

UKIAH ELECTRIC UTILITY WILDFIRE MITIGATION PLAN 2021 INFORMATIONAL RESPONSE

**RESPONSES TO WILDFIRE SAFETY ADVISORY
BOARD'S 2021 GUIDANCE ADVISORY OPINION**

June 24, 2021

I. PURPOSE OF THIS 2021 INFORMATIONAL RESPONSE

The California Wildfire Safety Advisory Board (WSAB) issued the *Guidance Advisory Opinion for the 2021 Wildfire Mitigation Plans of Electric Publicly Owned Utilities and Cooperatives* (“2021 WSAB Guidance Advisory Opinion”) on December 15, 2020. Ukiah Electric Utility (UEU) provides this document to the WSAB in order to respond to each of the recommendations included in the 2021 WSAB Guidance Advisory Opinion. Ukiah Electric Utility will provide a narrative response and/or a cross reference to the location in Ukiah Electric Utility’s Wildfire Mitigation Plan (WMP) where the topic is addressed. Where the recommendation is not applicable to UEU the response will provide a brief description supporting this conclusion.

II. CONTEXT SETTING INFORMATION

WSAB requested that POU provide an informational table to assist the Staff and Board member in understanding the unique characteristics of each POU.

Table 1: Context-Setting Information

Utility Name	[POU]	
Service Territory Size	4.3 square miles	
Owned Assets	<input checked="" type="checkbox"/> Transmission <input checked="" type="checkbox"/> Distribution <input checked="" type="checkbox"/> Generation	
Number of Customers Served	8233 customer accounts	
Population Within Service Territory	15,683 people	
Customer Class Makeup	<i>Number of Accounts</i>	<i>Share of Total Load (MWh)</i>
	80% Residential; 2% Government; 0% Agricultural; 17% Small/Medium Business; 1% Commercial/Industrial	34% Residential; 7% Government; 0% Agricultural; 56% Small/Medium Business; 3% Commercial/Industrial
Service Territory Location/Topography¹	<input type="checkbox"/> % Agriculture <input type="checkbox"/> % Barren/Other <input type="checkbox"/> % Conifer Forest <input type="checkbox"/> % Conifer Woodland <input type="checkbox"/> % Desert <input type="checkbox"/> % Hardwood Forest <input type="checkbox"/> % Hardwood Woodland	

¹ This data shall be based on the California Department of Forestry and Fire Protection, California Multi-Source Vegetation Layer Map, depicting WHR13 Types (Wildlife Habitat Relationship classes grouped into 13 major land cover types) available at: <https://www.arcgis.com/home/item.html?id=b7ec5d68d8114b1fb2bfbf4665989eb3>.

	<input type="checkbox"/> % Herbaceous <input type="checkbox"/> % Shrub 100% Urban 0% Water
Service Territory Wildland Urban Interface² (based on total area)	10% Wildland Urban Interface; 0% Wildland Urban Intermix;
Percent of Service Territory in CPUC High Fire Threat Districts (based on total area)	<input type="checkbox"/> Includes maps Tier 2: 10% Tier 3: 0%
Prevailing Wind Directions & Speeds by Season	<input type="checkbox"/> Includes maps The City of Ukiah does not record average wind directions and speeds over time. A review of yearly average wind speeds recorded on www.weatherunderground.com show average wind speeds between 3-5mph with gusts up to 35mph.
Miles of Owned Lines Underground and/or Overhead	Overhead Dist.: 42.5 miles Overhead Trans.: 0.25 miles Underground Dist.: 36.6 miles Underground Trans.: 0 miles
	Explanatory Note 1 - Methodology for Measuring "Miles": Circuit Miles
	Explanatory Note 2 – Description of Unique Ownership Circumstances: All owned by City of Ukiah
	Explanatory Note 3 – Additional Relevant Context: N/A
Percent of Owned Lines in CPUC High Fire Threat Districts	<i>Overhead Distribution Lines as % of Total Distribution System (Inside and Outside Service Territory)</i>
	Tier 2: 10% Tier 3: 0%
	<i>Overhead Transmission Lines as % of Total Transmission System (Inside and Outside Service Territory)</i>
	Tier 2: 0% Tier 3: 0%
	Explanatory Note 4 – Additional Relevant Context: None
Customers have ever lost service due to an IOU PSPS event?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Customers have ever been notified of a potential loss of service to due to a forecasted IOU PSPS event?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

² This data shall be based on the definitions and maps maintained by the United States Department of Agriculture, as most recently assembled in *The 2010 Wildland-Urban Interface of the Conterminous United States*, available at https://www.fs.fed.us/nrs/pubs/rmap/rmap_nrs8.pdf.

Has developed protocols to pre-emptively shut off electricity in response to elevated wildfire risks?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Has previously pre-emptively shut off electricity in response to elevated wildfire risk?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, then provide the following data for calendar year 2020: <i>Number of shut-off events:</i> [____] <i>Customer Accounts that lost service for >10 minutes:</i> [____] <i>For prior response, average duration before service restored:</i> [____]

III. CROSS REFERENCE TO STATUTORY REQUIREMENTS

WSAB requested that POU's provide a clear roadmap as to where each statutory requirement is addressed within the POU WMP.

Table 2: Cross References to Statutory Requirements

Requirement	Statutory Language	Location in WMP
Persons Responsible	PUC § 8387(b)(2)(A): An accounting of the responsibilities of persons responsible for executing the plan.	Section 3A & 3B Page 9-10
Objectives of the Plan	PUC § 8387(b)(2)(B): The objectives of the wildfire mitigation plan.	Section 2A & 2B Page: 6
Preventive Strategies	PUC § 8387(b)(2)(C): A description of the preventive strategies and programs to be adopted by the local publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.	Section 5 Page 13-17
Evaluation Metrics	PUC § 8387(b)(2)(D): A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan's performance and the assumptions that underlie the use of those metrics.	Section 8 Page 19-20
Impact of Metrics	PUC § 8387(b)(2)(E): A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.	Section 8B Page 20
Deenergization Protocols	PUC § 8387(b)(2)(F): Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.	Section 5G Page 17

Customer Notification Procedures	PUC § 8387(b)(2)(G): Appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of electrical lines. The procedures shall consider the need to notify, as a priority, critical first responders, health care facilities, and operators of telecommunications infrastructure.	Section 5F Page 16
Vegetation Management	PUC § 8387(b)(2)(H): Plans for vegetation management.	Section 5A Page 13
Inspections	PUC § 8387(b)(2)(I): Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	Section 5B Page 15
Prioritization of Wildfire Risks	PUC § 8387(b)(2)(J): A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, but not be limited to, both of the following: (i) Risks and risk drivers associated with design, construction, operation, and maintenance of the local publicly owned electric utility's or electrical cooperative's equipment and facilities. (ii) Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned electric utility's or electrical cooperative's service territory.	Section 4 Page 12-13
CPUC Fire Threat Map Adjustments	PUC § 8387(b)(2)(K): Identification of any geographic area in the local publicly owned electric utility's or electrical cooperative's service territory that is a higher wildfire threat than is identified in a commission fire threat map, and identification of where the commission should expand a high fire threat district based on new information or changes to the environment.	Section 4E Page 13
Enterprisewide Risks	PUC § 8387(b)(2)(L): A methodology for identifying and presenting enterprisewide safety risk and wildfire-related risk.	Section 4B Page 12
Restoration of Service	PUC § 8387(b)(2)(M): A statement of how the local publicly owned electric utility or electrical cooperative will restore service after a wildfire.	Section 7 Page 18-19
Monitor and Audit	PUC § 8387(b)(2)(N): A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following (i) Monitor and audit the implementation of the wildfire mitigation plan. (ii) Identify any deficiencies in the wildfire mitigation plan or its implementation, and correct those deficiencies.	Section 8C Page 20

	(iii) Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, other applicable statutes, or commission rules.	
Qualified Independent Evaluator	PUC § 8387(c): The local publicly owned electric utility or electrical cooperative shall contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan. The independent evaluator shall issue a report that shall be made available on the Internet Web site of the local publicly owned electric utility or electrical cooperative, and shall present the report at a public meeting of the local publicly owned electric utility’s or electrical cooperative’s governing board.	Section 9 Page 21

IV. WSAB GUIDANCE ADVISORY OPINION RECOMMENDATIONS

The WSAB Guidance Advisory Opinion identifies 14 specific recommendations that POUs are requested to address in their 2021 WMPs. As specified in Public Utilities Code § 8387(b)(1), each POU is required to perform a comprehensive revision to the POU’s WMP at least once every three years. Pursuant to this guidance, the POUs will be updating their WMPs based on the direction of their local governing boards within this 3-year cycle. Because the WSAB’s recommendations have been provided after the initial WMP submission, the POUs will have varying capacities to fully address each recommendation in their 2021 WMP. This Section IV restates each of the WSAB recommendations and provides an opportunity for each POU to do one or more of the following: (1) provide a narrative response to the recommendation; (2) provide a cross reference to where in the POU’s WMP this topic is addressed; (3) describe why the recommendation is not applicable to the POU; or (4) inform the WSAB of the POU’s intent to address the recommendation at the point of the POU’s next comprehensive revision, occurring in either the 2022 or 2023 WMP.

A. Plan Structure

WSAB Recommendation #1: Provide context-setting information about the POU and provide a simple guide to where the statutory requirements are addressed within the WMP.

POU Response: See Sections II and III above.

WSAB Recommendation #2: Provide a short description of the POU’s public review and approval (if required) for the WMP. This description may also include a brief explanation of the funding mechanisms for wildfire mitigation efforts.

POU Response: UEU updated WMP is presented to the Ukiah City Council on a yearly basis, additionally, the WMP is available on the City’s website: <http://www.cityofukiah.com/electric-utility/>. Wildfire mitigation efforts are funded through the Ukiah Electric Utility Capital Improvement Plan.

WSAB Recommendation #3: Identify where the POU has posted the most recent Independent Evaluator (IE) Report and if your POU plans to enhance future IE reports, please summarize in what ways.

POU Response: The Independent Evaluator Report is posted, along with the WMP, on the City’s website at: <http://www.cityofukiah.com/electric-utility/>

WSAB Recommendation #4: Develop, in collaboration with POU industry associations, WMP guidelines for future WMPs, understanding that it may take multiple cycles for POU’s to integrate these recommendations into the WMPs.

POU Response: This document is intended to include, as appropriate, responses to the recommendations in the WSAB’s Guidance Advisory Opinion for the POU’s 2021 WMP. This document also represents the combined effort of the POU industry associations to further the development of a template to respond to the WSAB’s Guidance Advisory Opinion in a future reporting WMP cycle.

B. Customer Impacts

WSAB Recommendation #5: Describe the potential impact investor-owned utilities (IOU) public safety power shutoff (PSPS) events could have on POU customers and how the POU manages these impacts. For POU’s that are also balancing authorities, describe the criteria for wildfire related de-energizations. Responses shall only provide aggregated information that does not provide customer-specific information or other potentially sensitive data.

POU Response: Ukiah Electric Utility customers may be impacted by the PSPS events ordered by PG&E. As a Transmission Access Customer, transmission related PSPS events can affect UEU’s customers. The following provides responses to specific questions included in the WSAB’s 2021 WSAB Guidance Advisory Opinion:

- What is the relationship between the IOU and the POU during PSPS events?

POU Response: UEU works in partnership with PG&E and local emergency services during a PSPS event.

Does the POU receive advance notification?

POU Response: Yes

• Is the POU affected at the transmission or distribution level?

POU Response: Transmission

• Is the POU implementing a mitigation strategy for IOU PSPS?

POU Response: Yes.

• Does the POU have its own permanent or temporary generation, (or customer provision of same) allowing it to withstand an IOU PSPS?

POU Response: UEU has permanent generation at various locations for essential services.

• Does the POU distribute back-up generators to customers?

POU Response: No.

• Does the POU deenergize their own lines when a wildfire threat looms, even if it is not labelled a PSPS?

POU Response: No. UEU will shut off power during emergencies when directed to by Ukiah Valley Fire, Police, Cal Fire or other emergency responding agencies.

• Is the POU a Balancing Authority Area? If yes, describe any applicable criteria for wildfire related de-energization.

POU Response: No.

WSAB Recommendation #6: Describe the utility customer communication plans with respect to wildfires and PSPS, and in particular describe the methods, content and timing used to communicate with the most vulnerable customers, such as Access and Functional Needs (AFN) customers, medical baseline customers, non-English speakers, and those at risk of losing water or telecommunications service.

POU Response: Prior to and during a PSPS event, the City of Ukiah notifies customers through Public Service Announcements, Press Releases and on Social Media. Notifications are given at 72, 48 and 24 hours in advance, if feasible. Additionally, a call center is set up and medical baseline customers are notified individually. Spanish speaking representatives are available. Water and Wastewater services have back up power. Telecommunications is supplied by private providers.

C. The Grid

WSAB Recommendation #7: Provide details on each POU’s system hardening and grid design programs, including: (1) the goals of the programs and the risk any particular program is designed to mitigate; (2) approach to PSPS mitigation and prevention; and (3) identify any resource shortages.

POU Response: The City of Ukiah’s approach to grid hardening is discussed in Section 5E of the City of Ukiah’s WMP. UEU’s facilities are designed, constructed and maintained to meet or exceed relevant federal, state and industry standards. Additionally, UEU continually reviews industry best practices and incorporates said practices into the Utility’s 5 year Capital Improvement Plan when feasible. The following provides responses to specific questions included in the WSAB’s 2021 WSAB Guidance Advisory Opinion:

- Does the POU perform a circuit-by-circuit analysis to identify essential facilities (and whether they have backup power) like hospitals, communication centers, and community resource centers?

POU Response: Yes.

- Does the POU assess system hardening measures that could be installed to prevent PSPS for those facilities?

POU Response: Yes.

- In what way does the POU prepare these facilities for a PSPS or another wildfire related de-energization event?

POU Response: The City of Ukiah Electric Utility works individually with customers on back up generation and resiliency projects.

- For POU’s that power water utilities or supply water themselves, if that water is used for drinking and firefighting, are certain projects being undertaken to harden the system for water delivery purposes?

POU Response: The lines feeding essential services throughout the City have been hardened and the City’s critical services have back up generation. These lines are continually evaluated to ensure best practices are followed and potential disruptions are avoided.

- Are pump stations self-contained or have some level of fire protection? Is the supply to sewage treatment plants hardened?

POU Response: Pump stations and lift stations are equipped with backup generation. The supply to the sewage treatment plant is hardened and the plant has backup generation.

- Is supplemental generation available such as backup batteries or backup power facilities?

POU Response: No.

- Are the majority installed by the customers themselves or the utility?

POU Response: UEU works with customers, however the plant or facility installs their own backup.

- Can the utility open and close taps? Can the utility back-feed?

POU Response: Yes.

- Are there wildfire related circumstances wherein either of these tactics would be useful?

POU Response: Yes.

- Can the utility sectionalize in a localized fashion?

POU Response: Yes.

WSAB Recommendation #8: Describe annual visual patrols on potentially impacted circuits and the risks the POU is inspecting for. Describe whether and how system inspections lead to system improvements. Describe line patrols before, during, and/or after a critical fire weather event, such as a Red Flag Warning with strong winds, or following a fire that burned in areas where electric facilities are or could have been impacted.

POU Response: Inspection plays an important role in wildfire prevention. UEU currently follows the inspection cycles outlined in California General Order 95 and General Order 128. UEU's current inspection activities incorporate several components including annual infrared (IR) patrol of overhead lines and substations, inspection of wood poles, 115 KV lines and GIS data collection and sharing. Some of the enhancements UEU will be exploring include use of unmanned aerial vehicles with IR and possibly LIDAR (light detection and ranging) capability. The frequency of inspections will be increased in the high fire threat areas and when storms or other disasters have significantly impacted our system.

WSAB Recommendation #9: Describe options considered by POU (including through the joint efforts of the POU associations) to identify previously unidentified risks that could lead to catastrophic wildfires.

POU Response: The California Municipal Utilities Association (CMUA) will be holding a special meeting of its Wildfire Preparedness, Response, and Recovery Working Group this fall, which will be focused on risk drivers for power-line caused catastrophic wildfires and innovative mitigation options. CMUA plans to invite a broad range of utility staff, state agency staff (including the WSAB), industry experts, and academics to participate in this discussion. As part of this meeting, the working group will discuss unidentified wildfire risk drivers and mitigation measures that could address these risks. Based on the input provided during this meeting, CMUA will produce a publicly-available, post-meeting report that summarizes the group’s conclusions and recommendations. [POU]’s staff will participate in CMUA’s meeting and will discuss any changes that [POU] has made to its operations in response to the conclusions and recommendations of the working group in a future WMP.

D. Risk Assessment

WSAB Recommendation #10: Describe the particular wildfire risks associated with system design and construction such as topography and location near the HFTD areas of another utility’s service territory. Describe any G.O. 95 exempt assets and possible updates to G.O. 95 that could facilitate more resilient utility transmission and distribution assets.

POU Response: UEU’s assessment of wildfire risks is discussed in Section 4 of UEU’s WMP. The following provides responses to specific questions included in the WSAB’s 2021 WSAB Guidance Advisory Opinion:

- Are there design or construction issues related to the utility’s specific topography or geographic location that the Board should be aware of?

POU Response: No.

- How will the utility address risks associated with facilities requiring power that abut a Tier 2 or Tier 3 HFTD?

POU Response: UEU has developed a 5 year Capital Improvement Plan to address potential sources of ignition in the Tier 2 areas.

- **How does the utility assess its risks associated with system design and construction?**

POU Response: UEU designs and constructs its electric facilities to meet or exceed relevant federal, state or industry standards. UEU uses CPUC General Order (GO) 95 as a key industry standard for design and construction standards. These areas are evaluated annually to identify if additional adjustments to UEU’s design standards are necessary. UEU through the field inspection assessment evaluates facility condition, location, vegetation exposure, compliance to industry standards to assess the overall design application.

E. SITUATIONAL AWARENESS TECHNOLOGY

WSAB Recommendation #11: Provide context-setting information about the prevailing wind directions and speeds, differentiated by season, along with average weather conditions by season. Describe how and why situational awareness technology is installed, and where on the system. Describe the decision-making process regarding the installation of situational awareness technology, including constraints such as budgets, availability of equipment, knowledge to effectively deploy, or qualified personnel to install and monitor effectively. Identify any other agencies, utilities, or fire professionals that the data from these devices is shared with.

POU Response: Ukiah typically experiences cool, wet winters and hot, dry summers creating extreme fire weather conditions especially from May through October. Daily temperatures during fire seasons (June- October) can be above 90° Fahrenheit with a relative humidity of less than 30%. Wind conditions throughout the year average 3-5mph, with gusts up to 35 mph. No situational awareness technology is installed.

VEGETATION MANAGEMENT

WSAB Recommendation #12: Describe treatment plans for all types of vegetation associated with utility infrastructure, from the ground to the sky, which includes vegetation above and below electrical lines.

POU Response: UEU’s vegetation management program is discussed in Section 5A of UEU’s WMP. The following provides responses to specific questions included in the WSAB’s 2021 WSAB Guidance Advisory Opinion:

WSAB Recommendation #13: List the qualifications of any experts relied upon, such as scientific experts in ecology, fire ecology, fire behavior, geology, and meteorology. Specify the

level of expertise of the POU staff that manages the contractors performing vegetation management. Describe measures each POU takes to ensure that POU staff and contractors comply with or verify compliance with Cal/OSHA standards on Minimum Approach Distances (MAD).

POU Response: UEU performs this work with arborists and a contract for tree trimming services as needed using qualified personnel.