DIVISION OF CONSUMER ADVOCACY
Department of Commerce and
Consumer Affairs
335 Merchant Street, Room 326
Honolulu, Hawaii 96813
Telephone: (808) 586-2800

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of	)	
	)	
PUBLIC UTILITIES COMMISSION	)	DOCKET NO. 2025-0255
	)	
Instituting a Proceeding to Review Kauai Island Utility Cooperative's Wildfire Mitigation Plan.	)	

DIVISION OF CONSUMER ADVOCACY'S STATEMENT OF POSITION

Pursuant to the Hawaii Public Utilities Commission's ("Commission") Order No. 41716 Instituting a Proceeding to Review Kauai Island Utility Cooperative's Wildfire Mitigation Plan, issued on May 21, 2025, the Division of Consumer Advocacy ("Consumer Advocate") informs the Commission that it has completed its review of Kauai Island Utility Cooperative's ("KIUC") proposed Wildfire Mitigation Plan ("2025 WMP").[1] Based upon that review, the Consumer Advocate recommends that the Commission accept, rather than approve, the 2025 WMP and require that KIUC address certain high-priorities identified by the Consumer Advocate's expert consultant ("Consultant").[2]

---

1 "Kauai Island Utility Cooperative's 2025 Wildfire Mitigation Plan", filed on January 29, 2025.

2 The Consumer Advocate retained the firm Jensen Hughes to evaluate the regulatory compliance, maturity level, and industry benchmarking of the WMP. Jensen Hughes has extensive expertise and experience in wildfire risk management prevention, mitigation, preparedness, response and recovery. A summary of Jensen Hughes' qualifications is provided as Attachment 1.

As explained in the Consultant Evaluation,[3] there are priority actions that need to be undertaken to further address considerations around safety, reliability, cost-effectiveness, equity, and compliance with all regulatory requirements. The Consumer Advocate is thus recommending that the Commission requires KIUC to file a plan and timeline for addressing the most immediate and top priorities and provide the opportunity for additional regulatory review by the Commission and Consumer Advocate.

The basis for the Consumer Advocate's position is provided below.

I. BACKGROUND.

A. PROCEDURAL BACKGROUND

On November 21, 2023, the Commission issued Order No. 40396 instructing each public utility to file a Utility Natural Hazard Mitigation Report detailing the utility's efforts to address natural hazard risks to the provision of utility service.[4]

On August 21, 2024, KIUC filed a copy of its May 2024 Wildfire Mitigation Plan.[5]

---

3 See generally, Jensen Hughes' report, "Evaluation of Kaua'i Island Utility Cooperative 2025-2027 Wildfire Mitigation Plan (WMP)", provided as Attachment 2 ("Consultant Evaluation").

4 Order No. 40396, "Directing Public Utilities to Develop and File Reports Related to their Ongoing Efforts and Future Mitigation Plans to Address Natural Hazards," issued November 21, 2023 ("Order No. 40396").

5 Letter From: K. Morihara To: Commission Re: Non-Docketed Case No. 2023-04661 – In the Matter of Public Utilities Commission Directing Public Utilities to Develop Reports Related to their Ongoing Efforts and Future Mitigation Plans to Address Natural Hazards – Kauai Island Utility Cooperative's Utility Natural Hazard Mitigation Report- Part 3, filed August 21, 2024

On October 1, 2024, the Commission issued Order No. 41075, "Providing Guidelines Regarding KIUC's Wildfire Mitigation Plan," ("WMP Guidelines"),[6] and on January 28, 2025, KIUC filed its 2025 WMP.

On May 21, 2025, the Commission issued Order No. 41716 instituting this proceeding to review KIUC's WMP.[7]

On July 23, September 9, and October 2, 2025, the Commission issued information requests, to which KIUC responded on August 11, September 19, and October 10, 2025.

On September 2, 2025, the Commission issued on Notice of Public Hearing Information Hearing for KIUC to provide information on its 2025 WMP to the public and on September 24, 2025, the Commission held the hearing.

On September 24 and October 3, 2025, the Consumer Advocate issued information requests, to which KIUC responded on October 6 and 10, 2025.

B. REVIEW OF KIUC'S 2025 WMP

The Commission provided the minimum requirements for KIUC's 2025 WMP in Order No. 41075 stating that KIUC's WMP "be based on reasonable and prudent practices and designed to protect public safety, reduce risk to customers, and promote resilience of the electric system to wildfire damage[,]"[8] outlined a list of specific criteria as

---

6 Order No. 41075, "Providing Guidelines Regarding KIUC's Wildfire Mitigation Plan," issued October 1, 2024 ("Order No. 41075") in Case No. 2023-04661 (Non-Docketed).

7 Order No. 41716, "Instituting a Proceeding to Review Kauai Island Utility Cooperative's Wildfire Mitigation Plan," issued May 21, 2025 ("Order No. 41716").

8 Order No. 41075, at 5.

part of the minimum requirements,[9] and required KIUC to file any proposed tariff revisions pursuant to Hawaii Administrative Rules ("HAR") § 16-601-111 to the extent that the WMP impacts KIUC's tariffs.[10]

The Commission identified the statement of issues for the docket as the following:[11]

1. Should the Commission find that KIUC's 2025 WMP complied with the WMP Guidelines in Order No. 41075?
2. Does KIUC's 2025 WMP reasonably reduce wildfire hazards, pursuant to Section VIII of G.O.7, by meeting the Commission's "Evaluation Criteria."

Order No. 41716 also indicated that if the Commission approves KIUC's 2025 WPM, it does not guarantee approval of cost recovery, and a separate analysis is required under General Order No. 7, Section 2.3(g)(2).[12]

In accordance with the Commission's guidance summarized above and in alignment with the Consumer Advocate's responsibilities,[13] the Consumer Advocate retained the services of the Consultant who evaluated KIUC's 2025 WMP for the following:

---

9 Order No.41075, at 5-8 (Items numbered 1-20).

10 Order No. 41075, at 8. The Commission identified an example that a Public Safety Power Shutoff ("PSPS") protocol could affect any tariff provision pertaining to uninterrupted service.

11 Order No. 41716, at 5 provides the Statement of Issues. The Commission's Evaluation Criteria are provided in Section II.B.4 of Order No. 41716.

12 Order No. 41716, at 7, fn. 11.

13 Pursuant to HRS §269-51(b), "The responsibility of the consumer advocate for advocating the interests of the consumer of utility services shall be separate and distinct from the responsibilities of the public utilities commission and those assistants employed by the commission."

- General compliance with regulatory considerations ("Regulatory Compliance")[14]
- Maturity Level
- Benchmarking in relation to utility peers in high fire prone areas ("Benchmarking")

The benchmarking assessment includes critical public and consumer interest considerations that incorporate assessments of KIUC's 2025 WMP with respect to safety, reliability, affordability, equity and the WMP's technical rigor and planned growth. The Consultant Evaluation also identifies areas of improvement for each component of the WMP.

II. DISCUSSION.

The Consumer Advocate acknowledges and appreciates the significant amount of work that has been done by KIUC to evaluate and reduce wildfire risks. As discussed in greater detail below, the Consumer Advocate recommends that KIUC pursue certain immediate priorities identified by the Consultant Evaluation that include:

- Identifying high-risk locations using spatial risk models. Including ignition risk drivers and consequences. Prioritizing high-fire prone areas of the island.
- Completing data collection on utility assets, vegetation, and risk drivers.
- Developing, publishing, and implementing a risk-prioritized Vegetation Management Plan (VMP) with inspection cycles, quantification, and quality control.

[14] "Regulatory Compliance" generally refers to whether KIUC's 2025 WMP meets the requirements of Order No. 41075 and Order No. 41716 and whether wildfire safety codes, standards, and industry guidelines (where applicable) are satisfied.

- Prioritizing inspections, repairs and upgrades of utility assets based on risk.
- Whenever possible, using data to guide decisions and to evaluate costs, effectiveness, and trade-offs.
- In high-risk areas, taking immediate action (such as vegetation management) to reduce key risks while working on longer term solutions (such as covering conductors).

The Consumer Advocate also offers its view that KIUC's 2025 WMP is a critical first step to integrating a more comprehensive WMP with KIUC's Hazard Mitigation Plan and incorporating KIUC's Hazard Mitigation Plan into a broader comprehensive public utility hazard mitigation plan the incorporates public utilities across multiple sectors given the critical need to maintain electrical service during hazardous events and the interdependency of critical utility services with each other in maintaining services.[15]

A. SUMMARY OF THE CONSULTANT EVALUATION – FINDINGS AND RECOMMENDATIONS.

The Consultant Evaluation notes the progress in KIUC's 2025 WMP in several key areas such as infrastructure modernization, expanded weather monitoring, UAV and LiDAR-based inspections, and the establishment of operational protocols for Red Flag Warning and Power Isolation events reflecting a reasonable balance between safety,

[15] Such a plan would necessarily require coordination across utilities from multiple sectors (e.g., gas, water, wastewater, telecom, water carriers). To be clear, the Consumer Advocate is not recommending that such a broad effort be the responsibility of the electric utility. Such an effort would need to be part of a next step that integrates and evaluates hazard mitigation plans from various utilities to identify any critical cross dependence vulnerabilities and would require regulatory coordination and oversight of the process and review of the proposed plan, recommendations, and solutions.

reliability, and affordability. [16] The Consultant Evaluation also identifies areas where additional work is needed particularly in areas of overall risk analysis and risk drivers and the vegetation management program[17] and provides recommendation for cost-effective enhancements.[18] Table 1 summarizes the findings of the Consultant Evaluation regarding the 2025 WMP's maturity level and comparison to industry benchmarks. As shown below, the current state of the WMP's Risk Analysis and Risk Drivers component and the Vegetation Management Program component were determined to be unsatisfactory from a plan maturity level perspective and below industry best practice benchmarks, while the Fire Mitigation Construction, Infrastructure Inspections and Maintenance, Operational Practice, and Plan Implementation and Monitoring component were determined to be of a sufficient maturity level and partially meeting industry best practices but needing further improvement.[19]

16 See e.g. Consultant Evaluation, at 2.

17 See e.g. Consultant Evaluation, at 2.

18 See e.g., Consultant Evaluation, at 37-38 (noting that potential wildfire risks imposed on surrounding communities by KIUC's equipment can be evaluated using publicly available fire modeling tools such as FlamMap in consultation with a Fire Behavior Analyst (FBAN) or equivalent subject matter expert and integrated into a risk-informed decision-making framework (e.g., 7x7) as one example.

19 Fire prevention strategies are considered across several WMP component's including Fire Mitigation Construction, Infrastructure Inspections and Maintenance, Vegetation Management Program, Operational Practices, Plan Implementation and Monitoring, and Costs (See e.g,, Consultant Evaluation, "Report Card Summary", at 2.

Table 1. Summary of Report Card determinations from Consultant Evaluation of the WMP's Maturity Level and Industry Benchmark

WMP Component	Maturity Level*	Industry Benchmark
Risk Analysis and Risk Drivers	Unsatisfactory	Below industry best practice
Fire Mitigation Construction	Sufficient	Partially meets best practice
Infrastructure Inspections and Maintenance	Sufficient	Partially meets best practice
Vegetation Management Program	Unsatisfactory	Below industry best practice
Operational Practices	Sufficient	Partially meets best practice
Plan Implementation and Monitoring	Sufficient	Partially meets best practice

* **Unsatisfactory**: Level of program maturity is below expected standards, and immediate need for improvements is critical.

Sufficient: Level of program maturity is in line with expectations given utility's operational history and/or age of WMP program. However, areas of improvement are needed.

The Consultant Evaluation's determination of whether the 2025 WMP met minimum reasonableness requirement in key areas of public and consumer interest is summarized in Table 2. The plan partially met standards of reasonableness for safety, affordability, and equity, but did not meet minimum standards of reliability and technical rigor.

Table 2. Summary of WMP on Key Public and Consumer Objectives.[20]

Objective	Minimum Reasonableness Met?	Comments
Safety	⚠ Partially	KIUC has made progress through conductor replacement, enhanced weather monitoring, and pilot ignition detection systems. However, wildfire risk maps, ignition-consequence modeling, and ...risk-informed mitigation planning ... fall short of best-practice standards.
Reliability	❌ No	Reliability impacts of new mitigation measures (e.g., Power Isolation, vegetation clearance cycles, hardware upgrades) are not quantified. Inspection backlogs and incomplete asset aging data create uncertainty in maintaining consistent reliability performance
Affordability	⚠ Partially	KIUC's cost-control approach avoids large capital projects... However, the overall plan lacks a solid foundation in risk-informed decision making and spatial prioritization for proposed mitigation activities. No cost-benefit or risk spend efficiency analysis has been completed, and ratepayer or member affordability impacts are not explicitly evaluated.
Equity	⚠ Partially	The plan acknowledges medical baseline customers and basic outreach commitments but lacks targeted engagement or support for broader access and functional needs (AFN) groups. No spatial or demographic integration of vulnerability data is evident.
Technical Rigor	❌ No	The plan relies mainly on qualitative assessments with limited analytical transparency. Quantitative wildfire behavior modeling, localized ignition-consequence analysis, vegetation inventory, and data governance protocols are not yet established, limiting analytical transparency and scrutability.

The Consultant Evaluation identified several immediate and top priority actions that need to be undertaken to enhance the WMP, which are summarized below in Table 3.

20 From Consultant Evaluation, at 4.

Table 3. Top Priorities to Enhance the WMP.

Section	*Top Priorities*
Risk Analysis and Risk Drivers	+ Collect spatial and non-spatial data of KIUC's ignition risk drivers (e.g., contact by object, contact by animal, contact by vegetation, # of faults that lead to ignition) based on industry best practices and standards in ignition data collection. + Inventory of utility assets. Spatial and non-spatial data. + Inventory and current conditions of vegetation (trees, plants and understory) in utility right of way. Spatial and non-spatial data. + Integration of fire behavior modelling into wildfire risk analysis and consequence modelling based on potential KIUC-caused ignitions. At a minimum, hazard and consequence modelling can be assessed using stochastic ignitions from KIUC assets.
Infrastructure and Maintenance	+ Incorporation of asset-aging data collection (e.g., mechanisms and rates) that are unique to the local environment.
Vegetation Management Program	+ Establish a system that prioritizes vegetation treatment needs of high priority treatment locations from those requiring routine maintenance. + Develop specific standards for vegetation management inspections following significant weather events which may compromise system reliability. Define the thresholds (sustained wind speed, rainfall amounts) that would trigger these inspections. + Make publicly available the existing Vegetation Management Plan to provide transparency for regulators and ratepayers regarding standards for the maintenance of overhead and surface vegetation as well as hazard tree management protocols. + Establish a defined Quality Assurance/Quality Control program, which identifies responsible officials, inspection standards and goals, response time goals to reported problems, data collection and management standards, and contractor performance review protocols.

Operational Practices	+	There is a developing work backlog arising from the recent island-wide asset inspections. That work backlog exceeds the capability of the current KIUC resources, resulting in up to 5 years to resolve. In the interim and in the absence of island-specific component aging data, it may be necessary to rely on subjective and qualitative considerations to guide and inform the management of the work backlog to avoid unacceptable degradation of system reliability.
	+	Develop a flowchart for the situational awareness information that will be utilized for decision-making around warnings and in preparation for potential PI events.[21]
	+	Identify a maintenance schedule for the newly installed KIUC weather station network to increase transparency and specificity in the criteria for higher tiers of the Wildfire Readiness Framework, particularly what criteria will trigger either an Extreme Risk Day or a PI event, and what responsive actions are specific to each of those events.
	+	Develop a clear decision-making flowchart identifying criteria and responsibilities associated with PI events, including when the PI event is over and the process for re-energization.
Plan Implementation and Monitoring	+	A detailed timeline for the implementation of planned future enhancements should be provided, along with progress updates provided at a periodicity determined by the Commission and DCA to ensure accountability and oversight.

B. KIUC's WMP COMPLIES WITH MINIMUM REQUIREMENTS OF ORDER NO. 41075

The Consultant Evaluation determined that "KIUC has met the minimum regulatory reporting requirements" and presents a cross-reference table indicating which sections of the WMP addressed the minimum requirements set forth in Order 41075.[22] Key findings and observations were that the WMP:

> Meets core requirements of Order 41075 by identifying wildfire risks, mitigation measures, and monitoring processes. Some areas (e.g., spatial risk modeling, consequence analysis, vegetation management and inspection protocols,

21 "PI" means Power Isolation. Similar in effect to Public Safety Power Shutoff.

22 Consultant Evaluation at 13.

asset inspections and remediation) need further development to fully align with intent of regulation.[23]

C. KIUC's WMP ONLY PARTIALLY SATISFIES THE EVALUATION CRITERIA IN ORDER NO. 41716.

The Consultant Evaluation determined that of the six specific "Evaluation Criteria" listed by the Commission in Order No. 41716, the WMP partially satisfies three, and does satisfy the others. Specific comments included:

1. Technical and Programmatic Feasibility and Effectiveness

Partially

> KIUC's WMP makes progress toward technically feasible approaches to wildfire risk mitigation within the constraints of a small island utility. The plan proposes mitigation measures that are well within the scope of proven engineering and operational practices for a small island utility. ... However, the plan's evaluation of technical effectiveness is primarily qualitative, with limited quantification of risk-reduction outcomes, ignition probability, or performance baselines...
>
> The WMP is directionally feasible, demonstrating sound technical design, but will require more substantiation of programmatic readiness to fully meet the long-term intent of the regulatory objectives.[24]

2. Resource Use Efficiency

Partially

> The WMP generally meets the intent of the resource use efficiency objective...
>
> However, ... Without such metrics, it is difficult to assess how efficiently KIUC's programs translate spending into safety and reliability outcomes.

---

23 Consultant Evaluation, at 2-3.

24 Consultant Evaluation, at 37.

...Future WMP updates should incorporate quantitative cost-effectiveness tools, standardized resource allocation metrics, and transparent reporting to demonstrate and optimize the efficiency of wildfire mitigation investments.[25]

3. Continued Progress

Yes

Because this is KIUC's first Wildfire Mitigation Plan (WMP), the utility does not yet have a prior filing from which to demonstrate measurable year-over-year progress...

KIUC's initial WMP meets the intent of the continued progress objective by creating the foundation for future measurement and refinement. It sets the groundwork for continuous improvement, enabling KIUC to demonstrate tangible progress toward wildfire risk reduction in subsequent plan cycles.[26]

4. Forward-Looking Growth

Partially

...The plan identifies future-oriented initiatives such as UAV and LiDAR inspections, GIS mapping of wildfire risk, expanded weather monitoring, and QA/QC and data governance systems—all of which position KIUC to mature its wildfire mitigation program over time...

KIUC's WMP is directionally forward-looking and establishes a credible baseline for future program development, but it does not yet demonstrate quantitative or risk-informed planning maturity.

Future iterations should include data-driven risk modeling, measurable performance targets, and prioritization methods to strengthen KIUC's long-term growth trajectory and alignment with emerging regulatory expectations.[27]

---

25 Consultant Evaluation, at 38.

26 Consultant Evaluation, at 39.

27 Consultant Evaluation, at 39.

5. Performance Metrics

Partially

The plan partially meets the intent of the performance metrics objective, providing a basic framework for tracking wildfire-related activities but not yet establishing comprehensive, quantitative measures of program effectiveness. The plan includes several initial performance indicators (primarily all lagging indicators), such as the number of Red Flag Warnings, instances of "fire-safe mode" operations, system-related ignition counts, and reliability indices (e.g., SAIFI).

...Future iterations should evolve these indicators into a quantitative, risk-based performance framework capable of demonstrating verified reductions in ignition risk, asset failure, and wildfire consequence potential for both leading and lagging indicators.[28]

6. Targets

Yes

KIUC's WMP meets the intent of the targets objective at a foundational level, establishing specific and timebound commitments for program implementation...

The plan identifies activity-based milestones, such as completing bare wire secondary replacement by 2025, initiating a formal vegetation management program in 2024, and conducting UAV/LiDAR system inspections within the plan cycle. These commitments demonstrate a structured approach to tracking program execution and provide a reasonable basis for internal accountability given KIUC's current wildfire mitigation maturity....

To fully meet the targets objective, future WMPs should establish tiered targets that distinguish between (1) implementation milestones (activity completion and any interim strategy timelines) and (2) performance outcomes (measurable improvements in safety, reliability, and risk reduction such as "reduce vegetation-related outages by X%" or "reduce inspection backlog to <10%")...[29]

---

[28] Consultant Evaluation, at 40.

[29] Consultant Evaluation, at 40.

D. RECOMMENDED ACTIONS FROM THE CONSULTANT EVALUATION.

The Consultant Evaluation included several specific recommendations in each section of the WMP, with the "most immediate" priorities identified as:

- Development of a qualitative or quantitative risk assessment to evaluate the spatial variability of wildfire risk as a function of utility ignition risk drivers, fire behavior and consequence analysis in a fully integrated framework to inform mitigation planning and prioritization. This can be prioritized for the high-fire prone areas of the island (e.g., south)
- Completion of utility-specific assets, vegetation inventories and risk drivers data collection.
- Develop and publish a comprehensive Vegetation Management Plan (VMP) with inspection cycles, data standards, QA/QC procedures, and prioritization by risk.
- Develop risk-informed, spatial prioritization for utility infrastructure and equipment inspection scheduling and remediation efforts given the volume and extent of degradation.
- Transition from qualitative proxies to quantitative, spatial, evidence-based prioritization.
- Increased implementation details and timing of specific mitigations by circuit segment, particularly regarding interim strategies and the incremental increase in risk reduction and costs, until long-term capital improvements can be implemented. [30]

E. THE WMP SHOULD BE THE FIRST STEP TOWARD BROADER INCORPORATION INTO A COMPREHENSIVE PUBLIC UTILITY HAZARD MITIGATION PLAN.

As the Consumer Advocate has previously noted, the electric utility and all public utilities deliver critical services to customers. The operation of most of these utility

[30] Consultant Evaluation, at 5.

systems depend on each other. The Hawaiian Islands are vulnerable to several types of natural hazards in addition to wildfires that include, but are not limited to, winds, flooding, and tsunamis. The Consumer Advocate views the development of KIUC's 2025 WMP as an important first step in broadening KIUC's Hazard Mitigation Plan and developing a comprehensive public utility hazard mitigation that considers hazard mitigation across a variety of utility sectors together (water, wastewater, electricity, transportation, gas, etc.).

III. RECOMMENDATION. .

Based upon the above, the Consumer Advocate hereby recommends that the Commission accept KIUC's 2025 WMP provided that the Commission requires KIUC to develop and file a plan to address the most immediate and top priorities in an update to the WMP and propose a timeline for addressing those priorities. The Commission and Consumer Advocate should have the opportunity to further evaluate the sufficiency of further improvements to the plan. The Consumer Advocate emphasizes that any current or future plan acceptance should not create any presumption of need for, or likely used and useful assessment of, any particular costs to implement the WMP.

Finally, the Consumer Advocate is also aware that KIUC is a member-owned utility cooperative that has a history of addressing the needs of its customers. The Consumer Advocate is also cognizant of the fact that some of the recommended top priorities to be addressed, such as enhancing the 2025 WMP's Risk Analysis and Risk Drivers, would be costly for a utility of KIUC's size to encumber. As such, the Consumer Advocate is

open to discussing potentially helping support and working together with KIUC in further development of the Risk Analysis and Risk Driver component of its WMP.[31]

DATED: Honolulu, Hawaii, October 31, 2025.

Respectfully submitted,

By /s/ Michael S. Angelo
MICHAEL S. ANGELO
Executive Director

DIVISION OF CONSUMER ADVOCACY

[31] Any support that the Consumer Advocate could possibly provide would be contingent upon many factors such as availability of funds and various priorities in its on-going advocacy work for consumers across a broad range of utility sectors.

Background

Founded in 1980 as a corporation and headquartered in Columbia, Maryland, USA, Jensen Hughes is the global leader in fire engineering, consulting and technology services. We are dedicated to protecting what matters most through technical excellence. We are a global team of 1,700+ fire engineers, scientists, consultants, and wildfire practitioners dedicated to advancing the science of safety and risk management in over 100 countries and over 100 offices.

Using the diverse backgrounds of our fire safety engineers, consultants and risk specialists dedicated to protecting people, properties, assets and operations, our firm has developed expertise in understanding the increasingly complex range of hazards, risks, and vulnerabilities due to wildland fires in the built environment, as well as in natural landscapes. PUCT will benefit from our collective backgrounds in the following:

Applicable Expertise + Experience

- Wildfire Risk Mitigation
- Wildfire Forensic Investigations
- Wildfire Behavior Modelling
- Community Wildfire Protection Planning
- Fire Codes and Standards Committees
- Fire Regulatory Compliance
- Fire Engineering and Design
- Fire Safety Inspections
- Fire Hazard and Risk Assessments
- Power Utility Fire Safety
- Safety Management
- Software Development and Deployment
- Data Analytics and Machine Learning
- Data Strategy Enhancements
- Training and Technology
- Emergency Management

Our experience includes all phases of wildland/WUI fire risk management (prevention, mitigation, preparedness, response and recovery) and building and urban-scale fire safety design, analysis and management. Our experts have extensive boots-on-the-ground experience in wildland fire and urban firefighting and in-depth knowledge and skills to apply the latest fire science and engineering tools in wildfire behavior, vegetation management, structural hardening, etc., in the development of CWPPs and other Wildfire Mitigation Plans.

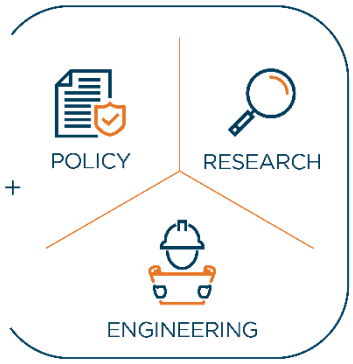
Our professionals have expert knowledge of fire safety codes and standards, with detailed knowledge of local, state and federal rules, regulations and guides related to wildfire safety, wildfire risk mitigation and emergency operations, including:

- Disaster Mitigation Act (2000-present)
- National Fire Plan (NFP) 2000
- Healthy Forest Restoration Act (HFRA)
- State and Local Fire and Building Codes
- Other relevant wildfire codes, standards, and legislation
  - IWUI Code, IRC

- NFPA 1, 1140
- ASTM Standards (e.g., E119, E108, E84)
- Utility wildfire safety (e.g., California PUC 8386, PUC 8389)
- Sample of relevant California codes and standards
  - Public Resources Code Section 4290, 4291, 4102, 4125-4229, 4251-4255, 4290, 4292-4296
  - California wildfire legislation (e.g., SB 70, SB 167, SB 247, SB 901, AB 111, AB 1054, AB 3074)
  - Chapter 7A, Chapter 49

+ FEMA, NIST, IBHS, NFPA, APA, SFPE and other agencies and industry fire and wildfire publications
+ ANSI A300 Tree Care Operations: Standard Practices for Tree, Shrub, and Other Woody Plant Maintenance
+ Vegetation Management Planning Guide: Planning and Implementation for Developed Sites in USFS Region 2.

Industry Leadership



Our leadership is demonstrated by developing policy, supporting research, creating methods and then performing the necessary engineering evaluations. For more than 40 years, our team has supported the gathering and analysis of data and the research and development of new assessment methods and techniques through organizations such as State and Federal Agencies, Industry Consensus Standards committees, FEMA, NIST, and EPRI. This wealth of experience can help you meet your regulatory needs.

We are also actively involved in developing and improving fire safety policies, codes & standards, risk-informed regulation through our extensive committee involvement across the State and at the national level, while also serving on behalf of our clients in designing, inspecting and/or enforcing those regulations on a daily basis.

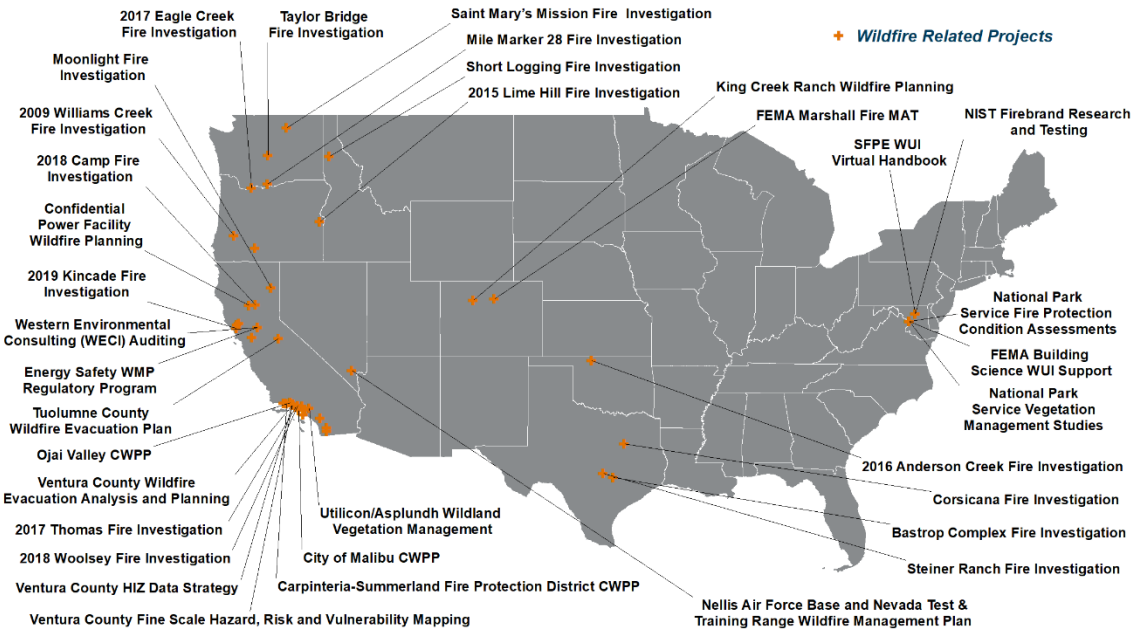
Our extensive involvement in technical committees and professional organizations demonstrates our commitment to advancing the fire safety industry. Involvements relative to wildfire risk include:

+ National Association of Fire Investigators (NAFI), Wildland Fire Investigation Committee
+ International Association for Fire Safety Science (IAFSS), Large Outdoor Fires and the Built Environment Working Group
+ International Organization for Standardization (ISO), Large Outdoor Fires and the Built Environment Working Group
+ Society of Fire Protection Engineers (SFPE) WUI Working Group
+ Southern California, Fire Prevention Officers, WUI Committee
+ NFPA 1140, Standard for Wildland Fire Protection
+ (Former) NFPA 1141, Standard for Fire Protection Infrastructure for Land Development in Wildland, Rural and Suburban Areas
+ (Former) NFPA 1142, Standard on Water Supplies for Suburban and Rural Fire Fighting
+ (Former) NFPA 1144, Standard for Reducing Structure Ignition Hazards from Wildland Fire
+ NFPA 921, Guide for Fire and Explosion Investigations, Chapter on Wildfire Investigations

Project Experience

Our team has completed multiple projects developing and auditing wildfire protection plans, comprehensive structure protection strategies, hazard and risk assessments, utility wildfire mitigation plans, CWPPs, wildfire evacuation studies and communication planning, multi-hazard evacuation assessments, vulnerability assessments and vegetation management strategies at different scales and levels of implementation for a range of clients. Our client list includes federal, state, and local agencies, national research labs, non-profits, electrical utilities, state-level utility wildfire regulators, private homeowners, large landowners, and commercial facilities.

The following map provides a snapshot of this experience and related wildfire risk management consulting.



Sample Projects

Our team brings a depth of knowledge and experience in delivering wildfire risk mitigation services. The following is a partial listing of projects completed by Jensen Hughes in the last 10 years:

+ **Office of Energy Infrastructure Safety, Sacramento, CA**
  Development of Regulatory Guidelines for Investor-Owned Utility Wildfire Mitigation Plans (WMPs

  Our team worked closely with the Office of Energy Infrastructure Safety (Energy Safety) to revise and substantially enhance the Wildfire Mitigation Plan (WMP) Guidelines for 2023-2025, associated Maturity Model, WMP Annual Guideline Updates, as well as support Energy Safety staff to evaluate WMP submissions in 2022 and 2023

+ **Office of Energy Infrastructure Safety, Sacramento, CA**
  Risk Modelling Working Group and WMP Risk Assessment Regulatory Review Support

  Facilitating the Risk Modeling Working Group meetings. Summarizing results of working group into approaches document and suggested revision to WMP Guidelines. Supporting as subject matter experts (SMEs) in wildfire risk and risk mitigation in evaluating the risk modeling and mitigation selection sections of the utility submitted Comprehensive 2026 WMPs and 2027 Update WMPs.

+ **Electric Transmission Texas (ETT) Texas**
Evaluation of Wildfire Risk

Evaluated the effects of wildfire on ETT assets and on the potential damage from postulated utility caused wildfires

+ **Bear Valley Electric System, California**
Assistance with the Development of the 2026-2028 Wildfire Mitigation Plan

Assisted BVES with the development of their 2026-2023 WMP. The scope included: development of Risk Methodology and Assessment section of the WMP, and review and assistance as necessary, with the remaining sections

+ **LS Power Grid , California**
Assistance with the Development of the 2026-2028 Wildfire Mitigation Plan

Assisted LS Power with the development of their 2026-2023 WMP. The scope included: development of Risk Methodology and Assessment section of the WMP, and review and assistance as necessary, with the remaining sections

+ **California Attorney General's Office, Sacramento, CA**
Utility-Based Wildfire Investigative Services

Our team provides support investigating wildfire incidents for the California State Attorney General's Office related to several California wildfires. Additionally, we have provided investigation and analysis services on some of the nation's largest wildfires, including the Bastrop Complex fire, the Corsicana fire, the Twisp wildfire in Washington, and the Saint Mary's Mission fire.

+ **Federal Emergency Management Agency, Building Science Disaster Support**
Wildfire Community Resiliency Landscape Analysis and White Paper

Our team developed a two-volume Community Wildfire Resilience white paper to summarize the current landscape of federal, state, and local wildfire resiliency codes and standards, guidance documents, programs, and state of practice for the western U.S. The paper provided a range of recommendations to help inform FEMA's policies, programs, and initiatives in building community wildfire resilience more holistically, efficiently, and sustainably.

+ **Numerous State and Local Governments, Several Locations in CA**
Community Wildfire Protection Planning (CWPP)

Our team has completed numerous community wildfire protection plans (CWPPs) local government agencies across California, Colorado and western U.S. We recently completed CWPPs for Tuolumne County, CA, Ojai Valley in Ventura County, City of Malibu, CA, Routt County, CO. Our services included: (1) Collaborating with multiple stakeholders to identify values at risk, goals and objectives of the plan (2) community outreach to disseminate information and collect concerns and issues (3) Collecting and reviewing data. (4) Performing wildfire hazard and risk assessments (5) Providing mapping products (6) Developing an action plan with community education, identifying, and prioritizing hazardous fuel mitigation projects, evacuation plan, etc.

REPORT

EVALUATION OF KAUA‘I ISLAND UTILITY COOPERATIVE 2025-2027 WILDFIRE MITIGATION PLAN (WMP)

Hawaii Department of Commerce and Consumer Affairs
Division of Consumer Advocacy

PREPARED FOR

Department of Commerce and Consumer Affairs
Division of Consumer Advocacy
335 Merchant Street, # 326
Honolulu, Hawaii 96813

Project #: 1DRI25003.000
Report #: 20251013_DCCA-RPT-KIUC WMP
Date: 10/30/2025

JENSEN HUGHES

D. Rini, D Kerr, A Pludow, K Zee, C Kolden
1000 Wilshire Boulevard, Suite 250
Los Angeles, CA 90017

darlene.rini@jensenhughes.com
+1 213-412-1400

	Name + Date:		
Preparer(s):	D. Rini, K. Zee, C Kolden, D Kerr, A Pludow, Y. Zhan		
Reviewer:	Elizabeth Kleinsorg		
Review Method	Design Review ☒	Alternate Calculation	☐
Approver:	Elizabeth Kleinsorg		

Revision Record Summary

Revision	*Revision Summary*
0	Issue as final

Table of Contents

Executive Summary

Jensen Hughes was commissioned by the State of Hawaii Department of Commerce and Consumer Affairs (DCCA), Division of Consumer Advocacy (Consumer Advocate) to evaluate the Kauai Island Utility Cooperative's ("KIUC" or "Company") 2025-2027 Wildfire Mitigation Plan (WMP).[1] The purpose of the evaluation is to help inform the Consumer Advocate's recommendation to the Hawaii Public Utilities Commission (Commission) as to whether KIUC's WMP sufficiently addresses key consumer considerations and to provide recommendations to help support further ongoing improvements to the WMP.

KIUC's WMP includes several components,[2] which are evaluated using the following criteria:

+ **Regulatory Compliance** – Whether the minimum reporting requirements identified in Orders 41075 and 41716 are met and whether wildfire safety codes, standards, and industry guidelines (where applicable) are satisfied.
+ **Maturity Level** – Whether the WMP is at a reasonable level of maturity given KIUC's operational history, size of territory and age of wildfire mitigation program(s).
+ **Industry Benchmarking** – Where KIUC currently stands in relation to key capabilities or best practices in industry, and how KIUC's WMP ranks compared to utility peers in high fire prone areas. The Industry Benchmarking assessments consider the WMP's technical rigor, planned growth, key public interest and consumer considerations of safety, reliability, affordability, and equitability, and identifies areas of improvement for each component of the WMP.

The report card format provides an indication of each component's level of maturity and how the proposed WMP component compares to the industry benchmark for utilities of similar size in fire prone areas. The ratings are summarized below:

Maturity Level
"**Unsatisfactory**" (Below Expectations) Level of program maturity is below expected standards, and immediate need for improvements is critical.
"**Sufficient**" (Needs Improvement) Level of program maturity is in line with expectations given utility's operational history and/or age of WMP program. However, areas of improvement are needed.
"**Satisfactory**" (Meets or Exceeds Expectations) Level of program maturity exceeds expectations. Very mature.

Industry Benchmark
1: Below industry best practice
2: Partially meets best practice
3: Consistent with best practice
4: Exceeds best practice

[1] The Commission required KIUC to file a WMP Report comprised of KIUC's wildfire risk mitigation plan and related and information in Order No. 41075, issued on October 1, 2024, in Case No. 2023-04661 (Non-Docketed). KIUC's WMP dated January 28, 2025 is being reviewed in Case No. 2025-0255, in accordance with Order No. 41716, issued on May 21, 2025.

[2] i.e., Sections 2 – 8 of the WMP.

REPORT CARD SUMMARY

WMP Component	*Maturity Level*	*Industry Benchmark*
2. Risk Analysis and Risk Drivers	Unsatisfactory (Below Expectations)	
3. Fire Prevention Strategies	See Sections 4-9	See Sections 4-9
4. Fire Mitigation Construction	Sufficient (Needs Improvement)	
5. Infrastructure Inspections and Maintenance	Sufficient (Needs Improvement)	
6. Vegetation Management Program	Unsatisfactory (Below Expectations)	
7. Operational Practices	Sufficient (Needs Improvement)	
8. Plan Implementation and Monitoring	Sufficient (Needs Improvement)	
9. Appendix A – Costs	See Section 1.4.8	n/a

The WMP Represents a Developing Yet Incomplete Framework for Mitigating Wildfire Risk On-Island, and does not yet Meet Minimum Thresholds in Key Areas

Kaua'i Island Utility Cooperative's (KIUC) 2025–2027 Wildfire Mitigation Plan (WMP) represents a developing yet incomplete framework for addressing wildfire risk on the island. Kaua'i's wet climate, fragmented fuels, and limited ignition sources have historically constrained wildfire size and frequency. The island's few large fires (such as the 2024 West Kaua'i Fire) occurred primarily in dry leeward zones, where grasslands and wind exposure create localized high-risk conditions. However, climate change, prolonged droughts, and invasive grass expansion are gradually increasing the island's susceptibility, underscoring the need for KIUC to take a more proactive approach to wildfire planning and preparedness moving forward.

Currently, the plan demonstrates progress in several key areas—such as infrastructure modernization (e.g., bare wire replacement, SCADA integration), expanded weather monitoring, UAV and LiDAR-based inspections, and the establishment of operational protocols for Red Flag Warnings and Power Isolation events—reflecting a reasonable balance between safety, reliability, and affordability for a small island utility. However, the WMP's overall risk analysis remains qualitative and lacks a spatially-informed, quantitative framework to evaluate asset-specific ignition potential, consequence modeling, and spatial prioritization of mitigation efforts. Vegetation

management standards, inspection protocols, and data governance are underdeveloped, and significant backlogs exist in asset remediation. While the plan aligns with its current maturity level and resource constraints, continued enhancements in technical rigor, spatial risk analysis, vegetation inspections and management, and cost-benefit transparency will help strengthen future iterations and bring them closer to industry best practices.

SUMMARY OF KEY FINDINGS AND OVERALL ASSESSMENT

Evaluation Area	*Key Findings / Observations*	*Overall Assessment*
Regulatory Compliance	Meets core requirements of Order 41075 by identifying wildfire risks, mitigation measures, and monitoring processes. Some areas (e.g., spatial risk modeling, consequence analysis, vegetation management and inspection protocols, asset inspections and remediation) need further development to fully align with intent of regulation.	Partially compliant; evolving
Risk Analysis & Risk Drivers	Relies on qualitative descriptions of risk factors (climate change, drought, vegetation, wind loading). Lacks quantitative risk-informed decision-making framework and spatially explicit modeling of ignition and consequences specific to KIUC's infrastructure.	Underdeveloped; key improvement area
Fire Mitigation Construction	Implements practical and balanced hardware upgrades (e.g., bare wire replacement, SCADA, circuit reclosers). Avoids costly undergrounding but maintains reliability.	Reasonable given scale and cost balance
Infrastructure & Maintenance	Expanded inspection methods (UAVs, LiDAR, infrared thermography). Facing a backlog of remediation work due to increased findings. Limited local data on asset aging and degradation.	Progressing; needs data-driven prioritization
Vegetation Management (VM)	Lacks detailed inspection protocols, prioritization system, and vegetation inventory. VM standards and QA/QC procedures not fully defined or publicly available.	Low maturity; foundational work needed
Operational Practices	Established Red Flag Warning and Power Isolation procedures; strong situational awareness via new weather stations. Needs clearer decision criteria, Power Isolation ("PI") thresholds, and re-energization protocols.	Developing; needs procedural clarity
Community Outreach	Focused mainly on pre-event awareness and medical baseline customer notifications. Limited outreach for during/after wildfire events and AFN populations.	Emerging; expansion recommended

Evaluation Area	*Key Findings / Observations*	*Overall Assessment*
Plan Implementation & Monitoring	Defines accountability and monitoring framework; data governance and cost-benefit analysis still early-stage. Integration with emergency plans limited by confidentiality.	Appropriate for maturity level; should expand QA/QC and cost metrics
Cost Recovery / Financial Planning	Preliminary cost estimates are reasonable but lack detailed forecasts. Cost recovery subject to G.O.7 approval process.	Adequate for current stage; requires refinement
Overall Maturity & Industry Alignment	Plan reflects a developing maturity level with strong initial steps in infrastructure and monitoring but limited in analytical rigor, vegetation management, and quantitative risk modeling.	Developing program, improving alignment with best practices

SUMMARY OF WMP PROGRESS ON KEY PUBLIC AND CONSUMER INTEREST OBJECTIVES

Objective	Minimum Reasonableness Met?	Comments
Safety	⚠ Partially	KIUC has made progress through conductor replacement, enhanced weather monitoring, and pilot ignition detection systems. However, wildfire risk maps, ignition-consequence modeling, and spatial-granularity of risk-informed mitigation planning and prioritization remain underdeveloped and fall short of best-practice standards.
Reliability	❌ No	Reliability impacts of new mitigation measures (e.g., Power Isolation, vegetation clearance cycles, hardware upgrades) are not quantified. Inspection backlogs and incomplete asset aging data create uncertainty in maintaining consistent reliability performance
Affordability	⚠ Partially	KIUC's cost-control approach avoids large capital projects such as system-wide undergrounding, reflecting fiscal restraint. However, the overall plan lacks a solid foundation in risk-informed decision making and spatial prioritization for proposed mitigation activities. Due to the spatial extent of the high-fire risk areas, volume of deficiencies in asset conditions and vegetation management, and limited resources, a more granular, spatially based risk-informed decision-making process/analysis is needed to prioritize mitigations to efficiently address safety, reliability and affordability objectives. No cost-benefit or risk spend efficiency analysis has been completed, and ratepayer or member affordability impacts are not explicitly evaluated.
Equity	⚠ Partially	The plan acknowledges medical baseline customers and basic outreach commitments but lacks targeted engagement or support for

Objective	Minimum Reasonableness Met?	Comments
		broader access and functional needs (AFN) groups. No spatial or demographic integration of vulnerability data is evident.
Technical Rigor	❌ No	The plan relies mainly on qualitative assessments with limited analytical transparency. Quantitative wildfire behavior modeling, localized ignition-consequence analysis, vegetation inventory, and data governance protocols are not yet established, limiting analytical transparency and scrutability.

MOST IMMEDIATE PRIORITIES

+ Development of a qualitative or quantitative risk assessment to evaluate the spatial variability of wildfire risk as a function of utility ignition risk drivers, fire behavior and consequence analysis in a fully integrated framework to inform mitigation planning and prioritization. This can be prioritized for the high-fire prone areas of the island (e.g., south)
+ Completion of utility-specific assets, vegetation inventories and risk drivers data collection.
+ Develop and publish a comprehensive Vegetation Management Plan (VMP) with inspection cycles, data standards, QA/QC procedures, and prioritization by risk.
+ Develop risk-informed, spatial prioritization for utility infrastructure and equipment inspection scheduling and remediation efforts given the volume and extent of degradation.
+ Transition from qualitative proxies to quantitative, spatial, evidence-based prioritization.
+ Increased implementation details and timing of specific mitigations by circuit segment, particularly regarding interim strategies and the incremental increase in risk reduction and costs, until long-term capital improvements can be implemented.

The overall recommended top priority issues to be addressed are summarized below. These actions are high priority and are necessary for KIUC to ensure public safety, deliver reliable and affordable service, and comply with state regulatory and public expectations. The Consumer Advocate and Commission should ensure KIUC's next update addresses these top deficiencies and provides clear timelines and measurable improvements.

TOP PRIORITIES

Section	*Top Priorities*
Risk Analysis and Risk Drivers	+ Collect spatial and non-spatial data of KIUC's ignition risk drivers (e.g., contact by object, contact by animal, contact by vegetation, # of faults that lead to ignition) based on industry best practices and standards in ignition data collection. + Inventory of utility assets. Spatial and non-spatial data. + Inventory and current conditions of vegetation (trees, plants and understory) in utility right of way. Spatial and non-spatial data.

Section	*Top Priorities*
	+ Integration of fire behavior modelling into wildfire risk analysis and consequence modelling based on potential KIUC-caused ignitions. At a minimum, hazard and consequence modelling can be assessed using stochastic ignitions from KIUC assets. + See Section to 1.4.1 for more details.
Fire Prevention Strategies and Programs	See Sections below.
Fire Mitigation Construction	+ See Section 1.4.3 for more details.
Infrastructure and Maintenance	+ Incorporation of asset-aging data collection (e.g., mechanisms and rates) that are unique to the local environment. + See Section 1.4.4 for more details.
Vegetation Management Program	+ Establish a system that prioritizes vegetation treatment needs of high priority treatment locations from those requiring routine maintenance. + Develop specific standards for vegetation management inspections following significant weather events which may compromise system reliability. Define the thresholds (sustained wind speed, rainfall amounts) that would trigger these inspections. + Make publicly available the existing Vegetation Management Plan to provide transparency for regulators and ratepayers regarding standards for the maintenance of overhead and surface vegetation as well as hazard tree management protocols. + Establish a defined Quality Assurance/Quality Control program, which identifies responsible officials, inspection standards and goals, response time goals to reported problems, data collection and management standards, and contractor performance review protocols. + See Section 1.4.5 for additional recommendations.
Operational Practices	+ There is a developing work backlog arising from the recent island-wide asset inspections. That work backlog exceeds the capability of the current KIUC resources, resulting in up to 5 years to resolve. In the interim and in the absence of island-specific component aging data, it may be necessary to rely on subjective and qualitative considerations to guide and inform the management of the work backlog to avoid unacceptable degradation of system reliability.

Section	*Top Priorities*
	+ Develop a flowchart for the situational awareness information that will be utilized for decision-making around warnings and in preparation for potential PI events. + Identify a maintenance schedule for the newly installed KIUC weather station network to increase transparency and specificity in the criteria for higher tiers of the Wildfire Readiness Framework, particularly what criteria will trigger either an Extreme Risk Day or a PI event, and what responsive actions are specific to each of those events. + Develop a clear decision-making flowchart identifying criteria and responsibilities associated with PI events, including when the PI event is over and the process for re-energization. + See Section 1.4.6 for additional recommendations.
Plan Implementation and Monitoring	+ A detailed timeline for the implementation of planned future enhancements should be provided, along with progress updates provided at a periodicity determined by the Commission and DCA to ensure accountability and oversight. + See Section 1.4.7 for additional recommendations.
Appendix A	Costs are under development.

1.0 Evaluation of KIUC's 2025-2027 WMP

The Commission required KIUC to, among other things, file its WMP by January 28, 2025, and provided a list of minimum requirements for the WMP.[3] KIUC filed its WMP for 2025-2027[4] and the Commission subsequently opened Docket No. 2025-0255 and provided the criteria by which the Commission would evaluate whether to approve[5] KIUC's wildfire mitigation plan (WMP).

This report provides Jensen Hughes evaluation of KIUC's 2025-2027 WMP on behalf of the Consumer Advocate to inform its determination as to whether the components of KIUC's WMP satisfy the Commission's regulatory requirements, technical and operational performance needs, and public and consumer interest considerations– i.e., safety, reliability, affordability and equitability. Additionally, the report provides recommendations on how KIUC can improve or enhance its WMP based on industry benchmarking and subject matter expertise.

The evaluations and proposed recommendations are based on well-established frameworks, industry guidelines and best practices in regulating and enforcing fire safety for electrical utilities in the U.S. A list of key fire safety regulations and guidance documents that formed the basis of the evaluation are provided in Section 4.0, References.

KIUC's 2025-2027 WMP Report was evaluated based on the following criteria: (1) Regulatory Compliance, (2) Level of Maturity of the WMP, and (3) Industry Benchmarking. The analysis is based on the latest science, best practices and industry guidance on utility wildfire hazards, risk analysis, wildfire mitigation strategies (e.g., grid hardening, Power Isolation ("PI"), EPSS, vegetation management, operations, community outreach) and prioritization, decision-making processes, risk-spend efficiency, etc. This section provides (1) an overview of the proceeding specific information reviewed in the evaluation, (2) a detailed explanation of the evaluation criteria, (3) an evaluation of the WMP's compliance with the Minimum Requirements of the WMP given in Order 41075, and (4) determinations on the WMP's overall compliance with regulatory considerations and the level of maturity and performance compared to industry benchmarks for each component of the WMP.

1.1. OVERVIEW OF INFORMATION REVIEWED RELATED TO THE PROCEEDING

The following information related to the proceeding was reviewed:

+ **Docket 2025-0255, KIUC's WMP 2025-2027**
+ **Case 2023-04661, Order No. 41075**, "Providing Guidelines Regarding KIUC's Wildfire Mitigation Plan"
+ **Case 2023-04661, Order No. 40396**, "Directing Public Utilities To Develop And File Reports Related to their Ongoing Efforts and Future Mitigation Plans to Address Natural Hazards"
+ **Docket 2025-0255, Order No. 41716**, "Instituting a Proceeding to Review KIUC's Wildfire Mitigation Plan"
+ **Docket 2025-0255, Protective Order No. 41881** granted to KIUC on July 28, 2025
+ **Information Requests and Responses**[6]

---

3 See generally, Order 41075.

4 KIUC's WMP, filed on January 28, 2025.

5 See generally, Order No. 41075, issued on October 1, 2024, and Order No. 41716 issued May 21, 2025. The Commission indicated that it could also evaluate whether to "accept" KIUC's WMP rather than evaluate whether to "approve" the WMP.

6 Information requests were filed by the Consumer Advocate and the Commission and responses were provided by KIUC.

1.2. EVALUATION CRITERIA

The Commission stated that the WMP must be based on "reasonable and prudent best practices and designed to protect public safety, reduce risk to customers, and promote resilience of the electric system to wildfire damage."[7] KIUC's WMP must therefore satisfy several technical and operational performance objectives – safety, reliability, affordability, equitability and technical rigor. The Commission also provided a set of criteria for how it will evaluate whether to approve or accept KIUC's wildfire mitigation plan, which included lists of criteria for determining whether the plan could be reasonably expected to reduce wildfire risk.[8]

Jensen Hughes' evaluation of KIUC's 2025-2027 WMP is based on three primary criteria:

(1) Regulatory Compliance

- Does KIUC's WMP satisfy Orders 41075 and 41716?
- Does KIUC's WMP satisfy wildfire safety codes, standards and industry guidelines (if applicable)?

(2) Level of Maturity

- Is KIUC's WMP at a reasonable level of maturity given its operational history?
- Is KIUC's WMP at a reasonable level of maturity given the age of its WMP program?

(3) Industry Benchmarking

- Where does KIUC's WMP currently stand in relation to key capabilities or best practices in industry?
- How does KIUC's WMP program rank compared to utility peers in high fire prone areas (e.g., Level 1 to Level 4)?

Table 1 describes the primary and secondary performance objectives that are central to the detailed evaluation of KIUC's WMP. Safety, reliability, affordability and equitability are considered primary criteria and are universally prioritized for electrical utility services and regulatory programs.

[7] Order 41075, at 5.

[8] Order 41075, at 7 – 9 and Order 41716 at 5-7.

Table 1 – Primary Evaluation Criteria for KIUC's 2025-2027 Wildfire Mitigation Plan (WMP)

Criteria		*Description*
Primary Criteria	1. Safety	**The protection of people, property, and the environment from utility-related wildfire hazards** associated with the generation, transmission, and distribution of electricity. • **Life Safety** – This considers protecting life safety of the public and first responders both directly and indirectly to utility-related wildfire threats. This may include potential casualties and/or injuries, health and life-safety risks of extended periods of power loss during Power Isolation (similar to Public Safety Power Shutoff), etc. • **Property Protection** – This considers potential impacts to buildings, critical infrastructure and other community values that are oftentimes vulnerable to wildfire, particularly in the Wildland Urban Interface. Mitigating the ignition and spread of wildfire is critical to limiting the risk of loss and/or damage of surrounding structure and/or critical facilities. Property loss and/or damage can devastate communities by displacing residents, disrupting business continuity and impairing local economies, subsequently resulting in significant recovery costs. • **Environmental Protection –** Preventing and/or mitigating wildfires is considered a primary form of environmental protection. Environmental impacts due to implementation of wildfire risk mitigation features, such as vegetation management practices around utility infrastructure, are important to understand and minimize where they have disproportionate impact. **Common safety measures include:** regulatory compliance, engineering controls, grid hardening, vegetation management, grid operations, training, emergency preparedness, continuous risk assessment etc.
	2. Reliability	The ability of the power system to **consistently deliver electricity to customers without unplanned interruptions** and to maintain service quality under normal and abnormal operating conditions. It encompasses two key dimensions: 1. **Continuity of Service** – The extent to which electricity is available when and where it is needed, without outages or disruptions. This includes system adequacy to meet demands under normal operating conditions (e.g., sufficient generation, transmission and distribution capacity). 2. **Quality of Supply** – The stability of voltage and frequency within acceptable limits to ensure safe and efficient operation of electrical equipment. This shall include the system's ability to withstand sudden disturbances without widespread service loss, as well as speed and effectiveness of restoring power following an outage. **Common metrics include**: SAIDI, SAIFI and CAIDI.

Criteria		*Description*
	3. Affordability	The extent to which customers can pay for electricity without experiencing financial hardship or sacrificing other essential needs such as food, housing, or healthcare. It reflects the balance between **the cost of providing safe, reliable, and sustainable service** and **the economic ability of consumers to absorb those costs**. **Some key dimensions include:** customer cost burden, rate design and equity, access to assistance, and long-term cost sustainability (e.g. investments in grid modernization, wildfire mitigations, clean energy).
	4. Equitability	**Fair and just distribution of benefits, costs, and risks associated with electricity generation, transmission, distribution, and service delivery**—particularly across different customer groups, geographic regions, and socioeconomic populations. The intent is to ensure that systematic disparities are avoided or minimized, such as for historically underserved, low-income, or vulnerable communities. **Some key dimensions include:** access to reliable and safe service, rate and cost fairness, fair and just distribution of exposure to wildfire threats and benefits of mitigations.
Secondary	5. Technical Rigor	Methods, technical systems, data and technologies are evaluated for scientific and/or engineering merit, and whether sufficient documentation and/or substantiation is provided. Sufficient and/or appropriate sources of documentation may include a recognized consensus standard and/or industry-recognized peer-review process. This may also include evaluation of the availability and merit of technologies, data sources, data management or technical capacities of the utilities and/or industry at present.

To assess KIUC's 2025-2027 WMP, the plan was evaluated from each perspective – (1) regulatory compliance, (2) level of maturity, and (3) industry benchmarking – and for the performance objectives described below. A simple report card has also been developed to assist the Consumer Advocate in arriving at the recommendation for its statement of position (SOP). The report card provides a high-level overview of the evaluation for each major component of the WMP (e.g., risk map, risk methodology, vegetation management), based on the following scoring rubric:

SCORING RUBRIC

Category	*Tiered Ranking*	*Description*
(1) Regulatory Compliance	"Unsatisfactory"	Not addressed / Non-compliant
	"Unsatisfactory" (Limited Detail)	Partially addressed / Limited Detail
	"Satisfactory" (Mostly Addressed)	Mostly addressed / Minor Gaps

Category	*Tiered Ranking*	*Description*
	"Satisfactory"	Fully addressed / Compliant
(2) Level of Maturity	"Unsatisfactory" (Below Expectations)	Level of program maturity is below expected standards, and immediate need for improvements is critical.
	"Sufficient" (Needs Improvement)	Level of program maturity is in line with expectations given utility's operational history and/or age of WMP program. However, areas of improvement are needed.
	"Satisfactory" (Meets or Exceeds Expectations)	Level of program maturity exceeds expectations. Very mature
(3) Industry Benchmarking	1	Below industry best practice
	2	Partially meets best practice
	3	Consistent with best practice
	4	Exceeds best practice

1.3. REGULATORY COMPLIANCE – MINIMUM REQUIREMENTS (ORDER 41075)

The following table provides cross-reference to the specific section(s) of KIUC's WMP that addresses the Commission's minimum requirements provided in Order 41075.

As part of Jensen Hughes' review and evaluation, a regulatory compliance check was performed to evaluate whether the WMP complied with the minimum requirements. Verification is provided below in Table 2. KIUC has met the minimum regulatory reporting requirements. However, Section 1.4 of this report identifies areas for improvement with more broad regulatory requirements.

Table 2. Regulatory Compliance Verification

Order No. 41075 Non-Docketed Case No. 2023-04661	WMP Section No.	Verification
(1) Identify each person responsible for executing the WMP and the scope of each person's responsibilities;	Section 8.1 Section 8.6	N
Responsible parties are identified by title, but not by name.		
(2) Describe the objectives of the WMP;	Section 1.2	Y*
(3) Identify areas that are subject to a heightened risk of wildfire and are within the right of way or legal control or ownership of the electric utility;	Chapter 1 Chapter 2 Chapter 6	Y**
(4) Identify a means for mitigating wildfire risk that reflects a reasonable balancing of mitigation costs, continuity of reliable service, and reduction of wildfire risk;	Section 1.1 Section 1.2 Chapters 2 to 8	Y**
(5) Identify preventive actions and programs that the electric utility is carrying and shall carry out in the future to minimize the risk of electric utility facilities causing wildfires;	Chapters 3 to 7 Appendix A	Y**
(6) Identify the metrics the electric utility intends to use to evaluate the WMP's performance and the assumptions that underlie the use of those metrics;	Section 8.7 Table 5	Y**
(7) Describe how the application of previously identified metrics to evaluate previous WMP performance has informed the WMP;	Section 8.7	Y**
(8) After seeking information from state and local entities, identify a protocol for the de-energizing of power lines and adjusting of power system operations to mitigate wildfires, promote the safety of the public and first responders, and preserve health and telecommunications infrastructure;	Chapter 7	Y
(9) Describe appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of power lines. The procedures shall consider the need to notify, as a priority, critical first responders, health care facilities, operators of wastewater and water delivery infrastructure, and operators of telecommunications infrastructure	Sections 7.3 to 7.6 Section 7.11 Section 8.3 Section 8.4	Y***

Order No. 41075 Non-Docketed Case No. 2023-04661	WMP Section No.	Verification
(10) Describe the procedures, standards, and time frames that the electric utility shall use to inspect electric utility infrastructure in areas that the electric utility identifies under paragraph (3), including whether those procedures, standards, and time frames are already set forth in the electric utility's existing plans or protocols and in coordination with any relevant entities;	Chapter 5 Section 8.9	Y
(11) Describe the procedures, standards, and time frames that the electric utility will use to carry out vegetation management in areas that the electric utility identifies under paragraph (3) including whether those procedures, standards, and time frames are already set forth in the electric utility's existing plans or protocols and in coordination with any relevant entities;	Chapter 6 Section 8.9	Y**
(12) Include a list that identifies, describes, and prioritizes wildfire risks, and drivers for those risks, throughout the electric utility's service territory, including all relevant risk and risk mitigation information as may be required by guidance or rules adopted by the Commission;	Chapter 1 Chapter 2	Y
(13) Describe how the WMP accounts for risks the electric utility identifies under paragraph (12);	Chapters 3 to 8	Y**
(14) Include a showing that the Company has an adequately sized and trained workforce to promptly restore service after a wildfire, taking into account employees of other utilities pursuant to mutual aid agreements and employees of entities that have entered into contracts with the electric utility;	Section 7.8	Y
(15) Identify the estimated development, implementation, and administration costs for the WMP;	Appendix A	Y*
(16) Identify the timelines, as applicable, for development, implementation, and administration of any aspects of the WMP;	Chapter 4 Table 3 Chapter 5 Section 6.1 Chapter 7 Appendix A	Y**
(17) Describe how the WMP is consistent with the electric utility's other hazard mitigation and emergency preparedness plans, including the following:	Section 8.3	Y**
(17A) Plans to prepare for and restore service after a wildfire, including but not limited to workforce mobilization and prepositioning equipment and employees; and	Chapter 7 Section 8.3	Y

Order No. 41075 Non-Docketed Case No. 2023-04661	WMP Section No.	Verification
(17B) Plans for community outreach and public awareness efforts that the electric utility will use before, during, and after a wildfire;	Section 7.3 to 7.6 Section 7.11 Section 8.3 Section 8.4	Y
(18) Identify specific measures to lessen the impact of reliability disruptions caused by wildfire mitigation, especially relating to low-to-moderate income customers, customers with special medical needs, kupuna, public safety partners, and critical facilities;	Section 7.3 to 7.6 Section 7.11 Section 8.3 Section 8.4	Y*
(19) Describe the processes and procedures that the electric utility will use to perform all of the following:	------	----
(19A) Monitor and audit the implementation of the WMP;	Sections 8.5 to 8.9	Y**
(19B) Monitor the progress and adherence to the WMP, including its implementation, and identify areas for improvement; and	Sections 8.5 to 8.9	Y**
(19C) Monitor and audit to ensure that inspections of the electrical line and equipment are conducted in compliance with the WMP and specifications/laws/regulations as well as assess the adequacy of such inspections.	Section 8.9	Y**
(20) Demonstrate elements of data governance, including enterprise systems, as may be required by guidance or rules adopted by the Commission; and	Section 8.2	Y**
While the WMP does not directly address this regulatory requirement, the required information was requested as part of the IR (information request) process and appropriately satisfied.* * Given the early nature of KIUC's WMP, several sections of the utility's wildfire program is at a nascent phase and does not provide sufficient granularity or maturity that provides enough information to evaluate whether KIUC is providing mitigations and/or prioritizations effectively*		

1.4. OVERALL REGULATORY COMPLIANCE, MATURITY LEVEL, AND INDUSTRY BENCHMARKING

This section provides a detailed evaluation of the components of KIUC's 2025-2027 WMP from the three main evaluation perspectives – overall regulatory compliance, level of maturity, and industry benchmarking – and technical and operational performance objectives (i.e., safety, reliability, affordability, equitability and technical rigor). As part of the evaluation, where relevant, areas of improvements or recommendations are provided. Each functional area of the WMP was evaluated based upon the criteria described in Section 1.2. The evaluation of each component of the WMP is summarized in Section 1.4.7.

1.4.1. Section 2 – Risk Analysis and Risk Drivers

Per Order 41075, KIUC Company's WMP must "identify areas that are subject to a heightened risk of wildfire and are within the right of way or legal control or ownership of the electric utility". In addition, the WMP must "include a list that identifies, describes, and prioritizes wildfire risks, and drivers for those risks, throughout the electric utility's service territory…" To satisfy these regulatory requirements, KIUC has divided the island into five (5) Fire Weather Zones (FWZs) where similar climate, weather and terrain characteristics exist. In addition, KIUC evaluated general wildfire history and other influencing factors in ignitions and increased likelihood of fire spread based on data by Hawai'i Wildfire Management Organization (HWMO) and the University of Hawaii Cooperative Extension, as well as a Community Wildfire Hazard Assessment map developed in 2013 for the island of Kaua'i developed by County Fire, the Department of Land and Natural Resources (DLNR) and HWMO.

While KIUC references several factors influencing wildfire hazards and risks across the island, it does not appear to have a clear framework and associated map clearly defining how it determines and prioritizes high risk areas across its territory due to potential ignition sources from its infrastructure and associated equipment. See Area(s) for Improvement section below for potential options.

> ***Top Priority***
>
> Develop a quantitative and/or semi-quantitative wildfire risk analysis framework based on industry best practices and wildfire behavior modelling that is commensurate with utilities of a similar size and potential risk level. The analysis should evaluate risk directly associated with KIUC's equipment.

2 Risk Analysis Report Card

Statutory Compliance	Satisfactory
Maturity Level	Unsatisfactory (Below Expectations)
Industry Benchmarking	
Technical Rigor	1
Safety	1-2
Reliability	1
Affordability	n/a
Equitability	2
Planned Growth	TBD
Areas for Improvement	• Collect spatial and non-spatial data for KIUC's ignition risk drivers • **Major** – Develop a quantitative and/or qualitative wildfire risk analysis framework based on industry best practices and wildfire behavior modelling that is commensurate with utilities of a similar size and potential risk level. • **Major** – Provide more granular assessment of wildfire risk drivers that provides spatial variability across the service area. • Risk analysis should provide an evaluation of wildfire risk directly associated with KIUC's equipment.

+ **Fire Risk Drivers** – KIUC states that it examined its asset locations with respect to topographic features, wildfire history and landownership data to identify wildfire risks in its service territory. This included evaluating fire risk drivers both from KIUC data and other utilities' data, which included ten (10) categories – climate change, fire weather, drought, vegetation encroachment, tree mortality, wind loading, corrosive environment/aging equipment, and pole degradation. Each of these drivers is discussed in more detail below. While each driver has an important role in influencing wildfires, KIUC does not appear to provide a clear framework or approach for how these different

variables interact to identify wildfire risks due to KIUC-caused ignition sources. As such, there's insufficient information to evaluate the reasonableness of KIUC's risk-informed decision-making process for its WMP.

KIUC should consider reviewing various approaches and methodologies for evaluating the potential wildfire risks its infrastructure imposes on the surrounding environment, communities and populations. This can be based on industry standards and best practices on basic wildfire behavior modelling or other forms of quantitative or qualitative analyses for a utility of KIUC's size. Note: Basic wildfire hazard analysis and mapping consist of a complex interaction of weather, fuel moisture, topography, seasonality of fire conditions on fire behavior and potential exposure to community values/assets.

- **Climate Change** – KIUC notes overall climate change impacts to the northern tropical Pacific Ocean, including increasing mean temperature and sea level rise, and has not conducted a quantitative analysis of climate change impacts specific to fire weather and ignition potential (per response to CA-IR-2002) or specific to KIUC's service area. Wildfires in Hawai'i tend to occur under extreme fire weather conditions, when strong winds occur during periods of prolonged heat and localized drought specifically. As such, preparing for the possibility of increased fire hazard and worst-case scenarios under climate change would be most effective if it includes a quantitative assessment of both the changing probability of such localized extreme fire weather days using metrics that are the most relevant to the service area, and a more granular assessment of the spatial variability of this change across the service area.
- **Fire Weather** – The WMP describes concerns with the current criteria for Red Flag Warnings as issued by NWS, noting both that the wind speed threshold for NWS is well below the observed wind speed threshold for infrastructure damage and that RFWs are issued state-wide, and more granularity is necessary. Similarly, in CA-IR-2003 response, KIUC indicates that the likelihood of equipment failure leading to potential sources of ignition increase in the 30-45 mph range based on PSPS thresholds from utilities in California, but specific failure thresholds for KIUC equipment or plans to undertake testing to confirm likely failure thresholds are not described. To address these uncertainties in the long-term, KIUC could seek to acquire more granular data or develop an alternative approach to RFWs that is quantitatively defined from historic wildfire observations or modeling and can provide sufficient spatial resolution to inform risk levels and decision-making. Similarly, if KIUC could seek to determine critical thresholds for failure for its equipment through data collection, which may be a function of equipment type, equipment construction typology, age of equipment, etc. This would help KIUC to eventually develop a spatial understanding of where and when these critical wind thresholds are more likely to occur across its service territory to better inform prioritization of capital improvements (e.g., covered conductors) and/or operational procedures (e.g., PI, vegetation management). Assuming high winds can occur anywhere limits KIUC's ability to prioritize highest risk circuits.
- **Drought** – The WMP describes the basic categories of drought delineated by the US Drought Monitor. KIUC does not identify the drought thresholds that are associated with heightened fire potential, nor the drought levels that would trigger action on the part of KIUC with respect to mitigating fire potential. In response to CA-IR-2004, KIUC acknowledges and describes both the spatial variability of drought impacts across the service area and the lack of granularity in the drought monitor. Seeking drought products with more spatial granularity and incorporating this level of detail into wildfire hazard assessment as the wildfire management program evolves will help to identify the highest risk portions of the service area as drought occurs.
- **Vegetation Encroachment and Non-Natives –** The WMP does not provide sufficient detail on the various types of vegetation within the utility ROW and/or proximate to the ROW that may present a hazard either via grow-in, lean-in, or fall-in potential, or present a receptive fuel bed for fire ignition and rapid fire spread. KIUC appears to have significant gaps in its inventory of vegetation – both spatial and non-spatial information – to provide current conditions and characteristics of vegetation relative to its

lines and other equipment. Vegetation inventory is fundamental to all aspects of KIUC's WMP and should be a high priority. Refer to Section 6 analysis for additional comments.

- **Tree Mortality** – There is limited information on the relationship between tree mortality and wildfire. The WMP section of tree mortality and wildfire focuses entirely on ignitions under the assumption that dead trees have a higher likelihood of igniting fires by falling on power lines as compared to live trees. However, tree mortality also plays a substantial role in increasing the potential for fire spread and extreme fire behavior by increasing the dead and dry component of the fuel bed. For example, the rapid die-off of ʻōhiʻa trees on Hawaii Island due to an introduced fungal infection is cited as a concern for fuel build up in Hawaiʻi Volcanoes National Park. Widespread tree mortality events following drought and insect-induced die offs are widely attributed to subsequent extreme wildfire events, and monitoring tree mortality can improve understanding of the potential for fire behavior that is more difficult to control. Working with external partners that monitor widespread tree mortality to integrate it into wildfire risk assessment can help improve the accuracy of the assessment to pinpoint hotspots of high risk.
- **Wind Loading** – The WMP describes the potential for Kona winds to increase the likelihood of outages due to impacts from vegetative debris during these events. KIUC currently does not maintain records of incidents of vegetation related outages due to Kona winds and therefore is unable to quantify the significance of this potential risk driver relative to others, as well as which vegetation types are more susceptible to wind damage that would pose a threat to overhead lines and associated equipment. KIUC should take a more proactive approach to collecting outage events due to Kona winds or any other weather scenario that could impact the safety and reliability of its systems. This should include collecting spatial and non-spatial information of wind-related, vegetation impacts leading to outages, the frequency of outages, sources of outages (e.g., vegetation type causing the outage) and any other relevant data based on industry best practices and standards.
- **Corrosive Environment/Aging Equipment** – The WMP describes various mechanisms and sources of potential accelerated aging of equipment due to various environmental factors (e.g., corrosion from salt). However, the WMP does not provide sufficient information or details to identify which equipment and/or specific locations are more susceptible to accelerated aging across KIUC's service territory, and what anticipated service life can be expected given the corrosive environments.
- **Pole Degradation** – The WMP describes potential sources of pole degradation (e.g., humidity) as a function of pole construction material, as well as its pole testing technology to identify and prioritize pole replacement. According to KIUC's response to PUC-KIUC-IR-5003, approximately 480 poles were rejected and 245 replaced of approximately 8,000 poles tested in 2024, which cost approximately $4.16 million. Since July 2025, an additional 5000 poles have been tested, resulting in 300 poles being rejected and 215 poles being replaced. This cost was approximately $3.54 million. According to the WMP and IRs response, it appears that KIUC pole inspection and replacement plan is based on a frequency basis and not driven by any risk-based schedule. As KIUC matures its WMP program, it should consider moving towards a risk-informed schedule to help prioritize inspections and adjust inspection frequencies based on risk levels and more efficient resource allocation.

+ **Key Risk Consequences** – In Section 2.2 of its WMP, KIUC identifies potential consequences of utility-caused wildfires such as impacts to life-safety, public and private property, critical infrastructure, reliability and operations, etc. The list of potential consequences is generic to most utilities in high-fire prone areas that are proximate to community values and assets-at-risk. The WMP does not contextualize the specific hazards and risks that KIUC's equipment may impose on surrounding landscapes and community assets. That is, the analysis ignores the significance of quantifying wildfire risk using industry best practices and standards, which includes developing site specific, spatial characterizations of ignition likelihood from KIUC

equipment, the likelihood that ignition leads to fire, the potential spread and intensity/severity of the resulting fire, and the likelihood the fire could impact various values and assets.

In PUC-KIUC-IR-02003 and CA-IR-2010 responses, KIUC indicated that it has not explicitly considered consequences in its risk assessment and has elected to focus on mitigating risk drivers as identified in Section 2.1 of its WMP. While this approach provides valuable insight into ignition-related risks, it does not capture other important dimensions of wildfire risk – the potential intensity and spread of fire, the potential exposure to assets, the potential physical and social vulnerabilities present, the potential for damage-loss of built, natural and human environment assets – all of which should be understood at a localized scale and spatially defined across the service territory. This provides a more holistic understanding of risk to help better inform planning and prioritization of a more comprehensive set of mitigation activities that address the specific needs and vulnerabilities across the service territory. Ignoring location specific hazards and risks can significantly misrepresent damage-loss potential and lead to inefficient resource allocation and prioritization. KIUC provides insufficient information and scientific justification to evaluate risk by ignition drivers alone. Without the consideration of the other dimensions of wildfire risk, it's unclear if the risk model appropriately identifies the highest risk utility infrastructure.

> ***Top Priority***
>
> Conduct a more localized wildfire risk assessment based on ignitions occurring from KIUC's equipment. This should be evaluated in combination with consequence modeling directly related to utility infrastructure. Refer to industry best practices for utilities of a similar size and risk level.

KIUC has also provided a Landscape Wildfire Risk map based on a Community Wildfire Protection Plan (CWPP) development process, which provides community-centric assessment of potential wildfire hazards and risks. KIUC's plan does not provide sufficient information to understand how the CWPP maps are developed (i.e., methodology, data sources, validation efforts), how they inform the development of KIUC's understanding of wildfire risk, or how the maps credibly represent utility-related wildfire risk. From our understanding of the DLNR CWPP maps, they are not developed to determine risk specific to a particular ignition source, and are not based on any weather analysis, wildfire behavior modeling, probabilities of failure from the utility or hazards proximate to utility infrastructure. It is not considered industry best practice to incorporate CWPP risk maps for utility-specific hazards and risks, as they may not provide a reliable basis from a safety or reliability perspective.

+ **Areas for Improvement** – The following list provides recommended areas for improvement for KIUC's wildfire hazard and risk analysis. The recommendations are based on industry standards, best practices and expert judgment given the evaluation criteria described in Section 1.2.

  - Collect spatial and non-spatial data for KIUC's ignition risk drivers based on industry best practices and standards. This includes fault data (e.g., contact by object, contact by animal, contact by vegetation), near misses, number of faults/outages that lead to ignition, number of ignitions that result in fire, number of ignitions that lead to large fires, source of fault, age of equipment, weather conditions during faults)
  - In the absence of KIUC specific data on ignition sources and history from its equipment causing wildfires, KIUC should consult with other electric utilities to obtain lessons-learned regarding common sources or ignitions from utility equipment, as a benchmark for informing its WMP and decision-making processes regarding mitigation hazards and risks of wildfires.

> ***Top Priority***
>
> Collect spatial and non-spatial data for KIUC's ignition risk drivers (e.g., contact by object, contact by animal, contact by vegetation, # of faults that lead to ignition) based on industry best practices and standards in ignition data collection.

- Review various approaches and methodologies for evaluating the potential wildfire risks KIUC's infrastructure imposes on the surrounding environment, communities and populations. This can be based on industry standards and best practices on basic wildfire behavior modelling or other forms of quantitative / semi-quantitative methods for a utility of KIUC's size and wildfire risk level. Note: Basic wildfire hazard analysis is a complex interaction of weather, fuel moisture, topography, seasonality of fire conditions and potential exposure to community values/assets. The potential wildfire risks imposed on surrounding communities by KIUC's equipment can be evaluated using publicly available fire modelling tools such as FlamMap[9], in consultation with a Fire Behavior Analyst (FBAN) or equivalent subject matter expert and integrated into a risk-informed decision-making framework (e.g., 7x7 matrix).
- Develop wildfire risk maps that are based on potential ignition sources from KIUC's infrastructure/equipment and also the potential impacts to surrounding natural resources, people, built environment and other proximate community values based on the probability of an ignition spreading uncontrollably.

1.4.2. Section 3 – Fire Prevention Strategies and Programs

Per Order 41075, KIUC Company's WMP must "identify a means for mitigating wildfire risk that reflects a reasonable balancing of mitigation costs, continuity of reliable service, and reduction of wildfire risk;". In addition, the WMP must "identify preventive actions and programs that the electric utility is carrying and shall carry out in the future to minimize the risk of electric utility facilities causing wildfires". Section 3 of KIUC's WMP provides a summary of its wildfire risk mitigation programs and refers to subsequent Sections 4-8 and Appendix A for more details regarding each program.

1.4.3. Section 4 – Fire Mitigation Construction

The overall characterization of the wildfire risk on the island of Kauai is very coarse with no objective capability to provide spatial granularity at a level that would be needed for a detailed WMP. The limited spatial granularity has led to a relatively modest scope of Fire Mitigation Construction items discussed in the WMP. Although the plan may seem modest, it appears to reflect reasonable balance in mitigating wildfire threats, maintaining service reliability, and minimizing customer burden. It would be anticipated that future updates to the WMP would modify the scope of fire mitigation items and/or consider additional mitigation measures consistent with the available detail and granularity of fire risk related information.

+ **Overhead vs Underground Conductor –** The WMP notes that KIUC currently has approximately 330

4 Fire Mitigation Construction
Report Card

Statutory Compliance	Satisfactory
Maturity Level	Sufficient (Needs Improvement)
Industry Benchmarking	
Technical Rigor	2
Safety	2
Reliability	2
Affordability	3
Equitability	n/a
Planned Growth	Satisfactory
Areas for Improvement	• Future updates to the WMP should integrate more detail and granular fire risk information as they become available.

[9] FlamMap program – https://research.fs.usda.gov/firelab/projects/flammap

miles of 1.247kV UG distribution lines on is network. This represents less than 25% of system distribution lines. It is also noted in the WMP that most new residential developments use UG construction paid for by the developer. Information provided by KIUC in response to PUC-KIUC-IR-04002 indicates that less than 1% of the UG lines were specifically installed by KIUC. In addition, the IR response suggests that KIUC does not intend to pursue any aggressive efforts to modify their existing distribution lines to implement UG construction. Based on the information provided, KIUC intends to rely on a combination of selected wire replacements, system hardware upgrades, and VM actions to address wildfire mitigation needs.

+ **Bare Wire Secondary Replacement Program –** The WMP notes that KIUC intends to complete the replacement of all bare wire secondary conductors on its system by the end of calendar year 2025. Information provided by KIUC in response to PUC-KIUC-IR-04003 indicates that they are on track to complete this effort in 2025.
+ **Circuit Recloser Upgrade –** The WMP notes that oil circuit reclosers have already been replaced with three-phase vacuum or SF6 units. Information provided by KIUC in response to PUC-KIUC-IR-04004 indicates that this replacement effort was completed prior to 2023.
+ **System Monitoring – SCADA –** The WMP notes that all distribution and transmission breakers, and downline reclosers have already been provided with SCADA monitoring functionality. Information provided by KIUC in response to PUC-KIUC-IR-04005 indicates that this replacement effort was completed prior to 2023. The response also indicates some planned expansion of SCADA capability related to open points between independent distribution feeders that are planned for 2026/2027.
+ **Tree Wire –** The WMP notes that the use of tree wire (covered conductor) will be focused on heavily treed areas to enhance service reliability. It was noted that tree wire is likely to remain energized during line-down events because of the added challenge in detection of such a condition. Information provided by KIUC in response to PUC-KIUC-IR-04006 indicates that focus of the bare wire replacements in 2025-2027 are areas classified as high and extreme hazard locations.
+ **Non-Expulsion Fuses and Arrestors –** The WMP provides a general discussion of KIUC's plans with respect to non-expulsion fuse and arrester replacements. Additional details are provided in the KIUC in response to PUC-KIUC-IR-04007. The response indicates that KIUC is on track to complete the replacement study by the end of September 2025. The actual work to replace hardware is expected to begin in 2026 and continue through 2028.
+ **Areas for Improvement**
  - It would be anticipated that future updates to the WMP would modify the scope of fire mitigation items and/or consider additional mitigation measures consistent with the available detail and granularity of fire risk related information.

1.4.4. Section 5 – Infrastructure and Maintenance

The overall nature of the environment on the island of Kauai presents infrastructure maintenance challenges that are not typical of mainland utilities. These challenges would be expected to result in a variety of differences in inspection and maintenance practices as compared to those typical of mainland utilities. This would include an anticipated higher frequency of inspections for some assets, possible augmented maintenance practices, and a general heightened awareness of accelerated aging of selected utility assets. The WMP provides a generalized discussion of KIUC infrastructure and maintenance but provides little insights or perspective as to the impact of the island specific environment and its impact on utility practices and procedures.

5 Infrastructure and Maintenance Report Card

Statutory Compliance	Satisfactory
Maturity Level	Sufficient (Needs Improvement)
Industry Benchmarking	
Technical Rigor	2
Safety	2
Reliability	2
Affordability	2
Equitability	n/a
Planned Growth	Satisfactory
Areas for Improvement	• Local environmental conditions have an impact on equipment aging that should be incorporated into the inspection and maintenance program.

+ **Distribution Inspection and Maintenance Plan** – The KIUC Inspection and Maintenance Plan is intended to provide safe and reliable service to their customers. The plan involves asset inspections as discussed in other sections of the WMP and corrective maintenance to remediate unacceptable conditions. The maintenance element involves a prioritization scheme with related targeted remediation completion times.
+ **Overhead Asset Inspection Program** – The WMP describes specific inspections for overhead lines and poles and associated appurtenances. This specific section of the WMP describes an additional ad hoc inspection of overhead assets during daily field work, including VM tasks.
+ **Transmission Line Routine Inspections** – The WMP has a specific discussion of the inspections for transmission lines. The inspection involves both aerial and ground-based inspections. The discussion of UAV inspections described in Section 5.8 notes that they will also be used to inspect transmission lines. The use of UAVs in the inspection of transmission lines is expected to provide the means to inspect various appurtenances associated with the transmission lines more rigorously (in greater detail) than would otherwise be possible using ground crews or helicopters.
+ **Pole Management Program** – The KIUC inspection of poles has recently incorporated the THOR Poletest™ technology. The plan goal is to test approximately 12.5% of the pole population (i.e., 16,700+ poles) per year resulting in an inspection interval of 8-10 years. Per PUC-KIUC-IR-05001 pole inspections include a visual inspection prior to performing a Thor Poletest™. The discussion of UAV inspections described in Section 5.8 notes that they will also be used to inspect pole tops and other appurtenances. The use of UAVs in these inspections is expected to provide the means to inspect various appurtenances associated with poles much more rigorously (in greater detail) than would otherwise be possible using ground crews. As of July 2025, KIUC has indicated that it has tested approximately 13,000 of its poles using this technology.

- **Substation Inspections** – The WMP provides a general discussion of the substation inspections. Information provided by KIUC in response to PUC-KIUC-IR-05004 indicates that the general substation inspections occur monthly with IR inspections occurring every two months. Associated oil sample and battery tests occur twice a year.
- **Circuit Recloser Inspection** – The WMP notes that circuit reclosers are not inspected on a regular basis. However, they are periodically inspected and tested when circuits are de-energized for unrelated reasons.
- **Geographic Information Systems (GIS) Mapping –** The WMP describes the need to geospatially locate outages in order to identify hot spots where vegetation interference contributes to a higher-than-expected number of outages. Specifically, KIUC notes that it already uses GIS to manage its network and locate outages but is currently missing a component of causal attributes of outages in the GIS database. The lack of attribution of cause of the outage (to vegetation or otherwise) limits KIUC from mapping vegetation-related outages. KIUC notes this is a long-term goal but does not describe the barriers to doing so now, or a means and timeline to achieve this goal. Identifying specific outage causes is considered best practice for utilities, and should be prioritized
- **Unmanned Aerial Vehicle LiDAR/Infrared Inspections –** KIUC has recently begun using Unmanned Aerial Vehicles (UAVs) to supplement their pre-existing asset inspections. The UAV inspections also include using Light Detection and Ranging (LiDAR) of the entire T&D system to support Vegetation Management Program. The KIUC responses to PUC IRs indicate that initial asset inspections using UAVs/LiDAR will be completed by the end of 2025.

  The results from the UAV/LiDAR inspections have identified conditions that require remediation. The KIUC response to PUC-KIUC-IR-05008 acknowledges that the recent increase in remediation needs arising from these inspections have exceeded the capability of the current KIUC resources. KIUC is currently estimating that it may require up to 5 years to resolve this backlog.

  The WMP description of the UAV/LiDAR usage lacks clarity pertaining to the proportion of the network inspected using UAVs each year. Although additional information was provided in the responses to PUC-KIUC-IR-05002, PUC-KIUC-IR-05005, and PUC-KIUC-IR-05007, how the data acquired by the UAV will be analyzed and when, who will be responsible for analyzing these data, and how long the data will be retained were not discussed. There is insufficient detail describing the data acquisition from the LiDAR sensor mounted to the UAV to fully evaluate this proposed practice. As LiDAR is an active sensor that can return a variable number of points per location dependent upon if it is single- or multi-return, and the ability to accurately ascertain clearance distances is highly dependent upon the spatial density of returns, a more detailed description of the protocol for acquiring such data is needed to determine the Technical Rigor and Reliability. Finally, LiDAR acquisitions must be processed by an experience analyst to the desired product (e.g., distance between lines and vegetation), and this task is not assigned here.
- **Infrared (IR) Thermography –** KIUC is using IR cameras as a tool in their inspections of utility assets. The KIUC response to PUC-KIUC-IR-05004 states that while monthly inspections of substations were performed, only 2 IR scans of each substation were completed in 2023. The IR response notes that for 2024, the frequency of IR scans of substations increased to 6 scans per year. The WMP notes that substations are inspected monthly and distribution lines are inspected annually using this technology. The increase in substation IR inspection intervals from 2 per year to 6 per year to 12 per year would seem to suggest the identification of degrading equipment condition.

+ **Areas for Improvement:**
  - Although the Distribution Inspection and Maintenance Plan include generally acceptable inspection intervals and targeted remediation completion times, it is unknown whether asset aging mechanisms and rates that are unique to the local environment have been incorporated into the plan. The KIUC responses to various IRs suggest that the data analysis to assess component aging rates are not currently performed. It is anticipated that the availability of more timely inspection results (e.g., using UAVs) may provide the opportunity for KIUC to more readily establish aging rates and refine maintenance and inspection intervals. In the interim, the recent inspections have resulted in a work backlog that must be managed and addressed. It may be necessary to rely on subjective and qualitative considerations to manage the work backlog until more explicit aging data is developed.

1.4.5. Section 6 – Vegetation Management

The Vegetation Management Program proposed by Kaua'i Island Utility Cooperative, Chapter 6 of the Wildfire Management Plan (WMP), lacks the specificity required to develop a program of work that addresses either priority vegetation management needs or specific risks to the utility's infrastructure from vegetation. The lack of a clearly defined inspection program to identify needs across the system limits the development of a robust program of work that will protect infrastructure, reduce potential injury to the public and reduce the frequency of vegetation-caused outages and ignitions.

6 Veg Management Report Card	
	
Statutory Compliance	Satisfactory
Maturity Level	Unsatisfactory (Below Expectations)
Industry Benchmarking	
Technical Rigor	1
Safety	1-2
Reliability	1-2
Affordability	2
Equitability	n/a
Planned Growth	Satisfactory
Areas for Improvement	• Standards for inspection cycles to develop a VM program of work • VM inspections data collection protocols and data management (standard and for severe weather) • VM treatment standards for surface fuels, pole clearance and line clearance. • System to prioritize VM treatment needs within hazard/risk rating areas • Hazardous tree public

- **ROW Maintenance Program** – The existing WMP references a Vegetation Management Plan (VMP) that refers to vegetation treatment standards. The VMP, however, only provides basic standards that does not currently provide sufficient details, best management practices (BMPs), or operational mechanisms to adequately address vegetation management needs. As currently written, the WMP does not provide any protocols for routine inspections of the ROWs. Without the information obtained from an inspection program, it is difficult to assess if the vegetation treatment/retreatment cycle is adequate to address current and future needs.

  The current ROW maintenance section does not address the maintenance of surface fuels which could influence surface fire intensity within the ROW, stating only that work will focus on *"clearances between vegetation and conductors."* The utility states in their IR response that managing surface fuels over the length of their system would be cost prohibitive, however the utility should identify locations where the management of surface fuels would enhance system reliability and public safety.

  ROW maintenance sets a goal of 5-years to revisit a location for routine maintenance. While these cycles could be appropriate, there is no discussion on how the utility established 5-years as an appropriate interval for maintenance. Additionally, there is no discussion in the chapter on how the hazard/risk assessment is used to inform the vegetation management program or how priorities are established within the hazard rankings. This leads to the conclusion that no protocols exist for identifying priority treatment locations within the individual hazard categories.

+ **Vegetation to Conductor Clearance** – The section provides the KIUC desired clearances from conductors for both distribution and transmission lines which appear adequate to prevent negative impacts from vegetation. There is no discussion concerning general line clearance standards or if KIUC performs routine line clearance work other than near conductors.

+ **Mechanical and Chemical Control Options** - The WMP states that mechanical treatments are the preferred vegetation management practice, however the use of chemical treatments may be considered. The plan does not address what conditions would lead to the consideration of chemical treatments. Maintaining a vegetation free radius around wood poles may be a case where chemical treatment may be the most effective and cost-efficient means of vegetation management. In the response to IRs, the utility states that currently they use chemical applications to control invasive Albizia trees.

+ **Trimming Standards** – The trimming standards presented in the WMP lack any specificity except for those provided in Section 6.2. The lack of details makes it difficult to evaluate this element. If the maintenance standards are based the 2024 VMP, then those standards need to be made publicly available for review in the WMP. In addition, this section does not define an inspection program for identifying where work needs to occur. The WMP states that contract tree workers are "expected to adhere to this standard" without providing those standards or discussing how QA/QC of contractor work will be performed or who the responsible party is for QA/QC monitoring.

+ **Hazard Trees** – The WMP does not articulate the inspection protocols for how "hazard trees" are identified or the responsible party(s) for making the determination that a tree meets the definition of a hazard tree. The response to IRs indicates that the utility is working with Drone Contractors to possibly identify hazard trees from existing LIDAR data, and that currently, hazard trees are identified by KIUC T&D personnel and VM Contractors. The plan also states that "it is a priority to remove hazard trees as soon as they are identified" without identifying a response time goal. The removal of a hazard tree should be tied to a KIUC response time standard, (e.g. – 48 hrs.) rather than this more ambiguous wording. A defined standard would allow the utility to measure their success rate in meeting an internal vegetation management goal

+ **Safety Standards** – The safety standards in the WMP are vague and do not provide any insight into the KIUC safety program. The section states that "VM work on or near KIUC facilities or ROW's follow approved safety guidelines …," but there are no guidelines provided in the WMP, nor is there a discussion on how KIUC monitors the safety element or who is the responsible official for monitoring contractor or employee adherence to the standard.

+ **Areas of Improvement:**

  - Develop and/or make available in this plan protocols for the inspection of KIUC infrastructure for routine/priority vegetation management, including what data will be collected and how the data will be used to develop a program of work for vegetation management.
  - Within the mapped Extreme and High Wildfire Hazard Areas, establish a system that further prioritizes vegetation treatment needs to identify urgent or high priority treatment locations from those requiring routine maintenance.
  - Develop specific standards for vegetation management inspections following significant weather events which may compromise system reliability. Define the thresholds (sustained wind speed, rainfall amounts) that would trigger these inspections.
  - The Vegetation Management Program standards should be made available in the WMP or the utility should provide a link to the document on the KIUC home page. As written, the current WMP lacks any

details on vegetation management specifications for pole clearances, line clearances (other than conductor clearances) and ROW surface fuel management.

- Establish a defined Quality Assurance/Quality Control program which identifies responsible officials, inspection standards and goals, response time goals to reported problems, data collection and management standards, and contractor performance review protocols.
- Develop a public-facing reporting and tracking system for hazard tree identification which will allow the public to submit requests for hazard tree inspections.

1.4.6. Section 7 – Operational Practices

KIUC's efforts to address the risk of wildfires have resulted in new programs and processes. Some of these will require a multi-year effort for the processes to mature and for the associated concepts and practices to be fully enculturated into the KIUC organization. The WMP describes specific programs related to situational awareness and organizational response to adverse conditions. Also discussed are efforts related to community outreach so that members of the public are aware and informed as to possible utility actions that may be required during adverse conditions.

7 Operational Practices Report Card

Statutory Compliance	Satisfactory
Maturity Level	Sufficient (Needs Improvement)
Industry Benchmarking	
Technical Rigor	2
Safety	2
Reliability	2
Affordability	2-3
Equitability	n/a
Planned Growth	Satisfactory
Areas for Improvement	• Efforts to train KICU and contractor staff to recognize conditions that are fire precursors should continue. • The developing work backlog will require proactive management to ensure conditions do not degrade. • Increase identification of and engagement with AFN customers • Develop plans for community outreach during and after a wildfire, in addition to before an event

+ **Daily Situational Awareness** – KIUC has expanded its situational awareness capabilities with the installation of 22 weather stations controlled by KIUC across the service area in 2024, providing a total of an estimated 50 weather stations. KIUC has also indicated it is developing a pilot program to assess the use of automated cameras and detection algorithms to monitor new ignitions across the service area, while also being mindful of the cost-effectiveness requirements to operationalize such a system. Development of both weather monitoring and camera systems is consistent with best practices being implemented by utilities in fire-prone regions. Such automated systems additionally require maintenance, including regular vegetation clearance programs, to maintain accuracy, and it is unclear what the maintenance schedule will be for these systems. KIUC indicated that complementary information from NOAA's drought monitoring program, FEMS, and other sources is also evaluated by operators as part of a Daily Situational Awareness check. A clear set of criteria and thresholds for concern (beyond the Red Flag Warning criteria) would help identify potential warning situations or triggers for public information releases.
+ **Red Flag Warning Protection Schemes** – KIUC has developed a Standard Operating Procedure for Red Flag Warnings, as described in section 7.3 (but called an Operational Protocol in that section). Development of such protocols is standard for utilities, but it is also common to identify where the Red Flag Warning criteria are relevant for the needs and concerns of the utility versus not. For example, KIUC notes elsewhere in the WMP that the wind criteria for NWS issuing an RFW for the state are not necessarily the thresholds when KIUC observes damage to its infrastructure. While this does not alter KIUC's response to the RFW, it also indicates a knowledge gap where local thresholds are commonly identified by utilities as indicators for supplemental protocols.

- **Red Flag Warning Operational Protocols** – In response to queries for additional information on the decision-making process and specific steps/flowchart of the operational protocol, KIUC responded by describing both 1) a general process for convening a team to discuss conditions and make decisions and 2) the enabling of a more sensitive relay protection scheme when certain wind speed thresholds are reached. The specific wind speed threshold is not identified, nor the specific criteria that would lead to the decision to enable the relay protection scheme. Such specificity in the operations process is considered a best practice to protect the public by standardizing operational protocols to minimize confusion and uncertainty in times of emergency situations that require rapid response decision-making. It also reduces liability to the utility in the event of an adverse outcome.
- **Power Isolation** – To-date, KIUC has only experienced two Power Isolation events, and neither of these was in response to potential wildfire ignition conditions. Utilities on the mainland that have endured multiple extreme fire danger events where Public Safety Power Shutoffs were either implemented or considered (but not implemented) have evolved their protocols to have a clear decision process and set of specific criteria (including thresholds) for initiating PSPS. Such criteria limit retrospective questioning of the decision-making process for PI and reduce the liability of the utility. Further, Section 7.5 of the WMP identifies a Wildfire Risk Framework where PI events are considered on Extreme Risk days, but there is no indication of what criteria qualify a day as an Extreme Risk, at a level above a Red Flag Warning. The two PI events to-date demonstrate clear communication to customers, particularly medical baseline customers. Finally, KIUC indicates it will continue to collect data on PI events as they occur but does not yet have criteria in place for what data should be collected and how it will be stored. Developing and implementing such criteria will ensure consistency of data collection for future PI events, allowing KIUC to analyze these data and develop models for PI events in future, and it will help KIUC to determine when a PI event is concluded and inspections can begin to re-energize the lines.
- **Wildfire Readiness Framework** – The Wildfire Readiness Framework section describes the general levels of readiness, with a PI event as the rarest of conditions. It also describes very generally the process for activating a decision team, which it does not describe in detail. The criteria for each of the top three tiers (Red Flag Warnings, Extreme Risk Days, and PI events) of the readiness framework are of particular importance to clarify as are the protocols for convening the decision team in the event of a potential PI. While the criteria for Red Flag Warnings are determined by NWS and are described elsewhere in the WMP and supporting responses, there is no definition for an Extreme Risk Day, which is described or defined nowhere else in the document and is first identified in this section. Given that responses pertaining to the initiation of a PI event indicated that a Red Flag Warning was the initial criteria and then additional conditions were taken into account, an additional step in the framework (the Extreme Risk Day) should be defined in terms of both what separates it from a Red Flag Warning and what actions are taken on an Extreme Risk Day differentiated from a Red Flag Warning. Industry standards have moved towards transparency and specificity in both the criteria for moving to higher levels of risk (i.e., Extreme Risk Day, PI events) and the mitigation actions and public communication associated with each level.
- **Power Isolation Notification Protocols –** KIUC describes their protocols for notifying customers of a potential PI event, including target timeframes and typical channels of communication. In response to an IR from the PUC, KIUC describes notifications utilized during previous PI events, including information sent to medical baseline customers. KIUC does not specify under what conditions a PI is considered a possibility and notification is undertaken.
- **Workforce Training –** The WMP describes KIUC's goal of training all employees so that they have an awareness of fire-threat weather conditions as well in-situ fire risks. In addition, field staff are trained in the content of the WMP and fire extinguisher use. Field staff also receive a pre-job briefing specific to the work task. The WMP does not specifically discuss whether non-KIUC workers (e.g., contract VM and/or line crews) receive the same or similar training. A detailed review of the training program was not performed but

based on the description in the WMP, the training appears to focus on preventing work crew caused fires and immediate extinguishment actions should a fire occur. It does not address training to enable the work crews to recognize and characterize conditions that may represent a precursor to other fire events.

+ **Showing of Adequately Sized and Trained Workforce / Mutual Aid and Assistance –** The WMP states that KIUC is adequately staffed to promptly restore service following a wildfire. It also describes Memorandum of Understandings (MOUs) with outside entities that provide outside assistance and support in response following wildfires or other natural disasters. KIUC has not required such support since it was formed in 2002.

  The KIUC response to PUC-KIUC-IR-05008 acknowledges that the recent increase in remediation needs arising from the recent island-wide asset inspections have exceeded the capability of the current KIUC resources. Consequently, KIUC is experiencing a work backlog and is evaluating options for managing this work backlog. KIUC is currently estimating that it may require up to 5 years to resolve this backlog. The KIUC responses to various IRs suggest that the data analysis results to provide component aging rates are not currently available. It may be necessary to rely on subjective and qualitative considerations to guide and inform the management of the work backlog.

+ **Restoration Priorities** – KIUC generally described the priorities for service restoration following an outage or PI event. Medical baseline customers are not described in this section.

+ **Service Restoration Process --** Several utility wildfires on the mainland in recent years have been ignited when powerlines were re-energized without full inspection following an outage. Following these ignitions, utility best practices have moved towards more rigorous inspections before re-energization, with specific protocols for inspection of each mile of impacted line through either manual inspection or utilizing technology such as drones. Mitigation of potential ignitions during re-energization is best achieved through clear criteria for inspection and subsequent re-energization. KIUC describes the process to patrol the lines and restore service following an outage but generally describes this in the context of damage to the system and how it would be repaired, rather than inspection of de-energized lines to ensure no debris remains on the lines that would cause an ignition once re-energized. If inspections following a PI event are different from patrols looking for damage, this section could benefit from improved clarity.

+ **Community Outreach** - Per Order 41075, a WMP must describe "plans for community outreach and public awareness efforts that the electric utility will use before, during, and after a wildfire" and must "identify specific measures to lessen the impact of reliability disruptions caused by wildfire mitigation, especially relating to low-to-moderate income customers, customers with special medical needs, kupuna, public safety partners, and critical facilities." To satisfy this requirement, KIUC has described its community outreach approach and planning for access and functional needs (AFN) customers in Section 7.11 of the WMP.

  KIUC's community outreach efforts need improvement to meet the current maturity level of the program and will need to continue to develop as maturity increases. The current focus of community outreach is on awareness of fire danger in the service area and communication related to PI events, particularly to medical baseline customers. Key areas for improvement include a focus on outreach during and after wildfire events (not just PI events), outreach to a variety of AFN customers (including and beyond those with specific medical needs), and additional measures, beyond notification, to reduce reliability disruption for AFN customers (e.g., alternative power sources for medical baseline customers during a PI).

+ **Area for Improvement**

  - The workforce training program was not available for detailed review. The description provided in the WMP indicates that the training focuses on preventing work crew caused fires and immediate extinguishment actions should a fire occur. It does not address training to enable the work crews to

recognize and characterize conditions that may represent a precursor to other fire events. As overall organizational awareness of random fire ignitions, general fire behavior, and wildfire threats matures, it is suggested that the workforce training be augmented so that field crews are better enabled to recognize and mitigate such conditions.

- There is a developing work backlog arising from the recent island-wide asset inspections. That work backlog exceeds the capability of the current KIUC resources. KIUC is currently estimating that it may require up to 5 years to resolve this backlog. In the interim, it is anticipated that remediation timeframes may exceed those provided in the WMP. In the absence of island-specific component aging data, it may be necessary to rely on subjective and qualitative considerations to guide and inform the management of the work backlog to avoid unacceptable degradation of system reliability.
- Identify more clearly or develop a flowchart for the situational awareness information that will be utilized for decision-making around warnings and in preparation for potential PI events.
- Identify a maintenance schedule for the newly installed KIUC weather station network to Increase transparency and specificity in the criteria for higher tiers of the Wildfire Readiness Framework, particularly what criteria will trigger either an Extreme Risk Day or a PI event, and what responsive actions are specific to each of those events.
- Develop a clear decision-making flowchart identifying criteria and responsibilities associated with PI events, including when the PI event is over and the process for re-energization.
- Develop community outreach, education and awareness program during and after wildfire events (not just PI events), outreach to a variety of AFN customers (including and beyond those with specific medical needs), and additional measures, beyond notification, to reduce reliability disruption for AFN customers (e.g., alternative power sources for medical baseline customers during a PI).

1.4.7. Section 8 – Plan Implementation and Monitoring

Chapter 8 of the WMP is concerned with implementing and monitoring the activities outlined in the preceding chapters. The bulk of this section is concerned with describing the processes for monitoring and improving the WMP's performance but also includes KIUC's approach to staffing, data governance, alignment with other emergency plans, and customer impacts. The programs in this section are generally consistent with the current maturity level of the wildfire mitigation program and size of the utility but will need to be expanded and improved as the WMP develops. The key topics discussed in this chapter are:

8 Plan Implementation + Monitoring
Report Card

Statutory Compliance	Satisfactory
Maturity Level	Sufficient (Needs Improvement)
Industry Benchmarking	
Technical Rigor	1-2
Safety	1-2
Reliability	1-2
Affordability	2
Equitability	n/a
Planned Growth	Satisfactory
Areas for Improvement	• Develop of a more robust data governance strategy to ensure operational and risk data are trustworthy, traceable, and ready for internal decision-making and external review. • Ensure alignment across EPRP & CCP. • Include cost-benefit analysis or risk-spend-efficiency calculations to ensure safety, reliability and affordability drivers are met. • Establish an audit process for inspectors to manage and oversee work performed by employees and contractors • See Area(s) Improvement for additional actions.

+ **Plan Accountability/Staff Roles & Responsibilities** – KIUC's staff roles and responsibilities are consistent with the current maturity level of the program and size of the utility. The staff responsible for non-emergency communications should be identified by name in the WMP.
+ **Data Governance** – KIUC's data governance efforts, as reported in the WMP, appears to be underdeveloped with limited details and structure on the policies, processes and standards for responsible parties for the specific datasets, methods of data collection, interoperability and integration, quality assurance/quality control mechanisms, data security and accessibility, lifecycle management, status and planned improvement targets. Maturity in these areas ensures data is collected, managed, protected, and used consistently and responsibly across the organization and provides the foundation for reliable decision-making, regulatory compliance, operational safety, and customer trust. Section 8.2 of the WMP would be improved by adding a discussion of details of plans for future improvement of data governance procedures, including plans to convert data collection and storage from manual to other formats for key data types. To improve maturity, KIUC should develop and detail procedures for a data governance plan including data collection, management, responsible use, and QA/QC.
+ **Alignment with EPRP & Emergency Planning Efforts** – As the EPRP and CCP are confidential, we have been unable to sufficiently gauge the alignment between the WMP and other emergency planning efforts.

+ **Impact of WMP on Members/Customers** – Order 41075 requires KIUC to undertake mitigations that balance mitigation costs, service reliability, and reduction of wildfire risk. The impact of WMP on customers in terms of reliability is detailed in Section 8 but cost impacts on customers are not discussed. Cost implications and the tradeoffs assumed between cost, reliability, and wildfire risk reduction should be expanded upon in this section of the WMP. KIUC should include a cost-benefit analysis or risk spend efficiency calculation in future iterations of its WMP to provide a quantitative metric for accounting for cost implications compared to risk reduction and reliability.
+ **Monitoring and Auditing of the WMP** – KIUC's monitoring and auditing efforts align with the current maturity level of the Wildfire Mitigation Program (WMP) and the size of the utility. As the program continues to evolve, additional enhancements—such as developing public-facing dashboards that display WMP initiative targets, milestones, and progress—would strengthen transparency and demonstrate accountability to stakeholders.
+ **Identifying Deficiencies in the WMP** – KIUC's current efforts in identifying and addressing program deficiencies are appropriate for the utility's size and the WMP's current maturity level. To enhance transparency and promote continuous improvement, it is recommended that identified deficiencies and corresponding corrective actions be incorporated into the public-facing dashboard referenced above. This would enable stakeholders to track how issues are being resolved and provide greater visibility into the program's commitment to improvement.
+ **Performance Metrics** – KIUC's performance metrics are consistent with the current maturity level of the program and size of the utility. However, these metrics can be enhanced with QA/QC and inspection metrics discussed below.
+ **Quality Assurance and Quality Control and Inspection Quality Process** – KIUC's Quality Assurance (QA), Quality Control (QC), and Inspection Quality processes are appropriate for the current maturity level of the Wildfire Mitigation Program (WMP) and the size of the utility. However, these processes should be strengthened as the WMP program matures. See Area(s) of Improvement for recommendations.
+ **Area(s) for Improvement**
    - Develop a more structured data governance strategy to ensure KIUC's operational and risk data are trustworthy, traceable, and ready for internal decision-making and external review.
    - Ensure alignment across EPRP & CCP.
    - Include cost-benefit analysis or risk-spend-efficiency calculations to ensure safety, reliability and affordability drivers are met.
    - Establish an audit process for KIUC inspectors to manage and oversee work performed by employees and contractors, ensure QA/QC information is effectively integrated into decision-making and workforce management processes.
    - Identify deficiencies and develop actionable outcomes to improve inspection protocols.
    - Provide targeted training for personnel involved in asset management to reinforce consistency and quality standards.
    - Incorporate lessons learned from internal reviews and external audits to drive continuous improvement in QA/QC practices.

1.4.8. Appendix A

Order No. 41716, "Instituting a Proceeding to Review KIUC's Wildfire Mitigation Plan, states the following:

Cost Recovery

The Commission understands that implementation of the WMP may involve new capital costs and operating expenses which may not be sufficiently recovered through existing rates. As such, the Commission will address any such cost recovery requests pursuant to the G.O.7 approval process.10 To the extent KIUC seeks cost recovery for projects it deems immediately necessary for the public's safety or other critical purposes, KIUC may file a G.O.7 request while this docket is pending.[11]

In Appendix A, Table 7, KIUC provides high-level cost estimate ranges for various WMP programs from 2025-2027. KIUC has identified these as incremental costs in response to PUC-KIUC-IR-09001.

The following IRs were requested to justify the 2025-2027 planned expenditures:

- PUC-KIUC-IR-04002
- PUC-KIUC-IR-04003
- PUC-KIUC-IR-04004
- PUC-KIUC-IR-04006
- PUC-KIUC-IR-04007
- PUC-KIUC-IR-04008
- PUC-KIUC-IR-05003
- PUC-KIUC-IR-06001
- PUC-KIUC-IR-09001
- PUC-KIUC-IR-09002

These responses provided additional details on both the costs and target completions. These generally were either based on previous year's costs or contractor estimates. Although some estimates were still awaiting completion of studies.

As pointed out in response to PUC-KIUC-IR-2009, KIUC does not yet have detailed financial forecasts to provide due to analyses that are still being undertaken but also pointed out they are in the midst of its budgeting process and should be able to provide more detailed forecasts and estimates later in the year.

The WMP and responses to the IRs listed provide a reasonable basis for KIUC's initial budget estimates. These estimates will have to be refined based on the completion of analyses and any other commitments that result from the approval process of the WMP.

Since the approval of the WMP does not approve the costs, these will be evaluated under the G.O.7 approval process.

[10] Approval of a WMP does not guarantee approval of cost recovery, and a separate analysis is required under G.O.7, Section 2.3 (g) (2)
[11] The Commission notes that if a wildfire-related project cost is below the G.O.7 threshold, such measures should still be detailed in the WMP.

1.5. INFORMATION REQUESTS

The following information requests and responses were considered in this review:

Filed Date	*Filing Title*	*Document Name*
7/23/2025	Letter From: Commission To: K. Morihara Re: Docket No. 2025-0255, Instituting a Proceeding to Review Kauai Island Utility Cooperative's Wildfire Mitigation Plan	2025-0255 PUC-KIUC 07.23.25.pdf
8/11/2025	Kauai Island Utility Cooperative's Responses to the Public Utilities Commission's Information Requests (PUC-KIUC-IR-01001 to PUC-KIUC-IR-09001); Docket No. 2025-0255	Responses to PUC Information Requests (Docket No_ 2025-0255).PDF
9/9/2025	Letter From: Commission To: K. Morihara Re: Docket No. 2025-0255 - Instituting a Proceeding to Review Kauai Island Utility Cooperative's Wildfire Mitigation Plan	2025-0255 PUC-KIUC 09.09.25.pdf
9/19/2025	[1 OF 2] Kauai Island Utility Cooperative's Responses to the Public Utilities Commission's Information Requests (PUC-KIUC-IR-01004 to PUC-KIUC-IR-09002); Attachment 1; Docket No. 2025-0255	Responses to PUC (Second) Information Requests (Docket No 2025-0255).PDF
9/19/2025	[2 OF 2] (CONFIDENTIAL) Attachment - Kauai Island Utility Cooperative's Responses to the Public Utilities Commission's Information Requests (PUC-KIUC-IR-01004 to PUC-KIUC-IR-09002); Attachment 1; Docket No. 2025-0255	CONFIDENTIAL attachments to Responses t PUC (Second) Information Requests (Docket No_ 2025- 0255).PDF
9/24/2025	Division of Consumer Advocacy's First Submission of Information Requests; Docket No. 2025-0255	2025-0255 CA IRs 1st SET FINAL COMB.pdf
10/2/2025	Letter From: Commission To: K. Morihara and P. Kikuta Re: Docket No. 2025- 0255, Instituting a Proceeding to Review Kauai Island Utility Cooperative's Wildfire Mitigation Plan	2025-0255 PUC-KIUC 10.02.25.pdf

Filed Date	*Filing Title*	*Document Name*
10/3/2025	Division of Consumer Advocacy's Second Submission of Information Requests; Docket No. 2025-0255	2025-0255 CA IRs 2n Set FINAL COMB.pdf
10/6/2025	[1 OF 3] Kauai Island Utility Cooperative's Responses to the Division of Consumer Advocacy's First Submission of Information Requests (CA-IR-1001 to CA-IR-8003); Attachment 1; Docket No. 2025-0255	Responses to CA First Information Requests (Docket No_ 2025-0255).PDF
10/6/2025	[2 OF 3] (CONFIDENTIAL) Attachment - Kauai Island Utility Cooperative's Responses to the Division of Consumer Advocacy's First Submission of Information Requests (CA-IR-1001 to CA-IR-8003); Attachment 1; Docket No. 2025-0255	CONFIDENTIAL Attachment CA-IR- 8003_ Revenue Requirement Model and Bill Impact Analy - WMP Costs.PDF
10/6/2025	[3 OF 3] (CONFIDENTIAL) Attachment - Kauai Island Utility Cooperative's Responses to the Division of Consumer Advocacy's First Submission of Information Requests (CA-IR-1001 to CA-IR-8003); Attachment 1; Docket No. 2025-0255	CONFIDENTIAL Attachment CA-IR- 8003_ Revenue Requirement Model and Bill Impact Analy- WMP Costs.XLSX
10/10/2025	Kauai Island Utility Cooperative's Responses to the Division of Consumer Advocacy's Second Submission of Information Requests (CA-IR-4001 to CA-IR- 7013); Docket No. 2025-0255	Responses to CA Second Information Requests (Docket No 2025-0255).PDF
10/10/2025	Kauai Island Utility Cooperative's Responses to the Public Utilities Commission's Information Requests (PUC-KIUC-IR-02007 to PUC-KIUC-IR-08004); Docket No. 2025-0255	Responses to PUC (Third) Information Requests (Docket No 2025-0255).PDF

2.0 Discussion

Kaua'i Island Utility Cooperative's (KIUC) 2025–2027 Wildfire Mitigation Plan (WMP) represents an initial first step in addressing wildfire risk on island. Given Kaua'i's wet climate, fragmented fuels, and limited ignition sources, wildfires have historically been constrained in size and frequency. The island's few large fires (such as the 2024 West Kaua'i Fire) occurred primarily in dry leeward zones, where grasslands and wind exposure create localized high-risk conditions. However, climate change, prolonged droughts, and invasive grass expansion are gradually increasing the island's susceptibility, underscoring the need for KIUC to take a more proactive approach to wildfire planning and preparedness moving forward.

The current version of the WMP represents a developing yet incomplete framework, but shows clear progress in infrastructure modernization, weather and situational monitoring, and operational readiness. However, as detailed in the following discussion, the WMP remains largely qualitative, lacking a quantitative, spatially based framework for assessing wildfire risk specific to KIUC's assets at a localized-level. While this is common for other small utilities early in their WMP program development, KIUC needs to prioritize meaningful progress in maturing its quantitative, risk-informed decision-making process, vegetation management, inspection protocols, and data governance given the state of KIUC's aging infrastructure and substantial backlogs in maintenance and remediation. The utility will need to have a more strategic approach to prioritizing critical safety and reliability components and provide a reasonable balance across safety, reliability, and affordability objectives for a small island utility in-line with industry best practices

2.1. EVALUATION OF REGULATORY PERFORMANCE OBJECTIVES

1. DOES KIUC'S WMP MEET TECHNICAL AND PROGRAMMATIC FEASIBILITY AND EFFECTIVENESS OBJECTIVES?

Partially

KIUC's WMP makes progress toward technically feasible approaches to wildfire risk mitigation within the constraints of a small island utility. The plan proposes mitigation measures that are well within the scope of proven engineering and operational practices for a small island utility. Actions such as bare wire replacement, SCADA expansion, recloser modernization, advanced pole testing, UAV and LiDAR inspections, and formal vegetation management cycles are technically sound, achievable, and appropriate to Kaua'i's infrastructure and environmental conditions. The WMP's reliance on established utility technologies rather than speculative or experimental tools supports its technical credibility. However, the plan's **evaluation of technical effectiveness is primarily qualitative**, with limited quantification of risk-reduction outcomes, ignition probability, or performance baselines.

From a programmatic feasibility perspective, the WMP provides a realistic road map appropriately scaled to KIUC's current wildfire mitigation maturity and organizational capacity of a small island utility in its nascent phase. The plan demonstrates practical sequencing—focusing first on foundational activities such as vegetation management, inspections, and system hardening—before advancing toward more complex data integration. However, the **plan does not sufficiently demonstrate KIUC's operational readiness to ensure that technical and programmatic mitigation measures will be able to achieve desired performance outcomes efficiently and scrutably.** The plan would benefit from the following:

+ Develop a quantitative and/or semi-quantitative wildfire risk analysis framework based on industry best practices and wildfire behavior modelling that is commensurate with utilities of a similar size and potential risk level. The analysis should evaluate risk directly associated with KIUC's equipment. As discussed in Section 2, the potential wildfire risks imposed on surrounding communities by KIUC's equipment can be

evaluated using publicly available fire modelling tools such as FlamMap, in consultation with a Fire Behavior Analyst (FBAN) or equivalent subject matter expert and integrated into a risk-informed decision-making framework (e.g., 7x7 matrix).

+ Develop **detailed operational mechanisms** (i.e., policies, procedures and protocols) to effectively demonstrate organization capacity, resource availability, administrative processes, regulatory and procedural readiness and implementation pace are actionable, achievable and appropriately phased and prioritized based on risk levels for a small-island utility. The WMP is currently too high-level, lacking sufficient detail and substantiation that KIUC can effectively manage and operate the plan's goals. This is of particular concern for its vegetation management program, aging infrastructure backlog and risk analysis.
+ Develop **quantitative metrics** to validate technical effectiveness (e.g., ignition reduction modeling, reliability improvements);
+ Formalize **QA/QC and data governance frameworks** to track program execution;
+ Establish **feedback mechanisms** linking lessons learned and inspection data to program refinement

In summary, the WMP is **directionally feasible**, demonstrating sound technical design, but will require more substantiation of programmatic readiness to fully meet the long-term intent of the regulatory objectives.

2. DOES KIUC'S WMP MEET RESOURCE USE EFFICIENCY

Partially

The WMP **generally meets the intent of the resource use efficiency objective** demonstrating prudent prioritization of limited financial and workforce resources while maintaining focus on achievable, risk-reducing actions.

The plan emphasizes cost-effective mitigation strategies such as bare-wire secondary replacement, targeted vegetation management, SCADA-based system monitoring, and selective infrastructure hardening—rather than costly system-wide undergrounding. This approach reflects an understanding of the cooperative's size, ratepayer base, and fiscal limitations. KIUC leverages existing staff capabilities, integrates pilot programs (e.g., Thor Poletest™ for pole inspections and UAV/LiDAR surveys), and sequences investments across defined timeframes—suggesting the WMP is both fiscally conservative and operationally achievable.

However, the WMP's **resource efficiency evaluation remains largely qualitative**. It does not yet include quantitative cost-benefit analyses, Risk Spend Efficiency (RSE) calculations, or prioritization frameworks that explicitly link expenditures to measurable wildfire risk reduction. **Without such metrics, it is difficult to assess how efficiently KIUC's programs translate spending into safety and reliability outcomes**.

Overall, the WMP is reasonably efficient given KIUC's scale and maturity, prioritizing practical, lower-cost mitigation activities that deliver meaningful safety and reliability benefits. Future WMP updates should incorporate quantitative cost-effectiveness tools, standardized resource allocation metrics, and transparent reporting to demonstrate and optimize the efficiency of wildfire mitigation investments.

3. DOES KIUC'S WMP MEET CONTINUED PROGRESS OBJECTIVES?

Yes

Because this is KIUC's first Wildfire Mitigation Plan (WMP), the utility does not yet have a prior filing from which to demonstrate measurable year-over-year progress. However, the 2025–2027 WMP establishes a foundational baseline for future comparison and therefore meets the intent of the continued progress objective in a forward-looking sense.

The plan represents a reasonable starting point for a small island utility entering formal wildfire risk management for the first time. KIUC introduces programs for vegetation management, asset inspection, QA/QC processes, and situational awareness, along with identified roles, responsibilities, and performance metrics. It also defines procedures for annual review, auditing, and plan revision, positioning KIUC to document progress in future WMP cycles.

While the plan cannot yet show quantitative evidence of improvement, it lays out the organizational systems and data collection mechanisms needed to track progress over time. Establishing ignition reporting protocols, vegetation maintenance completion rates, and inspection backlogs will be key to measuring advancement in subsequent filings.

In summary, KIUC's initial WMP **meets the intent of the continued progress objective** by creating the foundation for future measurement and refinement. It sets the groundwork for continuous improvement, enabling KIUC to demonstrate tangible progress toward wildfire risk reduction in subsequent plan cycles.

4. DOES KIUC'S WMP MEET FORWARD-LOOKING GROWTH?

Partially.

KIUC's WMP **partially meets the intent of the forward-looking growth objective**, establishing a foundational framework for wildfire mitigation but not yet incorporating quantitative or risk-informed decision tools. As KIUC's first formal WMP, the document demonstrates a proactive commitment to developing long-term wildfire management capabilities and integrating wildfire considerations into system operations.

The plan identifies future-oriented initiatives such as UAV and LiDAR inspections, GIS mapping of wildfire risk, expanded weather monitoring, and QA/QC and data governance systems—all of which position KIUC to mature its wildfire mitigation program over time. However, the WMP currently lacks quantitative risk analysis, consequence modeling, or risk-prioritization frameworks that would allow the utility to assess, target and monitor mitigation measures based on ignition likelihood or consequence severity spatially and at a more localized, granular level. **The absence of risk-informed planning tools limits KIUC's ability to demonstrate measurable risk reduction or to optimize resource allocation over the long term**.

In summary, KIUC's WMP is **directionally forward-looking** and establishes a credible baseline for future program development, but it does not yet demonstrate quantitative or risk-informed planning maturity. Future iterations should include **data-driven risk modeling, measurable performance targets, and prioritization methods** to strengthen KIUC's long-term growth trajectory and alignment with emerging regulatory expectations.

5. DOES KIUC'S WMP MEET PERFORMANCE METRICS OBJECTIVES?

Partially

The plan **partially meets the intent of the performance metrics objective**, providing a basic framework for tracking wildfire-related activities but not yet establishing comprehensive, quantitative measures of program effectiveness.

The plan includes several **initial performance indicators (primarily all lagging indicators)**, such as the number of Red Flag Warnings, instances of "fire-safe mode" operations, system-related ignition counts, and reliability indices (e.g., SAIFI). These metrics demonstrate KIUC's early effort to monitor both operational activity and system reliability as they relate to wildfire risk. However, the metrics are primarily **activity-based and descriptive**, rather than **outcome-oriented**. They do not yet quantify the extent to which mitigation measures

reduce ignition probability, improve vegetation clearance compliance, or decrease the frequency and severity of wildfire-related outages.

In addition, the WMP lacks a clear **data governance and QA/QC framework** to ensure metric accuracy, consistency, and traceability over time. Establishing standardized data collection protocols and baseline values will be essential for demonstrating measurable improvement in future filings.

In summary, KIUC's WMP **establishes a foundational metrics structure** appropriate for its first plan cycle but does not yet meet the full intent of the performance metrics objective. Future iterations should evolve these indicators into a **quantitative, risk-based performance framework** capable of demonstrating verified reductions in ignition risk, asset failure, and wildfire consequence potential for both leading and lagging indicators.

6. DOES KIUC'S WMP MEET TARGETS OBJECTIVES?

Yes

KIUC's WMP **meets the intent of the targets objective at a foundational level**, establishing specific and time-bound commitments for program implementation, but it does not yet include measurable outcome-based performance targets. There are several gaps in identifying critical program implementation targets previously discussed such as timeline for implementing a quantitative, risk-informed decision-making process and monitoring tools, detailed operational policies and procedures for the various mitigation initiatives (i.e., vegetation management and inspection prioritization and implementation).

The plan identifies activity-based milestones, such as completing bare wire secondary replacement by 2025, initiating a formal vegetation management program in 2024, and conducting UAV/LiDAR system inspections within the plan cycle. These commitments demonstrate a structured approach to tracking program execution and provide a reasonable basis for internal accountability given KIUC's current wildfire mitigation maturity. However, the WMP does not yet define targets tied to quantitative results—for example, reductions in vegetation-related outages, ignition frequency, or inspection backlog completion rates.

To fully meet the targets objective, future WMPs should establish tiered targets that distinguish between (1) implementation milestones (activity completion and any interim strategy timelines) and (2) performance outcomes (measurable improvements in safety, reliability, and risk reduction such as "reduce vegetation-related outages by X%" or "reduce inspection backlog to <10%"). Linking these targets to defined metrics and data governance systems would improve transparency, enable regulatory verification, and demonstrate alignment between activities and wildfire risk mitigation outcomes.

In summary, KIUC's WMP appropriately sets initial implementation targets consistent with its starting maturity level but will need to evolve toward quantitative, outcome-based targets in future cycles to fully satisfy the regulatory intent.

2.2. SUMMARY

KIUC's 2025–2027 WMP establishes a technically sound and programmatic foundation for wildfire mitigation, reflecting the early maturity of a small island utility initiating formal wildfire management practices. The plan is directionally aligned with regulatory intent, particularly in areas of technical feasibility, prudent resource use, and forward-looking development. However, KIUC's WMP remains largely qualitative, with limited demonstration of quantitative risk analysis, cost-effectiveness, or outcome-based performance metrics. Future iterations should focus on building risk-informed modeling, measurable performance indicators, and transparent cost-efficiency frameworks to advance maturity and fully satisfy regulatory performance objectives. See Table 3.

Table 3. Summary of KIUC WMP Evaluation Against Regulatory Performance Objectives

Regulatory Objective	*Meets Objective?*	*Summary Assessment*
1. Technical and Programmatic Feasibility and Effectiveness	⚠️ Partially – Technically feasible but lacking sufficient programmatic readiness.	KIUC's WMP demonstrates technically feasible mitigation approaches appropriate for a small island utility, such as bare wire replacement, SCADA expansion, recloser modernization and UAV/LiDAR inspections. These measures are sound and achievable within KIUC's operational environment. However, the plan remains largely qualitative, lacks quantitative risk analysis, and does not sufficiently demonstrate operational readiness, implementation detail, or organizational capacity to ensure effective program execution. Future WMPs should develop quantitative wildfire risk modeling, detailed operational procedures, QA/QC frameworks, and feedback mechanisms linking lessons learned to program refinement.
2. Resource Use Efficiency	⚠️ Partially	The WMP reflects prudent prioritization of limited financial and workforce resources, emphasizing cost-effective measures (e.g., bare-wire replacement, targeted vegetation management, SCADA monitoring) and avoiding costly undergrounding. KIUC leverages existing staff and pilot programs effectively. However, resource efficiency assessments are qualitative and lack quantitative tools such as cost-benefit or Risk Spend Efficiency (RSE) analyses. Future plans should integrate cost-effectiveness frameworks and standardized reporting to link spending with measurable wildfire risk reduction.
3. Continued Progress	✅ Yes (Baseline Established)	As KIUC's first WMP, it does not have a prior plan for comparison but successfully establishes a foundational baseline for future progress. The plan identifies vegetation management, inspection, QA/QC, and situational awareness programs, and defines accountability and review processes. While quantitative evidence of improvement is not yet available, the WMP creates the necessary framing for tracking and measuring progress in subsequent filings. This represents a forward-looking alignment with the continued progress objective.
4. Forward-Looking Growth	⚠️ Partially – Directionally forward-	KIUC's WMP provides a forward-looking approach by introducing new technologies and systems (UAV/LiDAR inspections, GIS wildfire risk

Regulatory Objective	*Meets Objective?*	*Summary Assessment*
	looking, but not yet risk-informed.	mapping, weather monitoring, and data governance). However, the plan lacks quantitative or risk-informed methodologies—such as ignition probability modeling or consequence analysis—that would enable prioritization and optimization of mitigation efforts. Future iterations should integrate spatial risk modeling, measurable targets, and risk-based prioritization to strengthen long-term strategic growth.
5. Performance Metrics	⚠ Partially	KIUC provides an initial framework for performance tracking through indicators such as ignition counts, Red Flag Warnings, and reliability indices. These are suitable as early-stage activity metrics but remain largely descriptive and lagging, without outcome-based measures of program effectiveness. The WMP also lacks well-defined data governance protocols to ensure accuracy and consistency. Future updates should adopt quantitative, risk-based performance frameworks with both leading and lagging indicators to demonstrate verified reductions in wildfire risk and system vulnerability.
6. Targets	✅ Yes (Foundational Level)	The WMP includes time-bound implementation targets—such as completing bare wire replacement by 2025 and launching UAV/LiDAR inspections within the plan cycle—demonstrating clear accountability and implementation sequencing. However, targets focus on activity completion rather than measurable outcomes. Future plans should set tiered targets linking implementation milestones to performance outcomes (e.g., percent reduction in ignition risk or vegetation-related outages) and integrate these within a structured data and monitoring framework.

3.0 Conclusions

Currently, KIUC's plan demonstrates progress in several key areas—such as infrastructure modernization (e.g., bare wire replacement, SCADA integration), expanded weather monitoring, UAV and LiDAR-based inspections, and the establishment of operational protocols for Red Flag Warnings and Power Isolation events—reflecting a reasonable balance between safety, reliability, and affordability for a small island utility. However, the WMP's overall risk analysis remains qualitative and lacks a spatially-informed, quantitative framework to evaluate asset-specific ignition potential, consequence modeling, and spatial prioritization of mitigation efforts (in particular vegetation management and aging infrastructure inspections and remediation). Vegetation management standards, inspection protocols, and data governance are underdeveloped, and significant backlogs exist in

asset remediation. While the plan aligns with its current maturity level and resource constraints, continued enhancements in technical rigor, spatial risk analysis, vegetation management practices/policies/procedures, and cost-benefit transparency will help strengthen future iterations and bring them closer to industry best practices.

Immediate priorities include:

+ Development of a qualitative or quantitative risk assessment to evaluate the spatial variability of wildfire risk as a function of utility ignition risk drivers, fire behavior and consequence analysis in a fully integrated framework to inform mitigation planning and prioritization. This can be prioritized for the high-fire prone areas of the island (e.g., south)
+ Completion of utility-specific assets, vegetation inventories and risk drivers data collection.
+ Develop and publish a comprehensive Vegetation Management Plan (VMP) with inspection cycles, data standards, QA/QC procedures, and prioritization by risk.
+ Develop risk-informed, spatial prioritization for utility infrastructure and equipment inspection scheduling and remediation efforts given the volume and extent of degradation.
+ Transition from qualitative proxies to quantitative, spatial, evidence-based prioritization.
+ Increased implementation details and timing of specific mitigations by circuit segment, particularly regarding interim strategies and the incremental increase in risk reduction and costs, until long-term capital improvements can be implemented.

These actions are necessary for KIUC to ensure public safety, deliver reliable and affordable service, and comply with state regulatory and public expectations. The Consumer Advocate and Commission should ensure KIUC's next update addresses these top deficiencies and provides clear timelines and measurable improvements.

4.0 References

1. Liu, Y., Stanturf, J., & Goodrick, S. (2010). Forest Ecology and Management Trends in global wildfire potential in a changing climate, 259, 685–697. https://doi.org/10.1016/j.foreco.2009.09.002
2. National Wildfire Coordinating Group. (2018). NWCG User Guide for Glossary of Wildland Fire. Data Standards and Terminology Board. Retrieved: https://www.nwcg.gov/publications/937
3. NFPA 1141, "Standard for Fire Protection Infrastructure for Land Development in Suburban and Rural Areas," National Fire Protection Association, 2017.
4. NFPA 1143, "Standard for Wildland Fire Management" National Fire Protection Association, 2018.
5. NFPA (National Fire Protection Association). 2011. "Understanding Fire Behavior in the Wildland/Urban Interface." Accessed April 2020. https://youtu.be/pPQpgSXG1n0.
6. Simeoni, Albert., "Wildland Fires." SFPE Handbook of Fire Protection Engineering, 5th ed., Hurley. Quincy, MA, 2016.
7. ANSI A300 Standards for pruning and vegetation care
8. ANSI Z-133 Standards for arboricultural safety and operations
9. ASTM E 1355 Standard Guide for Evaluating the Predictive Capability of Deterministic Fire Models
10. California Fire Code (Title 24, Part 9), Minimum Clearance Provisions
11. California Code of Regulations (Title 14 CCR 1254)
12. Federal Emergency Management Agency (FEMA)-certified NIMS 100, 200, and 700
13. General Order 95 Standards for Overhead Electric Line Construction.
14. General Order 128 Standards for Construction of Underground Electric.
15. General Order 165 Standards for electric distribution and transmission facilities.
16. General Order 166 Standards for Operation, Reliability, and Safety during Emergencies and Disasters.
17. General Order 174 Standards for Electric Utility Substations
18. Government Code, § 8593.3
19. NERC FAC-003-4 Guidelines for maintaining required clearances on transmission lines
20. Public Utilities Code section 768.6 Statute related to emergency and disaster preparedness plans
21. California Public Resources Code § 4291 on defensible space
22. California Public Resources Code § 4292 Statute related to firebreaks near a utility pole.
23. California Public Utilities Code § 8370(d) Microgrid definition
24. California Public Utilities Code § 8386 Statute related to electrical lines and equipment.
25. Office of Energy Infrastructure Safety, Wildfire Mitigation Plan Guidelines (WMP Guidelines), 2026-2028. Retrieved from: https://energysafety.ca.gov/what-we-do/electrical-infrastructure-safety/wildfire-mitigation-and-safety/wildfire-mitigation-plans/2026-28-wildfire-mitigation-plan-guidelines/
26. Office of Energy Infrastructure Safety, Energy Safety Policy Division Process Guidelines 2026 -2028. Retrieved from: https://energysafety.ca.gov/what-we-do/electrical-infrastructure-safety/wildfire-mitigation-and-safety/wildfire-mitigation-plans/2026-28-wildfire-mitigation-plan-guidelines/

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing **DIVISION OF CONSUMER ADVOCACY'S STATEMENT OF POSITION** was duly served upon the following parties electronically to the e-mail addresses below pursuant to HAR § 16-601-21(d), as modified by Order No. 38270 Setting Forth Public Utilities Commission Electronic Filing and Service Procedures, filed on March 14, 2022.

KENT D. MORIHARA, ESQ.
PETER Y. KIKUTA, ESQ.
1100 Alakea Street, Suite 2100
Honolulu, Hawaii 96813
Email: kent.morihara@stratlaw.com
peter.kikuta@stratlaw.com

Attorneys for KAUAI ISLAND UTILITY COOPERATIVE

DATED: Honolulu, Hawaii, October 31, 2025.

/s/ S. Strack

The foregoing document was electronically filed with the State of Hawaii Public Utilities Commission's Case and Document Management System (CDMS).