



**Hawaiian
Electric**

Wildfire Safety Working Group Meeting Risk Maps

July 31, 2024

Agenda

- About the Wildfire Safety Working Group
- Symposium Feedback
- Updated Preliminary Risk Maps
- Next Steps



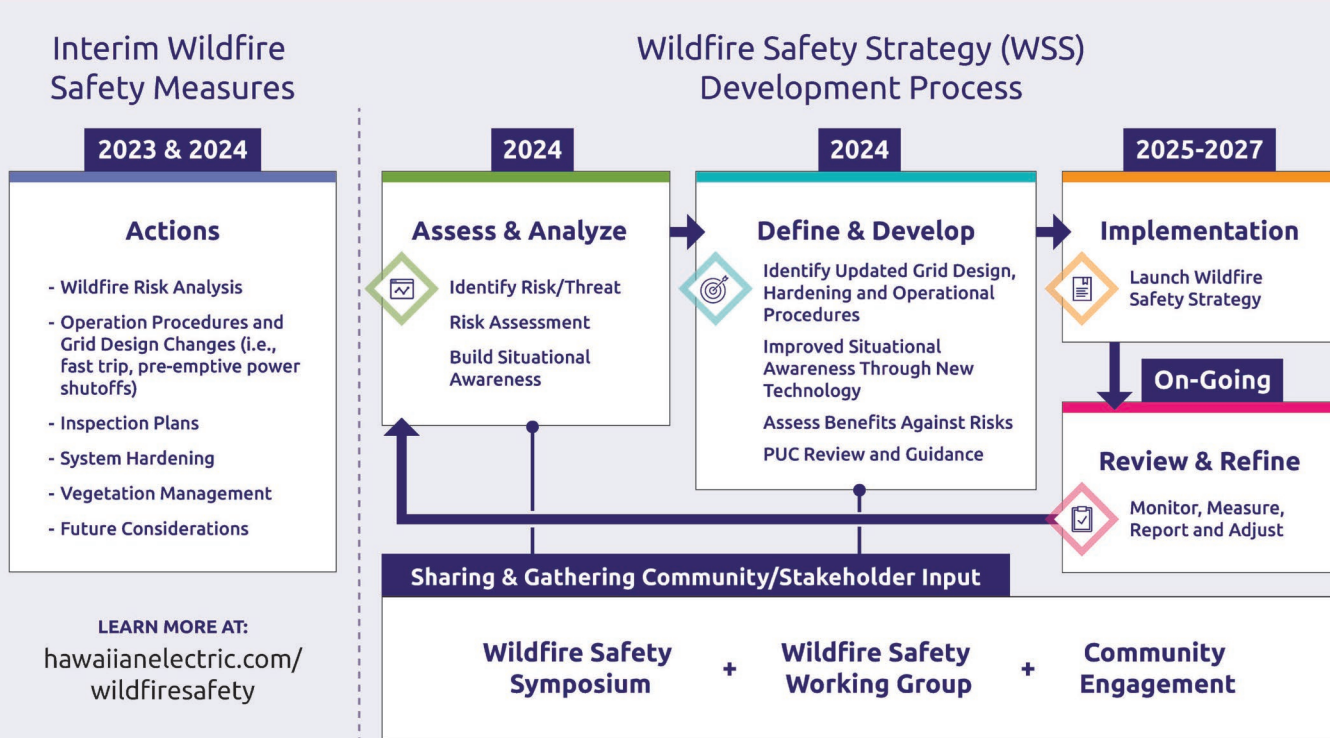


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Wildfire Safety Working Group



Hawaiian Electric continues to take **immediate action** and **adapt Wildfire Safety Strategy** to address elevated risks



The Objective of the Wildfire Safety Working Group

Is to support the development of Hawaiian Electric's Wildfire Safety Strategy (WSS), to inform and engage stakeholders on various aspects of the Company's strategy, and to afford stakeholders and partners opportunities to provide their knowledge, feedback and input to the strategy.



Roles and Responsibilities



Gain a sufficient level of understanding of the Company's plans and operations;



Bring forward industry practices or ideas to reduce wildfire risk for consideration to incorporate into the Company's WSS;



Provide local, area-specific information and issues as input into the Company's WSS;



Identify gaps and priorities in wildfire risk on the grid and customer capabilities; and



Collaboratively work with all members of the working group.

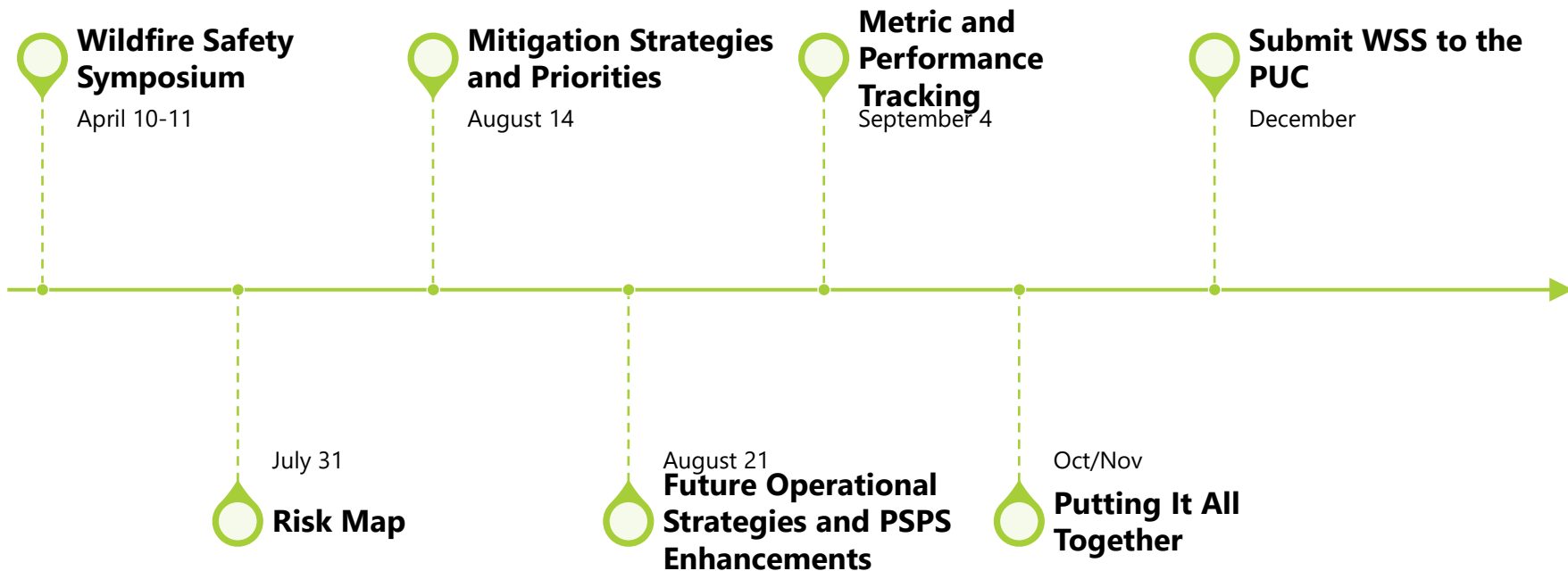


Composition

- Public Utilities Commission
- Division of Consumer Advocacy
- Hawaii State Energy Office
- Emergency and First Responders
- Non-Profits
- Community Based Organizations
- Academia
- Defense
- Other Federal, State and County Agencies
- Landowners
- Other Public and Private Utilities



Proposed Timeline for WFS WG





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Symposium Feedback



Table 7
Miles N, Dave O



Risk Map Feedback



Early work on wildfire mitigations since the Symposium

- Develop situational awareness capabilities
 - Installed 31 weather stations and plan to deploy 52 cumulative weather stations this year
 - Installed 6 pan, tilt, zoom video camera stations equipped with AI and plan to deploy more than 40 cumulative stations this year
- Harden the grid
 - Replaced or upgraded 771 poles in high risk areas
 - Replaced 6.7 miles of conductor
- Improve operational practices
 - Enabled enhanced power line safety settings on 191 circuits
 - Advanced asset inspections and pole replacement work in high risk areas
 - Went live with PSPS program on July 1
 - Worked in partnership with emergency management and community stakeholders
 - Published PSPS outage areas on the Hawaiian Electric website
 - Led table-top exercises with all three counties
 - Installed sectionalizing devices to reduce the potential scope of PSPS and impact on customers
 - Issued open call to customers with special medical needs to register with the Company
 - Hosted multiple community meetings in potentially impacted communities
- Future enhancements and improvements to be discussed at future WG meeting





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Updated Preliminary Risk Maps



Updated Preliminary Risk Map

Purpose of Map

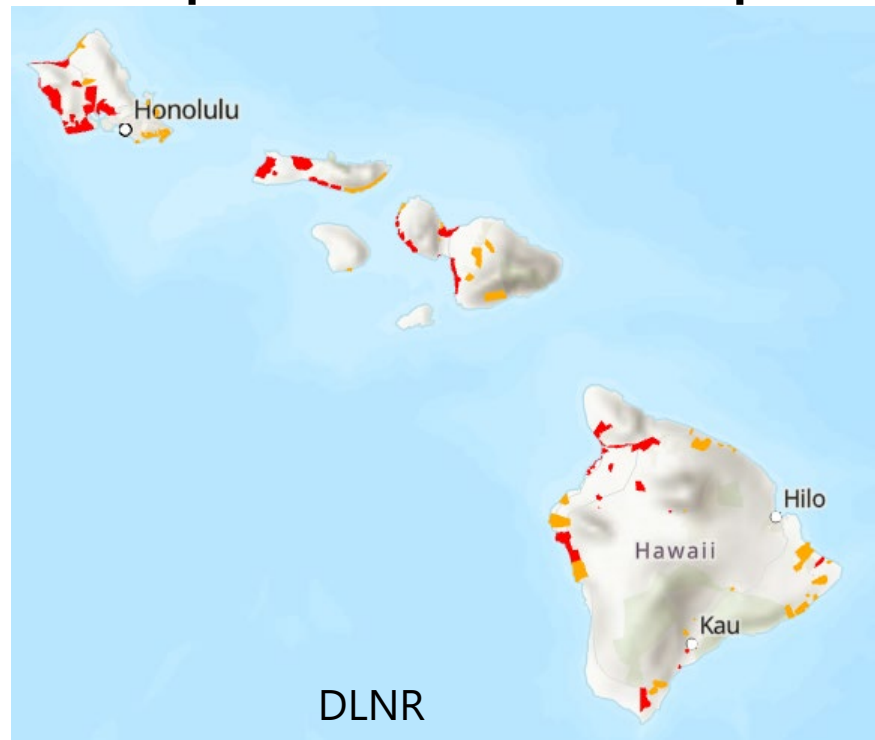
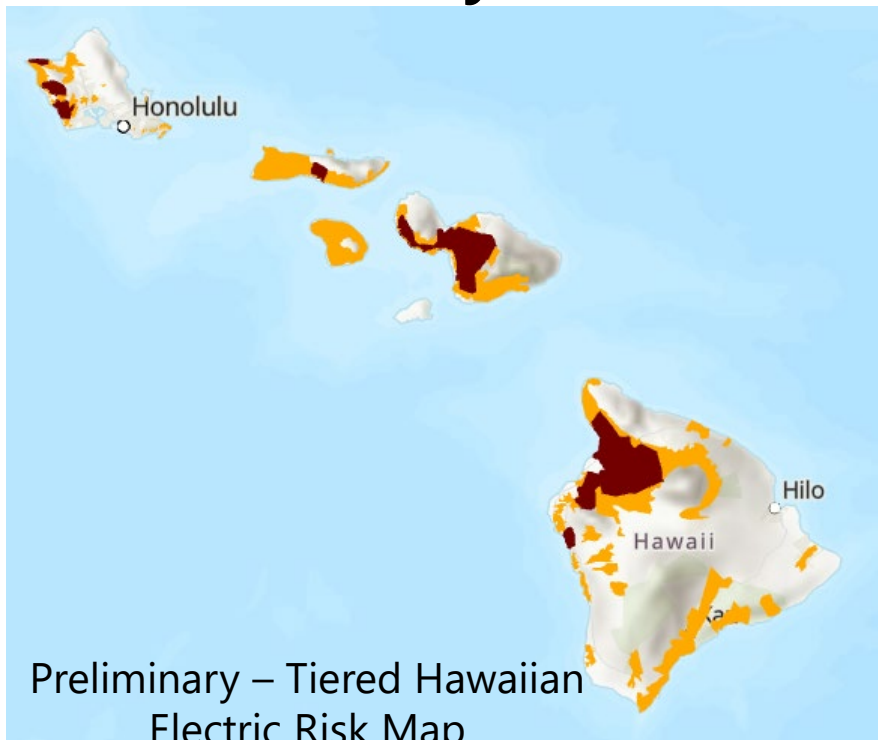
- Used to prioritize wildfire activities and strategies
 - Examples:
 - Construction Standards
 - Vegetation Management
 - Operational Practices

Purpose of Meeting

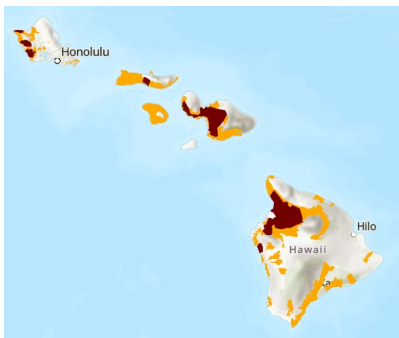
- Review preliminary risk maps, seek input from stakeholders on risk tiers
- Obtain input on the risk areas and tiered designation
- Feedback on data sources that we haven't considered in assessing risk



Preliminary Tiered Risk Map vs DLNR Map

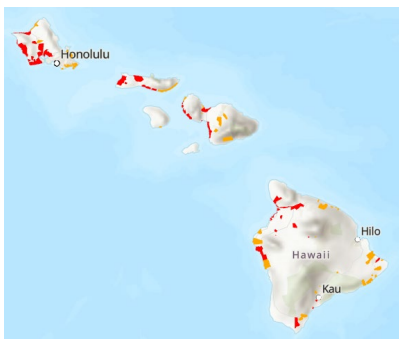


Preliminary Tiered Map vs DLNR Map



HECO Tiered Wildfire Risk Map

Focuses on locations of ignitions that have higher risk of “downstream” impact



DLNR

Focuses on communities that are at risk from wildfires, regardless of cause or location of ignition

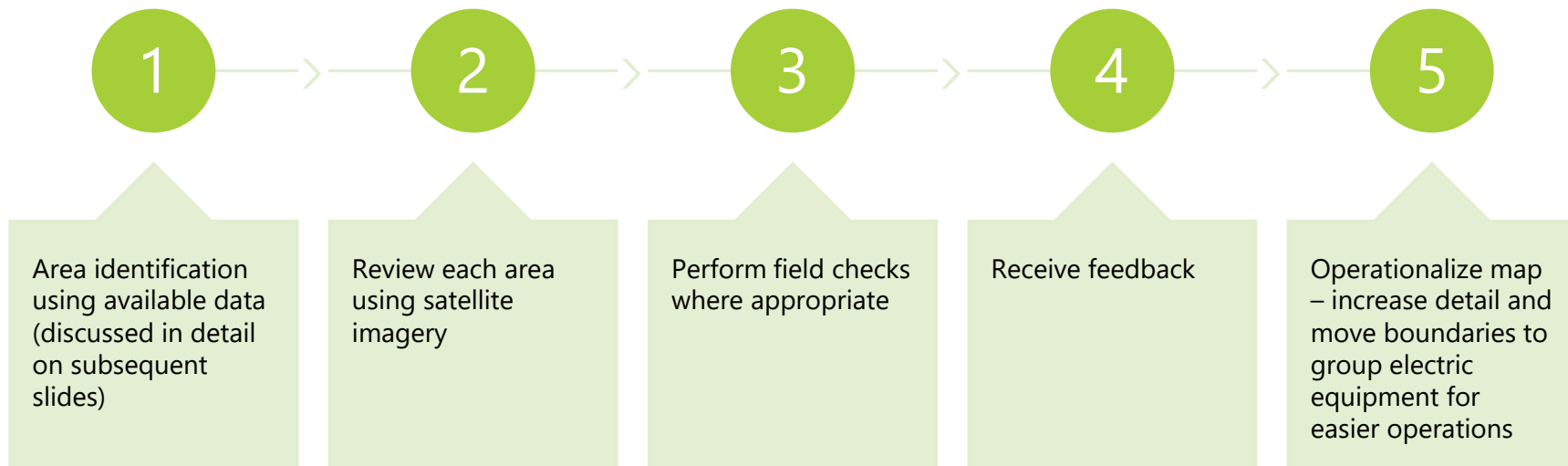


Methodology Overview

- Example slides are shown on subsequent slides
- Utilize 3 tiered system
 - High risk area
 - Medium risk area
 - Low risk area
- Use fire history perimeters from Pacific Fire Exchange
- Use vegetation classification from LandFire (joint Federal data product including input from USFS and USGS, among others)
- Determine vegetation types that have highest frequency of wildfire history



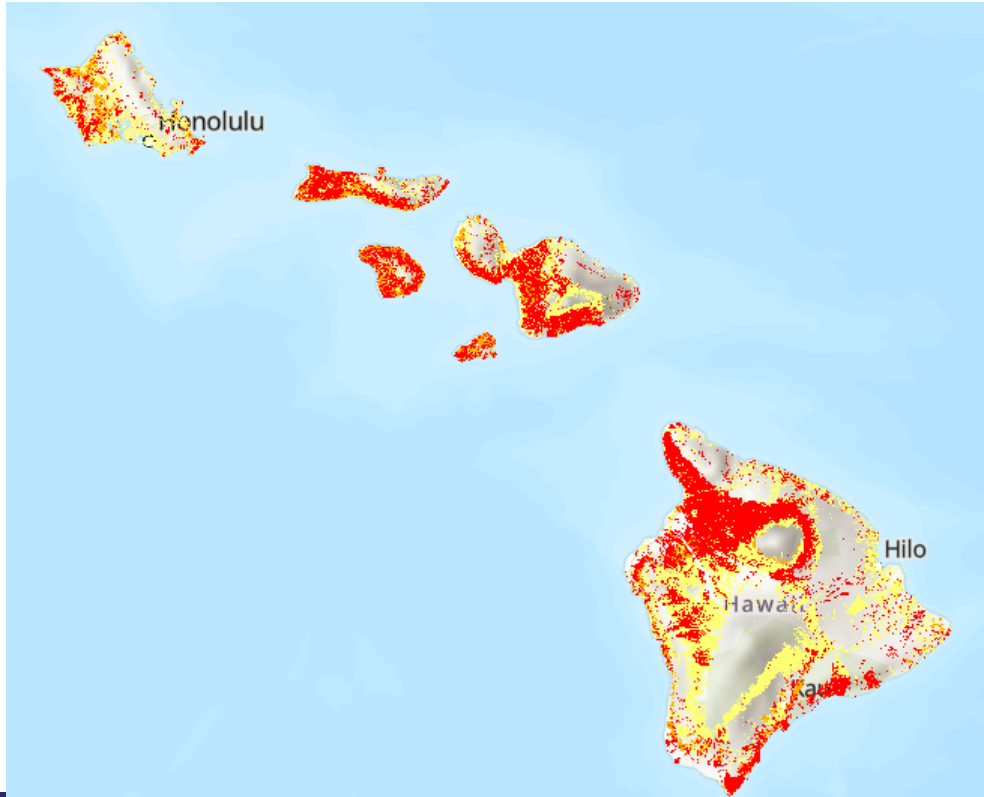
Methodology – Steps



Detailed Tier Methodology

- **High risk area:**
 - Combine with knowledge of trade wind direction, and presence of Hawaiian Electric infrastructure to determine highest risk areas
 - Contiguous areas of "red" vegetation, AND
 - Electric infrastructure nearby or directly NE, AND
 - Community in area or directly W or SW
- **Medium risk area:**
 - Regardless of wind direction or presence of community
 - Contiguous areas of "red" vegetation (those area not met in Tier 3 above)
 - Contiguous areas of "orange" vegetation that have fire history
- **Low risk area:**
 - Everything else





During live presentation,
can zoom into areas of
interest.





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Questions



Next Steps



Look out for calendar invites for remaining Working Group Meetings this year

Tentatively: Aug 14, Aug 21, Sept 4



Provide additional feedback on risk maps by August 9, 2024

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Let us know if more time is needed





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Symposium Recap



The kickoff to the process was our wildfire safety symposium, drew over 80 participants from various public, private, and non-profit organizations



WILDFIRE SAFETY SYMPOSIUM

April 10-11, 2024 • Hilo, Hawai'i



- American Red Cross of Hawaii
- California Public Utilities Commission
- City & County of Honolulu
- College of Tropical Agriculture and Human Resources
- County of Hawaii
- County of Maui
- Dept. of Business, Economic Dev. and Tourism
- Dept. of Commerce & Consumer Affairs
- Dept. of Defense
- Dept. of Land & Natural Resources
- Dept. of Transportation
- Essential Energy
- Hawaii Green Growth
- Hawaii Public Utilities Commission
- Hawaii Wildfire Mgmt. Organization
- Hawaiian Telcom
- Honolulu Board of Water Supply
- Imiloa Astronomy Center
- Kamehameha Schools
- Kauai Island Utility Cooperative
- Kohala Coast Resorts Assoc.
- Kohala Ranch Firewise
- Kohala Ranch Water Company
- Life of the Land
- LUMA Energy
- Mahi Pono
- Mauna Kea Watershed Mgmt.
- National Oceanic and Atmospheric Admin.
- Pacific Gas and Electric Company
- Puukapu Firewise
- Queen Emma Land Company
- San Diego Gas & Electric
- Southern California Edison
- State Energy Office
- T-Mobile
- AT&T
- UMS Group
- United States Dept. of Homeland Security, Federal Emergency Mgmt. Agency
- Verizon Wireless
- Vibrant Hawaii
- Waianae Mountains Watershed Partnership
- Waikoloa Village Firewise



Symposium Day 1 Recap

Main Themes:

- Wildfire safety is **everyone's responsibility**
- **Let's not be complacent** and keep our momentum to continue collaboration, work together and focus on mitigating wildfire risk across Hawai'i
- **Funding and resources are limited**, but we need to face these challenges together. **Investing in proactive mitigation** (including land management) **is as essential as response.**
- **Situational awareness and comprehensive, practical and up-to-date models** are crucial to understand and address fire risk
- **Diverse, lasting partnerships** are essential to this work. **Transparent exchange of information** with global partners is also key.

TOPICS:

- *Our 'āina & our grid*
- *Climate risks and resilience*
- *Wildfire risk areas*
- *Collective actions*
- *Industry practices & lessons learned*

CONVERSATIONS:

- “ We call upon everyone to take action for a more resilient future and **anchor these conversations in equity, as safety is a fundamental right for all.** Our goal is to create a resilient Hawai'i that thrives, not just survives...” – *Ka'iu Kimura*
- “ Our hope is that we leave tomorrow with stronger relationships, new tools and knowledge, **a sense of unity**, and a path forward to **strengthen collective actions for safety.**” – *Shelee Kimura*
- “ **Wildfire is an everyone issue.** It takes everyone doing our part to deal with incidents and recover after. **Collaboration is key.**” – *Elizabeth Pickett*



Symposium Day 2 Recap

Main Themes:

- Reducing wildfire risk requires **both immediate actions and long-term strategies**. We must move with urgency and deploy solutions now, while also understanding that it will take time and experience to build extensive partnerships, gather comprehensive data, harden the grid and hone operational practices.
- **Communication is paramount**. We must strive to provide customers and partners with information that is timely, clear, coordinated and easy to access—for example, developing a single source/portal for information sharing.
- **Understanding the concerns and needs of all our partners** (including water, wastewater and telecoms) **is critical** to take collective action that will care for our communities and customers.
- **We don't need to reinvent the wheel**. Learning from **industry best practices can shortcut** the time to develop and implement solutions. However, all efforts must be **tailored to our local context** and needs.
- **PSPS is a measure of last resort**. It is **one of many solutions** that we must employ to reduce risk of wildfire and keep our communities safe.

TOPICS:

Wildfire Safety Strategy

Public Safety Power Shutoffs

Collective actions

CONVERSATIONS:

“ Let's pull our **collective wisdom and resources** to think in ways **to better safeguard our communities**. This work is **both a sprint and a marathon**. Quick actions are needed, as are long-term sustainable strategies” *–Erik Takayesu*

“ **Successful communication** before, during and after a PSPS **starts long before the decision to shut off the power**. That takes fostering relationships with critical infrastructure providers, customers and community-based organizations. **Holistic partnerships are critical.**” *–Koko Tomassian*

“ PSPS goes against our DNA as utilities to provide reliable power. That's why it's a last resort, and why having all mitigations in place before we call a PSPS is crucial... Being good at something you don't do very often **takes a lot of practice.**” *–Shawn Holder*



Symposium feedback was overwhelmingly positive with specific and informative input for the strategy received from many participants

- 93% of respondents would like to be included in future stakeholder group meetings on wildfire safety.
- 100% of respondents found sessions engaging and beneficial.
- Positive feedback on the information shared by California, Puerto Rico, and Australian utilities.
- Attendees found value and enjoyed breakout sessions.
- Desire for more information on our PSPS program.
- Suggestion that there should be a state mitigation plan.



Day 1 Recap

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