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Docket# WMP-Guidelines

April 8, 2024

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715 P Street, 20th Floor
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SUBJECT: Joint IOU Comments Regarding Energy Safety's Request for Comments on 2026-2028 Wildfire Mitigation Plan (WMP) and Maturity Model Guidelines

Dear Program Manager Rose:

Southern California Edison Company, San Diego Gas & Electric Company, and Pacific Gas & Electric Company (the Joint IOUs or the Joint Utilities) appreciate the opportunity to comment on the next iteration of guidelines for 2026-2028 Wildfire Mitigation Plans and the Maturity Model and Survey.

These comments address the following points:

- General support for the current structure of the WMP
- Increased coordination with the CPUC
- Improved process to refine program targets and improve alignment with the compliance process
- Streamlining for Chapter 5, 6, and 7 to reduce redundant sections
- Combining Chapters 10 and 11 to reduce redundant sections
- Elimination of Chapter 12 as out of scope for the WMP
- Increasing the Data Request response period from three to five days
- Page limits on initial and reply WMP comments
- Minimum timeframe between the issuance of final guidelines and the WMP deadline
- Elimination of pre-submission process
- Provide a means to directly link to a document in a docket
- Elimination of problematic Maturity Survey questions and improved coordination to improve the next iteration of the survey and process

INTRODUCTION

The joint utilities support the overall structure and narrative sequence of the WMP, which was based on identifying and evaluating wildfire and PSPS risk, and then describing mitigations to

address those risks. This structure provides a logical sequence to the document and provides direction for utilities to identify and understand their service territory and associated risks, develop strategies to mitigate such risks, implement an optimized portfolio of mitigations, monitor effectiveness of mitigations, and to continuously improve.

Below, the Joint IOUs address aspects of the 2023-2025 WMP process and guidelines that can be refined and improved for the 2026-2028 WMP cycle. These comments are informed by recent experience with the 2023-2025 Base WMP and 2025 WMP Update. Several aspects of these comments were originally discussed in comments on the 2023-2025 WMP Guidelines.[1]

COORDINATION WITH THE CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC)

The Joint IOUs suggest that Energy Safety consider means to coordinate with the CPUC, even if on an informal basis. For example, the Climate Adaptation[2] proceeding and the Risk Decision Framework[3] proceeding may require specific approaches to wildfire-related risk modeling and related decisions that will be relevant to the WMP, and potentially in conflict if the CPUC and Energy Safety take divergent paths.

Similarly, Energy Safety and the CPUC should coordinate on how to handle disparities between the work funded by the utility general rate cases and the work the utilities are obligated to perform under the WMPs. A holistic approach that balances both safety and affordability is critical for providing the best possible outcome for the people of California. However, this outcome can only be accomplished if Energy Safety and the CPUC work together to achieve this goal.

IMPROVED PROCESS TO REFINE PROGRAM TARGETS

WMP program targets (or sometimes referred to as initiative targets) represent important and significant commitments by a utility to mitigate wildfire or PSPS risk, and are a foundational element of the WMP. These targets also serve as a means by which Energy Safety evaluates past-year compliance with a WMP. Energy Safety considers the number of targets a utility did not meet, among other factors, in determining whether that utility substantially complied with its WMP.

The Joint IOUs have two concerns with the approach utilized in the 2023-2025 WMP cycle:

1. The shift to a year-ahead WMP cycle has significantly increased how far targets are set in advance, especially for the outer two years of the three-year cycle. This increase in time significantly decreases the level of confidence and accuracy with which targets can be

[1] SCE's comments are available here: SCE Comments on the Draft 2023-2025 Wildfire Mitigation Plan Guidelines. PG&E's comments are available here: Pacific Gas and Electric Company's Comments on the Draft 2023-2025 WMP Guidelines. SDG&E's comments are available here: SDG&E Comments on the Draft 2023-2025 Wildfire Mitigation Plan Guidelines.

[2] CPUC proceeding R18.04.019.

[3] CPUC proceeding R20.07.013.

established. It is reasonable for the utilities to have a pathway to make refinements to targets closer to the start of the year in question.

2. The compliance process, in considering if a WMP target was met or missed, should be aligned with how targets were established. If targets are set farther in advance with only limited means for adjustment, the compliance process should afford more leeway in determining if a target was substantially completed. Conversely, if targets can be refined or updated closer to the time of compliance evaluation, it is appropriate for a higher level of conformance to the target to be expected.

Below, the Joint IOUs elaborate on those challenges with the current approach and suggest a high-level framework to consider going forward.

The process to establish targets for 2023 was not problematic, as the Joint IOUs submitted them in February 2023, hence with sufficient confidence in what could be achieved by year-end 2023. As required, the utilities also provided targets for 2024 and 2025, based on their best available knowledge at that point in early 2023.

The process became problematic when the Joint IOUs were only provided with limited means to modify the 2024 and 2025 targets:

- For 2024 targets, the utilities could only modify certain categories of targets, and only based on limited criteria[4] specified in the 2023-2025 WMP Process & Evaluation Guidelines.
- For 2025 targets, changes were only allowed[5] if they were at least 10% in the case of large volume work (equal to or greater than 100 units) or at least 20% in the case of small volume work (less than 100 units). Furthermore for 2025, these changes needed to be in the 2025 WMP Update, submitted on April 2, 2024, approximately nine months before the start of 2025, and well before final 2025 internal planning processes have been completed.

The limited ability to modify 2024 and 2025 targets has created a mismatch between the target-setting process and the compliance process. In other words, the confidence and accuracy with which a target is established should be aligned with the level of flexibility provided in evaluating compliance, especially for those targets for which there is no current means of providing Energy Safety updated targets based on current Guidelines. As the time horizon stretches farther out, uncertainty increases, and as such the compliance process should allow for an increased band of what is considered as substantial compliance.

To illustrate the point using the weather as an example, the forecast for tomorrow is much more certain than the forecast for three days from now or two months from now. However, the current

[4] See the section titled "Criteria for a Change Order Request", which is Section 12.1 in the Guidelines revised in January 2024, or Section 12.2 in the version dated December 6, 2022. Changes to year-end targets were only allowed in certain categories, and then only due to "An increase or decrease of more than 25% of an initiative's risk reduction value based on an updated understanding of risk" or "a significant shift in either the strategic direction or purpose of an initiative."

[5] See Section 2.1 of the 2025 WMP Update Guidelines, page 15.

WMP process essentially asked the utilities to forecast WMP targets for three years, without a sufficient pathway to make reasonable adjustments to the outer-year targets based on more timely operational plans.

Allowing for targets to be updated is not mutually exclusive with the notion of holding the Joint IOUs accountable for establishing and adhering to a multi-year plan. Utilities routinely make multi-year forecasts for internal purposes, for CPUC ratemaking proceedings, and for other regulatory obligations. The Joint IOUs fully support Energy Safety's broader goal of shifting to the year-ahead schedule, clearly separating the "Base WMP" from an "Update WMP," and establishing a multi-year plan.

Utility planning typically involves an annual operational and planning cycle in Q3 and Q4, which results in budgets and plans—including formalized corporate goals—for the following calendar year. This process also considers recent work results. For example, more or less work such as inspections, asset and pole replacements, tree removals, and hardening could be performed in any given year, which may increase or decrease the work required in the following year.

Hence, while the utilities have no fundamental concerns with providing WMP targets in advance and did so as required in the 2023-2025 Base WMP, the confidence and accuracy of targets decreases with each successive year farther out, and that any use of those outer-year targets for compliance evaluation must consider the level of confidence with which the targets were developed.

To address this issue, the utilities request a more flexible mechanism to make refinements to initiative targets closer to the performance year (i.e. the year of the target) based on factors such as refinements in program scoping, work volume completed in the prior year, refreshed risk data, or refined work forecasts and operational plans.

This type of refresh can be limited in scope, with parameters to distinguish relatively minor "operational refreshes" from more significant changes (which would in turn require a higher level of justification and/or only be permissible under narrower criteria).

The Joint IOUs suggest the following as a starting point for a framework:

- First, the Base WMP should continue its current requirement for program targets for all three years in the WMP cycle.
- Second, the Change Order process or the Quarterly Data Report (QDR) should allow utilities to make non-significant refinements to year-ahead targets based on factors such as updated budgets, operational plans, or related factors. As this Change Order or QDR revision would be submitted closer to the start of the following year, it allows targets to be refreshed with a more precise outlook on the work than was available when the target was initially set in the Base WMP.
- Third, the WMP Update should be reserved for reporting strategic shifts in direction, initiative scope changes, changes in risk understanding, and other target changes due to significant changes.

This framework—which the Joint IOUs present as a conceptual starting point subject to further development of the necessary process details—would allow the utilities to present a 3-year plan that can be evaluated by Energy Safety and other stakeholders, maintains Energy Safety's desire for a multi-year planning process, and would not needlessly restrict refinements to program targets and create misalignment with the compliance process.

STREAMLINE CHAPTER 5 TO REDUCE UNNECESSARY DETAIL

The utilities suggest that several portions of Chapter 5 (Overview of the Service Territory) could be removed in the spirit of reducing the complexity of the WMP:

- 5.3 (Environmental Settings): This section included extensive detail. It could be replaced with a description of current HFTD/HFRA Tiers and summaries of major elements of wildfire risk such as topography, climate, and vegetation.
- 5.4 (Community Values at Risk): This section also included extensive detail. It could be replaced with a summary of population and demographics, including AFN characteristics, in the utility's HFTD/HFRA.

As noted below in the discussion on Chapter 7, the utility is already required in other sections of the WMP to explain its basis for evaluating public safety in the context of wildfire mitigation, which reduces the value of duplicative materials presented in Chapter 5.

GENERAL APPROACH TO CHAPTERS 6 AND 7

Below, the Joint IOUs provide suggestions to streamline chapters 6 and 7. If Energy Safety declines to implement the suggested changes , the Joint IOUs recommend leaving Chapters 6 and 7 as unchanged as possible. While imperfect, the structure of those two chapters generally worked for the IOUs, and are now an established format understood by the utilities, Energy Safety, and other stakeholders.

Streamline Chapter 6 and Eliminate Appendix B to Reduce Redundancy in Risk Materials

The 2023-2025 Guidelines required extensive explanation and documentation of risk modeling approaches and risk analysis practices in both Chapter 6 and Appendix B, which collectively exceeded 200 pages of materials. Many portions of both Chapter 6 and Appendix B overlapped, in particular how each of the 17 risk components was explained in four different areas.

The Joint IOUs suggest that Energy Safety revisit the structure of Chapter 6 and Appendix B with an eye toward streamlining or eliminating sections that were lower value to Energy Safety. To address this issue, the utilities suggest the following:

- Combine Section 6.2.1 (Risk and Risk Component Identification) with Section 6.2.2 (Risk and Risk Components Calculation). These two sections were redundant, requiring two separate but similar discussions of each of the 17 risk components.
- Eliminate Appendix B. This appendix required further discussion of each risk component, with two additional sections per risk component, along with further required explanations of risk models. This appendix had extensive overlap with Chapter 6, essentially asking for

the same material—i.e. explanations of the 17 risk components—but presented in a slightly different format.

Streamline Chapter 7 to Reduce Redundancy in Mitigation Strategy Materials

The utilities agree that Chapter 7, which describes how the results of risk analysis will be translated into mitigation strategy and selection, is a critical element of the WMP. However, its structure in the 2023-2025 Guidelines was cumbersome. In particular, Sections 7.1.3 (Risk-Informed Prioritization), 7.1.4 (Mitigation Selection Process), and 7.2 (Wildfire Mitigation Strategy) featured prompts that overlapped with each other and, as with Chapter 6, essentially asked for the same information multiple times in slightly different presentations.

Below are selected quotations from the guidelines that indicate this overlap, and illustrate how Chapter 7 would benefit from streamlining with an eye toward ensuring clear prompts that do not overlap with each other.

- 7.1.4.1: "[The electrical corporation must describe] the procedures for identifying and evaluating mitigation initiatives"
- 7.1.4.2: "[The electrical corporation must] evaluate its potential mitigation initiatives"; "[The electrical corporation must provide a] summary description … of the procedures and evaluation criteria for prioritizing mitigation initiatives"
- 7.1.4.3: "… the electrical corporation must provide a summary description of the procedures it uses in developing and deploying mitigation initiatives"
- 7.2.1: "the electrical corporation must describe its reasoning for the proposed portfolio of mitigation initiatives and why it did not select other potential mitigation initiatives"

The utilities suggest the following overall structure for Chapter 7:

- 7.1: Risk Prioritization Strategy
    - The utility's overall approach to wildfire risk mitigation, and how it uses the results of risk analysis (i.e. Chapter 6) to inform and determine its mitigation priorities and strategy.
- 7.2: Risk Prioritization Results
    - Presentation of how the utility has segmented its HFRA by risk or has otherwise determined which specific circuits or area(s) should be prioritized.
- 7.3: Mitigation Selection Process
    - How the utility plans to select and align mitigations based on sections 7.1 and 7.2.
    - This should include interim plans in areas in which hardening mitigations may take multiple years for deployment.

COMBINE THE CHAPTERS ON LESSONS LEARNED AND CORRECTIVE ACTIONS INTO A SINGLE CHAPTER

The 2023-2025 WMP guidelines required both Chapter 10: Lessons Learned and Chapter 11: Corrective Action Program. The Joint IOUs suggest these two chapters be combined, as the distinction between a "lesson learned" and a "corrective action" was not meaningful or necessary.

A single chapter on Lessons Learned is sufficient and allows for improved clarity and streamlining of the WMP document.

ELIMINATION OF CHAPTER 12 NOTICES OF VIOLATION AND DEFECT

The utilities ask Energy Safety to reconsider including reporting on Notices of Violation (NOV) and Defect (NOD) within the WMP. Section 3 of Energy Safety's Compliance Guidelines outlines the requirements for reporting on NOVs and NODs, and to include the same reporting in the future-looking WMP is duplicative and lacks the context with which NOVs and NODs should be evaluated.

The utilities do, however, find value in incorporating any lessons learned from such notices in the WMP as these instances may influence the development of strategies.

THE DEFAULT DEADLINE FOR DATA REQUESTS SHOULD BE EXTENDED TO FIVE DAYS TO PROMOTE QUALITY AND EFFICIENCY

The Joint Utilities ask Energy Safety to revise the default deadline for responding to all WMP-related data requests from three business days to five business days. This three-day requirement appears in Section 7 of the Process and Evaluations Guidelines, Data Requests from Energy Safety,[6] as well as in Section 8.2, Data Request Process for Data Request Stakeholders.[7]

Changing the default deadline from three business days to five business days will continue to allow for an expedited discovery process, reduce the substantial administrative burden on the utilities, and potentially improve the quality of the data request responses as the utilities will have more time to perform quality control on responses before they are finalized.

The Joint Utilities remain committed to providing WMP-related discovery in an expedited manner to facilitate the three-month WMP review period,[8] but a modest extension of the data request response time will promote more efficiencies while still facilitating an expedited WMP review. Furthermore, even with an increase of the default response time to five business days, there would be nothing preventing requestors from seeking a response sooner than five business days if there was a need to further expedite the information.

[6] "Unless a different response period is provided by Energy Safety, an electrical corporation must respond to all data requests by 5:00 p.m., on Day 3, with each business day counted as one day." 2023-2025 Wildfire Mitigation Plan Process and Evaluation Guidelines (revised January 31, 2024) page 12.

[7] "An electrical corporation must respond to all data requests within three business days of the request (as described in Section 7), unless a different response period is mutually agreed upon by the stakeholder making the data request and the electrical corporation." 2023-2025 Wildfire Mitigation Plan Process and Evaluation Guidelines (revised January 31, 2024) page 14.

[8] Pub. Util. Code §8386.3(a).

PAGE LIMITS ON PUBLIC COMMENTS SHOULD BE ALIGNED WITH PAGE LIMITS ON REPLY COMMENTS

Section 6.2 of the Process Guidelines[9] established a 15-page limit to opening comments on draft decisions, as well as a limit of five pages for reply comments on draft decisions. The Joint Utilities request Energy Safety extend the page limits for reply comments from five pages to 10 pages. This will give the parties filing reply comments an adequate opportunity to address issues raised in the opening comments.

The Joint Utilities also ask Energy Safety to consider applying these same 15 page opening and 10 page reply comment limitations to both WMPs and Revision Notice Responses.

PROVIDE ANNUAL SCHEDULES AND GUIDELINES AT LEAST 4 MONTHS (120 DAYS) PRIOR TO DEADLINES

The Joint Utilities recognize the competing demands on Energy Safety's resources, and the significant efforts to continue to develop WMP guidelines and related efforts. To the extent possible, the Joint Utilities respectfully request at least four months (120 days) after the issuance of the final guidelines to develop and submit their complete Base WMP and WMP Updates. This would provide utilities adequate time to evaluate the final guidelines and produce a complete and high-quality Base WMP and WMP Updates.

In addition, this would allow for the elimination of the pre-submission check process for Base WMPs and WMP updates. As an example, 2023-2025 Base WMP guidelines were issued on December 7, 2022, with pre-submissions due February 13, 2023, allowing just 69 calendar days (46 business days) for utilities to develop and submit their Base WMP.

ELIMINATE THE PRE-SUBMISSION PROCESS

The Joint Utilities respectfully submit that the completeness check process, first implemented in 2023, creates confusion and should be eliminated. The Joint Utilities observed that parties did not understand which version of the WMP was "final" and what types of changes were allowable in the second version submitted in March 2023. Also, some parties requested and obtained the initial February 2023 version of the WMP and began to submit data requests (on a version of the WMP that could change), while other parties waited to evaluate the WMP until release of the final version in March 2023, creating an equity issue.

The Joint Utilities further suggest that the completeness check process is unnecessary as the utilities have the obligation to understand the WMP guidelines and to develop and complete a

[9] "Opening comments on draft decisions are limited to 15 pages. Reply comments on draft decisions are limited to five pages." 2023-2025 Wildfire Mitigation Plan Process and Evaluation Guidelines (revised January 31, 2024) page 10.

sufficient WMP. Deficiencies can be addressed through data requests, feedback from Energy Safety, or (if needed) measures such as Areas of Continued Improvement or a Revision Notice.

The process is also administratively burdensome, as it effectively doubled the administrative efforts needed to process the source documents for the WMP into a final PDF suitable for Energy Safety and external parties.

For these reasons, the Joint Utilities suggest that the base 2026-2028 WMP has a single submission date for a final version, after which evaluation by both Energy Safety and external parties can commence. This will streamline the process, improve clarity for all parties by avoiding multiple versions of the WMP, and reduce administrative burdens.

At a minimum, if the completeness check process continues, the WMP should not be available for review, data requests, and other evaluation to parties other than Energy Safety until after a utility has released a final version of the WMP with completeness check items addressed. This will help ensure that significant analysis is not performed by stakeholders on unfinished plans concurrently being reviewed by Energy Safety.

PROVIDE A MEANS TO LINK DIRECTLY TO SPECIFIC DOCUMENTS IN THE A DOCKET

As a process improvement, it would be helpful if Energy Safety could update its online docket system to allow for links directly to an individual document, as opposed to the docket in which that document is stored.

MATURITY MODEL AND MATURITY SURVEY

The Joint Utilities appreciate the opportunity presented by Energy Safety to pilot a new way to submit Maturity Survey Responses in 2024. However, we request that Energy Safety remove the 45-character limitation, which did not exist previously, to the optional commentary responses given the ambiguities in certain survey questions and the need to include critical clarifying information when it is applicable.

As previously stated in the "Joint Utilities Comments on Revisions to 2023-2025 Maturity Model, Maturity Survey, and Process Guidelines" submitted January 22, 2024[10], there are several challenges that the Joint Utilities face with the current Maturity Model and Survey. A detailed discussion of these challenges can be found in the question-by-question comments submitted by

[10] Joint Utilities comments on Revisions to 2023-2025 Maturity Model, Maturity Survey, and Process Guidelines (submitted January 22, 2024) available at: https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=56183&shareable=true

each Joint Utility with this year's and last year's responses[11]. Some of the problematic themes include the following:

1. Questions that are outside utility responsibility, knowledge, or control.
    a. Example: 1.1.2.Q11 - Does the electrical corporation use models to generate air quality effects including greenhouse gas emissions and population health impacts?

2. Problematic questions that do not fully consider affordability or feasibility concerns, are overly vague, require IOU interpretation, and/or present capabilities without apparent value.
    a. Example: 1.1.2.Q10 - Do electrical corporation models include community- specific vegetation treatment plans throughout the service territory as inputs?

3. Questions that reference Energy Safety requirements that are not clearly defined.
    a. Example: 1.1.2.Q2 - Do fire weather conditions meet the minimum design scenarios established by Energy Safety requirements?

4. Questions that are based on incorrect scientific / technical assumptions.
    a. Example: 1.1.7.Q10 - Do your annual model validation results indicate that no changes should be made to your modeling assumptions?

The Joint Utilities request that Energy Safety consider addressing these challenges in collaboration with the electrical corporations by revising the Maturity Model and Survey to improve its accuracy. A Maturity Model working group could include Energy Safety and the electrical corporations and improve future versions of the Maturity Survey.

Included in the Appendix are tables identifying problematic questions from the 2023 and 2024 Maturity Surveys that the Joint Utilities believe would benefit from further discussion.

[11] SCE comments on Substantive Revision to the 2023 Maturity Survey (submitted April 3, 2023) available at: https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53599&shareable=true
SDG&E comments on Substantive Revision to 2023 Maturity Survey (submitted April 3, 2023) available at: https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53600&shareable=true
PG&E comments on Substantive Revision to 2023 Maturity Survey (submitted April 3, 2023) available at: https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53598&shareable=true

CONCLUSION

The Joint IOUs appreciate the opportunity to provide these comments.

If you have questions, or require additional information, please contact me at gary.chen@sce.com, Jay Leyno (PG&E) at jay.leyno@pge.com, or Shaun Gahagan (SDG&E) at sgahagan@sdge.com.

Sincerely,

//s//
Gary Chen
Director, Safety & Infrastructure Policy

APPENDIX A: MATURITY MODEL QUESTIONS

Table 1: Questions That Are Outside Utility Responsibility, Knowledge, Or Control

Question #	Question
1.1.2.Q9	Do electrical corporation models include fire suppression activities as inputs?
1.1.2.Q11	Does the electrical corporation use models to generate air quality effects including greenhouse gas emissions and population health impacts?
1.1.3.Q2	Are model inputs version controlled and maintained in the electrical corporation database(s)?
1.2.3.Q1	Are wildfire and PSPS risk severity and exposure model inputs version controlled and maintained in the electrical corporation database(s)?
1.2.3.Q3	Are wildfire and PSPS risk severity and exposure model software versions controlled, documented, and maintained in the electrical corporation database(s)?
1.2.8.Q7	Are model verification and validation suites (data plus code) provided to the regulator for third-party review?
1.4.2.Q7	Does the combination of risks and risk components include evaluation of the relative importance of Environmental Protection?
1.6.1.Q6	Is the risk reduction impact of mitigation initiatives automated for air quality effects including greenhouse gas emissions and population health impacts?
1.6.2.Q6	Do model inputs include community-specific vegetation treatment plans throughout the service territory?
2.2.2.Q15	Do the electrical corporation weather forecasting model outputs include air quality impacts from smoke?
2.2.4.Q4	Are model software versions controlled, documented, and maintained in the electrical corporation database(s)?
2.2.11.Q8	Are model verification and validation suites (data plus code) provided to the regulator for third-party review?
2.3.3.Q1	Are model inputs and outputs maintained in the electrical corporation database(s) with the model and data versions documented and maintained?
2.3.3.Q2	Are model inputs version controlled and maintained in the electrical corporation database(s)?
2.3.3.Q3	Are model outputs version controlled and maintained in the electrical corporation database(s)?
2.3.3.Q4	Are model software versions controlled, documented, and maintained in the electrical corporation database(s)?
2.3.5.Q1	Is the electrical corporation model software modular, with sub-modules which can be replaced to evaluate the impact of different assumptions on the results?
2.3.7.Q2	Is a statistical summary of data and model performance provided to the public?
2.3.7.Q3	Is model technical documentation available to the public?
2.3.7.Q5	Are model software, source code, and data for verification and validation available to the public?
2.3.8.Q2	Does the electrical corporation quantify confidence intervals used in model predictions?
2.3.8.Q3	Is the sensitivity of downstream models to uncertainty in modeling known and documented?
2.3.8.Q4	Is the inherent uncertainty in predictions due to model limitations known and documented?
2.3.8.Q5	Is the sensitivity of model output predictions to uncertainty in each input parameter known and documented?
2.3.8.Q6	Does the electrical corporation meet a confidence level of 60% for model predictions?
2.3.8.Q7	Is the uncertainty in measurements used in model validation known and documented?
2.3.8.Q8	Does the electrical corporation meet a confidence level of 84% for model predictions?
2.3.8.Q9	Does the electrical corporation meet a confidence level of 97.5% for model predictions?
2.3.8.Q10	Is uncertainty propagation analytically calculated and presented using standard methods such as Bayesian inference and uncertainty quantification?
2.3.9.Q2	Are model verification and validation suites automated?
2.3.9.Q3	Are model verification and validation suites version controlled?

Question #	Question
2.3.9.Q4	Are model verification and validation suites reevaluated every time underlying data or models are updated?
2.3.9.Q5	Are discrepancies between production model and observations quantified, statistically evaluated, and used to inform performance improvements?
2.3.9.Q6	Is annual blind model validation accomplished by analyzing model performance for the previous year based on the data available and assumptions made at the time of WMP submission?
2.3.9.Q7	Are model verification and validation suites (data PLUS code) provided to the regulator for third-party review?
2.5.2.Q1	Does the electrical corporation provide detailed documentation for its wildfire detection methods?
2.5.2.Q2	Does the electrical corporation provide detailed documentation for its detection technologies?
2.5.2.Q3	Does the electrical corporation provide detailed documentation for its distribution of detection technologies?
2.5.2.Q4	Does the electrical corporation provide detailed documentation for its wildfire confirmation strategies?
2.5.4.Q1	Does the electrical corporation have clearly defined operational processes and procedures in place to integrate lessons learned from risk events to improve the capabilities of its fire detection and alarm systems?
2.5.4.Q2	Does the electrical corporation have a clearly defined process to track and adjudicate comments from stakeholders on the lessons learned from risk events and the associated corrective action program?
2.5.6.Q1	Does the electrical corporation provide detailed documentation regarding sensor technology deployed for ignition detection and wildfire confirmation?
2.5.6.Q2	Are results of sensor and system capability testing provided for review?
2.5.6.Q3	Does each circuit in the grid have at least one sensor technology installed to detect an ignition?
2.5.6.Q4	Does each circuit in the grid have at least two sensor technologies installed to detect an ignition?
2.5.6.Q5	Are sensors deployed on each circuit with automatic verification?
6.1.1.Q6	Are at least 50% of the electrical corporation emergency and disaster preparedness plans integrated into relevant public safety partner's emergency plans within the service territory?
6.1.1.Q7	Are at least 75% of the electrical corporation emergency and disaster preparedness plans integrated into relevant public safety partner's emergency plans within the service territory?
6.1.3.Q12	Does the electrical corporation review memoranda of agreement and mutual aid agreements with key public safety partners for any required updates annually, immediately after each core fire season?
6.1.3.Q13	Does the electrical corporation review and provide feedback on public safety partners' Emergency and Disaster Preparedness plans to be in-line with the electrical corporation's plans at least every five years?
6.1.3.Q14	Does the electrical corporation review and provide feedback on public safety partners' Emergency and Disaster Preparedness plans to be in-line with the electrical corporation's plans at least every two years?
6.2.1.Q4	Are resources available for Mutual Aid Agreements?
6.2.1.Q5	What percentage of relevant Public Safety Partners provided consultation and/or verbal or written comments on electrical corporation's most recent plan?
6.2.1.Q6	What percentage of relevant Public Safety Partners' communication strategy (e.g., protocols, procedures, and systems) are coordinated with the electrical corporation to inform public safety partners and other interconnected electrical corporation partners of wildfire, PSPS and re-energization incidents?
6.2.2.Q11	Does the electrical corporation review memoranda of agreements with key public safety partners and interconnected electrical corporations for any required updates at least once annually, immediately after each core fire season?
6.3.1.Q1	Is the detection of an ignition automatically communicated to public safety partners?

Question #	Question
6.3.1.Q7	Does the electrical corporation automatically communicate instructions for emergency action to members of the public and public safety partners?
6.3.4.Q6	Does the electrical corporation provide support services at locations in the community within one hour of wildfire detection; two days before PSPS implementation, outages due to wildfires and PSPS, and service restoration?
6.3.4.Q7	Does the electrical corporation provide instructions for emergency protective action and links to credible public safety partners' emergency communications (e.g., shelter- in-place, evacuation) within 30 minutes of wildfire detection; two days before PSPS implementation, outages due to wildfires and PSPS, and service restoration?
6.4.2.Q2	Is the electrical corporation's re-energization and recovery plan annually coordinated and integrated with at least 75% of state, county, and city agencies in the electrical corporation's service territory?
6.4.2.Q3	Is the electrical corporation's re-energization and recovery plan annually coordinated and integrated with all state, county, and city agencies in the electrical corporation's service territory?
7.4.1.Q6	Does the electrical corporation provide annual feedback and input on at least four local wildfire mitigation activities (e.g., CWPPs, safety elements in general plans, local hazard mitigation plans)?
7.4.1.Q7	Is the frequency of electrical corporation's effort based on the update cycle of the respective planning effort (e.g., every five years for a CWPP)?

Table 2: Problematic Questions That Do Not Fully Consider Affordability or Feasibility Concerns

Question #	Question
1.1.2.Q10	Do electrical corporation models include community-specific vegetation treatment plans throughout the service territory as inputs?
1.1.5.Q7	Does modeling software include a weather-driven seasonal vegetation growth module?
1.1.6.Q1	What horizontal resolution is employed for statistical weather and climate models?
1.1.6.Q2	What horizontal resolution is employed for statistical fire models?
1.3.2.Q6	Do models of community vulnerability to wildfire and PSPS include legacy building codes as an input?
1.3.2.Q7	Do models of community vulnerability to wildfire and PSPS include collaborative community wildfire preparedness initiatives (e.g., Firewise) as an input?
2.2.10.Q4	Is the sensitivity of model output predictions to uncertainty in each input parameter known and documented?
3.1.1.Q1	Are asset inspection findings verified through QA/QC process within one day of the inspection?
3.2.1.Q10	Is the content of each distribution inspection (i.e., checklist or technology being used) determined independently by predictive modeling of equipment failure probability?
3.3.2.Q4	How quickly are level 2 findings (as defined in GO-95 rule 18) within HFTD Tier 3 addressed?
3.3.2.Q5	How quickly are level 2 findings (as defined in GO-95 rule 18) within HFTD Tier 2 addressed?
3.3.2.Q6	How quickly are level 2 findings (as defined in GO-95 rule 18) outside the HFTD addressed?
3.4.6.Q8	Are all design decisions assessed in collaboration with the research community?
4.1.2.Q8	Does the vegetation database inform about up-to-date tree health and moisture content to determine risk of ignition and propagation?
4.3.2.Q3	How quickly does the electrical corporation respond to findings from inspections (e.g., routine treatment versus dying tree which is likely to fall on a line)?
5.2.1.Q1	Does the electrical corporation use predictive modeling to shorten the expected life of equipment based on documented grid operating history?
5.3.1.Q8	Does the electrical corporation notify at least 99% of affected customers of an upcoming PSPS event?
5.3.1.Q9	Does the electrical corporation notify at least 99.9% of affected medical baseline customers of an upcoming PSPS event?
5.3.1.Q11	Does the electrical corporation notify at least 99.9% of affected customers of an upcoming PSPS event?
5.3.1.Q12	Does the electrical corporation notify 100% of affected medical baseline customers of an upcoming PSPS event?
5.3.3.Q9	Are PSPS events conducted such that de-energized circuits have sufficient redundancy to avoid disruption in energy supply to customers?

Table 3: Questions That Reference Energy Safety Requirements That Are Not Clearly Defined

Question #	Question
1.1.2.Q2	Do fire weather conditions meet the minimum design scenarios established by Energy Safety requirements?
1.1.3.Q1	Does electrical corporation database management meet the minimum Energy Safety requirements?
1.1.7.Q1	Are assumptions and limitations of the model(s) known and documented in accordance with Energy Safety requirements?
1.1.8.Q1	Does the electrical corporation share data and methods in a manner than meets the minimum Energy Safety reporting requirements?
1.1.9.Q1	Is the statistical uncertainty in model inputs and parameters (aleatory) known and documented in accordance with Energy Safety requirements?
1.1.9.Q2	Is the statistical uncertainty in modeling assumptions, limitations, and parameterizations (epistemic) known and documented in accordance with Energy Safety requirements?
1.1.10.Q1	Is model substantiation provided in accordance with Energy Safety requirements?
1.2.6.Q1	Are assumptions and limitations of the model(s) known and documented in accordance with Energy Safety requirements?
1.2.7.Q1	Does the electrical corporation share data and methods in a manner than meets the minimum Energy Safety reporting requirements?
1.2.8.Q1	Is model substantiation provided in accordance with Energy Safety requirements?
1.3.6.Q1	Are assumptions and limitations of the model(s) known and documented in accordance with Energy Safety requirements?
1.3.7.Q1	Does the electrical corporation share data and methods in a manner than meets the minimum reporting requirements of Energy Safety requirements?
1.3.8.Q1	Is model substantiation provided in accordance with Energy Safety requirements?
1.4.2.Q1	Does the electrical corporation calculate each risk and risk component in accordance with Energy Safety requirements including each design scenario?
1.4.7.Q1	Are assumptions and limitations of the model(s) known and documented in accordance with Energy Safety requirements?
1.4.8.Q1	Does the electrical corporation share data and methods in a manner than meets the minimum Energy Safety reporting requirements?
1.4.9.Q1	Is the statistical uncertainty in model inputs and parameters (aleatory) known and documented in accordance with Energy Safety requirements?
1.4.9.Q2	Is the statistical uncertainty in modeling assumptions, limitations, and parameterizations (epistemic) known and documented in accordance with Energy Safety requirements?
1.4.10.Q1	Is model substantiation provided in accordance with Energy Safety requirements?
1.5.2.Q1	Are risk events tracked in accordance with Energy Safety requirements?
1.6.7.Q1	Are assumptions and limitations of the model(s) known and documented in accordance with Energy Safety requirements?
1.6.8.Q1	Is model substantiation provided in accordance with Energy Safety requirements?
2.1.2.Q1	Does the electrical corporation ignition likelihood estimation consider each type of equipment operation/failure, vegetation contact, and object contact specified in Energy Safety requirements?
2.1.3.Q1	Does electrical corporation database management meet the minimum Energy Safety requirements?
2.1.7.Q1	Are assumptions and limitations of the model(s) known and documented in accordance with Energy Safety requirements?
2.1.8.Q1	Does the electrical corporation share data and methods in a manner that meets the minimum Energy Safety reporting requirements?
2.1.9.Q1	Is the statistical uncertainty in model outputs known and documented in accordance with Energy Safety requirements?
2.1.10.Q1	Is model substantiation provided in accordance with Energy Safety requirements?

Question #	Question
2.2.2.Q1	Do electrical corporation medium-term weather forecasts align with the minimum Energy Safety requirements?
2.2.4.Q1	Does electrical corporation database management meet the minimum Energy Safety requirements?
2.2.8.Q1	Are assumptions and limitations of the model(s) known and documented in accordance with Energy Safety requirements?
2.2.9.Q1	Does the electrical corporation meet the minimum data and method Energy Safety reporting requirements?
2.2.10.Q1	Is the statistical uncertainty in model outputs known and documented in accordance with Energy Safety requirements?
2.2.11.Q1	Is model substantiation provided in accordance with Energy Safety requirements?
2.3.1.Q5	Is wildfire spread forecasting conducted in accordance with Energy Safety requirements?
2.3.1.Q6	Is a Fire potential Index (FPI) calculated in accordance with Energy Safety requirements?
2.3.2.Q1	Does the electrical corporation forecast wildfire spread in accordance with Energy Safety requirements?
2.3.7.Q1	Does the electrical corporation share model data and methods in accordance with Energy Safety requirements?
2.3.8.Q1	Is the statistical uncertainty in model outputs known and documented in accordance with Energy Safety requirements?
2.3.9.Q1	Is model substantiation provided in accordance with Energy Safety requirements?
2.4.6.Q1	Does the electrical corporation meet the Energy Safety minimum data and method reporting requirements?
2.4.7.Q1	Is the statistical uncertainty in data collection known and documented in accordance with Energy Safety requirements?
7.2.1.Q1	Does the electrical corporation provide public engagement or participatory activities as part of its wildfire mitigation planning process, which informs Energy Safety's annual WMP/WMP Update submission and evaluation process in accordance with Public Utilities Code section 8386 and Energy Safety requirements?

Table 4: Questions That Are Based on Incorrect Scientific / Technical Assumptions

Question #	Question
1.1.7.Q10	Do your annual model validation results indicate that no changes should be made to your modeling assumptions?
1.2.6.Q10	Do your annual model validation results indicate that no changes should be made to your modeling assumptions?
1.3.6.Q10	Do your annual model validation results indicate that no changes should be made to your modeling assumptions?
1.4.7.Q10	Do your annual model validation results indicate that no changes should be made to your modeling assumptions?
1.6.7.Q10	Do your annual model validation results indicate that no changes should be made to your modeling assumptions?
2.1.7.Q9	Do your annual model validation results indicate that no changes should be made to your modeling assumptions?
2.2.8.Q10	Do your annual model validation results indicate that no changes should be made to your modeling assumptions?
5.2.4.Q2	The predictive model used for shortening the expected life of equipment undergoes subject matter expert review at what frequency?