

Wildfire Safety Advisory Board

December 3, 2025, 1:00 p.m.



Hybrid Meeting

*Sonoma County Transportation and Climate Authorities, Board Room
411 King Street, Santa Rosa, CA*

PARTICIPATION INFORMATION



Using more than one participation option may create feedback

Please begin your comment by stating your name and organization

- **Microsoft Teams:** <https://www.microsoft.com/en-us/microsoft-teams/join-a-meeting>

Meeting ID: 252 118 487 766 7 | Passcode: 5ii6EV9U

- **Phone:** +1 (469) 998-6045 | Conference ID: 927 100 232#

Participants will be placed on mute in “listen-only” mode until the public comment portion of the meeting. Once the public comment portions of the meeting begin, participants may dial *5 (star five) when they wish to speak to be placed in a queue. The hosting team will unmute callers in order of request.

- **Email:** Written comments may be emailed to WSAB@energysafety.ca.gov.
- **Technical Issues:** e-mail WSAB@energysafety.ca.gov or call Unique Coleman at 916-709-3079



LOCATING MEETING MATERIALS



Meeting Materials Are Available at:

<https://energysafety.ca.gov/what-we-do/wildfire-safety-advisory-board/wsab-events-and-meetings/>

Written Public Comments Are Available at:

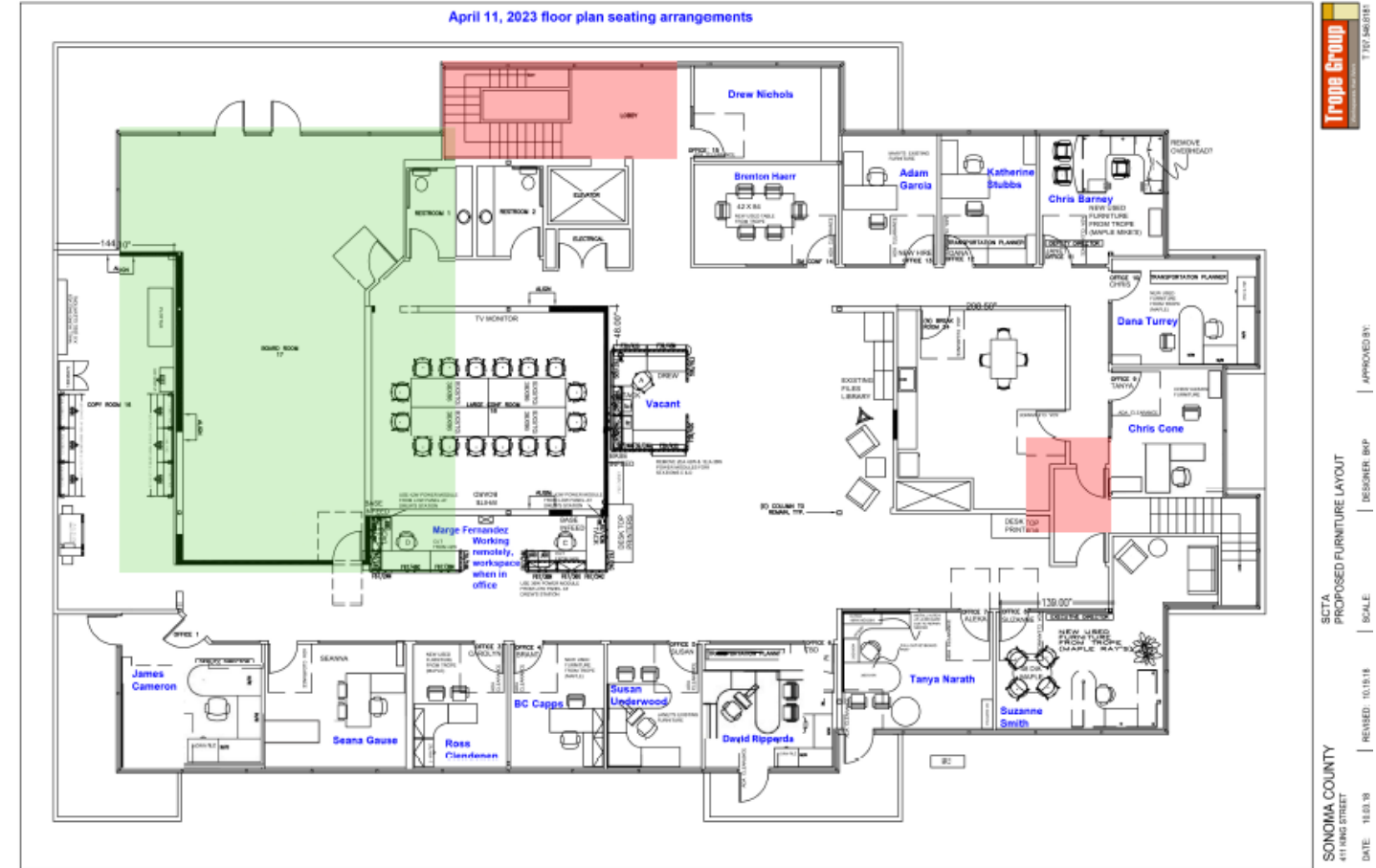
<https://efiling.energysafety.ca.gov/EFiling/DocketInformation.aspx?docketnumber=2025-WSAB-WSAB>



SAFETY BRIEFING



- Proceed out of the building onto 5th Street
- Meet at Fremont Park



1 – CALL TO ORDER AND ROLL CALL



- **Ralph Armstrong Jr.**
- **Jessica Block, Chair**
- **Marybel Batjer**
- **Tim Haines**
- **John Mader**
- **Chris Porter, Vice Chair**
- **Dr. Alexandra Syphard**



2 – MEETING MINUTES



- **September 3, 2025**



Board Member Reports on Site Visits



Staff Update

Mark Wenzel, Supervisor



LEGISLATION



- Senate Bill 470 extended remote Board meetings
- Senate Bill 254
 - Advice “~~to each~~” POU and co-op
 - Board determines wildfire mitigation plan schedule
 - Section 8389 ~~Advice to Energy Safety~~
 - Advice “as requested” by Energy Safety



Source: Pexels.com, Stephen Leonardi



WORKSTREAMS AND STRATEGIC PLANNING



- Advice and Recommendations to Energy Safety
 - Requests
- Wildfire Mitigation Plan Review
 - Submission schedule today
 - Project planning
- Strategic planning
- Next meeting March 4, Riverside



Photo: Pexels.com

5 – OFFICE OF ENERGY INFRASTRUCTURE SAFETY UPDATE



Nicole Dunlap

Program Manager, Electric Safety Policy Division

Office of Energy Infrastructure Safety

California Natural Resources Agency



Energy Safety's Response to the Wildfire Safety Advisory Board's 2025 Recommendations

Electric Safety Policy Division
Presentation at WSAB Meeting

Dec. 3, 2025



AGENDA

- Purpose & Background
- Energy Safety's Responses to Recommendations in 2025
 - Overview
 - Response per Recommendation

Presentation Purpose

Provide an overview of the Office of Energy Infrastructure Safety's (Energy Safety) evaluation and responses to the Wildfire Safety Advisory Board's (WSAB) 2025 Recommendations Report (adopted 6/4/25).

Energy Safety's full evaluation and responses can be found in the Response to WSAB Recommendations 2025 Report.

Background


- PUC 8389 required WSAB to make recommendations to Energy Safety annually and required Energy Safety to evaluate these and pass on evaluated recommendations to the CPUC.
- SB 254 was enacted on September 19, 2025, removing requirements for annual recommendations from the WSAB.
- The 2025 recommendations summarized in this presentation are the last of the recurring annual recommendations.
- Moving forward, Energy Safety and WSAB will collaborate closely on requests for advice.

Overview of Energy Safety Responses

Energy Safety Responses to WSAB 2025 Recommendations

WSAB made 9 recommendations:
8 on WMP Guidelines,
1 on Performance Metrics, and
1 on Safety Culture Assessment.

	Already Incorporated	Incorporate w/ Adjustments	Further Research Needed	Do not Incorporate
Rec. #1 (WMP)		X		
Rec. #2 (PM)		X		
Rec. #3 (WMP)		X		
Rec. #4 (WMP)		X		
Rec. #5 (WMP)		X		
Rec. #6 (WMP)		X		
Rec. #7 (WMP)		X		
Rec. #8 (WMP)			X	
Rec. #9 (SCA)	X			
Totals	1	7	1	0



WMP Guidelines and Performance Metrics Recommendations

WMP & PERFORMANCE METRICS RECOMMENDATIONS (1/8)

1. **Energy Safety should require IOUs to include in their WMPs, or other submission as appropriate, the details of any fire weather indices. Details should include specific calculation methods, data sources, and methods of development. These indices may be specific to ecological regions (or pyromes) or to a service territory as a whole.**
-

Energy Safety Proposal: **Incorporate with adjustments**

- WMP Guidelines (Chapter III; Section 10.6) already require utilities to report on how they calculate and use a fire potential index (FPI).
- Energy Safety will consider adding to the Guidelines requirements on how fire weather indices are used to develop FPI, including the methods of development, sources/rationale for the indices used, the input data, and validation information as available.

WMP & PERFORMANCE METRICS RECOMMENDATIONS (2/8)

2. **Energy Safety should require IOUs to report in their performance metrics clear annual tracking of effectiveness, measured by ignitions and fires in addition to any other metrics Energy Safety allows, and including both raw data and data normalized by weather.**

Energy Safety Proposal: **Incorporate with adjustments**

- Energy Safety agrees that ignitions and fires related to an electrical corporation's infrastructure and operations are useful performance metrics to measure long-term effectiveness of mitigations and will consider requiring additional metrics to this end.
- SB 254 requires utilities to report on, and Energy Safety to evaluate, cost per avoided ignition—a prerequisite of which is to understand mitigation effectiveness.
- Energy Safety's Electrical Safety Policy and Data Analytics Divisions will collaborate to incorporate more robust effectiveness tracking through implementation of SB 254.

WMP & PERFORMANCE METRICS RECOMMENDATIONS (3/8)

3. **Energy Safety should require utilities to report in their WMPs on the effectiveness of additional mitigation efforts, such as specific equipment upgrade initiatives. Energy Safety should require IOUs to clearly demonstrate the impact of protective equipment and device settings (PEDS) in isolation and in combination with other activities.**
-

Energy Safety Proposal: **Incorporate with adjustments**

- Energy Safety agrees that a better understanding of effectiveness merits continued pursuit of deeper analysis. Such additional attention is required going forward by SB 254.
- Energy Safety agrees that more effectiveness reporting could be useful for a set of common deployment combinations, but work must be done to identify appropriate sets of common deployments.
- Energy Safety will look to explore further opportunities to establish a more robust system for tracking effectiveness of mitigation efforts.

WMP & PERFORMANCE METRICS RECOMMENDATIONS (4/8)

4. **Energy Safety should require utilities to report initiatives in standard units of measurement, identified by Energy Safety, for the same mitigation type (e.g., circuit miles versus trees).**
-

Energy Safety Proposal: **Incorporate with adjustments**

- Energy Safety agrees that standardization of reporting provides easier evaluation and cross-comparison and already requires some standard units in the WMP Guidelines.
- Additional initiatives must have a sufficient track record of implementation to provide clarity about how to best standardize units.
- Energy Safety will only require standardization for pilot projects and new initiatives once there is sufficient understanding to allow standardization determinations.
- Energy Safety plans to explore additional standard units in the next WMP Guidelines.

WMP & PERFORMANCE METRICS RECOMMENDATIONS (5/8)

5. Energy Safety should require each IOU in 2029-2031 WMPs to test and compare multiple wildfire spread models (at least three models) when calculating wildfire consequence, at least one of which is open-source and peer-reviewed, across a representative sample of its territory. Also, require justifications that the models used are most appropriate.
-

Energy Safety Proposal: **Incorporate with adjustments**

- Energy Safety agrees that too much reliance on a single model is problematic and that an open-source model validation of fire modeling would be useful.
- Prior to incorporation, a joint-utility validation project (e.g., through the Risk Modeling Working Group) may be an initial step.
- Energy Safety will research the practice of developing an appropriate “representative sample” and the process for establishing inputs/outputs to give utilities clear direction.

WMP & PERFORMANCE METRICS RECOMMENDATIONS (6/8)

6. Energy Safety should establish clear standards for WMP reporting of wildfire spread model verification, validation, and sensitivity analysis. Energy Safety should develop standards for input data and a method to identify and compare standardized outputs.
-

Energy Safety Proposal: **Incorporate with adjustments**

- Energy Safety agrees that more validation and verification standardization would make it easier to compare electrical corporations' wildfire spread models.
- Energy Safety has already started to develop a “toolkit” to facilitate implementation of this recommendation and looks forward to collaborating with the WSAB and other interested stakeholders on this effort.
- Energy Safety will research additional standardization and will incorporate appropriate results into the WMP Guidelines.

WMP & PERFORMANCE METRICS RECOMMENDATIONS (7/8)

7. Energy Safety should continue to press IOUs to report uncertainties, including probability distributions and their dependencies where appropriate for each “risk driver” of ignition. Energy Safety should also require IOUs to report distributions of risk values for a representative sample of circuits with clear explanations of variations.
-

Energy Safety Proposal: **Incorporate with adjustments**

- Energy Safety will continue to require electrical corporations to consider probability distribution risk modeling in contrast to point estimates for risk drivers of ignition (as well as overall risk) and to report a more comprehensive and robust probability result.
- Energy Safety will continue to coordinate with the CPUC’s Risk Assessment and Mitigation Process, where the risk assessment with probability distributions is being specifically addressed; and will continue considering additional probability distribution assessment of risk in WMP evaluations.

WMP & PERFORMANCE METRICS RECOMMENDATIONS (8/8)

8. **Energy Safety should require that, as soon as practicable in base WMPs, WMP updates, and performance metrics, IOUs report data and model results with an appropriate number of significant figures to represent the degree of precision in their risk models.**
-

Energy Safety Proposal: **Research further for potential future incorporation**

- Energy Safety finds merit in this recommendation and will conduct further research to understand how best to reflect risk model uncertainties. Other measures of uncertainty in models are important to better understand the precision of risk models.
- Wildfire risk modeling is currently undergoing significant development and changes and, as WSAB points out, has a variety of uncertain data inputs and model structures. While it makes sense to consider model outputs in consistent significant figures, Energy Safety still needs to better understand how to require reporting of uncertainty.

9. Energy Safety should work with CPUC staff to include Board staff in the meetings with the Utility Safety Culture Working Group as an “interested entity,” to understand the latest developments in safety culture assessment and inform potential future Board recommendations.
-

Energy Safety Proposal: **Already incorporated**

- Energy Safety supports the inclusion of the WSAB staff in the CPUC Utility Safety Culture Working Group.
- Energy Safety formally requested that the CPUC include the WSAB staff in the Working Group; the CPUC agreed to this inclusion and WSAB staff attended the June and September meetings in 2025.



DATA DRIVEN
FORWARD-THINKING
INNOVATIVE
SAFETY FOCUSED

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A California Natural Resources Agency

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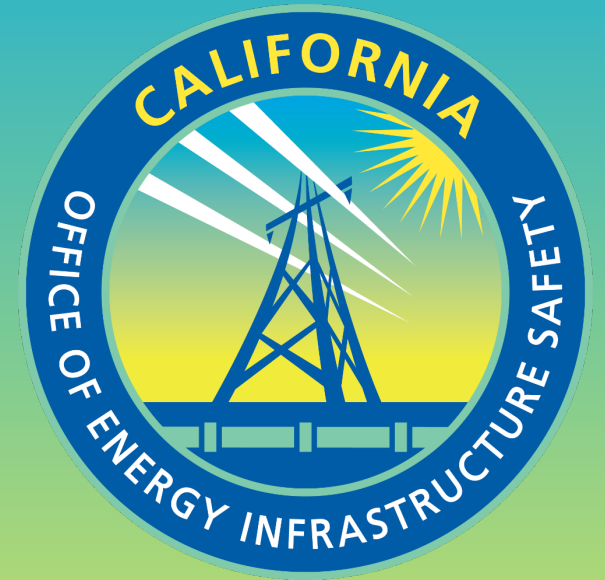
Energy Safety Policy Division and Safety Culture Branch Updates

December 3, 2025



AGENDA

- Electrical Safety Policy Division Updates
 - Investor-owned Utilities Wildfire Mitigation Plan Evaluations & Guidelines
 - Risk Model Working Group
- Safety Culture Branch Updates
 - Safety Culture Assessments
 - Executive Compensation
 - Safety Certifications

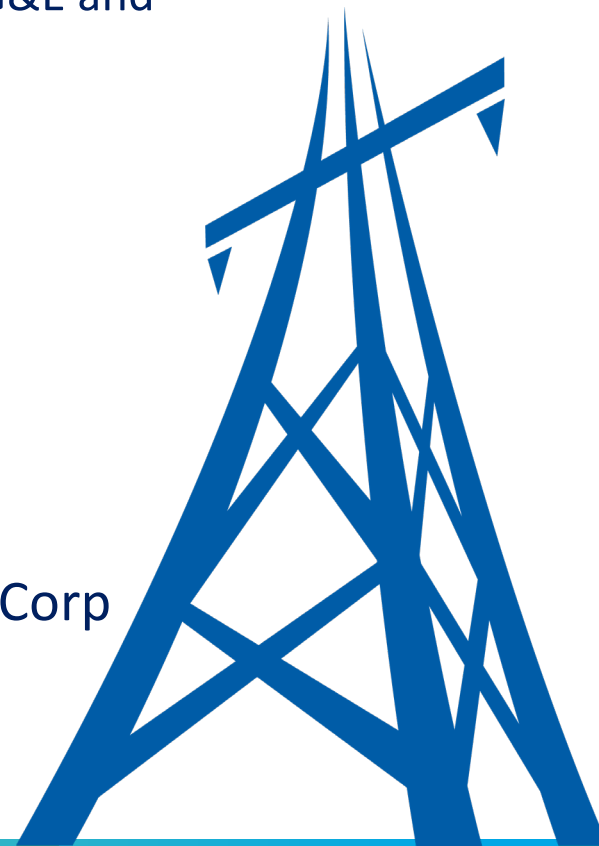




IOU WILDFIRE MITIGATION PLANS

2026-2028 Base WMP Evaluations

- ❑ Issued Revision Notices for almost all the utilities Base WMPs (PG&E and SCE in June & August, PacifiCorp and Liberty in October).
- ❑ Decisions issued so far:
 - Bear Valley Decision (11/4)
 - ITOs draft Decisions (LSP 11/14, HWT & TBC 11/21)
 - SDG&E draft Decision (11/25)
 - PG&E draft Decision (11/26)
- ❑ Expect to publish drafts for SCE by the end of the year, and PacifiCorp and Liberty early next year after evaluations of their Revision Notice Responses.



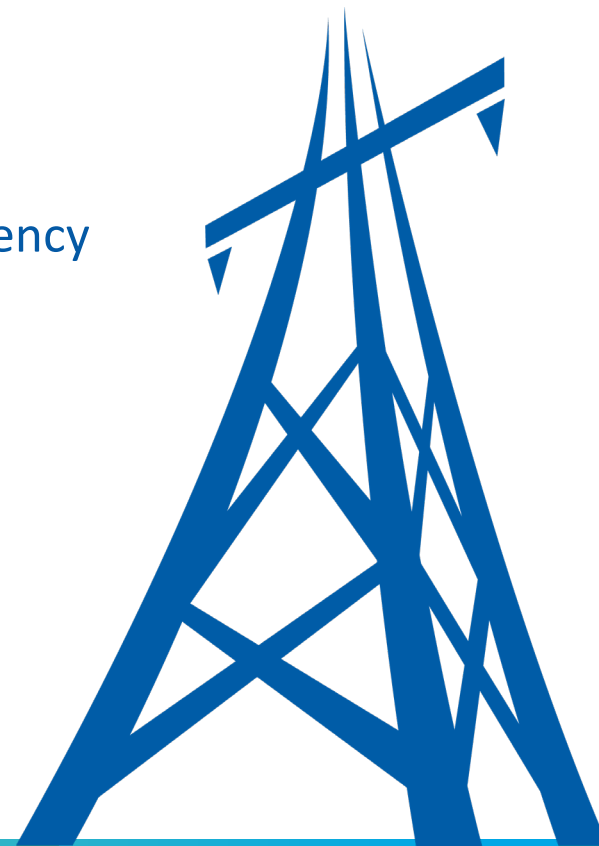
WMP Guidelines

- ❑ WMP Update Requirements Chapter published earlier this month, revised to incorporate stakeholder comments, to be adopted before the end of the year.
- ❑ Base WMP Guidelines will be revised, workshopped with the public, and adopted in 2026. Revisions will be based on:
 - SB 254 implementation
 - ESPD lessons learned in recent evaluations
 - WSAB recommendations



Senate Bill 254

- ❑ Impacts to IOU WMP evaluations
 - Aligning WMP and CPUC's General Rate Case cycle
 - Petition to Amend, preliminary and revised WMPs
 - New technical requirements: cost per avoided ignition, cost efficiency
 - Approach to WMP Updates, no longer required annually
 - Implementing iterative versions of Guidelines across unique EC-specific WMP cycles and timelines
- ❑ Week of December 15 (date TBD): Public workshop to hear from electrical corporations, stakeholders, and the public on implementing these changes.



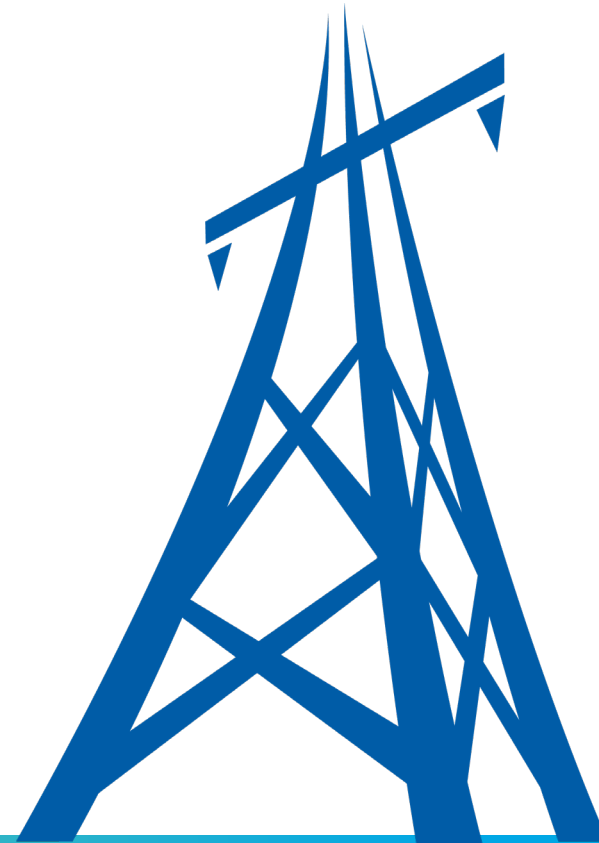
Document Availability

All mentioned documents can be found
on Energy Safety's Dockets:

2026–2028 Base WMPs Docket

WMP Guidelines Docket

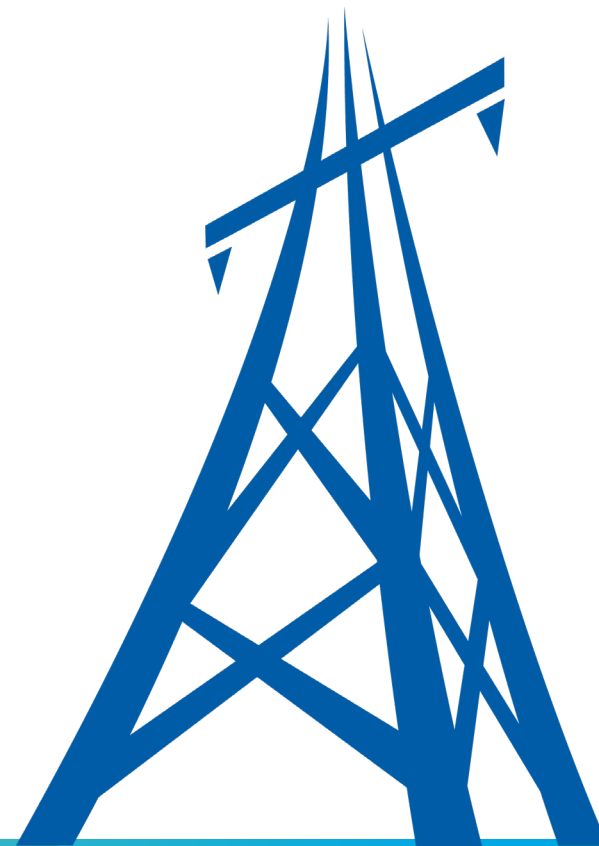
- *SB 254 material will be on the Guidelines Docket*





RISK MODEL WORKING GROUP

- ❑ Working group attendees are developing a document on how electrical corporations in California model, or should model, their wildfire risk.
- ❑ Each meeting includes a technical presentation and discussion that informs a chapter of the document. Since the last WSAB meeting, topics have included:
 - Risk Communication and Documentation of Risk Models
 - Technosylva's Fuel Models and Urban Conflagration Model
 - Areas to advance the “state of the art” of wildfire risk modeling
- ❑ WSAB staff invited to present at the February 2026 meeting on:
 - The WSAB's 2025 risk modeling recommendations to Energy Safety
 - The scope of the UC Berkeley risk model validation, verification, and sensitivity analysis tool development





SAFETY CULTURE BRANCH UPDATES

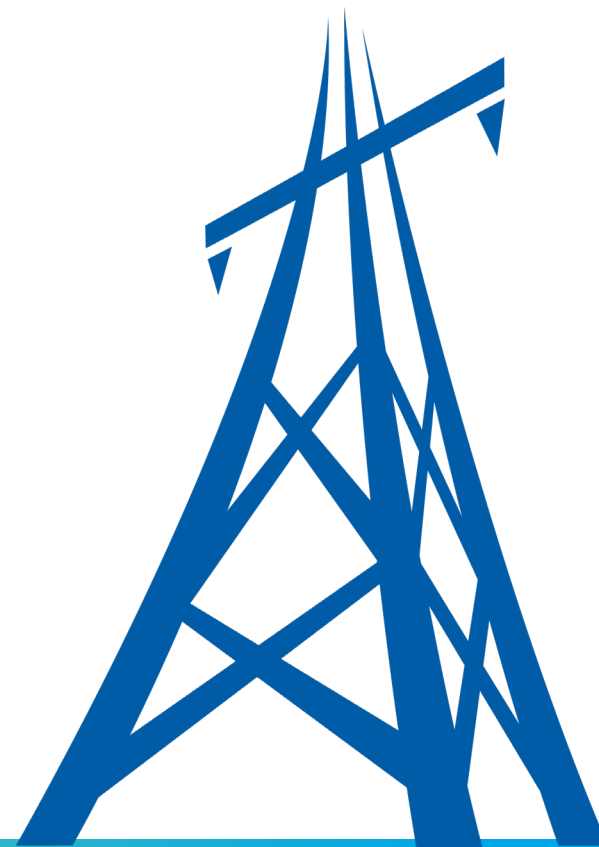
Safety Culture Assessments

☐ 2024 Safety Culture Assessments

- Draft reports are currently under Energy Safety review.
- Publication of 2024 SCA reports for electrical corporations targeted for Q4 2025.

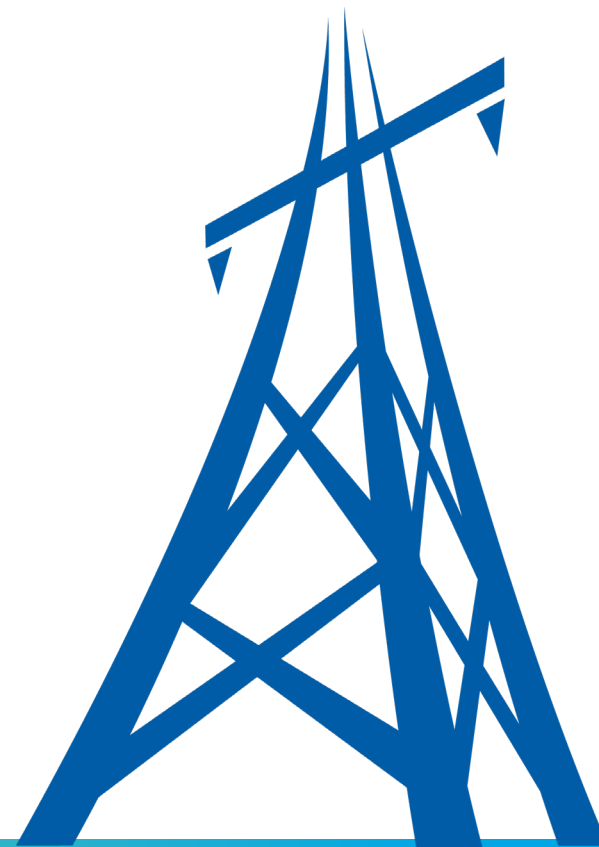
☐ SB 254 revised Energy Safety's safety culture assessment cadence for electrical corporations from annual to biennial

- Re-evaluation of the safety culture assessment schedule to align with the SB 254 changes is currently in progress.



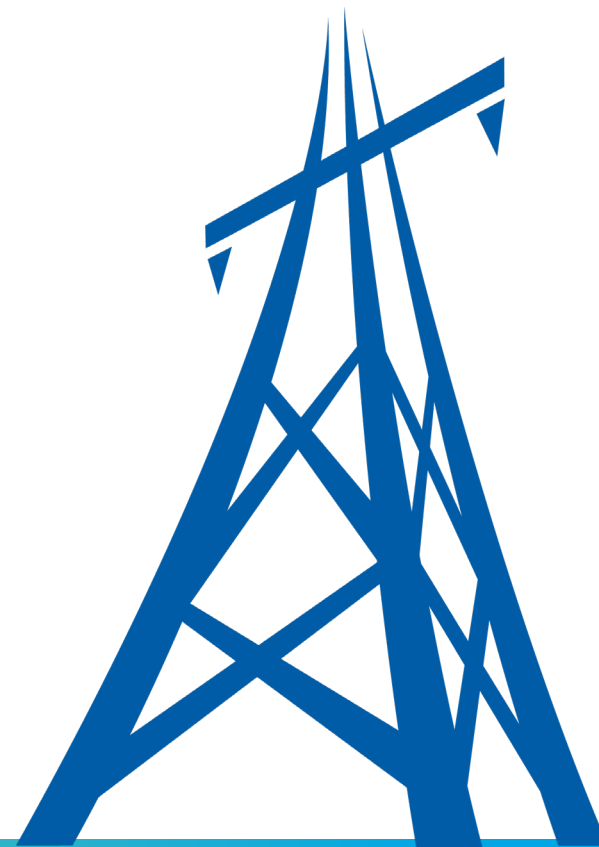
Executive Compensation Structures

- ❑ BVES, PG&E, SCE and SDG&E submitted 2025 Executive Compensation Structures on May 23, 2025.
- ❑ Publication of 2025 Executive Compensation Structure decision letters targeted for Q4 2025.



Certificates

- ☐ Energy Safety adopted its Certificate Guidelines on April 25, 2025.
- ☐ Electrical corporation Certificate request submission date is December 2, 2025.





DATA DRIVEN FORWARD-THINKING INNOVATIVE SAFETY FOCUSED

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California Wildfire Safety Advisory Board



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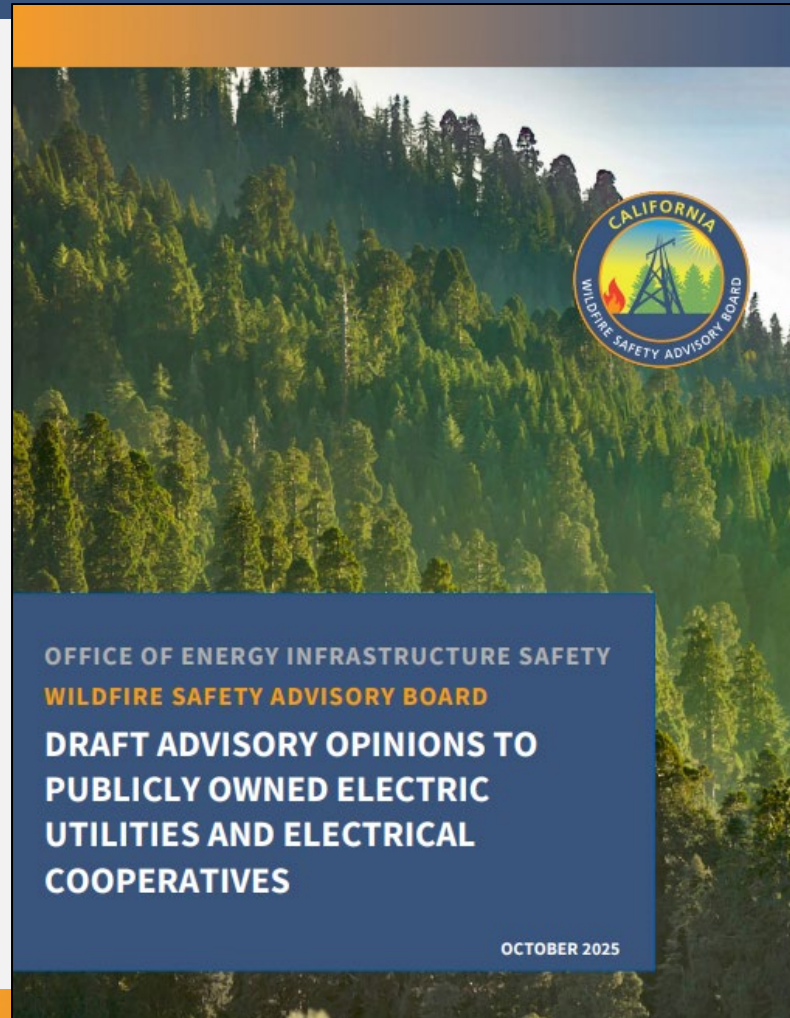
WE ARE BACK!

Advisory Opinions to the Publicly Owned Utilities and Electrical Cooperatives

Gifford Wong, Senior Policy Advisor



ADVISORY OPINIONS TO PUBLICLY OWNED UTILITIES AND COOPERATIVES



REVIEW PROCESS



- Two perspectives and two focus areas



REVIEW PROCESS



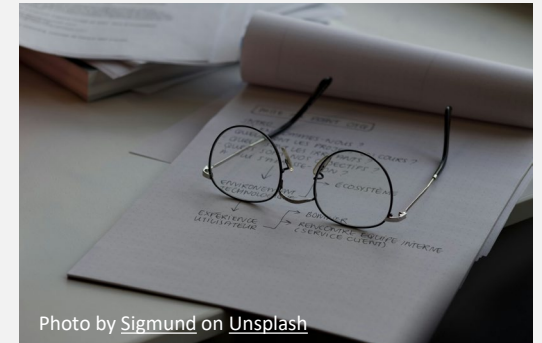
- Two perspectives and two focus areas
- Detailed recommendations for each publicly owned utility and cooperative



REVIEW PROCESS



- Two perspectives and two focus areas
- Detailed recommendations for each publicly owned utility and cooperative
- Solicit Board member feedback in their areas of expertise



TIMELINE



Publicly Owned Utilities Committee and Working Group Committee Meetings

- Convened bimonthly and monthly



Photo by Jon Tyson on [Unsplash](#)

TIMELINE



Publicly Owned Utilities Committee and Working Group Committee Meetings

- Convened bimonthly and monthly

June Board Meeting

- Overview of review process



TIMELINE



Publicly Owned Utilities Committee and Working Group Committee Meetings

- Convened bimonthly and monthly

June Board Meeting

- Overview of review process

October 10, 2025

- Draft Advisory Opinion published



Photo by Jon Tyson on [Unsplash](#)

TIMELINE



Publicly Owned Utilities Committee and Working Group Committee Meetings

- Convened bimonthly and monthly

June Board Meeting

- Overview of review process

October 10, 2025

- Draft Advisory Opinion published

October 31, 2025

- Board received 3 public comments



Photo by Jon Tyson on [Unsplash](#)

TWO PERSPECTIVES, TWO AREAS OF FOCUS, AND PUBLIC COMMENTS



Perspectives

- 1) Utility decision-making:
 - What information is needed?
 - How is decision to act made?
 - What is the capacity to act?
- 2) WMP development:
 - Is the plan maturing over time?

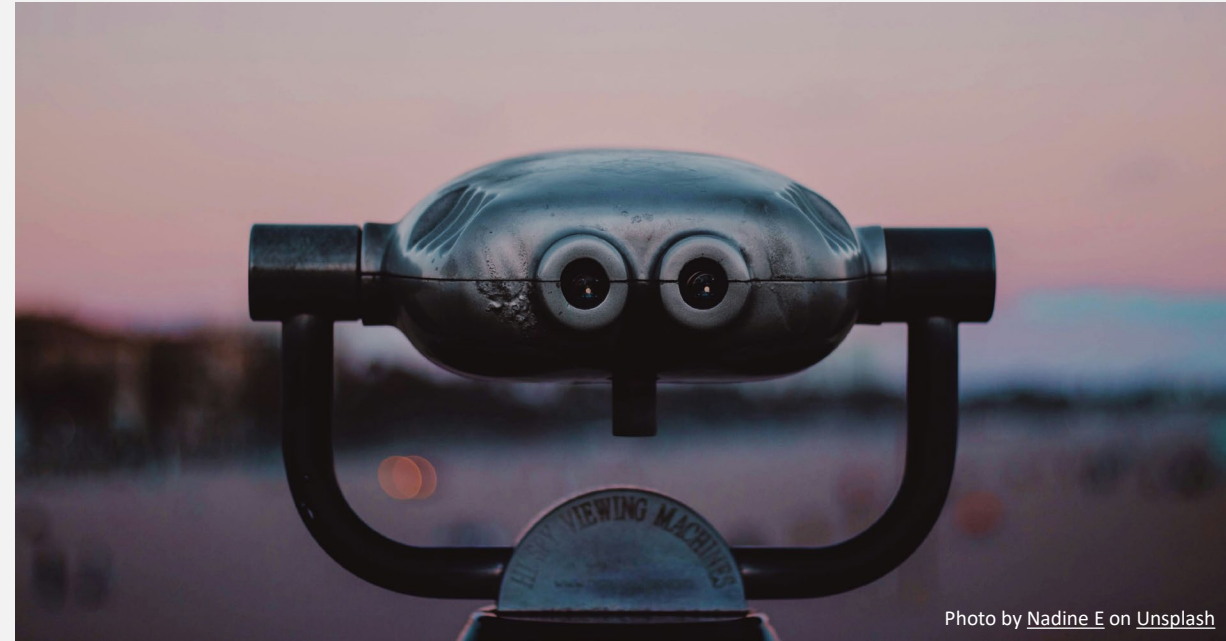


Photo by [Nadine E](#) on [Unsplash](#)

TWO PERSPECTIVES, TWO AREAS OF FOCUS, AND PUBLIC COMMENTS



Areas of Focus

- ## 1. Risk Identification



TWO PERSPECTIVES, TWO AREAS OF FOCUS, AND PUBLIC COMMENTS



Photo by [Stéphan Valentin](#) on [Unsplash](#)

Areas of Focus

1. Risk Identification
2. Preemptive De-energization

TWO PERSPECTIVES, TWO AREAS OF FOCUS, AND PUBLIC COMMENTS



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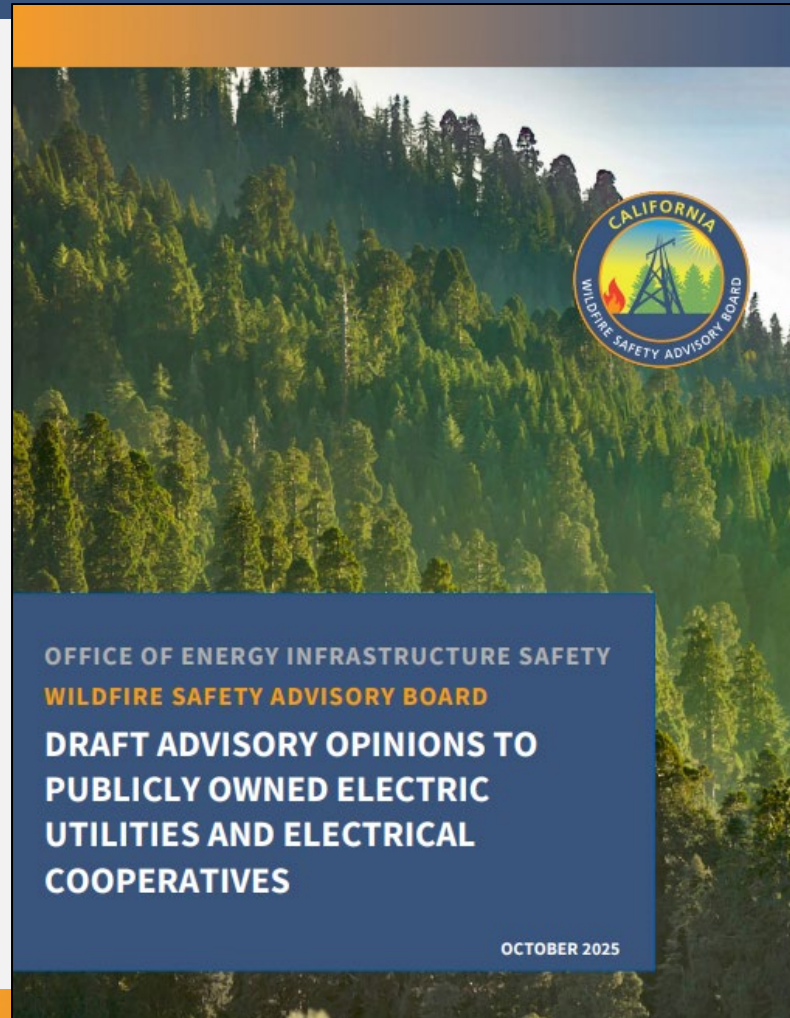
Areas of Focus

1. Risk Identification
2. Preemptive De-energization

Public Comments to Advisory Opinion

- Revisions respond to requests for clarity

ADVISORY OPINIONS TO PUBLICLY OWNED UTILITIES AND COOPERATIVES



2026 – 2029 Schedule for Publicly Owned Utility and Electrical Cooperative Wildfire Mitigation Plan Submissions

Mark Wenzel, Supervisor



SCHEDULE DEVELOPMENT



- Frequency:
 - Diversity
 - Iteration + Maturation

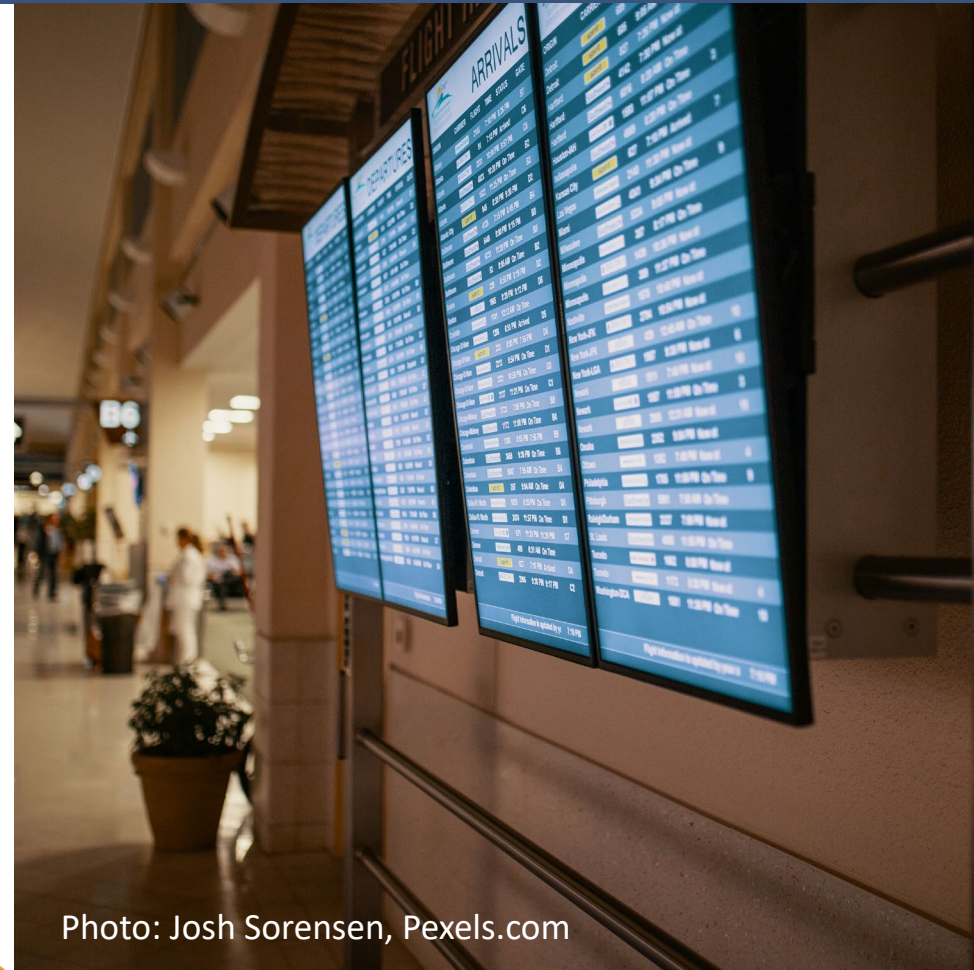
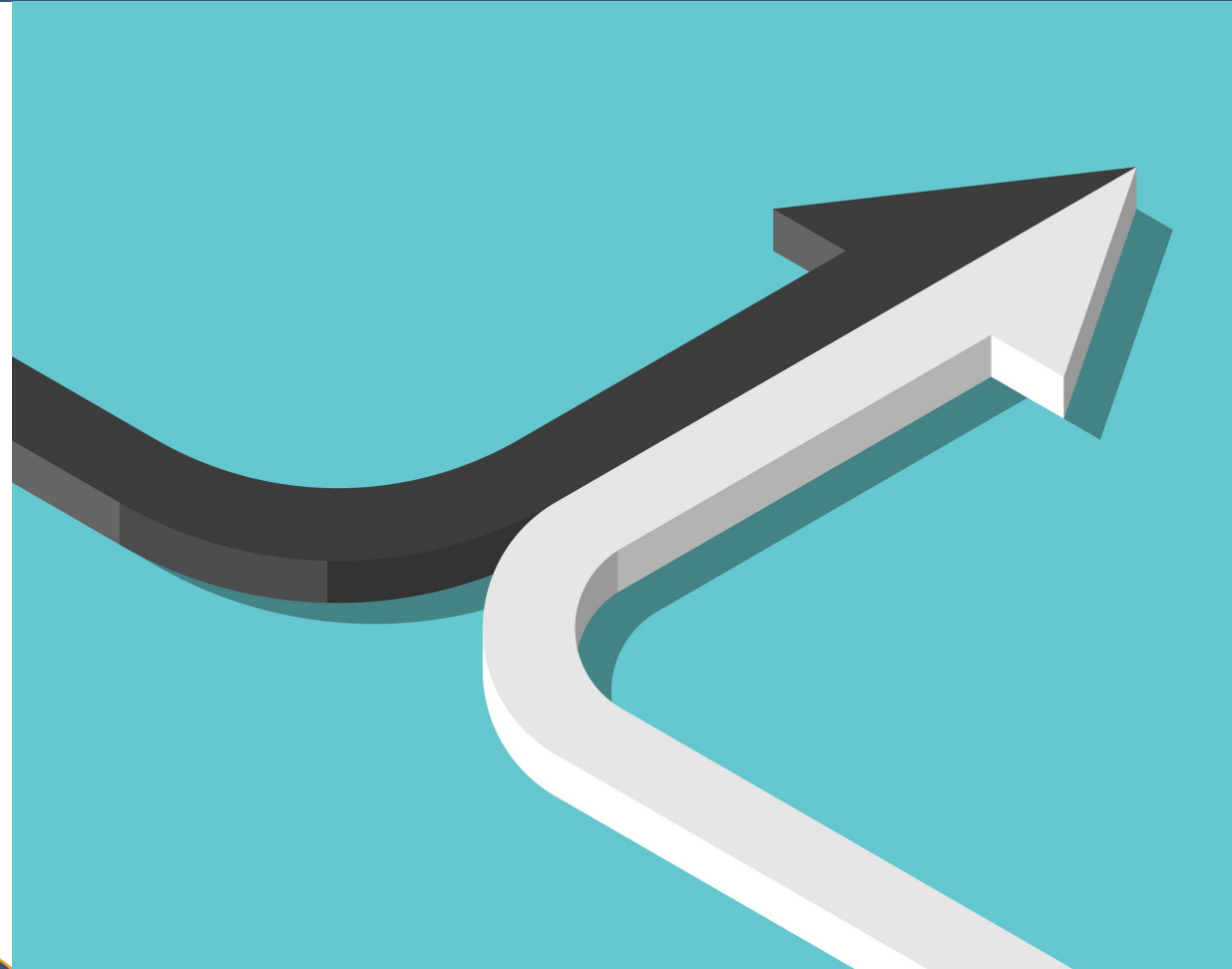


Photo: Josh Sorensen, Pexels.com

SCHEDULE DEVELOPMENT



- Frequency:
 - Diversity
 - Iteration + Maturation
- Timing: Collaboration



PROPOSED SCHEDULE (1/3)



2026	2027	2028	2029
City of Biggs	Azusa Light & Water	Eastside Power Authority	Alameda Municipal Power
City of Gridley	City of Corona	Lathrop Irrigation District	Cerritos Electric Utility
Lodi Electric Utility	Imperial Irrigation District	Merced Irrigation District	Industry Public Utilities
Pittsburg Power Company	City of Needles	Moreno Valley Utility	Port of Oakland
Roseville Electric Utility	Rancho Cucamonga Municipal Utility	Power and Water Resource Pooling Authority	Port of Stockton
Valley Electric Association	Victorville Municipal Utility		Vernon Public Utility



PROPOSED SCHEDULE (2/3)



EVEN YEARS		
Healdsburg Electric Department	Modesto Irrigation District	Kirkwood Meadows Public Utility District
Lassen Municipal Utility District	Northern California Power Agency	Los Angeles Department of Water and Power
Redding Electric Utility	Silicon Valley Power	City of Palo Alto
City of Shasta Lake	Turlock Irrigation District	San Francisco Public Utilities Commission
Ukiah Electric Utility		Truckee Donner Public Utility District



PROPOSED SCHEDULE (3/3)



ODD YEARS		
City of Banning Electric Utility	Anaheim Public Utilities	Plumas-Sierra Rural Electric Cooperative
Burbank Water and Power	Anza Electric Cooperative	Sacramento Municipal Utility District
Colton Electric Utility	City of Lompoc	Transmission Authority of Northern California
Glendale Water and Power	Surprise Valley Electrification Corporation	Trinity Public Utility District
Pasadena Water and Power	Riverside Public Utilities	





California Wildfire Safety Advisory Board



California Wildfire Safety Advisory Board

WE ARE BACK!

Update on Risk Modeling Workstream

Shaun Richards, Senior Advisor



OVERVIEW

- Energy Safety Request
- Previous Update
- Questions for IOUs
 - Operations
 - Planning
- Next Steps
 - Interest Areas



ENERGY SAFETY REQUEST



Risk Model Adequacy in Light of Los Angeles Fires. January fires in Los Angeles occurred in conditions of extreme wind and extremely high vapor pressure deficit after a wet two years that allowed for much vegetation growth. We request your expertise to advise us as to whether the risk models used by electric utilities adequately consider the circumstances Southern California faced in January and other realistic extreme scenarios. If the risk models do not adequately consider these realistic extreme scenarios, we request your recommendations on how electrical utilities should modify their risk models to provide more useful outputs for informing electric utility planning and operations.



ENERGY SAFETY REQUEST



in conditions of extreme wind and extremely high vapor pressure deficit after a wet two years that allowed for much vegetation growth.

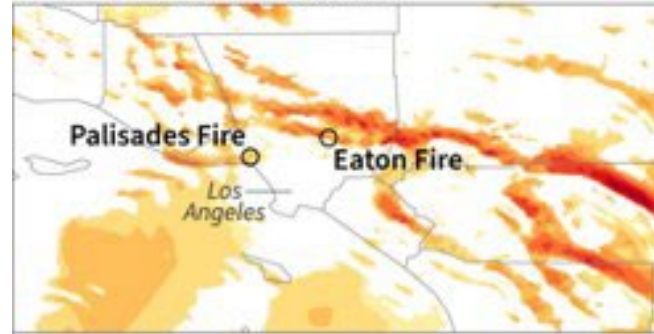
· recommendations on how electrical utilities should modify their risk models to provide more useful outputs for informing electric utility planning and operations.

PREVIOUS UPDATE

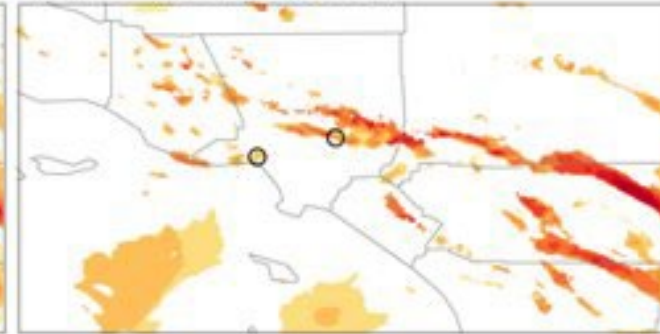


Forecasted wind gusts on the morning of January 8, 2025

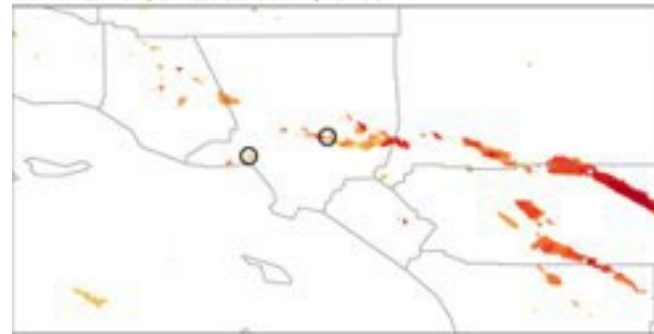
above 75th percentile (top 25%)



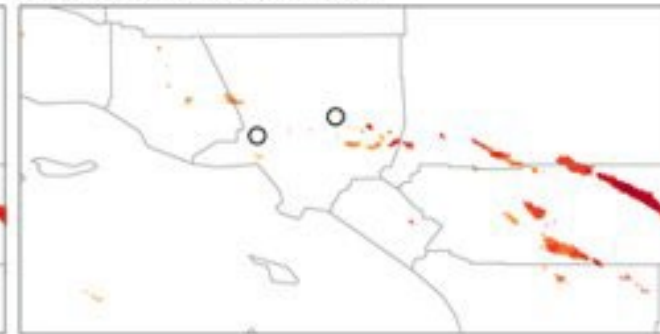
above 90th percentile (top 10%)



above 98th percentile (top 2%)



above the historic maximum



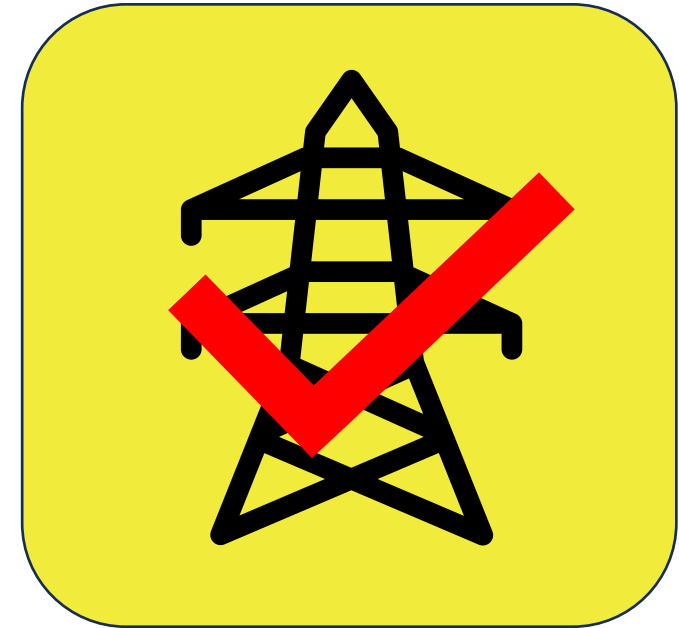
WRF forecast for Jan 8, 13Z
(initialized 12Z)

NOAA Climate.gov
Original: Dan McEvoy

Source: <https://www.climate.gov/news-features/event-tracker/weather-and-climate-influences-january-2025-fires-around-los-angeles>



PREVIOUS UPDATE



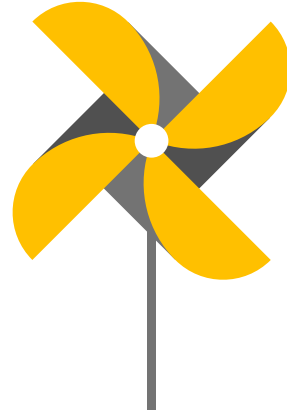
Questions submitted to IOUs



OPERATIONS



- Multiple metrics
- Historic weather



- Varying thresholds
- Re-evaluation criteria



- Human Judgement
- Coordination

PLANNING



- Multiple metrics
- Historic weather

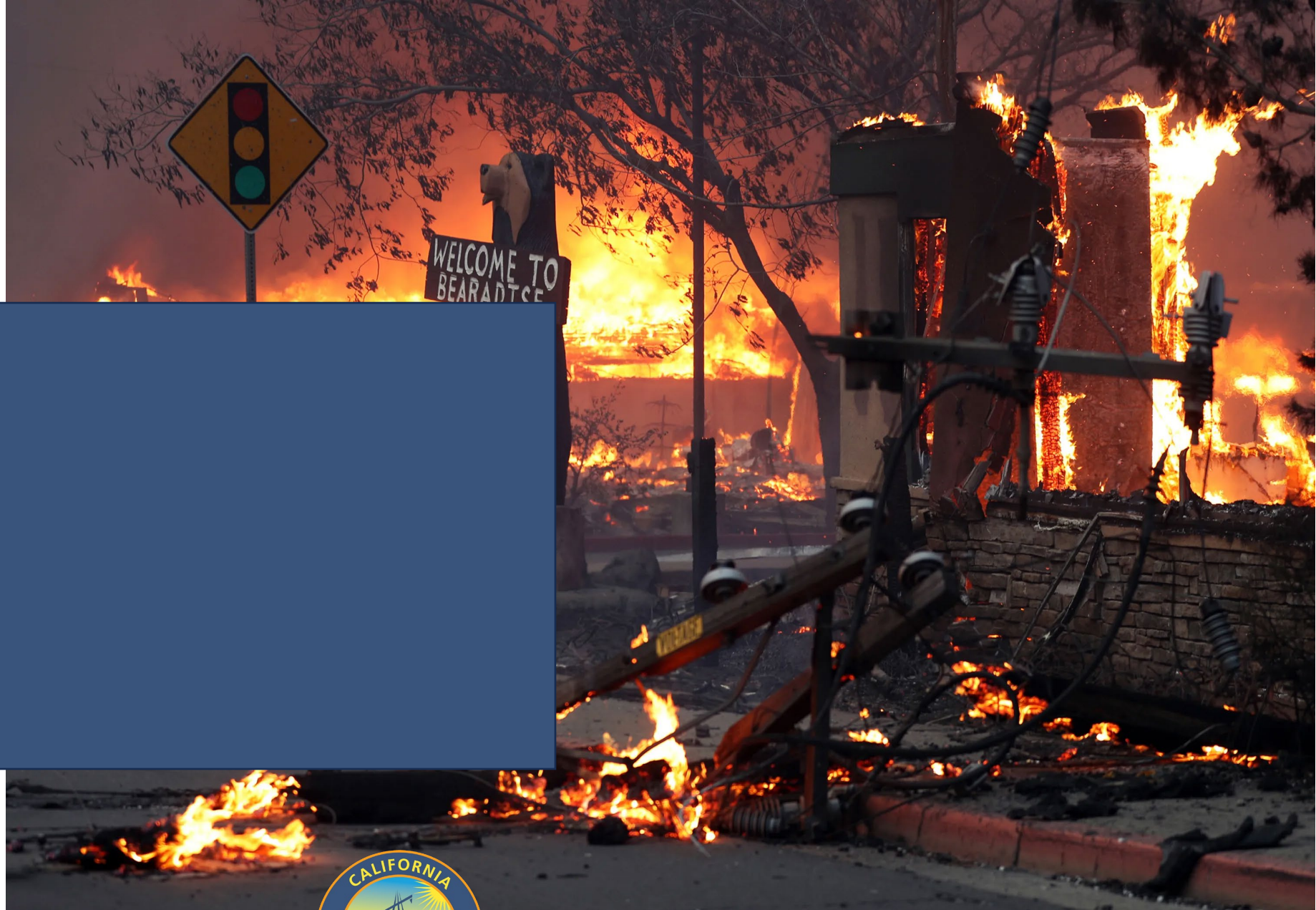


- No fixed percentiles
- Simultaneous extremes*

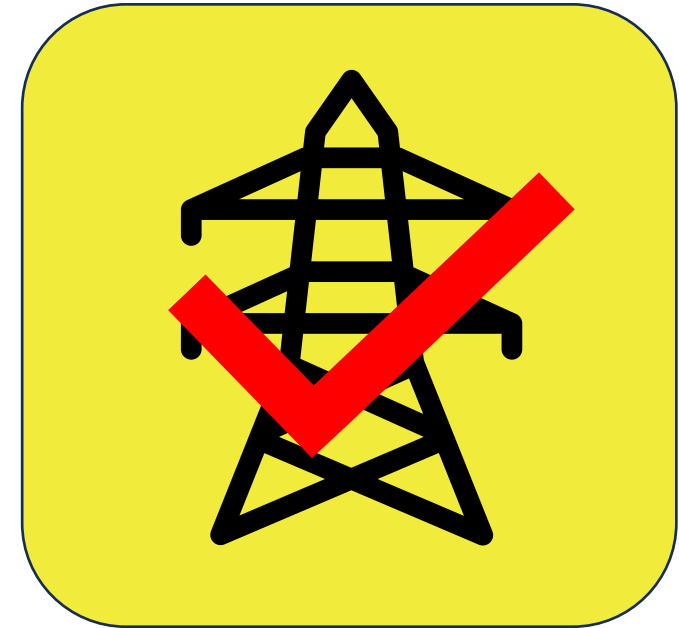


- Future fuels
- Tail risk

What's next?



NEXT STEPS



INTEREST AREAS



- Influence of wind speeds on models

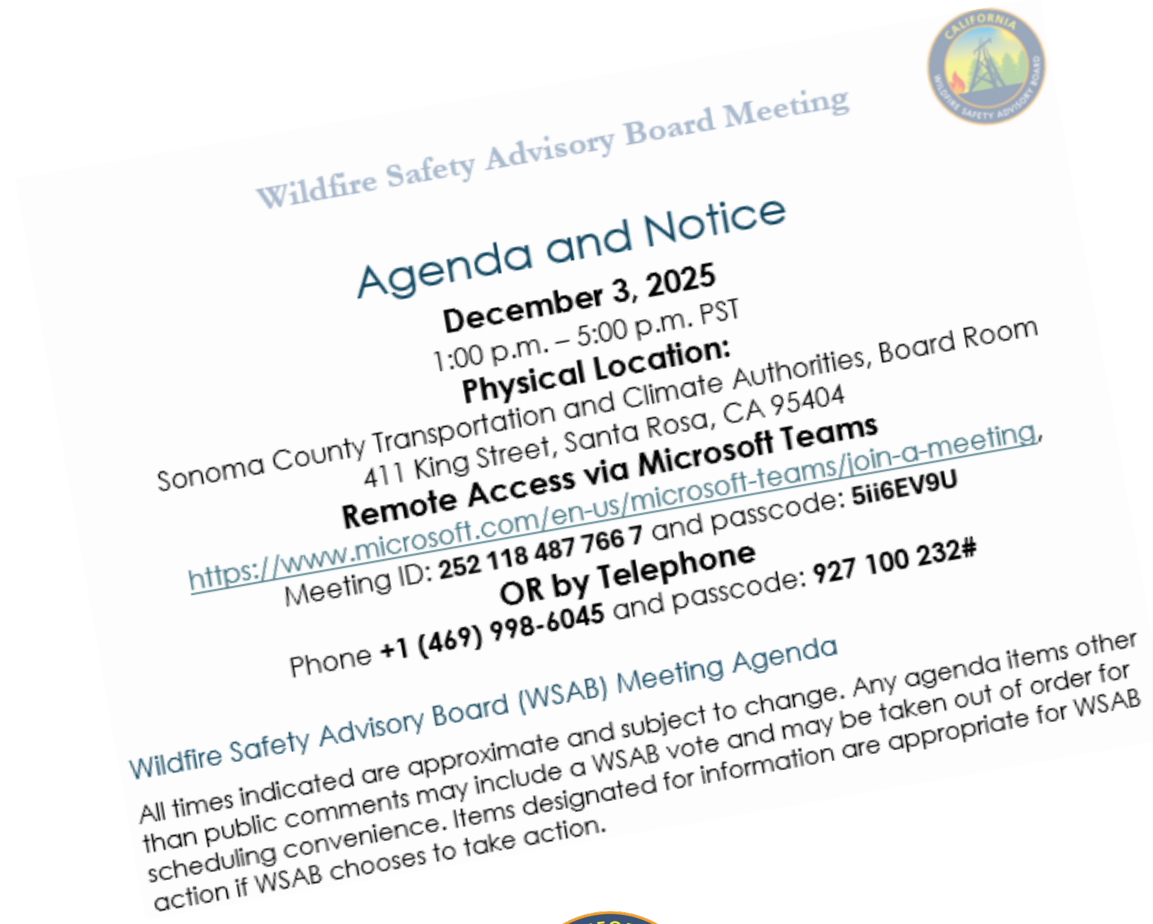


- Customization or additional modules



- 'Realistic' extremes

9 – AGENDA ITEMS FOR FUTURE MEETINGS



10 – PUBLIC COMMENTS FOR MATTERS NOT ON AGENDA



Please begin your comments by stating your name and organization (if applicable).

- a. In the room
- b. On Teams or the phone
- c. Via email



11 – ADJOURNMENT



- For more information:
 - Website:
<https://energysafety.ca.gov/what-we-do/wildfire-safety-advisory-board/>
 - Email: WSAB@energysafety.ca.gov

