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

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Requesting Party:	Office of Energy Infrastructure Safety
Requester:	Nathan Poon
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SUBJECT: REGARDING INDEPENDENT REVIEW OF PG&E'S WILDFIRE RISK MODEL

QUESTION 018

For each of the following recommendations made in the E3 Review of PG&E's Wildfire Risk Model Version 4, provide a description of 1) the progress/improvements made, 2) the current status, 3) the timeline/completion date for addressing the recommendation, and 4) the model(s) and associated version impacted by implementing the recommendation.

a. Right-size development efforts based on importance and impact (pp. 11, 36, 50, 59)
b. Justify and seek improvements for model approaches that dilute valuable upstream detail: consequence binning and conservative age logic (pp. 11, 49, 55, 59)
c. Report risk + uncertainty in outputs and develop a process to understand how individual modeling updates impact results (pp. 12, 33, 60)
d. Incorporate air quality and health impacts (pp. 13, 57, 60)
e. Increase collaboration between modeling efforts (p. 37)
f. Develop robust validation procedures (p. 49)
g. Improve transparency and assessment of proprietary wildfire spread modeling and the wildfire consequence model at large (p. 56)
h. Consider the differences in mitigation lifetimes (p. 58)

Answer 018

a. Right-size development efforts

PG&E continuously manages and adjusts the resources dedicated to the development of the WDRM and WTRM models based on regulatory requirements and PG&E user needs. As managing resources is an ongoing effort to respond to

changing internal and external needs, there are no committed resource targets and timelines to be tracked.

b. Consequence binning and conservative age logic

   i. Conservative age logic: Initial improvements to the conservative age logic have already been released with the latest WTRM model release. The improvements are ongoing and will continue to improve with each new model release.

   ii. Consequence binning: PG&E is investigating methods to create a Wildfire Consequence output with a continuous distribution, aiming to replace the eight Consequence regimes from version 4. If any of these methods demonstrate predictive accuracy during validation and review, they will be incorporated into version 5 of the Wildfire Consequence model.

c. Report risk + uncertainty in outputs and develop a process to understand how individual modeling updates impact results

   This E3 recommendation proposes that a different methodology be adopted for mitigation project selection, which would in turn require specific risk model functionality development. PG&E does not plan to commit any resources for this recommendation until the proposed methodology has been thoroughly discussed and a decision has been made to change from the current risk ranking process.

d. Incorporate air quality and health impacts

   This E3 recommendation is targeted at all IOUs and the State of CA. While this is an area of interest for PG&E research, there are currently no committed development objectives for these impacts.

e. Increase collaboration between modeling efforts

   PG&E has already implemented E3's recommendation to improve the collaboration of modeling efforts. The PG&E Risk and Data Analytics (RaDA) team that produces the WDRM and WTRM models was reorganized in late 2023. The data scientists that produce the event probability models for distribution and transmission assets now belong to a common data science team. For several event types, the same data scientist produces both the distribution and transmission event models.

      1. Progress: Complete
      2. Status: Complete
      3. Timeline: Complete

f. Develop robust validation procedures

   PG&E has developed a validation procedure for the TCM. Data validation is done by comparing model outputs with outage and tag data. SME validation includes evaluation of failure modes and field studies with respect to model outputs. Both steps must be completed before the Wildfire Governance Steering Committee reviews the validation results and either accepts the findings, or requests additional validation work to be done. This process is already in place for new TCM releases.

g. Improve transparency and assessment of proprietary wildfire spread modeling and the wildfire consequence model at large

This E3 recommendation is largely targeted at the State of CA and CalFire concerning validation of Technosylva products. This item also reiterates their recommendation regarding the consequence binning already addressed in item b).

h. Consider the differences in mitigation lifetimes

This E3 recommendation concerns PG&E's use of cost benefit analyses methodologies used to drive mitigation option selection for mitigation program projects. This recommendation impacts decisions made by downstream users of the WDRM/WTRM risk results and proposes no changes to the risk models