



California Wildfire Safety
Advisory Board

Wildfire Safety Advisory Board

Background and Recommendations

October 6, 2021

Jessica Block, Acting Chair



Agenda

- Why we were created
- Who we are
- What we do
- Our Recommendations on the Topic of Risk Assessment

Why we were created

Legislative response to increased risk of catastrophic wildfire, and utility-caused wildfires in California.

*2019 Legislation AB 1054 (Assembly Member Holden) and
2019 AB 111 (Budget Committee)*

The Board's purpose is to “ensure that broad expertise is available to develop best practices for wildfire reduction.”

(AB 1054, SEC. 2)

Who we are

Jessica Block, *Acting Chair, WIFIRE Lab Associate Director* – Fire behavior, risk modeling, vegetation management & ecology, data governance.

Diane Fellman, *Vice Chair, Attorney & Regulatory Specialist* – Board management and strategic planning; utility business models; energy and regulatory policy and procedure.

Ralph M. Armstrong Jr., *IBEW Local 1245 Manager* – Worker safety, vegetation management, utility infrastructure and emerging technologies, publicly-owned utilities.

John Mader – *PG&E Engineer, ESC Local 20 IFPTE President* – Utility infrastructure design, PSPS reduction via risk modeling & targeted hardening, resource allocation.

Christopher Porter – *IBEW Local 47 Business Representative* – Worker qualifications, publicly-owned utilities, utility infrastructure.

Alexandra Syphard – *Vertus Wildfire Insurance Chief Scientist* – Geospatial, statistical and risk modeling approaches, fire ecology & land use, vegetation & wildfire patterns.

What we do

Advice to Energy Safety on CPUC jurisdictional utilities

Responsibility to review and make recommendations



*Pacific Gas and
Electric Company*



SOUTHERN CALIFORNIA
EDISON

An EDISON INTERNATIONAL Company



A Sempra Energy utility



PACIFICORP



Liberty



**BEAR
VALLEY**
ELECTRIC SERVICE



California Wildfire Safety
Advisory Board

- Wildfire Mitigation Plans
 - Investor-owned utilities
 - Small and multi-jurisdictional utilities
- Proposed guidelines for WMPs
- Safety culture
- Performance metrics
- Other advice “as needed”

What we do

Direct responsibility to Publicly-Owned Utilities & Cooperatives

Advisory opinions on individual wildfire mitigation plans

- Review 50 electric publicly-owned utility and cooperative plans (POU)
- Based on expertise of Board members
- Based on statutory requirements
 - Content and sufficiency of the WMP
 - Recommendations on how to mitigate wildfire risk
- Draft guidance opinion(s) about what we would like to see in future WMPs
 - Difficult to judge WMPs without setting expectations
 - POUs have fewer resources

What we do

- We act as an equitable voice for the rate payer and for Californians as a whole
- We hold our quarterly meetings with public comment and working with the public and the utilities – informs our strategic approach to our work
- Other Interests
 - Best practices for wildfire mitigation and prevention
 - In-depth analytical capabilities

WSAB Recommendation Topics in Our Publications

- 1 - Structure And Scope
- 2 - Risk Assessment
- 3 - Public Safety Power Shutoffs (PSPS)
- 4 - Vegetation Management
- 5 - System Design And Grid Hardening
- 6 - Emergency Planning And Communication
- 7 - Safety Culture Assessment
- 8 - Expertise To Support Wildfire Safety

Risk Assessment & Resource Allocation

Data collection, reporting, and GIS: Require the utilities to explain how each of the reporting elements fit together and how their departments coordinate data collection amongst each other.

Reporting modeling methods, assumptions, inputs, and outputs: Require improved reporting on modeling methods, assumptions, inputs, outputs, and decision-making.

Part 2: Risk Assessment & Resource Allocation

Reporting decision-making processes: Require more detail about the utilities' prioritization criteria and how risk modeling outputs are used to make decisions, including specific examples of how mitigation measures were prioritized based on these models.

Scientific review and common data platform: Establish a formalized scientific review process and a common data system or platform.

Recommendations Regarding Model Reporting

The WSAB recommends that all utilities improve their Analytic reporting by submitting the following:

1. *Background, context, and justification.* It would also include:
 1. A literature review describing the different types of models that could be used to attain the utilities' objectives and their assumptions and limitations; and
 2. A list of common alternative modeling approaches and justification for the method selected.
2. *Input data and sources:* This would be a description of what the model requires to run and what the utility is currently using. It would also include:
 1. A discussion of scale and geographical context;
 2. Choice of input data sets for each modeling component; and
 3. Potential data alternatives or goals for future data products.

Recommendations Regarding Model Reporting

3. *Model summaries*: Description of the models, their assumptions and algorithms, previous applications in other research projects or commercial applications, and relevant literature cited. It would also include:

- A list of all modeling components and model linkages.
- A detailed description of and justification for the following modeling components:
 - Assumptions for each modeling component; and
 - Assumptions for how each component links to other components, i.e. model interdependencies.
 - Descriptions of algorithms, and if applicable, how machine learning is utilized.

Recommendations Regarding Model Reporting

4. *Model outputs*: This section would list what the model creates as outputs in general, in addition to the specific outputs generated by the utility, both numerically and geographically. It would also describe the accuracy of outputs including:

- Source and range of uncertainty/confidence for each modeling component;
- Weight of each component of the ignition and consequence models;
- Range of uncertainty for the outputs of the model as a whole and the propagation of uncertainty through model linkages; and
- The relative differences in the model output due to uncertainty and how these affect the interpretation of the outputs.

Recommendations Regarding Model Reporting

5. *Application*: This section would describe how the outputs of the different models are combined to use for decision support by the utilities, and why.

6. *Discussion and limitations*: This section would review the current status of the modeling, how to best interpret what the results mean (what is or is not appropriate), what the limitations of the models are (all models have limitations), and how they could be improved in the future.

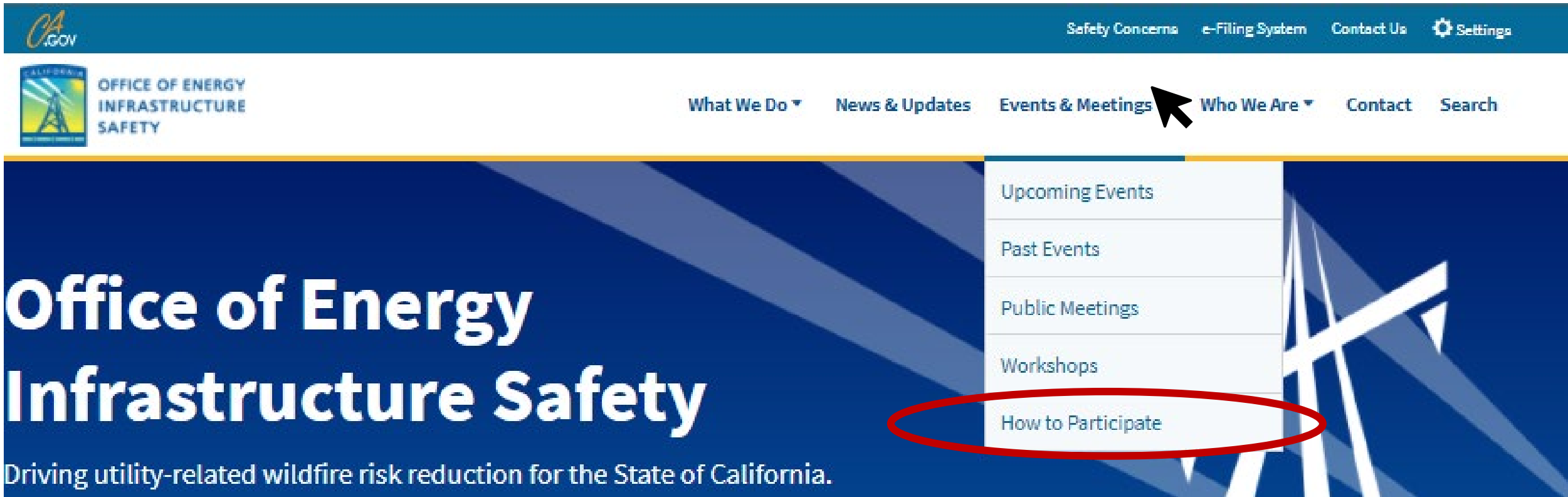
7. *Prioritization and decision-making*: This section would include a detailed description of how modeling outputs are used to justify the prioritization of any mitigation measure, as well as other decision-making, including:

- Descriptions of how weather modeling, fire behavior modeling, projections of consequence, and risk indices are used to make decisions around infrastructure management and mitigation efforts;
- Prioritization criteria for mitigation efforts based on modeling outcomes;
- Descriptions of how their prioritization criteria vary geographically and along environmental gradients around their service territory.

Sign Up for the WSAB Service Lists

Go to <https://energysafety.ca.gov/>

Click on the “Events & Meetings” tab, and then click on “How to Participate.”



The screenshot shows the website for the Office of Energy Infrastructure Safety. The top navigation bar includes links for Safety Concerns, e-Filing System, Contact Us, and Settings. Below this, the main navigation menu features What We Do, News & Updates, Events & Meetings, Who We Are, Contact, and Search. A mouse cursor is pointing at the 'Events & Meetings' link, which has opened a dropdown menu. The dropdown menu contains the following items: Upcoming Events, Past Events, Public Meetings, Workshops, and How to Participate. The 'How to Participate' option is circled in red. The main content area features a large blue banner with the text 'Office of Energy Infrastructure Safety' and 'Driving utility-related wildfire risk reduction for the State of California.'

Sign Up for the WSAB Service Lists

Step 1:

Click on a WSAB's Service List

- **POU WSAB List:**

https://listserv.cnra.ca.gov/scripts/wa.exe?A0=OEIS_WSAB_POU_WMPS

- **IOU WSAB List:**

https://listserv.cnra.ca.gov/scripts/wa.exe?A0=OEIS_WSAB_IOU_WMPS

Steps 2-4: Subscribe, fill in your contact information, and click on the link in the confirmation email

How to Participate in Energy Safety Proceedings

Members of the public can participate in Energy Safety proceedings by submitting comments on active proceedings through our e-Filing System. The Energy Safety e-Filing System is organized by Cases. A Case is a type of proceeding, such as Wildfire Mitigation Plans or Safety Culture Assessments. Stakeholders can receive notification of filings, public events and workshops by signing up for the Service List for individual Cases. Event details will also be available on our [Events & Meetings](#) page.

How to sign up for an Energy Safety Service List:

Step 1: Click on a below link for the Service List you wish to join. These links will direct you to the CNRA listserv website.

- [Wildfire Mitigation Plans Service List](#)
- [Safety Culture Assessments Service List](#)
- [Safety Certifications Service List](#)
- [Executive Compensation Service List](#)
- [Energy Safety Rulemakings Service List](#)

Wildfire Safety Advisory Board (WSAB):

- [WSAB Review of Publicly Owned Utility and Electric Cooperative Wildfire Mitigation Plans Service List](#)
- [Public Comments Related to the WSAB Review of IOU WMPs Service List](#)

Step 2: Click the Subscribe button on the right-hand side.

Step 3: Fill in your contact details in the form and click Subscribe.

Step 4: Once completed, an email will be sent to you with a link for you to verify your address. Once verification is complete, a confirmation email will be sent to you.

An overview of the e-Filing system and further instructions on how to sign up for the Service Lists [can be found here](#).

When additional Cases are established in the e-Filing System, existing Service Lists will be notified and provided the opportunity to sign-up in advance.

More Information:

<https://energysafety.ca.gov/who-we-are/wildfire-safety-advisory-board/>

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