - (3) Model validation, and
    - (4) Model calibration
- c. Additional Models Supporting Risk Calculation:<sup>3</sup>
  - i. For each additional model that supports the risk calculations, provide weather analysis and fuel conditions.
- d. Calculation of Risk and Risk Components: Likelihood<sup>4</sup>
  - i. More detailed information on:
    - (1) Ignition Likelihood,
    - (2) Equipment Likelihood of Ignition,
    - (3) Contact from Vegetation Likelihood of Ignition,
    - (4) Contact from Object Likelihood of Ignition,
    - (5) Burn Probability, and
    - (6) PSPS Likelihood
- e. Calculation of Risk and Risk Components: Consequence<sup>5</sup>
  - i. More detailed information on:
    - (1) Wildfire Consequence,
    - (2) Wildfire Hazard Intensity,
    - (3) Wildfire Exposure Potential, and
    - (4) Wildfire Vulnerability
- f. Calculation of Risk and Risk Components: PSPS Consequence<sup>6</sup>
  - i. More detailed information on:
    - (1) PSPS Exposure Potential, and
    - (2) Community Vulnerability to PSPS

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<sup>2</sup> As outlined in 2023-2025 WMP Technical Guidelines, Appendix B, pp. B-11 to B-12.

<sup>3</sup> As outlined in 2023-2025 WMP Technical Guidelines, Appendix B, pp. B-11 to B-12.

<sup>4</sup> As outlined in 2023-2025 WMP Technical Guidelines, Appendix B, pp. B-12 to B-16.

<sup>5</sup> As outlined in 2023-2025 WMP Technical Guidelines, Appendix B, pp. B-16 to B-17.

<sup>6</sup> As outlined in 2023-2025 WMP Technical Guidelines, Appendix B, p. B-18.

g. Calculation of Risk and Risk Components: Risk<sup>7</sup>

i. More detailed information on:

- (1) Ignition Risk,
- (2) PSPS Risk, and
- (3) Overall Utility Risk

**ANSWER 007**

The requested information is provided in the following four documents:

- *“WMP-Discovery2023\_DR\_OEIS\_001-Q007Atch01.pdf”*
- *“WMP-Discovery2023\_DR\_OEIS\_001-Q007Atch02CONF.pdf”*
- *“WMP-Discovery2023\_DR\_OEIS\_001-Q007Atch03CONF.pdf”*
- *“WMP-Discovery2023\_DR\_OEIS\_001-Q007Atch04CONF.pdf”*

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<sup>7</sup> As outlined in 2023-2025 WMP Technical Guidelines, Appendix B, pp. B-18 to B-20.