



OFFICE OF ENERGY INFRASTRUCTURE SAFETY

715 P Street, 20th Floor | Sacramento, CA 95814
916.902.6000 | www.energysafety.ca.gov

November 23, 2022

To: Stakeholders for Electrical Corporation Wildfire Mitigation Plans

SUBJECT: Office of Energy Infrastructure Safety’s Response to the 2022 Wildfire Safety Advisory Board’s Recommendations on its Wildfire Mitigation Plan Guidelines

Dear Stakeholders:

Please find enclosed the Office of Energy Infrastructure Safety’s (Energy Safety’s) evaluation of the recommendations provided by the Wildfire Safety Advisory Board (WSAB) in relation to its Wildfire Mitigation Plan Guidelines (Report). This includes recommendations from the WSAB on performance metrics and additional Wildfire Mitigation Plan requirements. In accordance with Public Utilities Code section 8389(c), Energy Safety issued this Report to the California Public Utilities Commission.

Public Utilities Code section 8389(b) directs the WSAB to make recommendations to Energy Safety regarding appropriate performance metrics and appropriate requirements in addition to the requirements set forth in Public Utilities Code section 8386 for the Wildfire Mitigation Plan. The WSAB issued its draft “Recommendations to Office of Energy Infrastructure Safety on Additional Wildfire Mitigation Plan Requirements and Performance Metrics” pursuant to Public Utilities Code section 8389(b) on April 18, 2022.¹ These recommendations were adopted by the Wildfire Safety Advisory Board on April 26, 2022.²

Sincerely,

A handwritten signature in cursive script that reads "Lucy C Morgans".

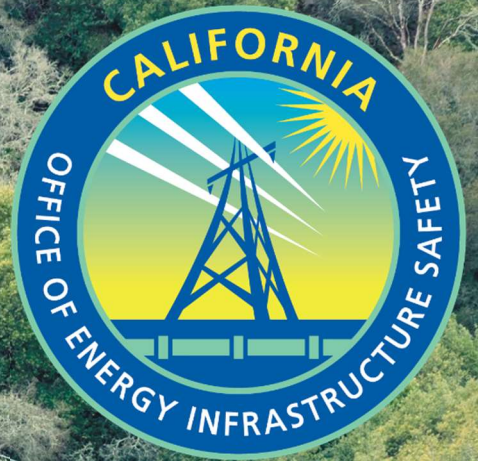
Lucy Morgans
Program Manager
Electric Safety Policy Division
Office of Energy Infrastructure Safety

¹ [Recommendations to Office of Energy Infrastructure Safety on Additional Wildfire Mitigation Plan Requirements and Performance Metrics” \(draft version published April 18, 2022\)](https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52307&shareable=true)

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52307&shareable=true>, accessed November 17, 2022).

² [“Recommendations to Office of Energy Infrastructure Safety on Additional Wildfire Mitigation Plan Requirements and Performance Metrics” \(final version adopted April 26, 2022, published May 3, 2022\)](https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52397&shareable=true)

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52397&shareable=true>, accessed November 17, 2022).



EVALUATION OF THE WILDFIRE SAFETY ADVISORY BOARD'S RECOMMENDATIONS FOR THE WILDFIRE MITIGATION PLAN GUIDELINES

OFFICE OF ENERGY INFRASTRUCTURE SAFETY

NOVEMBER 2022

TABLE OF CONTENTS

1	Introduction	1
2	Evaluation of the WSAB’s Recommendations for the WMP Guidelines	5
2.1	Recommendations for the 2023-2025 WMP Guidelines	6
2.1.1	Structure and Scope	6
2.1.2	Risk Modeling and Reporting.....	10
2.1.3	Vegetation Management.....	12
2.1.4	Grid Design, System Hardening, Operations and Maintenance.....	16

LIST OF TABLES

Table 1: Summary of Energy Safety’s Evaluation of the WSAB’s Recommendations for the WMP Guidelines.....	3
Table 2-1: Energy Safety’s Evaluation of the WSAB’s Recommendations for the WMP Guidelines: Structure and Scope.....	6
Table 2-2: Energy Safety’s Evaluation of the WSAB’s Recommendations for the WMP Guidelines: Risk Modeling and Reporting	10
Table 2-3: Energy Safety’s Evaluation of the WSAB’s Recommendations for the WMP Guidelines: Vegetation Management	12
Table 2-4: Energy Safety’s Evaluation of the WSAB’s Recommendations for the WMP Guidelines: Grid Design, System Hardening, Operations and Maintenance	16
Table 2-5: Energy Safety’s Evaluation of the WSAB’s Recommendations for the WMP Guidelines: Communication and Community Outreach	20

1 INTRODUCTION

In accordance with Public Utilities Code section 8389(c),¹ this document fulfills the Office of Energy Infrastructure Safety's (Energy Safety's) statutory requirement to issue an analysis and recommendation to the California Public Utilities Commission (Commission or CPUC) on recommendations from the Wildfire Safety Advisory Board (WSAB or Board) pursuant to Public Utilities Code section 8389(b).

Public Utilities Code section 8389(b) directs the WSAB to make recommendations to Energy Safety by June 30, 2020, and annually thereafter regarding:

- Appropriate performance metrics and processes for determining each electrical corporation's compliance with its approved Wildfire Mitigation Plan (WMP)
- Appropriate requirements in addition to the requirements set forth in Public Utilities Code section 8386 for the WMP
- The appropriate scope and process for assessing the safety culture of an electrical corporation

The WSAB issued its draft recommendations to Energy Safety, "Recommendations to Office of Energy Infrastructure Safety on Additional Wildfire Mitigation Plan Requirements and Performance Metrics" (the WSAB's Recommendations), on April 18, 2022.² The WSAB adopted its final recommendations at its quarterly meeting on April 26, 2022.³ The WSAB's recommendations are specifically aimed at assisting Energy Safety in the process of updating its WMP Guidelines for 2023-2025 (the WMP Guidelines) and performance metrics that will apply to the new three-year WMP cycle, which commences in 2023.

¹ [Public Utilities Code section 8389](#)

https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=PUC§ionNum=8389 (accessed August 26, 2022).

² ["Recommendations to Office of Energy Infrastructure Safety on Additional Wildfire Mitigation Plan Requirements and Performance Metrics"](#) (draft version published April 18, 2022)

<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52307&shareable=true> (accessed August 29, 2022).

³ ["Recommendations to Office of Energy Infrastructure Safety on Additional Wildfire Mitigation Plan Requirements and Performance Metrics"](#) (final version adopted April 26, 2022, published May 3, 2022)

<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52397&shareable=true> (accessed August 29, 2022).

The WSAB adopted recommendations on the appropriate scope and process for assessing the safety culture of an electrical corporation associated with Public Utilities Code section 8389(b) on August 30, 2022.⁴ Energy Safety will respond to these recommendations separately.

In accordance with Public Utilities Code section 8389(c), Energy Safety has analyzed and evaluated the WSAB's Recommendations on the WMP Guidelines and provides its corresponding analysis and recommendations to the Commission below. The WSAB issued 23 recommendations. Energy Safety proposes to incorporate, incorporate with adjustments, or not incorporate these into the WMP Guidelines as follows:

- Energy Safety proposes to incorporate seven recommendations
- Energy Safety proposes to incorporate with adjustments 15 recommendations
- Energy Safety does not propose to incorporate one recommendation




See Tables 1 and 2.1-2.5 below for more details.

Energy Safety has reviewed the WSAB's recommendations and found no new WMP requirements per Public Utilities Code section 8389(c).

⁴ [Recommendations of the Wildfire Safety Advisory Board on Safety Culture Assessment: Final August 31, 2022 \(adopted Aug. 30, 2022, published Sept. 2, 2022\)](#),

(<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53001&shareable=true>, accessed Sept. 2, 2022).

Table 1: Summary of Energy Safety’s Evaluation of the WSAB’s Recommendations for the WMP Guidelines⁵

		
Incorporate	Incorporate with adjustments	Do not incorporate at this time
<ul style="list-style-type: none"> • 1.1 Continued coordination of WMP evaluations with other state agencies • 1.2 Comprehensive utility overview and mitigation plan summary • 1.4 Topical organizational approach • 1.5 Inclusion of Section 9.2 and section references • 2.3 Maps should be created defining polygons of priority, showing where mitigation efforts are focused • 4.5 Reporting of protocols and practices for older legacy equipment • 5.2 Enhanced reporting on utility collaborative efforts with local governments and community-based organizations 	<ul style="list-style-type: none"> • 1.3 Collaboration with California Department of Forestry and Fire Protection (CALFIRE) on vegetation management • 1.6 Creation of separate Guidelines for the small and multi-jurisdictional utilities (SMJUs) and independent transmission operators (ITOs) • 2.1 Avoid describing risks or model parameters as “unknown” • 2.2 Tracking of notices of violations • 3.1 Incorporation of fire science in vegetation management plans • 3.2 Collaboration with the WSAB on tree replacement programs • 3.3 Continued reporting of tree removal activities 	<ul style="list-style-type: none"> • 4.3 Workforce safety protocols

⁵ The number assigned to each recommendation corresponds with the numbers assigned in the “Recommendations to Office of Energy Infrastructure Safety on Additional Wildfire Mitigation Plan Requirements and Performance Metrics” (adopted April 26, 2022). For example, recommendation 1.4 is the fourth recommendation in Section 1 of the WSAB’s Recommendations.



Incorporate



Incorporate with adjustments



Do not incorporate at this time

- **3.4** Pilot program requirements
- **3.5** Reporting on chemical attributes of herbicides, pesticides, and other tree growth regulators
- **4.1** Summary of Utilities’ research efforts and pilot projects
- **4.2** Inclusion of lessons-learned
- **4.4** Identification of equipment or lines that may be energized without serving load
- **4.6** Increased SMJUs and ITOs inspection requirements
- **5.1** Linkage between customer outreach and mitigation programs at the CPUC and other agencies
- **5.3** Customer outreach evaluation and effectiveness analytics for PSPS

2 EVALUATION OF THE WSAB'S RECOMMENDATIONS FOR THE WMP GUIDELINES

The tables below presents the WSAB's recommendations in the left-hand column, Energy Safety's recommendations in the middle column, and Energy Safety's analysis explaining its recommendations in the right-hand column.

The tables are organized based on the five main categories in the WSAB's Recommendations: (1) Structure and Scope, (2) Risk Modeling and Reporting, (3) Vegetation Management, (4) System Design and Operation, and (5) Communication and Community Outreach.

2.1 Recommendations for the 2023-2025 WMP Guidelines

2.1.1 Structure and Scope

Table 2-1: Energy Safety’s Evaluation of the WSAB’s Recommendations for the WMP Guidelines: Structure and Scope

WSAB Recommendation	Energy Safety Recommendation	Analysis
<p>1.1 Continued Coordination of WMP Evaluations with Other Regulators</p> <p>The Board recommends that Energy Safety continue to coordinate wildfire mitigation plan evaluation efforts with other governmental entities and the California Public Utilities Commission and its relevant proceedings.</p>	<p>Incorporate.</p> <ul style="list-style-type: none"> Energy Safety will continue its coordination efforts with the CPUC, CALFIRE and other state agencies in evaluating and regulating utility-wildfire risk. 	<ul style="list-style-type: none"> Energy Safety recognizes the critical role played by other state agencies in the evaluation process and will continue to coordinate closely with the CPUC and other relevant government agencies, including CAL FIRE, during the evaluation of the electrical corporation’s WMPs.
<p>1.2 Comprehensive Utility Overview and Mitigation Plan Summary</p> <p>Energy Safety should revise the WMP guidelines to include a simplified and comprehensive utility overview and mitigation plan summary at the beginning of WMPs.</p> <p>These initial sections should include relevant and illustrative charts and figures to assist in reviewers understanding.</p>	<p>Incorporate.</p> <ul style="list-style-type: none"> Energy Safety proposes two new sections for the draft WMP Guidelines, one that will require the electrical corporations to provide a high-level overview of their utility service territory and a second to summarize their wildfire mitigation strategy. 	<ul style="list-style-type: none"> Energy Safety is proposing to require the electrical corporations to provide a simple overview of their service territory and summary of their proposed mitigation strategy at the beginning of their WMPs to increase transparency and understanding of the scope of the utilities’ wildfire risk mitigation strategy. This will aid not only in reviews conducted by the public and other interested parties, but also evaluations conducted by Energy

WSAB Recommendation	Energy Safety Recommendation	Analysis
		Safety.
<p>1.3 Collaboration with CAL FIRE on Vegetation Management (VM)</p> <p>WMPs should briefly describe how utilities collaborate with CAL FIRE on vegetation management, including describing any support for or collaboration around prescribed fire in high fire threat districts and trends in collaboration over time (is collaboration improving).</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> • Energy Safety is proposing to include explicit reporting requirements for collaborating with public and private stakeholders on wildfire mitigation planning (which can include vegetation management) as part of the Community Outreach and Engagement Initiative included within the WMP Guidelines. • Additionally, the Utility Wildfire Mitigation Maturity Survey⁶ already tracks electrical corporations’ improvements on VM collaboration. 	<ul style="list-style-type: none"> • Coordination with CAL FIRE on vegetation management strategies (e.g., prescribed burns) in high fire threat districts (HFTDs), in general, is not within the scope of the utility’s responsibility. • Encouraging community engagement and collaboration with private and public stakeholder groups can help garner support more generally, and this can help when conducting VM along the-right-of-way.
<p>1.4 Topical Organizational Approach</p> <p>The Board recommends that Energy Safety incorporate a topical organizational approach to the 2023 WMP</p>	<p>Incorporate.</p> <ul style="list-style-type: none"> • Energy Safety is restructuring the WMP Guidelines such that the electrical corporations organize their WMP 	<ul style="list-style-type: none"> • Energy Safety proposes a problem-solving structure for each section of the WMP Guidelines. This will provide a risk-informed and logical flow path from the problem to the solution on

⁶ The Utility Wildfire Mitigation Maturity Survey is a tool to assess utility wildfire risk mitigation capabilities and examine the relative maturity of the wildfire mitigation programs. For more information, see the [text of the 2022 Utility Wildfire Mitigation Maturity Survey](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2022/docs/2022-maturity-survey-with-cover-page.pdf) (Dec. 2021) <https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2022/docs/2022-maturity-survey-with-cover-page.pdf> (accessed Aug. 30, 2022).

WSAB Recommendation	Energy Safety Recommendation	Analysis
<p>Guidelines.</p>	<p>submissions with sections that consolidate information and data across a single technical or operational category (e.g., a section on Risk Assessment, a section on Wildfire Mitigation Strategy, and a section on Grid Design, Operations and Maintenance).</p>	<p>presented information.</p>
<p>1.5 Section 9.2 & Section References</p> <p>The material contained in Section 9.2 of the 2022 Guidelines should be included in 2023.</p> <p>The Board recommends that links to the relevant WMP sections and to the reference materials be included.</p>	<p>Incorporate.</p> <ul style="list-style-type: none"> • Energy Safety is proposing to include the material contained in Section 9.2 of the 2022 WMP Guidelines in the WMP Guidelines for 2023-2025. This includes additional links to the relevant WMP sections and reference materials. 	<ul style="list-style-type: none"> • Energy Safety already requires the electrical corporations to provide a list of all relevant codes, standards, regulations, and best practice guidance documents that informed the design, implementation, operations, and maintenance program(s), which is critical for regulatory oversight and utility accountability. • Links to relevant WMP sections and reference materials are essential for improving navigation.
<p>1.6 Creation of Separate SMJU & ITO Guidelines</p> <p>Energy Safety should consider creating separate guidelines for the SMJUs and ITOs and consider relieving them of some</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> • Energy Safety is not proposing a separate set of WMP Guidelines for the SMJUs. • ITOs, however, are proposed to have a streamlined set of reporting requirements in 	<ul style="list-style-type: none"> • Differences in WMP reporting requirements, breadth, and depth of wildfire mitigation strategies and WMP evaluation criteria for large IOUs, SMJUs and ITOs should be substantiated by risk-informed

WSAB Recommendation	Energy Safety Recommendation	Analysis
of the reporting requirements, while at the same time continuing to ensure sufficient information for understanding of wildfire mitigation efforts.	the WMP Guidelines.	methods (quantitative and qualitative). <ul style="list-style-type: none">• The level of risk that needs to be managed does not currently support a separate set of guidelines for the SMJUs.• Due to the nominal wildfire risk of previously evaluated ITOs (i.e., located entirely in urban landscape, little to no overhead transmission lines, no historical wildfire risk, no customer base in one case), the ITOs have a risk-informed justification for streamlined reporting that meets regulatory requirements of Public Utilities Code section 8386(c).

2.1.2 Risk Modeling and Reporting

Table 3-2: Energy Safety’s Evaluation of the WSAB’s Recommendations for the WMP Guidelines: Risk Modeling and Reporting

WSAB Recommendation	Energy Safety Recommendation	Analysis
<p>2.1 Avoid “Unknown” Description for Risk or Model Parameters</p> <p>The Board recommends that utility WMPs avoid describing risks or model parameters, etc., as “unknown.”</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> In the WMP Guidelines Energy Safety directs the electrical corporations to be clear in their terminology. However, as some parameters may be truly unknown, Energy Safety proposes that the utility is permitted to use the “unknown” descriptor, as appropriate. 	<ul style="list-style-type: none"> If there is uncertainty in an input parameter or a probabilistic weather parameter, it should be referred to as uncertain. However, if a parameter is truly unknown, for example, failure rates for a piece of equipment that could start a fire if it failed, but it has not been observed failing, this would be an unknown parameter.
<p>2.2 Tracking of Notices of Violations</p> <p>The 2023 WMP Guidelines should include tracking over time of the number of notices of violation on their systems – tracked separately for violations within high fire threat areas and without, providing intelligence about the utility’s prioritization of system inspection and maintenance.</p> <p>Utilities should provide short descriptions of any violations found categorized as “severe” and requiring immediate correction.</p> <p>Energy Safety should coordinate with other state agencies and experts to</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> Energy Safety is proposing to include a Compliance Assurance section in the WMP Guidelines to provide evaluators and the public with a summary of all compliance findings (i.e., defects and violations). Energy Safety is proposing to require that the electrical corporations report on lessons learned from past wildfires, and this can include violations from CPUC, etc. 	<ul style="list-style-type: none"> Incorporating a Compliance Assurance section will provide a feedback mechanism on the feasibility and effective implementation of a utility’s WMP. This provides significant value in holding utilities accountable as part of the evaluation process, and review by the public and stakeholders. Energy Safety’s Compliance Division already coordinates with the CPUC on identified defects. Coordination efforts across all relevant utility-wildfire safety regulators continues to be a priority for Energy Safety.

WSAB Recommendation	Energy Safety Recommendation	Analysis
<p>review these notices of violations and recommend changes to wildfire mitigation practices.</p>		<ul style="list-style-type: none"> • Add one more bullet explaining lessons learned section.
<p>2.3 Incorporation of Maps that Show where Mitigation Efforts are Focused The Board recommends maps be created defining polygons of priority, showing where mitigation efforts are focused in relation to risks and indicating mitigation efforts by type, scope, region, and timeline.</p>	<p>Incorporate.</p> <ul style="list-style-type: none"> • Energy Safety proposes this as a new requirement for the Wildfire Mitigation Strategy Section for the WMP Guidelines. 	<ul style="list-style-type: none"> • Visually showing where mitigation efforts are focused via the use of maps and other visual aids is critical for effectively understanding, evaluating, and monitoring a utility’s WMP.

2.1.3 Vegetation Management

Table 4-3: Energy Safety’s Evaluation of the WSAB’s Recommendations for the WMP Guidelines: Vegetation Management

WSAB Recommendation	Energy Safety Recommendation	Analysis
<p>3.1 Incorporation of Fire Science in Vegetation Management Plans</p> <p>The Board recommends that utilities’ WMPs report on how their vegetation management plans and activities:</p> <ul style="list-style-type: none"> a) Are informed by the latest fire science related to vegetation management in different ecosystems. b) Reflect consideration of potential longer-term ecosystem changes that may increase fire hazards. c) Are reflective of consideration about unintended changes in wind speeds, temperatures, moisture content, and other wildfire factors. 	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> • Regarding part (a) of the WSAB recommendation: Energy Safety is proposing to include within the WMP Guidelines a requirement that the electrical corporations report fire adaptive approaches to right-of-way VM. Energy Safety is proposing to include within the WMP Guidelines a requirement that the electrical corporations integrate the use of fire science/fire ecology as part of the Utility Wildfire Mitigation Maturity Survey and as part of enhancing community outreach/engagement. • Regarding part (b) of the recommendation: Energy Safety is proposing to include within the WMP Guidelines a requirement for the electrical corporations to analyze long-term potential changes in fuels as part of a design risk scenario(s). • Regarding part (c) of the recommendation: Similar to (b), Energy Safety is proposing to include within the WMP Guidelines a requirement for the electrical corporations to 	<ul style="list-style-type: none"> • Current regulations do not require the utilities to base their VM practices in the right-of-way on fire science or fire ecology. Fire science can be used to demonstrate reduced risk of catastrophic fires or more holistic, fire adaptive approaches in the utility right-of-way. • The long-term impacts of climate change on vegetation and ecosystems are a critical aspect of understanding long-term risk potential of utility-infrastructure. • Evaluating the potential impacts of a credible range of environmental settings, as well as some extreme events scenarios is considered best practice for understanding the upper bounds of wildfire risk to inform long-term decision-making.

WSAB Recommendation	Energy Safety Recommendation	Analysis
	analyze potential impacts of a credible range of environmental settings and extreme events as part of utility risk assessment.	
<p>3.2 Collaboration with WSAB on Tree Replacement Programs</p> <p>The Board looks forward to collaborating on the inclusion in the 2023 WMP Guidelines of descriptions of tree replacement programs and how utility WMPs are informed by ecologists and fire scientists on staff or under contract.</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> • Energy Safety is proposing to include a mitigation initiative within the WMP Guidelines, which requires electrical corporations to report on actions taken to promote compatible (with use of the land as a utility right-of-way), sustainable, fire-wise vegetation communities, and to control incompatible vegetation in the landscape where electrical equipment operates. • Energy Safety will collaborate with the WSAB to develop clarification and justification for the proposed program, analysis of the risk-spend efficiency and how it translates to reducing wildfire risk within the right-of-way. 	<ul style="list-style-type: none"> • A tree replacement program is not a required part of a VM program, but is a worthwhile community engagement initiative that utilities could elect to undertake to support community building and partnerships. This is an example of a program that a utility should report on actions taken. • These adjustments are requesting a report on their actions for promoting good vegetation management to encourage these types of activities.
<p>3.3 Tree Removal Activity Reporting</p> <p>The Board encourages continued reporting about tree removal activities in utility WMPs.</p> <p>The Board recommends that Energy Safety engage in interactions with and provide recommendations to those other</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> • Energy Safety currently engages with CAL FIRE on electrical corporations’ VM practices and proposes to continue this effort as well as expand to other relevant agencies. • Reporting on tree removal activities is 	<ul style="list-style-type: none"> • Tree removal is already a reporting requirement and will continue to be a requirement. • Energy Safety currently engages with CAL FIRE and other relevant agencies on utility VM practices and activities.

WSAB Recommendation	Energy Safety Recommendation	Analysis
<p>agencies with authority on approving and prohibiting tree removals and other nearby vegetation management practices in the surrounding community.</p>	<p>already a reporting requirement and will remain in the WMP Guidelines.</p>	
<p>3.4 Pilot Program Requirements</p> <p>The 2023 WMP Guidelines should require additional and expanded pilot programs to plant low-growing shrubs as Utility Defensible Space under utility right of ways or in other areas near utility lines where the shrubs could act as ember catchers and prevent the incursion of dry grasses that create a high risk of wildfire ignition.</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> Energy Safety is proposing to include within the WMP Guidelines a requirement that the electrical corporations report on actions taken to promote compatible (with use of the land as a utility right-of-way), sustainable, and fire-wise vegetation communities and control incompatible vegetation on the landscape where electrical equipment operates. 	<ul style="list-style-type: none"> Utilities determine which mitigation initiative(s) it deems appropriate for its service territory and explains how the initiative(s) will achieve wildfire risk reduction targets. The guidelines do not require utilities to engage in any specific pilot program; however, utilities are required to report on pilot programs and utilities could include low-growing shrubs as part of its mitigation strategies. Energy Safety seeks to better understand the technical fire science/fire ecology for the use of low-growing shrubs inside and/or outside the right-of-way. Energy Safety will follow-up with the WSAB on this recommendation.
<p>3.5 Reporting of Chemical Attributes of Herbicides, Pesticides, etc.</p> <p>The 2023 WMP Guidelines should require WMPs to provide information on the chemical composition of tree growth</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> Energy Safety is proposing to include within the WMP Guidelines a requirement that the electrical corporations report on actions taken to promote compatible (with use of 	<ul style="list-style-type: none"> Use of herbicides and pesticides is already regulated by County Agricultural Commissions and the California Department of Pesticide Regulation.

WSAB Recommendation	Energy Safety Recommendation	Analysis
regulators and herbicides used, the precautions and protocols for their application, the volumes, where and how applied (e.g., over how big of an area), the frequency of application, and plans for transitions to program alternatives that are more environmentally benign.	the land as a utility right-of-way), sustainable, and fire-wise vegetation communities and control incompatible vegetation on the landscape where electrical equipment operates.	<ul style="list-style-type: none">• Electrical corporations could describe transitions away from herbicides under the proposed WMP initiative.

2.1.4 Grid Design, System Hardening, Operations and Maintenance

Table 5-4: Energy Safety’s Evaluation of the WSAB’s Recommendations for the WMP Guidelines: Grid Design, System Hardening, Operations and Maintenance

WSAB Recommendation	Energy Safety Recommendation	Analysis
<p>4.1 Summary of Utilities’ Research Efforts and Pilot Projects</p> <p>The Board recommends that the 2023 WMP Guidelines require a summary table for the utilities research efforts and pilot projects and allow more flexibility in describing research projects, hopefully leading to a more cohesive picture of the research efforts.</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> Energy Safety is proposing to include within the WMP Guidelines a requirement that the electrical corporations substantiate the quality and technical rigor of any research that is used as justification for a mitigation initiative or activity. 	<ul style="list-style-type: none"> Energy Safety currently does not require electrical corporations to conduct or fund research and/or pilot projects. However, if electrical corporations are using research to justify decisions, this research must be discussed in the WMP Utilities must also report on any pilot projects. Having high-level overviews of various research projects provide an indication of an electrical corporation’s efforts at continuous improvement. However, until the research is fully vetted and can be used to substantiate a mitigation initiative, overviews of research projects are not essential components to justifying the effectiveness of a utility’s WMP. Fully vetted research used to

WSAB Recommendation	Energy Safety Recommendation	Analysis
		<p>substantiate an initiative should be documented as part of the main body of the WMP.</p>
<p>4.2 Inclusion of Lessons Learned</p> <p>The 2023 WMP Guidelines should request that utilities provide specific information about responses to lessons learned from prior fires, from research projects, and fire or weather-related experiences elsewhere in the country and world. For example, if a particular piece of equipment such as a C-Hook is found to be at fault or a major contributor to a previous wildfire, the utilities should provide information in subsequent WMPs about how they are focusing on any other installations of such equipment and considering modification or replacement to prevent similar wildfires.</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> • Energy Safety is proposing to include within the WMP Guidelines several new sections that require the electrical corporations to report on the integration and explanation of lessons learned. For example, new reporting requirements include lessons-learned on previous catastrophic wildfires. • Furthermore, Energy Safety is proposing to include within the WMP Guidelines new additional reporting requirements for electrical corporations to demonstrate how they have adopted practices, policies, procedures, and programs to systematically capture lessons-learned and develop corrective actions. 	<ul style="list-style-type: none"> • Energy Safety currently does not require utilities to conduct or fund research and/or pilot projects. However, if utilities are using research to justify decisions, this research must be discussed in the WMP Utilities must also report on any pilot projects. • Having high-level overviews of various research projects provide an indication of a utility’s efforts at continuous improvement. However, until the research is fully vetted and can be used to substantiate a mitigation initiative, overviews of research projects are not essential components to justifying the effectiveness of a utility’s WMP. • Fully vetted research used to substantiate an initiative should be documented as part of the main body of the WMP.
<p>4.3 Workforce Safety Protocols</p>	<p>Do not incorporate at this time.</p>	<ul style="list-style-type: none"> • Workforce safety training is an OSHA requirement, and therefore

WSAB Recommendation	Energy Safety Recommendation	Analysis
<p>The 2023 WMP Guidelines should require the utilities to describe their protocols to provide for workforce safety when introducing new technologies or equipment and implementing new work practices.</p>	<ul style="list-style-type: none"> Energy Safety proposes to remove Occupational Safety and Health Administration (OSHA) reportable work-related incidents (e.g., injuries and fatalities) from the draft 2023 WMP Guidelines. 	<p>regulated by that agency.</p>
<p>4.4 Identification of Equipment or Lines That May be Energized Without Serving Load</p> <p>The 2023 WMP Guidelines should require the utilities to identify any equipment or lines that may still be energized but not serving load and analyze whether and how best to de-energize those lines and equipment and/or remove them from service.</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> Energy Safety is proposing that a central component of the WMP Guidelines is to require the electrical corporations to explicitly analyze, evaluate and identify ignition risk at the circuit and component level, as well as identify the highest risk circuits. This includes evaluating the risk of idle lines/equipment. Energy Safety is proposing to include within the WMP Guidelines a requirement that the electrical corporations provide best practices to de-energize idle lines. Requiring electrical corporations to report on removal of idle lines from service is not currently proposed for inclusion. 	<ul style="list-style-type: none"> Further study is required for the following: (1) evaluating the risk involved in keeping idle lines or equipment energized versus disconnecting completely when not in use, and (2) requiring the utilities to identify any equipment or lines that may still be energized and not in service. The practical aspects of what defines idle, how to identify accurately, how to evaluate and how to regulate this recommendation are not clear and requires further discussion and development with the WSAB and other stakeholders.
<p>4.5 Legacy Equipment Protocol Reporting</p>	<p>Incorporate.</p>	<ul style="list-style-type: none"> Legacy equipment presents unique and challenging wildfire safety risks

WSAB Recommendation	Energy Safety Recommendation	Analysis
<p>The 2023 WMP Guidelines should require reporting on utility protocols and practices applying to older legacy equipment installed prior to the current implementation of GO 95 standards, especially any equipment located in the high fire threat districts.</p>	<ul style="list-style-type: none"> Energy Safety is proposing to include within the WMP Guidelines a requirement that the electrical corporations report on practices and protocols for evaluating and maintaining appropriate strategies to manage any potential wildfire risks of legacy equipment. 	<p>that necessitate special risk assessment, evaluation, and development of appropriate strategies for mitigating wildfire risk.</p> <ul style="list-style-type: none"> It is critical that electrical corporations provide specific practices and protocols to evaluate and maintain appropriate operations, maintenance, monitoring and replacement strategies for legacy equipment in their WMPs.
<p>4.6 Increased SMJU & ITO Inspection Requirements</p> <p>The 2023 WMP Guidelines for SMJUs and ITOs should require descriptions of whether or how these entities plan to go beyond the minimum inspection requirements to achieve a better baseline understanding of their wildfire risks.</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> Refer to Recommendation 1.6. Energy Safety is not proposing to include within the WMP Guidelines a requirement that the SMJUs and ITOs go beyond statutory inspection requirements. However, Energy Safety is proposing to a requirement that all electrical corporations (including SMJUs and ITOs) report on activities that exceed requirements. The Electrical Corporation Wildfire Mitigation Maturity Survey asks about improvements in frequency of detailed inspections, asset inspections, all types of vegetation inspections, and “other” 	<ul style="list-style-type: none"> See Analysis in Recommendation 1.6. While it may be prudent for the SMJUs and ITOs to follow best practices for detailed and patrol inspections, CPUC General Order requirements define the minimum pace for asset inspections. Increasing inspections beyond statutory requirements should be risk-based.

WSAB Recommendation	Energy Safety Recommendation	Analysis
	inspections.	

2.1.5 Communication and Community Outreach

Table 6-5: Energy Safety’s Evaluation of the WSAB’s Recommendations for the WMP Guidelines: Communication and Community Outreach

WSAB Recommendation	Energy Safety Recommendation	Analysis
<p>5.1 Linkage Between Customer Outreach and Mitigation Programs</p> <p>The 2023 WMP Guidelines should require a description of the linkage between the customer outreach and mitigation programs at the CPUC and other agencies and the Energy Safety requirements.</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> The 2022 WMP Guidelines already include various PSPS reporting requirements regarding public notification, community outreach etc. These are proposed to be further expanded in the 2023-2025 WMP Guidelines. Energy Safety will require the electrical corporations to provide additional data on PSPS notification statistics in the 2023-2025 Quarterly Data Report (QDR) submissions. Examples include customers and medical customers notified, customers and medical customers notified prior to being impacted, and PSPS events for which a 	<ul style="list-style-type: none"> Energy Safety coordinates closely with the CPUC on PSPS reporting and will continue to do so to ensure that customer outreach and mitigation programs are fully described and reported.

WSAB Recommendation	Energy Safety Recommendation	Analysis
	notification was sent but no de-energization occurred. ⁷	
<p>5.2 Utility Collaborative Efforts with Local Governments and Communities</p> <p>The 2023 WMP Guidelines should require the utilities to include continued and enhanced reporting on utility collaborative efforts with local governments and community-based organizations.</p>	<p>Incorporate.</p> <ul style="list-style-type: none"> Energy Safety is proposing to include within the WMP Guidelines a requirement that the electrical corporations report on their collaboration efforts with local governments and community-based organizations. 	<ul style="list-style-type: none"> Energy Safety agrees that the electrical corporations should include continued and enhanced reporting on their own collaborative efforts with local governments and community-based organizations.
<p>5.3 Customer Outreach Evaluation Analytics and Effectiveness for PSPS Events</p> <p>The 2023 WMP Guidelines should require the utilities to include additional reporting on their customer outreach evaluation analytics and how these measurements guide next steps in their WMPs utilizing reports to other agencies (such as the CPUC).</p>	<p>Incorporate with adjustments.</p> <ul style="list-style-type: none"> Energy Safety is proposing to include within the WMP Guidelines a requirement that the electrical corporations report on initiatives in customer outreach on PSPS. Additional data is being collected on PSPS notification statistics in the 2023-2025 Quarterly Data Report (QDR) submissions. Examples include 	<ul style="list-style-type: none"> Energy Safety coordinates closely with the CPUC on PSPS reporting and will continue to do so to ensure that customer outreach and mitigation programs are fully described and reported.

⁷ More information about QDR submissions can be found in Attachment 5, Guidelines for Submission and Review of 2022 Wildfire Mitigation Plan Updates, of the [Final 2022 Wildfire Mitigation Plan Update Guidelines \(Dec. 2021\)](https://efiling.energy.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true) <https://efiling.energy.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true> (accessed Aug. 30, 2022).

WSAB Recommendation	Energy Safety Recommendation	Analysis
	customers and medical customers notified prior to a PSPS event, customers and medical customers notified prior to a PSPS event, and PSPS events for which a notification was sent but no de-energization occurred.	

DATA DRIVEN FORWARD-THINKING INNOVATIVE SAFETY FOCUSED



OFFICE OF ENERGY INFRASTRUCTURE SAFETY
A California Natural Resources Agency
www.energysafety.ca.gov

715 P Street, 20th Floor
Sacramento, CA 95814
916.902.6000

