ORDER NO. 24-230

ENTERED Jul 10 2024

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UM 2207

In the Matter of PACIFICORP, dba PACIFIC POWER, 2024 Wildfire Mitigation Plan.	ORDER

DISPOSITION: STAFF'S RECOMMENDATION ADOPTED

At its public meeting on July 9, 2024, the Public Utility Commission of Oregon adopted Staff's recommendation in this matter.[1] The Staff Report with the recommendation is attached as Appendix A.

BY THE COMMISSION:

Alison Lackey
Chief Administrative Law Judge

A party may request rehearing or reconsideration of this order under ORS 756.561. A request for rehearing or reconsideration must be filed with the Commission within 60 days of the date of service of this order. The request must comply with the requirements in OAR 860-001-0720. A copy of the request must also be served on each party to the proceedings as provided in OAR 860-001-0180(2). A party may appeal this order by filing a petition for review with the Circuit Court for Marion County in compliance with ORS 183.484.

[1] Under ORS 757.963 the Commission has 180 days after the filing of a wildfire mitigation plan to evaluate and approve it, or approve it with conditions. The original schedule for this docket contemplated a Commission decision at the June 25, 2024 regular public meeting, within the 180-day timeframe. In order to provide additional opportunity for participant input ahead of Staff's final recommendation, the Commission's decision was rescheduled to the next regular public meeting, on July 9, 2024, in substantial compliance with ORS 757.963. *See* ORS 756.062.

ITEM NO. RA1

PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: July 9, 2024

REGULAR	**X**	**CONSENT**		**EFFECTIVE DATE**	**Upon Commission Approval**

DATE: July 5, 2024

TO: Public Utility Commission

FROM: Heide Caswell

THROUGH: Bryan Conway **SIGNED**

SUBJECT: PACIFIC POWER:
(Docket No. UM 2207)
2024 Wildfire Mitigation Plan – Request for Commission Approval.

STAFF RECOMMENDATION:

Approve Pacific Power's 2024 Wildfire Mitigation Plan (WMP). In addition, direct Pacific Power to take the following actions advancing future Wildfire Mitigation Plans:

1. Implement identified Staff recommendations into its 2025 WMP;
2. Provide input to Staff on proposed standard data templates and procedural guidelines for inclusion in WMP guidelines (2025 WMP);
3. Participate in a Staff-led process establishing proposed guidelines which clarify expectations and standards for risk quantification and risk-spend efficiency (2026 WMP); and
4. Work jointly to propose a standardized WMP format and set of definitions and submit to Staff for inclusion in WMP guidelines (2026 WMP).

DISCUSSION:

Issue

Whether the Oregon Public Utility Commission (Commission) should approve Pacific Power's (PAC or Company) 2024 Wildfire Mitigation Plan. Whether the Commission should direct PAC to take the actions recommended by Commission Staff.

Applicable Rule or Law

Executive Order 20-04 (EO 20-04), Section 5(B)(4) directs the Commission to evaluate electric companies' risk-based wildfire protection plans and planned activities to protect public safety, reduce risks to utility customers, and promote energy system resilience in the face of increased wildfire frequency and severity, and in consideration of the recommendations made by the Governor's Council on Wildfire Response 2019 Report and Recommendations.

Per ORS 756.040, the Commission has authority to supervise and regulate every public utility in Oregon, and to do all things necessary and convenient in the exercise of such power and jurisdiction.

Senate Bill (SB) 762 (2021), incorporated as ORS 757.960 through 757.969, established standards for electric utility's Wildfire Mitigation Plans and required the Commission to promulgate rules related to the requirements of the Plans. Pursuant to ORS 757.963 the Commission may "approve with conditions" a public utility's Wildfire Mitigation Plan or update.

Division 300 of the OARs articulates the minimum requirements for the Plan fillings as well as the process for Commission approval of the Plans.

The Commission approved Pacific Power 2023 WMP in Order No. 23-220 and directed that the utility consult with Staff as to implementation of the recommendations and to detail in its Plan next year, the specific results of that engagement on each recommendation, and the ultimate outcome.

Analysis

This memo provides brief policy context prior to Public Utility Commission Staff's (Staff) review of the Wildfire Mitigation Plan (WMP or Plan) and proposes collaborative next steps for advancement of wildfire planning.

The memo integrates insights provided by the Climate Wildfire and Energy Strategies (CWE Strategies), the Independent Evaluator (IE), and the Company, and concludes with Staff's recommendation to approve PAC's 2024 WMP. Throughout, Staff provides recommendations and identifies additional information which should be included in PAC's 2025 WMP, shown in Attachment A. Staff also identifies opportunities for advancement of the WMPs with an eye towards effectuating meaningful, robust, and transparent wildfire plans and processes.

Staff wishes to recognize the enormous amount of work that goes into producing a WMP. PAC's 2024 WMP provides a new level of insight into the Company's wildfire planning practices. Readers gain increased understanding of the processes used to identify risk and select mitigations. Oregon's Investor-Owned Electric Utilities (IOUs or the Utilities) have been lauded for their efforts in WMP development and Plan maturity.[1] Staff appreciates the Utilities' collaborative approach to an evolving process and willingness to have open conversations about their Plans as well as a shared commitment to addressing the significant risk wildfires pose to utility infrastructure and public safety.

Background
On December 29, 2023, Pacific Power filed its WMP for the 2024 fire season with the Commission. PAC's 2024 WMP represents the third year of wildfire planning pursuant to Oregon's statutory requirement. However, it should be noted that PAC has been developing wildfire mitigation plans since 2019.[2] WMPs are reviewed for compliance with the requirements of Division 300. Staff and the Commission have recognized that Minimum requirements will likely change and expectations of providing more details used in risk analysis, cost-benefit analysis, and new technologies will expand. WMPs are viewed not as static but rather an arena for improved practices that will facilitate electric safety and reliability for the utilities and the public they serve.[3]

WMP Policy Context
Throughout its assessment of the WMP, Staff provides recommendations for advancement of the WMP process. This push for the evolution of WMPs is spurred by two main drivers: a deeper understanding of scale of the risk and cost implicated in wildfire planning and a strong desire to align WMPs with the goals and requirements of the statue.

Beyond the risk wildfires pose to life and property, they also create significant risk to the financial health of IOUs. Even large and well-established utilities, such as Pacific Gas & Electric in California,[4] may find themselves one ignition away from bankruptcy. Similarly,

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1 *Wildfire: Assessing and Quantifying Risk Exposure and Mitigation Across Western Utilities*, Stanford Climate & Energy Policy Program, May 2024, https://woods.stanford.edu/news/wildfire-assessing-and-quantifying-risk-exposure-and-mitigation-across-western-utilities.

2 Wildfire Mitigation, Oregon Public Utility Commission Website, https://www.oregon.gov/puc/safety/pages/wildfire-mitigation.aspx.

3 Order No. 22-131, *In the Matter of PacificPower 2022 Wildfire Protection Plan*, Docket No. UM 2207, April 28, 2022; Order No. 22-132, *In the Matter of Portland General Electric 2022 Wildfire Protection Plan*, Docket No. UM 2208, April 28, 2022; Order No. 22-133, *In the Matter of Idaho Power 2022 Wildfire Protection Plan*, Docket No. UM 2209, April 28, 2022.

4 PG&E Bankruptcy, California Public Utility Commission, https://www.cpuc.ca.gov/industries-and-topics/pge/pge-bankruptcy.

significant utility risk can impact the ability of an IOU to obtain insurance and access credit.[5] While on first glance, these appear to be risk specific to an individual utility, ratepayers often directly or indirectly bear these costs.

Since approval of the 2023 WMPs, Pacific Power has filed to defer billions associated with civil liability.[6] While the total amount of these costs remains unknown, due to ongoing litigation and appeals processes, Berkshire Hathaway's Securities and Exchange Commission (SEC) report estimates cumulative probable Wildfire losses at $2.4 billion through December 31, 2023.[7] Similarly, electric utilities are seeking to include increased insurance costs in rates.[8] Ratepayers also fund wildfire risk reduction efforts. Proposed WMP expenditure forecasts have risen from around half a billion dollars in the first WMP to more than 1.75 billion in the 2024 WMPs.[9] Staff raises these examples to bolster the need for robust review of WMPs, in light of significant financial impacts. Moreover, Staff believes a robust review of WMP is vital to meeting the goals and requirements of the statue.

ORS 757.963 requires a public electric utility to: "have and operate in compliance with a risk-based wildfire protection plan […] that seeks to protect public safety, reduce risk to utility customers and promote electrical system resilience to wildfire damage."[10] WMPs must, at minimum, "[i]dentify a means for mitigating wildfire risk that reflects a reasonable balancing of mitigation costs with the resulting reduction of wildfire risk."[11]

Staff recognizes the protection of public safety, reduction of risk to utility customers, and promotion of electrical system resilience as goals of the legislation rather than specific required outcomes. Staff believes to meaningfully promote these goals, WMPs must demonstrate how planned efforts will be effective at achieving stated results. Similarly, Staff views the statutory requirement to balance mitigation costs with risk reduction as

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5 *Moody's Downgrades Hawaiian Electric's Credit to Junk Amid Maui Wildfire Scrutiny*, Reuters, August 18, 2023, https://www.reuters.com/article/business/energy/moody-s-downgrades-hawaiian-electric-s-credit-to-junk-amid-maui-wildfire-scrutin-idUSNIKBN2ZT0J3/.

6 Docket No. UM 2292, *PacifiCorp Application for Authorization to Defer Costs Related to Wildfire Liability*, June 16, 2023.

7 Berkshire Hathaway, *Annual Report Pursuant to Section 13 Or 15(D) of the Securities Exchange Act Of 1934*, Note 27 to Consolidated Financial Statements-Contingencies and Comments, p. K-116, noting that estimates are before expected insurance recoveries, February 26, 2024, https://www.sec.gov/ix?doc=/Archives/edgar/data/0001067983/000095017024019719/brka-20231231.htm.

8 Docket No. UM 2301, *PacifiCorp Application for Authorization of Deferred Accounting Related to Insurance Costs*, August 21, 2023.

9 Due to inconsistent plan years and estimates these are roughly extrapolated when no information was provided.

10 ORS 757.963(1).

11 ORS 757.963(2)(b).

requiring 1) an understanding of system risk prior to any mitigation (foundational risk), 2) the ability to quantify the amount of risk reduction achieved by specific mitigation measures, and 3) demonstration that the mitigation measure selected is appropriately tailored to the risk being addressed (that another mitigation would not address the risk more cost effectively).

The Commission has repeatedly supported Staff's view of the WMP requirements, directing the Utilities to collaborate on risk valuation methodology with a long-term goal of a unified, consistent method for valuing risk versus mitigation costs.[12] While each IOU has made progress towards a cost-benefit analysis, the 2024 WMPs fall short of providing sufficient information to permit data-driven decisions to be made in the cost recovery process.[13]

Next Steps to Advance WMPs
The rate of progress is insufficient given the level of risk and magnitude of costs addressed in the Plans. Consequently, Staff believes a Commission-led process is required to ensure future WMPs realize Commission directives and facilitate a meaningful, transparent, and robust WMP process.

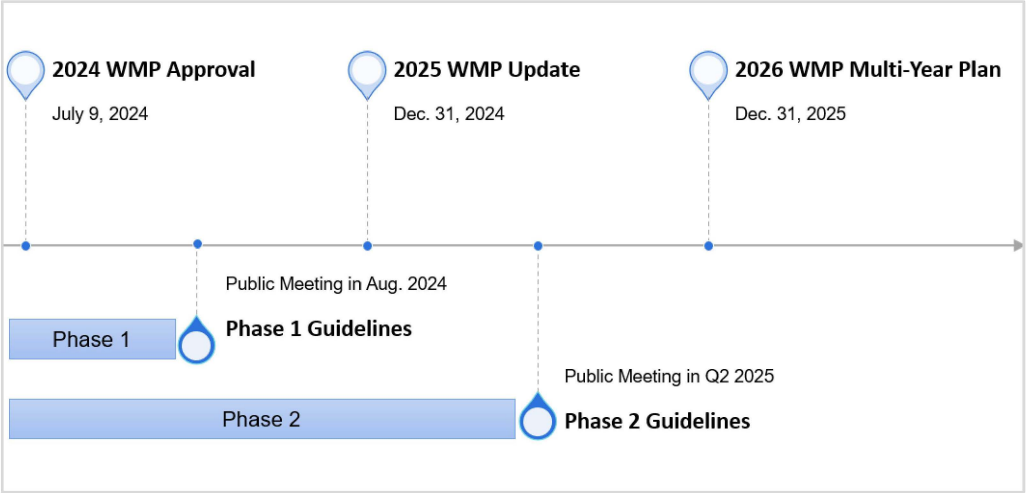
Staff is cognizant that pressures of the WMP review timeline, ambiguity in WMP requirements, and volume of data requests (DRs) provide similar challenges for the IOUs. The lack of shared processes, standards for data presentation, or consistent terminology across utilities further complicates Staff's review and poses significant hurdles to understanding wildfire mitigation efforts at a state-wide level. Thus, in addition to specific recommendations for Pacific Power, Staff offers joint recommendations which serve as a guide for advancing the WMPs and begins the process of calibrating the Utilities' risk modeling methods and creating shared expectations.

Explained in more detail in the proposed work plan for the Joint Recommendations, Attachment B, the joint recommendations focus on three main undertakings: the transition to a multi-year WMP plan, the standardization of certain WMP elements, and implementation of Staff-led WMP work group. Staff solicited input from the IOUs regarding the joint recommendations and Pacific Power, Portland General Electric, and Idaho Power all provided input as discussed in detail in the proposed work plan. Concerns expressed by all three of the Utilities surrounded the time frame for

[12] Order No. 23-220, *In the Matter of Pacific Power 2023 Wildfire Protection Plan,* Docket No. UM 2207, June 26, 2023.
[13] Docket No. UM 2207, 2024 Independent Evaluator's Report, June 12, 2024 (*hereinafter* IE Report); Order No. 23-220, *In the Matter of Pacific Power 2023 Wildfire Protection Plan*, Docket No. UM 2207, Recommendations, p. 21, June 26, 2023.

implementation of the Joint Recommendations and the Companies' use of limited resources during the fire season. Ultimately, IOU input persuaded Staff that it was infeasible to implement the recommended standardization elements or risk valuation framework in the 2025 WMPs. Consequently, Staff is proposing a two-year phased approach to implementing the joint recommendations, illustrated in Figure 1 below.

Figure 1: Implementation Timeline

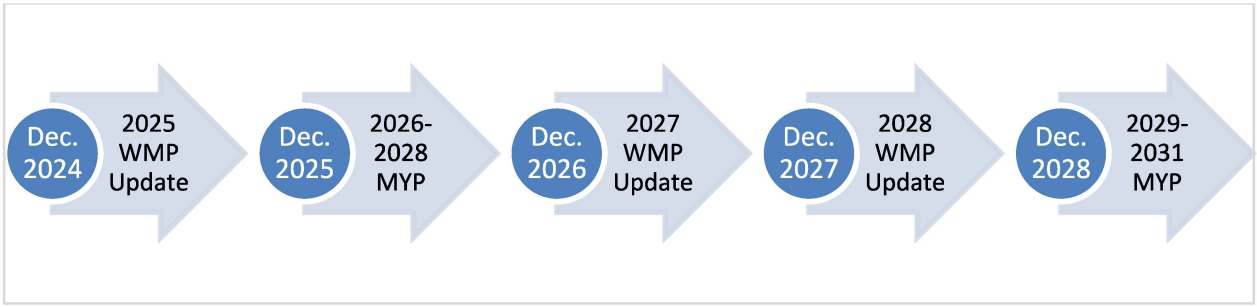


Transitioning to a multi-year Plan is necessary to address the challenges posed by the current structure of the WMP review process and the lack of data necessary to perform robust review of mitigation proposals. Staff believes another year of business-as-usual WMPs represents an inefficient use of time and resources, and consequently recommends use of a WMP Update for the 2025 fire season[14] as the appropriate procedural mechanism for enabling the Company to update its WMPs as needed, initiating the transition to standardized elements, and freeing up resources to permit IOU participation in the working group.[15]

A WMP Update would also permit the transition to a multi-year planning cycle beginning with the 2026 WMP, as shown in Figure 2. A multi-year WMP addresses the considerable time constraints associated with the Commission approving new efforts, programs, or mitigation measures only weeks before, or even after, the start of fire season.

[14] Submitted in December 2024.
[15] *See* Attachment B, Updated Process and Planning Cycle, p. 3.

Figure 2: Implementation of Multi-Year Plans for WMPs



WMP standardization consists of creating a consistent structure and terminology for the WMPs, which will make it easier to locate information within the Plans and make comparison of efforts across utilities clearer for public safety partners and other stakeholders. To that end, Staff recommends standardization of WMP reporting structure, definitions, and presentation of critical data through standard data templates. The current diversity in terminology and use of the same term to mean different things across utilities requires a level of nuanced analysis of each utility's WMP which limits their usefulness to stakeholders. Shared terminology or definitions are necessary to facilitate meaningful conversations surrounding risk in Oregon. Use of standard templates likewise ensures clear expectations of what data is required and enables an apples-to-apples comparison of mitigation efforts. Staff intends that the data templates would replace many, if not all, of the standard data requests streamlining process and workload. Similarly, use of a common structure and terminology for the WMPs will significantly reduce the number of follow up questions required to understand the approach each of the Utilities took in formulation of their WMPs.

Staff's recommendation for creating a Staff-led working group is aimed at maturing the WMPs and providing clear guidelines. Building on Staff recommendations of prior years, a risk quantification and risk-spend efficiency are the recommended focus areas for the working group. A thorough understanding of service territory and asset risk is foundational to the goal of calibrating the utilities risk modeling methods. The Working Group focus on risk quantification and risk-spend efficiency would be time limited and conclude its work with proposed guidelines for risk scoring, utility asset registries, risk model inputs, risk quantification methodology, and risk-spend efficiency methodology for Commission consideration as part of Phase 2 of implementing the Joint Recommendations.

Despite the sizable effort required to implement these changes, Staff intends that such an effort will reduce the workload for WMP review, increasing Staff bandwidth. Staff believes its Joint Recommendations are both achievable and necessary to propel

Oregon's wildfire planning forward at a speed that accounts for the magnitude of the risk.

Staff recommends using a process similar to those used in Distribution System Plans,[16] the Purchase Gas Adjustment Mechanisms,[17] and Integrated Resource Plans,[18] where a joint working group provides draft guidelines for Commission adoption.

Staff Review of 2024 WMP
Staff's analysis, detailed below, considers the Company's compliance with the WMP minimum requirements set forth in Division 300. The comments and recommended actions, reflect Staff's review of the Company's WMP, review of the IE's Report, review of Stakeholder Comments, ongoing participation in WMP workshops, and Stakeholder engagement. In addition to written stakeholder comments, Staff and the IE consulted with emergency managers in some local jurisdictions to gain insight into perceptions by the local community of the effectiveness of the Company's community outreach efforts.

The IE, CWE Strategies, was selected to serve as an Expert Witness and to provide written testimony to assist in Staff's overall analysis and review of the Plan for rule compliance, and to make recommendations about Plan approval that may include conditions (i.e. future actions and/or additional requirements/updates for inclusion in upcoming year's Plan). The IE adopted the compliance metrics used by Bureau Veritas North America, in previous years of "Met," "Substantially Met," "Partially Met," and "Not Met." Staff did not adopt this ranking system. Staff's analysis resulted in a conclusion that the utility either met the requirement or did not meet the requirements. The IE also provided insight into additional insight into the WMPs noting where the WMPs and DR responses did or did not provide information for a determination of Plan effectiveness. While considerations of effectiveness did not inform Staff's evaluation of compliance, Staff appreciates the work of the IE in illuminating areas for continued improvement and growth.

Process
Immediately after the approval of the 2023 WMPs Staff began coordinating with the IOUs on expectations for the 2024 Plans, involving four workshops for coordination on Staff's 2023 recommendations.

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[16] Order 19-104, I*n the Matter of Investigation into Distribution System Planning,* Docket No. UM 2005, March 22, 2019.
[17] Docket No. UM 1286, Staff Memo Requesting to open an investigation into the Purchase Gas Adjustment (PGA) Mechanism, November 21, 2006.
[18] Order No. 02-546, *In the Matter of the Investigation into Least Cost Planning Requirements*, Docket No. UM 1056, August 8, 2002.

Starting in November 2023, Staff engaged the utilities on the WMP process for the 2024 fire season, providing them opportunities to weigh in on the process and Staff's standard data requests.

At the IOUs' behest, the standard data requests were broken up into two sets and provided to the utilities. After requesting multiple extensions, the IOUs provided the bulk of the responses in March 2024, which left Staff with 90 days to complete the bulk of its analysis. Follow-up data requests were also required for all utilities. Where needed, Staff also hosted deep dives on focused subject areas to gain necessary details regarding the WMPs. The final deep dive occurred on May 29, 2024, leaving Staff with less than 30 days to complete its analysis. Staff believes the process exemplifies the need for clear WMP guidelines, so that Staff has sufficient time and information at the beginning of the process to permit it to perform the analysis crucial for ensuring robust and meaningful WMPs.

The WMPs, the IE Draft Report, IE Final Report, and Staff draft memo were posted to the UM 2207 docket for stakeholder input.

Staff provided drafts of its joint recommendations to the IOUs for their input and hosted workshops on June 17 and June 26, 2024, to discuss. Input from the Utilities informed revisions to Joint Recommendations, as discussed in Attachment B.

Summary of Incorporation of 2024 Plan Recommendations
In evaluating the 2024 Plan's evolution, Staff reviewed the Company's integration of the recommendations made during the 2023 Plan review. This analysis was facilitated by PacifiCorp's inclusion of Appendix B,[19] in which they referenced whether or how they considered the recommendation in the preparation of the WMP. While the Company's efforts may not exactly align with Staff's hopes for the recommendations, Staff appreciates their efforts in reconciling the Plan development against those recommendations and believes it can serve as a model for all IOUs in future WMPs. Because it serves as a strong measure for moving the Plans forward, Staff attaches its Attachment C. Staff believes that the bulk of effort needed to ensure meaningful, robust, and transparent WMPs going forward centers on is ensuring a shared understanding of expectations as Plans continue to mature. To that end, Staff hopes that jointly developed guidelines, definitions, and templates will ensure that Staff's and the Company's expectations are aligned.

[19] Docket No UM 2207, 2024 Pacific Power Wildfire Mitigation Plan, Appendix B, p. 181, December 29, 2023 (*hereinafter* PAC 2024 WMP).

Stakeholder Comments Related to Overall Plan
Staff appreciates the time, effort, and insight provided in Stakeholder comments. Recommendations submitted in comments were considered in Staff's overall review, analysis, and recommendations for Pacific Power's WMP efforts for Commission consideration.

Staff received comments in UM 2207, from Pacific Power[20] and Oregon Citizens' Utility Board (CUB). The Company's first set of comments focus on the IE report, providing additional information and clarifications on its WMP. Staff acknowledges the desire of all three IOUs to have further discussions about the role of the IE Report in the WMP process and looks forward to leading those efforts.

Pacific Power provided additional comments, July 1, 2024, on Staff's draft memo for UM2207.[21] In its comments, Pacific Power generally supports the recommendations made. However, they offered certain considerations related to risk mapping and estimation. They also made a correction to Staff's characterization of costs related to both insurance and litigation.

CUB's comments include appreciation for the content of Staff's recommendations, but pushes for Commission adoption of alternative recommendations which, among other things, would direct the IOUs to complete all the IE's Cross-Utility Recommendations for filling in their 2025 WMPs. Staff appreciates support for its general direction of the WMPs. However, Staff recognizes that certain foundational elements are not yet in place in Oregon. Specifically, risk quantification, estimation, and valuation were produced in a separate proceeding in California and accessible for determining risk reduction values, while in Oregon no such process has yet taken place.

Plan Compliance Review and Recommendations by Section

OAR 860-300-0020 (1)(a)(A) & (B):
Identified areas that are subject to a heightened risk of wildfire, including determinations for such conclusions, and are:
(A) Within the service territory of the Public Utility, and
(B) Outside the service territory of the Public Utility but within the Public Utility's right-of-way for generation and transmission assets.

Staff Analysis:
Pacific Power met the requirements of risk area identification. However they infer that more conversation and consideration of certain aspects either was done or is planned to

[20] Docket No. UM 2207, Pacific Power's Comments on IE Report, May 31, 2024.
[21] Docket No. UM 2207, Pacific Power's Comments on Draft Staff Memo, July 1, 2024.

be done (such as climate modeling and risk assessment validation). Staff would appreciate greater precision when conversations occurred, what was learned in those conversations and how it changed or validated the products they've developed. Further, Staff is interested in exploring the calculation of circuit composite risk. Figure 5 shows how they envision the risk elements being considered,[22] while Table 5 identifies the top 20 circuits, based on composite scores.[23] Further review highlighted an area Staff would like to explore relating to circuits with no wind driven expectations (such as 5C9), but with substantial fuel/terrain-driven ranking. Since PacifiCorp adds those scores together, it results in elevated ranking in spite of no wind expectations. This seems to conflict with the general notion that utility ignition risk occurs under generally wind-driven conditions. After further analysis, Staff determined that the top two ranked circuits in Table 5 are less than a mile long, leading Staff to question the role of exposure length in circuit risk ranking.

The IE provides its recommendations on ORS 860-0300-0020(1)(a)(A) and (B) in Section 3.1 of the IE report.[24] Staff agrees with the IE's recommendation regarding the need for PAC to both explain how it models climate change impacts on fuels, and its impact on high fire risk areas, particularly since the prioritization and implementation of hardening for long-term benefit relies on well-informed climate change models. The IE also recommends PacifiCorp provide greater clarity in how subject matter expertise is integrated into the risk modeling process.

Staff anticipates that upon completion of Joint Recommendation K, the model inputs, short term and longer-term climate, weightings and asset history and its role in asset prioritization will be able to be detailed in the 2026 WMP and with the completion of Joint Recommendation L will result in a listing by circuit, circuit segment or asset of risk. As the IOUs and Staff continue to evolve the WMP maturation in Joint Recommendation M, further quantification regarding risk buy-down will become possible.

Staff Recommendations for Pacific Power:

1) Provide information on how climate change impacts are anticipated to influence fire risk area designation over the long term.
2) Identify which risk modeling processes are informed solely by accepted data models and which are adjusted by subject matter experts. For processes adjusted by subject matter experts, describe how they are adjusted. Provide demonstration of how subject matter expert input has informed the model by comparing and contrasting the output of those processes.

[22] PAC 2024 WMP, Figure 5, p. 24.
[23] Id., Table 5 p. 33.
[24] IE Report, p. 9.

3) Provide information about the development of composite risk scores which outlines when any addition, versus multiplication, of risk score components is best used to develop a single metric. In the case of 5C9 circuit segment (or any other circuit having negligible wind impacts), please explain how the risk of wind is being appropriately accounted for in the risk ranking of circuits. Also please explain how the length of circuit exposure, is factored into the risk ranking of circuits.

OAR 860-300-0020 (1)(b):
Identified means of mitigating wildfire risk that reflects a reasonable balancing of mitigation costs with the resulting reduction of wildfire risk.

Staff Analysis:
Pacific Power met the requirements to outline how it uses relevant data to inform its prioritization process for mitigation measures. It seems to rely on reasonable data for which the Plan provides both updates and data governance processes. Although Pacific Power appears to perform a detailed analysis to select and prioritize mitigations, there is no information provided that suggests a comparison of various mitigation options.

Pacific Power states that it intends to use data analytics to further inform and refine its mitigation decisions and appears to outline a vision for evolving based on data-informed processes. In 2023, Staff observed that PacifiCorp discussed the wildfire investment strategy, the use of data analytics and for 2024 they have provided the rankings at a circuit level. The Staff concern addressed in 2023 still stands in that in its original plans, Pacific Power identified its intention to complete a large amount of covered conductor over a five-year period. However, at this time, it indicates that it has only completed 91 miles of that work and has forecast a lowered annual design and construction estimate (from its first Plans in 2022), ramping back substantially its annual estimates of mileage completion, while simultaneously dramatically increasing the Plan cost. It is noteworthy that this is done without very detailed explanation of the change, nor reflections on the completed mileage costs and how that dovetails with these forecast costs.

In 2023, Staff recommended in order to ensure alignment between spend and priorities, especially given the slower pace of implementation, that Pacific Power facilitate the joint IOUs in developing a risk spend efficiency methodology collaborating with the other IOUs. Staff continues to believe this is one of the most critical elements that the state needs to advance to ensure alignment of spend that will result in both short-term and long-term actions performed in a manner that buys down risk most efficiently.[25] As a

[25] In its 2023 Staff memo and Order, Staff identified that the utilities develop a method for RSE "that is extensible into other risk areas, including resilience, DSP, CEP, and core investment activities. This

result, Staff believes it needs to participate in a more substantial role in leading the development of that work.

Plan Year	2022 Plan (12/31/2021)	2023 Plan (12/29/2022)	2024 Plan (12/29/2023)
Actuals to Date		$3.6 million	$3.6 million $22.44 million
5 Yr Plan Covered Conductor Estimate	$308.4	$325.3 million	$568.75 million
Actual Mileage to Date		2	91
5 Yr Plan Mileage	650	625	625
Plan Design Mileage 2022			
Actual Design Mileage 2022		91	
Plan Constructed Mileage 2022	150		
Actual Constructed Mileage 2022		2	
Plan Design Mileage 2023		125	
Actual Design Mileage 2023			125
Plan Constructed Mileage 2023	150	89	
Actual Constructed Mileage 2023			89
Plan Design Mileage 2024		125	125
Actual Design Mileage 2024			
Plan Constructed Mileage 2024	150	125	125
Actual Constructed Mileage 2024			
Plan Design Mileage 2025		125	125
Actual Design Mileage 2025			
Plan Constructed Mileage 2025	150	125	125

methodology should explicitly calculate the risk buy-down that occurs with the investment and should be comparable against other risk mitigation measures. To the extent that the valuation includes non-monetary utility benefits, or non-utility monetary or non-monetary benefits, such as community benefit indicators (CBI) that were explored in UM 2225, they should be incorporated into the methodology."

Actual Constructed Mileage 2025			
Plan Design Mileage 2026		125	125
Actual Design Mileage 2026			
Plan Constructed Mileage 2026	150	125	125
Actual Constructed Mileage 2026	Additional 550 miles planned over next several years (beyond 5 year plan range)		
Plan Design Mileage 2027		125	125
Actual Design Mileage 2027			
Plan Constructed Mileage 2027		125	125
Actual Constructed Mileage 2027			
Plan Design Mileage 2028		Additional 125 (3.4% of Oregon overhead	125
Actual Design Mileage 2028			
Plan Constructed Mileage 2028			125
Actual Constructed Mileage 2028			

Given the substantial impact that Public Safety Power Shutoff (PSPS) has, particularly in areas having historic wildfire risk, this protracted period seems unacceptable for these communities. Further, Pacific Power has now identified that PSPS can happen anywhere in its territory, which further extends the likelihood of additional mitigation activities well beyond the originally suggested eight-year period.

Staff agrees with the IE's recommendations for OAR 860-300-0020 (1)(b), Section 3.2, that Pacific Power should improve clarity around several items that pertain to risk quantification. In Recommendation 3, Staff outlined interest in better details explaining how composite risk scores are calculated (whether additive or multiplicative of input elements) and the granule at which those scores are calculated, such as the zone of protection in addition to circuit scoring (and ranking). This recommendation focuses on the need for greater analysis (or discussion of analysis) regarding risk drivers, such as contact from objects (which may or not result in wire down), that are the result of vegetation or other triggering events. As these calculations are being made, they need to recognize the current state of fuels, including recently burned areas or those under stress due to short-term climate impacts.[26] The IE also notes the importance of demonstrating the cumulative effect of the Top 20 circuits (compared to the entirety of

[26] IE Report, p. 12.

the system) and the relative risk after mitigations are completed. Another area the IE references is in regard to the long-range plan, as well as the uncertainty of later-year work and its priority. Better explanation (and demonstration) is needed of the process Pacific Power intends as they develop better risk valuation methods and refine the Plan while concurrently executing on the legacy plan. Finally, Staff agrees that as risk-spend efficiency (RSE) is developed, PAC's Appendix D[27] needs to be updated with the risk buy down.

Staff Recommendations for Pacific Power:

4) Detail if and how ignition risk drivers, including equipment failure and contact from objects, are further investigated by the Company. Describe how any additional investigation or analysis is used to inform mitigation plan selection.
5) Provide the effect of short-term fuel (such as related to recently burned areas on the seasonal, short-term, and long-term risks. Clarify how these effects (such as the absence or existence of fuel for a short period) inform selection of mitigations, whether operational actions (such as Public Safety Power Shutoff) or long-term actions (such as reconductoring). Explain how later year work will be executed since the WMP describes the need for Plan modification but does not clearly outline what the output is.
6) Provide a state-wide listing of circuit risks (or circuit segments or circuits zones of protections), cumulatively, and demonstrate the risk reduction intended after the mitigations outlined have been completed (Table 5 for Top 20 and Appendix D updated).
7) Provide details on any grants received and their impact on plan costs and impact to customer rates.

Staff expects that upon completion of Joint Recommendation K, the model inputs, weightings, and asset history, and its role in asset prioritization will be able to be detailed. As the IOUs and Staff continue to evolve the WMP maturation in Joint Recommendation M, further quantification regarding risk buy-down will become possible.

OAR 860-300-0020 (1)(i):
Identification of the development, implementation, and administrative costs for the plan, which includes discussion of risk-based cost and benefit analysis, including consideration of technologies that offer co-benefits to the utility's system.

[27] PAC 2024 WMP, Appendix D, p. 210.

Staff Analysis:
Pacific Power met the requirement of this rule by providing a description of costs as well as tables that show the forecasted budget over a five-year period; this was augmented by a matrix of investments it plans to make over a five-year horizon. The WMP discussed potential co-benefits of investments and opined on examples of the benefits of planned investments.

Staff agrees with the IE's recommendations for OAR 860-300-0020 (1)(i), which was addressed in Section 3.2, that greater discussion about the mitigations chosen and the expected risk reduction, notably preparation of a cumulative risk curve and the buy-down amount for the various proposed measures would be useful. Building upon Pacific Power's Table 5 of 20 highest risk circuits with further zone of protection level details would also be helpful to explain actions being taken. Further, clarity about the use of grants and their impacts to wildfire mitigation cost estimates would be beneficial for stakeholders.[28] Staff recommendations for this section are contained above.

This area of the Plan could benefit from further details describing why each mitigation approach was deemed best. Staff and believes this is an area worthy of dedicated focus by the IOUs and Staff. Notwithstanding this observation, standard tables that are expected to be completed with Plan submittal could ensure that IOUs and Staff are assembling and reviewing supporting information consistently.

Again, Staff expects that upon completion of Joint Recommendations K and L, the model inputs, weightings and asset history and its role in asset prioritization will be able to be detailed. Joint Recommendation M, addresses need for additional mitigation information, facilitating quantification of risk buy-down in future WMPs.

OAR 860-300-0020 (1)(c):
Identified preventative actions and programs that the utility will carry out to minimize the risk of the utility's facilities causing wildfire.

Staff Analysis:
Pacific Power met this requirement by identifying preventative actions and programs that the Company will carry out to minimize the risk of its facilities causing wildfire. The preventative programs implemented by Pacific Power enables the Company to set its priorities to reduce the wildfire risk. These activities include the line rebuild program, advanced system protection and control, and expulsion fuse replacement. These are augmented by situational awareness, wildfire risk modeling, inspection and correction programs, vegetation management, and early fault detection technology. Pacific Power

[28] IE Report, p. 20.

describes how each action minimizes the risk of utility facilities causing a wildfire, and in many cases provides graphics of work achieved to date.

Consistent with feedback last year, there is no detail to allow Staff or stakeholders to understand both short term progress against the year's plans, as well as long-term commitments to these actions and their individual or programmatic impact to wildfire risk reduction. Staff still appreciates the program-level detail provided in Tables 37 and 38 and recommends them as a common reporting structure (with some slight modifications) for each of the IOU's plans. While Staff recognizes that plans are evolving, as is much of the underlying science and risk modeling principles, there is importance in preparing long-term plans but being flexible to make changes to those plans when it is demonstrably better than the prior version. When those changes are made, such changes need to be clearly communicated and there needs to be fidelity between the plan versions so that an equivalent comparison can easily be made.

Staff agrees with the IE's recommendations for OAR 860-300-0020 (1)(c), Section 3.3, that Pacific Power should explain its actions in several areas. The recommendations include clarifying how it engages in partnerships that improve fuel load. Other recommendations in this section focus on new and evolving technology and the importance of communicating the plans and how they are being strategically deployed. Specifically, the use of camera detection networks, system settings (i.e.EFR), early fault detection, and CFCI were discussed in the Plan, but further rationalization of why the actions were advanced (and if deferred, such as seems the case with CFCIs), why that deferral was necessary.[29]

Staff anticipates that asset level priorities will be informed by the work being proposed in Joint Recommendations K and L, with program level information in Joint Recommendation F, and that mitigation selection and the resulting risk will benefit from the WMP maturation in Joint Recommendation M, while the pilot development explanation will be guided by Joint Recommendation J.

Staff Recommendations for Pacific Power:

8) Explain the company's experience with deployment of CFCIs and explain the lack of installations in 2023.

OAR 860-300-0020 (1)(d):
Discussion of the outreach efforts to regional, state, and local entities, including municipalities, regarding a protocol for the de-energization of power lines and adjusting

[29] IE Report, pp. 13-14.

power system operations to mitigate wildfires, promote the safety of the public and first responders, and preserve health and communication infrastructure.

Staff Analysis:
Pacific Power met the requirement to outreach to communities regarding PSPS, including providing information regarding situational awareness. Pacific Power notified the Staff when it launched its partner portal and Staff has been able to register to obtain information as it is posted for Public Safety Partners. Pacific Power explained its outreach efforts to regional, state, and local entities regarding de-energization of power lines.[30] The WMP includes, among other things, a general list of the critical partners/entities, general description of the content of the outreach, cadence of outreach, and how the Company will support emergency alert efforts. In addition, the Company describes how it may support a community impacted by de-energization (i.e. through Community Resource Centers or CRCs). It also provided graphics demonstrating how it broadly messaged PSPS ensuring all communities and partners had access to this information.[31] Pacific Power demonstrated how it implemented Staff Recommendation 13 from 2023[32] regarding public safety partner tracking and the resultant actions.[33]

Staff agrees with the IE's recommendations for OAR 860-300-0020 (1)(d) that the WMP would be strengthened by specifics surrounding use of the incident command system, maintenance of public safety partner contacts, use of the partner portal, and feedback on the various exercises PAC conducted with its public safety partners.[34]

Each of the IOUs has made advancements in these processes and believes it valuable to intersect and leverage each of the practices used by the companies. First, Pacific Power appears to have struck the balance with in-person communication in hosted community events describing its WMP, and it has livestreamed and recorded these in English, Spanish, and American Sign Language (ASL) and made them readily available on their website. Next, Idaho Power's efforts have been successful at person-to-person interactions between operations Staff and public safety partners. Lastly, Portland General Electric has developed an effective "road show" approach for conveying elements of their WMP coincident with regional safety fairs. Each of these methods delivers information in ways that benefit communities and in aggregate, can become a

[30] PAC 2024 WMP, p. 136.
[31] *Id.*, Figure 68, p. 136.
[32] Order No. 23-220, *In the Matter of Pacific Power 2023 Wildfire Protection Plan*, Docket No. UM 2207, June 26, 2023.
[33] PAC 2024 WMP, Appendix G, p. 234.
[34] IE report, p. 15.

model for transparency, information exchange and will help communities better prepare as circumstances and the electrical networks change.

Staff anticipates that work being proposed in Joint Recommendations O and Q and the resulting best practice methods will afford PAC the opportunity to discuss this aspect in their plan more fully in the future.

Staff Recommendations for Pacific Power:

9) Explain how the company determines who qualifies as a public safety partner. Describe how Pacific Power manages contact lists to ensure the ability to make contact, including primary and secondary contact methods. As the Public Safety Partners portal evolves, ensure discussions with Public Safety Partners includes how the portal helps to make such contact more reliable and effective.

OAR 860-300-0020 (1)(e):
Identified protocol for the de-energization of power lines and adjusting of power system operation to mitigate wildfires, promote the safety of the public and first responders, and preserve health and communication infrastructure.

Staff Analysis:
Pacific Power met the requirement to describe its PSPS protocol by explaining the stages of a PSPS event and the actions taken within each step.[35]

The WMP builds upon the Company's experience with PSPS and includes an overview of actions, including those leading up to a PSPS through the point when power is restored. PAC provided details on considerations which informed the development of each stage of a PSPS, identified Company personnel and external resources involved in PSPS actions, provided the length of each PSPS stage or action, and noted known vulnerabilities.

PAC's WMP describes plans to modify certain operational practices during a PSPS. The use of different practices when fires are "encroaching" or otherwise near Company facilities is new and will result in communities being impacted differently than in the past. Similarly, the application of EFR reclosers and "sensitive settings" results in a level of system reliability different from historic performance. Changes in how the system is operated results in different consequences for communities and customers which needs

[35] In its 2024 WMP, Pacific Power describes its PSPS program in Section 8. Public Safety Power Shutoff Program, and specifically details communications in Section 8.5, but the subject is also touched on in other sections of the plan.

to be more broadly shared. Thus, greater outreach and communication around modification of operational practices may be appropriate.

Also, to the extent that the Company has information through its deployment of situational awareness tools (be it weather stations, relays, communicating faulted circuit indicators, or early fault detection sensors), it should consider appropriate methods for sharing these insights with communities to inform them of likelihood of a PSPS. Further, Staff believes that Pacific Power should consider how to integrate its online presentation of content to more seamlessly communicate refinements to its operations. For instance, links between its PSPS webpage, its weather webpage and outage map might make it simpler for customers and communities to be apprised as PAC alters its operation protocols.

Staff agrees with the IE's recommendations for OAR 860-300-0020 (1)(e) that PAC's WMP would benefit from greater clarity around if and how the Company leverages relationships with community-based organizations (CBOs) to identify vulnerable customers and communities. This could include a listing of CBOs who partner with the Company on information dissemination processes, as well as venues the Company has used to inform CBO partners and what the outcomes from those efforts were.[36]

Staff wishes to recognize the improvements made by Pacific Power and the Utilities in the work performed to align on common messaging for PSPS. In its 2023 Staff Memo, suggested that common messaging was important.[37] Pacific Power facilitated a work group focused on PSPS which included the IOUs, several COUs, and public safety partners. This led to template language, reviewed by partners, which permits quick and consistent communication of PSPS information by the IOUs. The template also provides public safety partners a model language should they need to amplify such messages to their communities. Staff views this as a substantial step forward and hopes the success of these efforts will serve as a jumping off point for future electric utilities coordination towards consistent messaging.

Staff anticipates that work proposed in Joint Recommendations O and Q and the resulting best practice methods will provide valuable learning and PAC is encouraged to continue to discuss these advancements in future WMPs.
Staff Recommendations for Pacific Power:

10) Provide information regarding its use of Community Based Organizations to provide additional information relevant to vulnerable populations beyond those in its own system, as well as leveraging Community Based Organizations to

[36] IE report, p. 16.
[37] Order No. 23-220, Staff Recommendation 16, p. 21.

communicate opportunities for customers to self-identify for advance notice of Public Safety Power Shutoffs.

11) Continue to evaluate effectiveness of outreach and determine optimal methods to inform communities and customers about Public Safety Power Shutoffs and other operational changes.
12) Outline the strategy for restoration actions, should a Public Safety Power Shutoff be required, that will minimize the duration of the event. Examples of such actions include increasing isolation points, placing weather stations or other devices that increase situational awareness, and prepositioning resources to effectuate more rapid restoration.
13) Detail information regarding battery rebate program and its effectiveness.

OAR 860-300-0020 (1)(f):
Identification of the community outreach and public awareness efforts that the utility will use before, during, and after a wildfire season.

Staff Analysis:
Pacific Power utilizes a wide range of communication methods to meet the requirements for community outreach and public awareness before, during and after fire season. Much of the Company's communication strategy is informed by customer awareness surveys, which provide a substantial body of information on communication effectiveness.

Staff agrees with the IE's recommendations for OAR 860-300-0020 (1)(f), that PAC's WMP would benefit from further analysis of the effectiveness of outreach and additional details around the survey that informs the Company's effectiveness assessment. Similarly PAC should communicate how survey administrator input has informed the Company's survey questions and approach. Given that PSPS could occur anywhere in PAC's service territory, it is important to understand whether community messaging is reaching those areas which have not yet been identified as wildfire risk areas. Therefore, more disaggregation of the survey results by such factors should be conducted and the results provided to inform the future plans for communicating.[38]

OPUC recognizes and appreciates the evolution each of the operators has taken in connecting with their communities to support them during periods of elevated fire risk. They have created a variety of communication collateral and shared those experiences when asked. OPUC believes many other operators could benefit from greater awareness of the materials and processes developed and the learnings that led to them. For instance, Idaho Power found realignment of timing to better inform and

[38] *See* IE report, p. 17.

coordinate with their PSPs was wise. Additionally, Portland General Electric and Pacific Power guided the development of common PSPS messaging. Sharing of translated content also appears relatively consistent.

Staff anticipates that work proposed in Joint Recommendations O and Q and the resulting best practice methods will provide valuable learning and PAC is encouraged to continue to discuss these advancements in future WMPs.

Staff Recommendations for Pacific Power:

14) Provide information regarding its use of Community Based Organizations to complement information relevant to vulnerable populations beyond those in its own system, as well as leveraging Community Based Organizations to communicate opportunities for customers to self-identify for advance notice of Public Safety Power Shutoffs.

OAR 860-300-0020 (1)(g):
Description of procedures, standards, and time frames that the Public Utility will use to inspect utility infrastructure in areas the Public Utility identified as heightened risk of wildfire.

Staff Analysis:
Pacific Power met the requirements for inspection and correction, however consistent with the other IOUs, PAC's WMP clearly demonstrate the data that drove the decisions surrounding its inspection program nor quantifies risk reduction attributable to it inspection program. PAC asserts that halving of its traditional inspection cycle in fire risk areas successfully locates more energy-release conditions. In addition, PACs WMP described its intention to move such analysis forward in its responses to 2023 Staff Recommendations.[39]

Staff agrees with the IE's recommendations for OAR 860-300-0020 (1)(g), Section 3.7, that greater discussion about inspection cadence and timing for assets that are within fire risk areas should be part of the plan and founded upon analysis that determines optimal inspection, in addition to corrections taking place and that it should incorporate ignition history and ignition risk drivers.[40]

Staff anticipates that work being proposed in Joint Recommendation M will assist in establishing the risk buydown associated with inspection and correction activities, while

[39] Order No. 23-220, Staff Recommendation 19 and 20, p. 21.
[40] IE Report, p. 19.

Joint Recommendation G will drive toward consistency in reporting on those activities in future WMPs. Joint Recommendations J and M, relating to piloted technologies, will similarly benefit inspection and correction work and inform asset ignition risk. PAC is encouraged to continue to discuss these advancements in future WMPs.

Staff Recommendations for Pacific Power:

15) Pacific Power should continue to develop analytics to support optimal inspection and correction actions for designated risk areas or identified assets that may result in fire risk (including equipment specifics or circuit segments). Data should support decisions on selection of the various inspection types (such as survey/patrol inspections, detail inspections, LiDAR, or drone-assisted visual surveys), the promptness or timing of corrections, as well as the quality assurance done to validate the program effectiveness. The Company should provide information about the development of these analyses and demonstrate how they maintain and operate the system.

OAR 860-300-0020 (1)(h):
Description of the procedures, standards, and timeframes that the utility will use to carryout vegetation management in areas it has identified as heightened risk of wildfire.

Staff Analysis
Pacific Power met the requirements to provide vegetation management program details. However, consistent with the other IOUs, PAC does not demonstrate how this was the result of a data-driven approach. The WMP describes improvement made in the vegetation management program in 2023 and details plans to further address risk from vegetation.

Staff agrees with the IE's recommendations for OAR 860-300-0020 (1)(h), that greater discussion about the reasons supporting increased vegetation management actions, such as expanded clearances, use of radial pole clearing and vegetation patrol frequency, have been selected.[41] And while detailed data may not yet exist, anecdotal evidence of the value delivered to a more durable electrical system would help bolster the confidence in the plan.

Staff anticipates that work being proposed in Joint Recommendation M will assist in establishing the risk buydown associated with vegetation management efforts, while Joint Recommendation H will drive toward consistency in reporting on vegetation management activities in future WMPs. Joint Recommendations I and J, relating to

[41] IE Report, p. 20.

piloted technologies, will similarly benefit vegetation management work and inform asset risk related to vegetation contacts. Pacific Power is encouraged to continue to discuss these advancements in future WMPs.

Staff Recommendations for Pacific Power:

16) Staff recommends that vegetation actions and their timing be outlined and explain what led to that approach with any explanation for validating those tactics. As underlying data analytics are developed which further validate or modify the elements of the vegetation management program, provide updates, and reconcile against historic program actions.
17) Staff recommends that Pacific Power engage as outlined in Joint Recommendations K and L to quantify segment or zone of protection level risk for its assets and utilize these results to evolve its Table 5,[42] Top 20 circuit risk; with this approach, develop a system-wide view of the segment/zone of protection/circuit risk as an input into current and future prioritization efforts.

OAR 860-300-0020 (1)(j):
Description of participation in national and international forums, including workshops identified in section 2, chapter 592, Oregon Law 2021, as well as research and analysis the utility has undertaken to maintain expertise in leading edge technologies and operational practices, as well as how such technologies and operational practices have been used to develop and implement cost effective wildfire mitigation solutions.

Staff Analysis:
Pacific Power met the requirement of this rule by explaining its engagement in industry collaboration. Staff applauds PAC's implementation of the International Wildfire Risk Mitigation Consortium (IWRMC) maturity model and find it provides significant value to the WMP.

Staff agrees with the IE's recommendations for OAR 860-300-0020 (1)(j) that more explanation of the types of emerging technologies that the Company is piloting, including their states of deployment and costs, would be beneficial.[43] However, Staff believes this recommendation is best developed and implemented across the utilities.

Staff anticipates that proposed Joint Recommendation M will assist in establishing the risk buydown associated with new technologies. Joint Recommendation I will drive toward consistency in reporting on those activities in future WMPs, as will Joint

[42] PAC 2024 WMP, Table 5, p. 33.
[43] IE Report, p. 21.

Recommendation J, relating to any technologies that are piloted by Pacific Power or other IOUs.

OAR 860-300-0020 (1)(k):
Description of ignition inspection programs, as described in Division 24 of these rules, including how the utility will determine, and instruct its inspectors to determine conditions that could pose an ignition risk on its own equipment and pole attachments.

Staff Analysis:
Pacific Power met the requirement related to ignition prevention inspections, except for ignition risk. Staff agrees with the IE's recommendations for OAR 860-300-0020 (1)(k) regarding the importance of using asset history, outages, investigations, and other data to improve the program.[44]

Staff anticipates that work being proposed in Joint Recommendation M will assist in establishing the risk buydown associated with inspection activities. Joint Recommendations G and I will drive toward consistency in reporting on those activities in future WMPs, as will Joint Recommendation J, relating to any technologies that are piloted by Pacific Power or other IOUs that benefit inspection and correction work and inform asset ignition risk. Pacific Power is encouraged to continue to discuss these advancements in future WMPs.

Conclusion

Staff recommends approval of PAC 2024 WMP. Staff provides its observation on modifications to be included in Pacific Power's 2025 WMP and identifies them in Attachment A.

As demonstrated each year during fire season, wildfire risks are substantial and widely impactful. A meaningful, transparent, and robust WMP process is necessary to address these risks and associated costs. Staff appreciates the significant undertakings by the Company in developing its Plan and implementing a host of mitigation measures. However, without thorough and consistent information provided in the wildfire mitigation plans, Staff is unable to assess whether the measures the utility is taking address the risk and/or are economically justifiable. Staff believes that the Joint Recommendations will facilitate detailed exploration of risk and clear demonstration of the logic supporting mitigation selection decisions in future WMPs, and support the shared growth among the Utilities, stakeholders, and regulators.

[44] *Id.*, pp. 22-23.

While Staff recommends the Commission accept PAC's 2024 WMP, Staff's review makes no judgement on reasonableness. Commission acceptance of the Plan does not constitute a determination on the prudence of any individual actions discussed in the Plan. Staff understands that those individual actions, including project specific data, will be reviewed through the cost recovery process.

PROPOSED COMMISSION MOTION:

Approve Pacific Power's 2024 Wildfire Mitigation Plan. In addition, direct Pacific Power to take the following actions advancing future Wildfire Mitigation Plans:

1. Implement identified Staff's recommendations into its 2025 WMP;
2. Provide input to Staff on proposed standard data templates and procedural guidelines for inclusion in WMP guidelines (2025 WMP);
3. Participate in a Staff-led process establishing proposed guidelines which clarify expectations and standards for risk quantification and risk-spend efficiency (2026 WMP); and
4. Work jointly to propose a standardized WMP format and set of definitions and submit to Staff for inclusion in WMP guidelines (2026 WMP).

Staff Recommendations for Pacific Power
Attachment A

1) Provide information on how climate change impacts are anticipated to influence fire risk area designation over the long term.
2) Identify which risk modeling processes are informed solely by accepted data models and which are adjusted by subject matter experts. For processes adjusted by subject matter experts, describe how they are adjusted. Provide demonstration of how subject matter expert input has informed the model by comparing and contrasting the output of those processes.
3) Provide information about the development of composite risk scores which outlines when any addition, versus multiplication, of risk score components is best used to develop a single metric. In the case of 5C9 circuit segment (or any other circuit having negligible wind impacts), please explain how the risk of wind is being appropriately accounted for in the risk ranking of circuits. Also please explain how the length of circuit exposure, is factored into the risk ranking of circuits.
4) Detail if and how ignition risk drivers, including equipment failure and contact from objects, are further investigated by the Company. Describe how any additional investigation or analysis is used to inform mitigation plan selection.
5) Provide the effect of short-term fuel (such as related to recently burned areas on the seasonal, short-term, and long-term risks. Clarify how these effects (such as the absence or existence of fuel for a short period) inform selection of mitigations, whether operational actions (such as Public Safety Power Shutoff) or long-term actions (such as reconductoring). Explain how later year work will be executed since the WMP describes the need for Plan modification, but does not clearly outline what the output is.
6) Provide a state-wide listing of circuit risks (or circuit segments or circuits zones of protections), cumulatively, and demonstrate the risk reduction intended after the mitigations outlined have been completed (Table 5 for Top 20 and Appendix D updated).*
7) Provide details on any grants received and their impact on plan costs and impact to customer rates.
8) Explain the company's experience with deployment of CFCIs and explain the lack of installations in 2023.
9) Explain how the company determines who qualifies as a public safety partner. Describe how Pacific Power manages contact lists to ensure the ability to make contact, including primary and secondary contact methods. As the Public Safety Partners portal evolves, ensure discussions with Public Safety Partners includes how the portal helps to make such contact more reliable and effective.
10) Provide information regarding its use of Community Based Organizations to provide additional information relevant to vulnerable populations beyond those in its own system, as well as leveraging Community Based Organizations to communicate

(*) Indicates that the recommendation falls within Phase 2 of implementation of Joint Recommendations or does not seek additional information, and is not necessary to address in the 2025 WMP.

opportunities for customers to self-identify for advance notice of Public Safety Power Shutoffs.

11) Continue to evaluate effectiveness of outreach and determine optimal methods to inform communities and customers about Public Safety Power Shutoffs and other operational changes.
12) Outline the strategy for restoration actions, should a Public Safety Power Shutoff be required, that will minimize the duration of the event. Examples of such actions include increasing isolation points, placing weather stations or other devices that increase situational awareness, and prepositioning resources to effectuate more rapid restoration.
13) Detail information regarding battery rebate program and its effectiveness.
14) Provide information regarding its use of Community Based Organizations to complement information relevant to vulnerable populations beyond those in its own system, as well as leveraging Community Based Organizations to communicate opportunities for customers to self-identify for advance notice of Public Safety Power Shutoffs.
15) Pacific Power should continue to develop analytics to support optimal inspection and correction actions for designated risk areas or identified assets that may result in fire risk (including equipment specifics or circuit segments). Data should support decisions on selection of the various inspection types (such as survey/patrol inspections, detail inspections, LiDAR, or drone-assisted visual surveys), the promptness or timing of corrections, as well as the quality assurance done to validate the program effectiveness. The Company should provide information about the development of these analyses and demonstrate how they maintain and operate the system.*
16) Staff recommends that vegetation actions and their timing be outlined and explain what led to that approach with any explanation for validating those tactics. As underlying data analytics are developed which further validate or modify the elements of the vegetation management program, provide updates, and reconcile against historic program actions.
17) Staff recommends that Pacific Power engage as outlined in Joint Recommendations K and L to quantify segment or zone of protection level risk for its assets and utilize these results to evolve its Table 5, Top 20 circuit risk; with this approach, develop a system-wide view of the segment/zone of protection/circuit risk as an input into current and future prioritization efforts.*

Timeframe for addressing Staff Recommendations:

	Recommendations:
Address in 2025 WMP	1-5, 7-14, & 16
Address in 2026 WMP (denoted with *)	6, 15, & 17

(*) Indicates that the recommendation falls within Phase 2 of implementation of Joint Recommendations or does not seek additional information, and is not necessary to address in the 2025 WMP.

Joint Recommendations for Advancing Wildfire Mitigation Plans
Attachment B

Summary

The Commission has adopted a characterization of the wildfire mitigation plan (WMP or Plan) process as a journey, evolving over time. Staff's Joint Recommendations represent a sizable step forward on that journey and a systematic shift towards Commission-guided maturation. The 2023 and 2024 WMPs have highlighted shared struggles associated with the lack of detail or clarity in the administrative requirements (OAR 860-300-0020), the quantity of data being requested by Staff through the data request process, inconsistent evaluation criteria from independent evaluators (IE), the number and prioritization of recommendations provided to each utility, as well as constrained timelines for WMP review. Public Utility Commission Staff's (Staff) Joint Recommendations seek to clarify and streamline the WMP process, with an eye towards reducing workloads for Staff and the investor-owned electric utilities (IOU or utilities) and better aligning process with the timeframe allotted for evaluation of the Plans. Staff's recommendations for advancing Oregon's WMPs are summarized in the table below and then subsequently addressed in detail. Staff plans that each area of effort would result in proposed guidelines or templates for Commission consideration.

Table 1: Summary of Joint Recommendations

Phase	Effort Areas	Recommendation	Outcome	Leading
1	Process and Planning Cycle	Updated Process	Guidance for procedural steps WMP evaluation	Staff
		Updated Planning Cycle	Guidance on how to transition to multi-year planning	Staff
	Standardization of Elements	Data Templates	Templates which identify the appropriate information and level of granularity for data required in the WMP	Staff
2	Standardization of Elements	Shared Terminology	Glossary of shared terminology that can be used across WMPs	Utilities
		Shared Format	A format guide which adopts uniform chapter and section headings, as well as other agreed upon organizational features.	Utilities
	Working Group	Risk Quantification & Risk-Spend Efficiency	Guidance on risk quantification and a uniform risk-spend valuation methodology	Staff

Process for Implementation of Joint Recommendations

Staff's vision for the wildfire mitigation planning process is not to implement a top-down approach with prescriptive outcomes, but rather to provide the framework and language which enables clear communication and understanding of the WMPs. Implementation of the Joint Recommendations will require effort to align existing internal and external processes and communications with the resulting guidelines, the costs of such an effort are significantly outweighed by the benefits to the public. The risk of wildfires is too significant for the Commission to lack visibility into quantity of risk reduction or cost effectiveness of the WMPs.

Staff proposes that an appropriate WMP process should be:

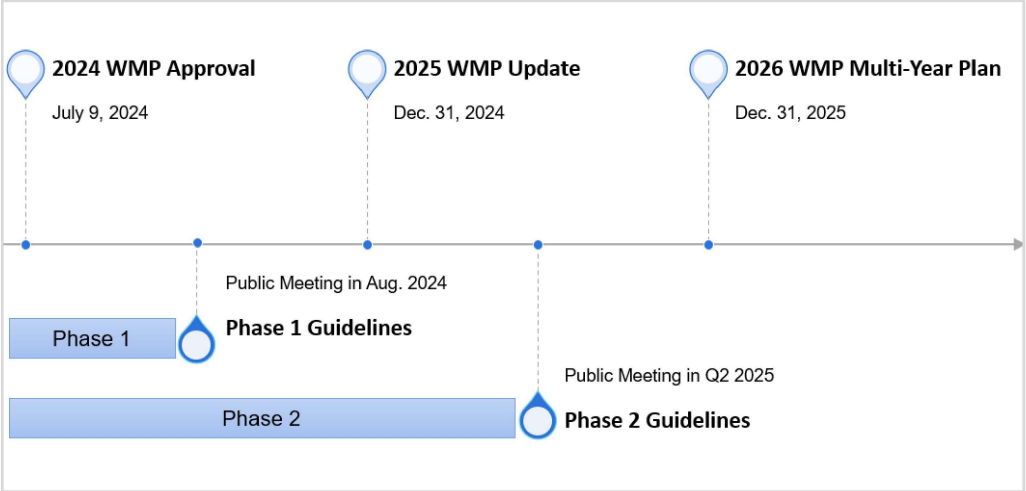
- **Meaningful:** Presents a Plan that is reasonably calculated to advance the goals or aims articulated. Articulates efforts which protect public safety, reduce risk to utility customers, and promote electrical system resilience to wildfire damage.
- **Robust:** Based on multi-scenario planning principles; considers the full range of technologies and mitigation types; recognizes the importance of maturation; attuned to changing risks.
- **Aligned:** Integrates with other safety and wildfire planning efforts; presents a coordinated approach to presentation of crucial information and communication with communities.
- **Adaptive:** Recognizes differences across utilities; balances well-defined Commission guidance with the flexibility for utilities to take ownership of the planning process and to adapt to a continually evolving landscape
- **Transparent:** Provides widespread system visibility; facilitates public understanding of risk and mitigation efforts in their communities.

Like the development of guidelines for distribution system planning (DSP) in UM 2005, Staff envisions development and implementation of WMP guidelines as an investigation occurring in a new docket.[1] The use of an investigation process would permit public participation and create a clear procedural venue in which to direct future WMP maturation.

While Staff had initially hoped to implement more of its recommendations for the 2025 WMP, the IOUs informed staff that development of 2025 WMPs are currently underway and changes impacting the Plan's development process are infeasible at this point. Staff is concerned about the Utilities' choice of a WMP development process that does not permit inclusion of new Commission direction but has nevertheless adopted a phased approach to implementing the Joint Recommendations, outlined in Figure 1.

[1] Under ORS 756.515(1), whenever the Commission believes that an investigation of any matter relating to any public utility or telecommunications utility or other person should be made, the Commission may, on its own motion, investigate any such matter.

Figure 1: Implementation Timeline



Staff believes the phased approach strikes the appropriate balance by taking steps towards implementation of the Joint Recommendations; providing additional, useful information to Commission in the short term, while still providing sufficient time for the working group to coalesce around draft recommendations and ensuring sufficient notice to the Utilities to permit incorporation of all Joint Recommendations in the 2026 WMPs.

Phase 1 addresses recommendations necessary prior to the 2025 WMPs. Staff understands that the envisioned timeline is extremely short. This was done intentionally to capture input of the IOUs that changes being implemented in 2025 Plans needed to be finalized as soon as possible. In all the Phase 1 recommendation, Staff caries the full workload to prepare proposed data templates and draft guidelines articulating the multi-year planning process and procedural steps for WMP dockets. This allows the IOUs to focus their resources on the active fire season.

Staff recognizes that the Phase 2 timeline is shorter than those for similar efforts in California but finds that the ability to leverage existing frameworks developed in other jurisdictions as well as three years of experience with WMPs leaves Staff well poised to lead development of guidelines in the time frame allotted.

Further, Staff finds it imperative to move the WMP process forward as quickly as feasible given the Commission's responsibility to meaningfully evaluate WMP costs in a time of significant affordability concerns. The Utilities have suggested that Staff develop a back-up plan in the event that Phase 1 or Phase 2 guidelines cannot be completed in the time allotted. Due to the vital nature of this work Staff believes that any significant deviation from the process outlined should be approved by the Commission.

Updated Process and Planning Cycle

Many of the challenges presented by the WMPs center around the process. In prior years the schedules in WMP dockets, UM 2207, UM 2208, and UM 2209, were amended multiple times to accommodate additional process. Staff believes that the IOUs and Public Safety Partners would equally benefit from consistent expectations around WMP process. For clarity Staff does not recommend a specific calendar or timeline be adopted, but rather there be some clarity about what procedural steps can be expected; for instance, whether the WMP process requires publishing a draft Staff report or whether incorporation of recommendations can be required annually when preparation of WMPs begins months in advance. This also provides an opportunity for clarification of the independent evaluator's role in the WMP process.

To promote transparency and robust review of the Plans, WMPs should contain all information necessary for assessing compliance. Staff's need to understand nuances of the WMPs not contained in the body of the Plans has led to use of a set of standard data requests with over 100 questions. While Staff's intent is that use of data templates will help provide crucial information within the WMP, any failure to appropriately complete data tables or provide other information required in guidelines would result in similarly opaque Plans. To prevent such a result, Staff recommends development of a procedural process that ensures WMPs contain all necessary information prior to initiation of Staff's review. There are multiple options for effectuating this procedural guardrail including a pre-filling completeness check, as required in California,[2] or restarting the clock if an errata filling is required for completeness. Staff recommends a process be proposed by Staff with input from stakeholders for completion in 2025.

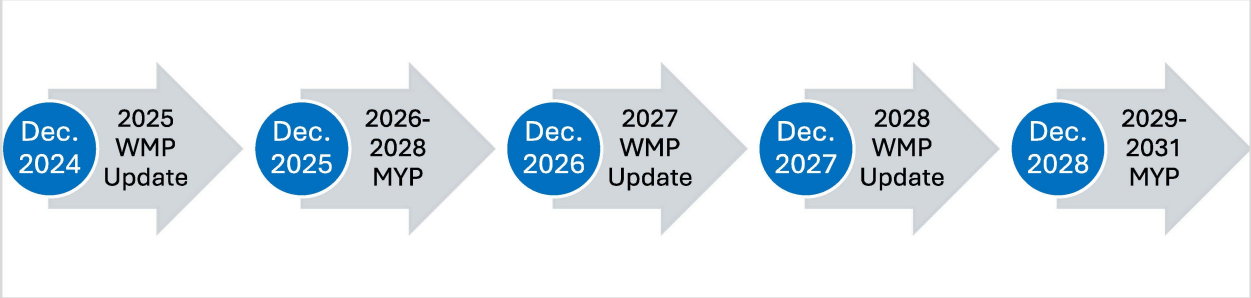
A. All utilities should provide Plans that allow a determination on compliance within the body of its Wildfire Mitigation Plan. (Phase 2).
B. All utilities should provide multi-year Plans which are updated on an annual basis. (Phase 1).

To promote a collaborative effort toward advancement of the WMPs Staff recommends that multi-year WMP plans be filled on a regular cycle, with WMP updates being filled in years in between multi-year Plans. Staff believes that three-years is an appropriate starting place for multi-year Plans, however longer-term Plans may be reasonable as the process matures. This approach allows new recommendations or guidelines to be implemented in the next multi-year Plan while also creating opportunity for the utility to make changes to its Plan annually. This recommendation addresses the concerns about the need for additional timing and limited personnel resources raised during coordination with the IOUs.

[2] California Office of Energy Infrastructure Safety, 2023-2025 Wildfire Mitigation Plan Process and Guidelines, TN11746_20221207T142120_20232025_WCaliforMP_Process_Guidelines (2).pdf.

Staff finds this approach consistent with ORS 757. Language directing the Commission to provide a schedule for updates to WMPs and instructing the Commission on its time frame for approval of "a plan or plan update." Additionally, this procedural change should free up resources allowing Staff and the IOUs more opportunity to collaborate towards Plan advancement. The WMP process would be outlined by Staff with input from stakeholders for completion in September of 2024. Figure 2 outlines Staff's vision for the multi-year planning cycle over the next five WMPs.

Figure 2: Implementation of Multi-Year Plans for WMPs



Staff envisions the 2025 WMP update as containing the following:

- Significant updates to the 2024 WMP;
- Information addressing Staff's recommendations for each utility; and
- Standard data tables approved in Phase 1

Further clarification of WMP update contents would be presented to the Commission as part of the Phase 1 WMP guidelines and implemented in the 2025 WMPs. The guidelines would need to address the threshold for considering Plan updates significant, information required for significant updates, expectations if a utility has no update to its previously approved WMP, and directions for how an update addresses Staff recommendations. Staff intends that inclusion of the Phase 1 data templates in the 2025 WMP will serve as a test-run for each utility, providing experience working with the templates as well as identifying what information, if any, the Utility currently lacks and how it will obtain the required information for the 2026 or future plans. While Staff expects each utility complete the data templates to the best of its ability, it does not believe they should inform a compliance determination prior to the 2026 Multi-Year Plan.

Standardization of Elements (WMP Format, Glossary, & Data Tables):

The procedural aim for development of standardized WMP structure, definitions, and data templates is to split the work between Staff and the utilities, charging the IOUs with developing a shared set of terminology and standard format while Staff focuses on

developing data templates, see Figure 1. Staff intends that these proposals would then be posted to the docket for public comment. Data templates are recommended for development as part of Phase 1 and would be presented to the Commission as part of the Phase 1 WMP guidelines for approval prior to implementation in the 2025 WMP. The glossary, format guide, and any data templates related to risk quantification or risk-spend efficiency would be presented to the Commission as part of the Phase 2 WMP guidelines for approval prior to use in the 2026 WMPs.

Staff initially hoped for the WMP format and glossary to be implemented in the 2025 WMPs. To address the IOUs' concerns with timing, Staff ultimately chose to include these recommendations in Phase 2, for implementation in the 2026 WMPs.

C. All utilities should participate in a joint utility effort to move towards use of shared terminology throughout the WMPs. The utilities must agree upon and use a standard WMP glossary which articulates shared terminology, and any differences in use of terminology between the utilities in the 2026 Plans. (Phase 2).
D. All utilities should provide WMPs in a standard format which adopts uniform chapter and section headings, as well as other agreed upon organizational features. (Phase 2).

Without a shared language, Staff is concerned that the conversation around WMPs cannot advance. The IOUs use the same term inconsistently among the utilities and inconsistently within the same company year over year. While Staff does not make recommendations about terminology used for utility internal processes, it is confident that the IOUs can instruct their employees and operate their systems in a safe manner. While the IOUs expressed concern that standardizing terminology citing could result in confusion to stakeholders or employees, the Utilities are generally supportive of alignment efforts.

The inclusion of standard formats in Phase 2 gives the utilities additional time to prepare stakeholders and internal teams. Additionally, a format shared across the utilities means that stakeholders will be able to identify where in the Plans salient information is located for all three utilities at once. Staff is confident that the Utilities can develop a format which provides sufficient flexibility for the IOUs to include all significant information while preserving the usefulness of WMPs outside the compliance context. IOUs expressed similar concerns around standardizing WMP format, citing existing stakeholder expectations and use of WMPs in multiple forums, however the Utilities are ultimately supportive of alignment efforts.

Portland General Electric (PGE) Idaho Power (IPC), and Oregon Citizens' Utility Board (CUB) all support Staff's recommendations on a glossary and standard WMP format. Pacific Power's comments did not address the Joint Recommendation for development

of standard format or glossary. Staff has no intent to limit information in the WMPs, and in fact aims to increase information provided, by introducing a shared format and data templates. For all three utilities the Independent Evaluator's Report noted that information was unclear or hard to locate.[3] After three unsuccessful attempts by Staff in describing how it expects data presented, Staff believes that providing a format and template is the best way to ensure expectations are met.

E. All utilities should provide the program level details though a standard reporting templates. (Phase 1).
F. All utilities should provide inspection & correction data through a standard reporting template which facilitates comparisons of inspection functions, costs (at unit level), and amount of work across the IOUs (and potentially benchmarkable across a broader region). (Phase 1).
G. All utilities should provide vegetation management data through a standard reporting template which facilitates comparison of inspection functions, costs, and amount of work across the IOUs. Given the large costs expended or forecasted to achieve "optimal" clearance, a standard data template should include information about vegetation management program administration, work scopes, and costs by clearance objectives. Again, this information should be comparable across the IOUs in Oregon (a broader regional perspective may be useful in this area). (Phase 1).
H. All utilities should provide industry engagement information though a standard reporting template which outlines participation in industry forums & expected information to be shared in such forums, including results from pilots prior to widescale adoption, and pilot valuation methods. (Phase 2).
I. All utilities should provide pilot technology information though a standard reporting template which includes: details of pilot projects, goals for the pilot, status of the pilot (planning, development, implementation), the current penetration and saturation across the system, envisioned application, milestones for determining usefulness of pilot, expected capital costs, expected O&M costs, expected timeframe for pilot implementation and lifespan. (Phase 2). At minimum this level of detail is needed for the following pilot technologies:
    - Communicating Fault Circuit Indicators (CFCI);
    - Fuel load reduction projects;
    - Wildfire detection cameras;
    - Early fault detection;
    - Drone inspection pilot;
    - Distribution fault anticipation
    - Covered conductor or spacer cable; and

[3] Docket No. UM 2207, 2024 PAC WMP Independent Evaluator's Report, CWS Strategies, June 12, 2024; Docket No. UM 2208, 2024 PGE WMP Independent Evaluator's Report, CWS Strategies, June 12, 2024; Docket No. UM 2209, 2024 IPC WMP Independent Evaluator's Report, CWS Strategies, June 12, 2024.

- Infrared patrols.

The Utilities are generally supportive of standard data templates, to provide clear expectations about the information expected for inclusion in the WMPs. PAC raises some concerns about the listing of specific technologies in Joint Recommendation I. Staff believes there may be confusion around an intent to constrain pilot technologies. While the technologies listed in Joint Recommendation I includes the technologies currently being piloted by the IOUs, the standard data templates will provide a pathway to detail these or any other technologies piloted by a utility.

Staff finds that implementation of a shared glossary, format, and data templates will reduce complexity, ease location of information, and streamline identification of information missing from a Plan. Standardized WMP elements further increases robustness, transparency, and alignment of the Plans.

Establishment of WMP Working Group:

Staff recommends establishment of a WMP working group to guide maturation of the WMPs. Moreover, Staff recommends working group's first areas of focus should be risk quantification and risk-spend efficiency (RSE). In adoption of the 2022 WMPs, the Commission directed the utilities to explore calibration of risk modeling methodologies and detail progress towards a uniform risk-spend valuation method.[4] Staff understands that the IOUs had multiple conversation about calibration of risk modeling and alignment of risk-spend methodologies but did not reach any results nor articulate a plan that would allow for near-term alignment. Given that the understanding of risk and assessment of risk spend efficiency determines the selection of mitigation measures and entails billions of spend, Staff believes that continuing a utility led alignment process on these issues is not viable. To that end, the Staff-led working group should propose risk quantification and risk-spend efficiency modeling guidelines to the Commission for approval prior to implementation in the 2026 WMPs. Understanding that RSE cannot be determined without first quantifying risk, Staff intends that the Working Group would first address risk quantification before turning its efforts towards RSE.

J. Staff foresees the working group allowing participation the public, including Public Safety Partners, wildfire experts, and impacted communities. Staff has chosen not to include more detailed information on Work Group meeting schedules or plans at this time and intends these would be developed in consultation with the Utilities and stakeholders if the Joint Recommendations are

[4] Order No. 23-220, *In the Matter of Pacific Power 2023 Wildfire Protection Plan,* Docket No. UM 2207, June 26, 2023; Order No. 23-221, *In the Matter of Portland General Electric 2023 Wildfire Protection Plan,* Docket No. UM 2208, June 26, 2023; Order No. 23-222*, In the Matter of Idaho Power Company 2023 Wildfire Protection Plan*, Docket No. UM 2209, June 26, 2023.

approved. All utility risk maps should originate from a foundational utility risk map which considers the logical set of variables. Short range outlooks, as well as mid-range outlooks may inform the foundational map. After developing the foundational map, a utility risk map can consider and overlay a variety of conditions, such as response times and locale as well as locations where mitigations have taken place or recent fuel has been removed. Any adjustments made to the foundational risk maps or the outlooks, should be explicitly identified and recorded as to what variable caused the change and what new information supported this change. (Phase 2).

K. All utilities should collaborate to calibrate their risk modeling methods and identify the underlying assumptions in determining line segment risk. Some of the assumptions might include fire spread modeling periods, probability being considered, fire weather history, and inclusion of response likelihood. This work approach would result in fundamental agreement on a specific modeling method for which each utility would produce its current asset register, as well as GIS and tabular data identifying the risk scoring for each asset. (Phase 2).

L. The WMP working group should adopt Risk Mitigation and Cost Valuation (RSE) as its part of its area of focus. This Staff led working group should propose risk quantification guidelines to the Commission for implementation in the 2026 WMPs. RSE should reflect granular data for electric assets which quantify risk that is derivative of operational data (include outage and device state information), observational data (inspections), temporal data (snapshots in time related to peripheral systems) and should fully comprise all the facilities that are part of the utility's HFRZ. Consistency of terminology, data sources and their confidence, and expected calculation processes should be prepared by the utilities but performed consistent with guidance by the PUC. In addition, RSE needs to recognize the manner in which “risk” is quantified by the utility, and generally result in an agreed-upon method for the quantification and the way that the reduced risk will be measured. This could leverage PacifiCorp’s “composite risk” or one of the other IOU’s risk quantification methods. (Phase 2).

The Utilities expressed concern about ability to implement new guidelines in the 2025 WMPs. To address timing concerns Staff recommends a phased approach, allowing resulting guidelines to be implemented into the 2026 WMPs. PGE’s and IPC’s comments expressed support for establishing a common risk framework. PAC’s comments seemed to misunderstand Joint Recommendation J as a suggestion for a statewide wildfire hazard map, similar to the one tasked to the Oregon Department of Forestry by Senate Bill (SB) 762 (2021).

To clarify, Staff is not asking for development of a statewide risk map, nor does it expect the utilities considerations of risk to look identical. Staff understands that Oregon’s three IOUs operate in vastly different environments and that WMP guidelines will need to take the significant differences between the IOUs’ service areas into account. As articulated

in its recommendations on the 2023 WMPs, Staff's goal is to understand where risk is similar, where it is different, and what factors contribute to differences.

While the considerations detailed in Joint Recommendation J and K are intended to create a jumping off point in the WMP Working Group's discussions of risk, additional considerations can, and should, be included. Here again, the goal is not to require a specific outcome, but rather to be able to clearly tell where each source of risk originates (landscape and terrain, weather, utility assets, etc…). Staff finds that clear guidelines on risk modeling and risk-spend efficiency promote meaningful, robust, and transparent WMPs.

Use of Working Group to Guide WMP Maturation:

Staff provides additional topics that may be appropriate for the joint working group after the 2026 WMPs to be directed at the Commission's discretion.

M. All utilities should regularly participate in a cross-utility effort, via working group or other format, to share experience, learnings, and industry best practices, surrounding system reliability. At minimum, this effort should include discussion of sophisticated protection control equipment and its application to sensitive settings, consideration of impact to reliability, in particular the response during elevated risk season with repeated outages to customers when "self healing" is not in place (resulting in them experiencing nuisance trips). This group should not only consider impacts to system level reliability but consider impacts of momentary interruptions and longer sustained outages to remote customers, particularly those which may be less able to sustain during poorer reliability periods.[5]
N. All utilities should regularly participate in a cross-utility effort, via working group or other format, to share experience, learnings, and industry best practices, for identifying and coordinating with Public Safety Partners, building on the ground relationships and communication, developing livestream/recorded multi-language community meetings, and coordinate with local communities to participate in safety fairs.
O. All utilities should collaborate to develop consistent content (and should conform to generally consistent language) to inform customers, communities and public safety partners about operational protocols which can impact their power reliability and power system operations. As a complement to these approaches, utilities should perform analysis regarding the location-specific impacts to reliability, including the increase in customer complaints internally as well as those recorded by the OPUC consumer services division, and develop methods

[5] Content regarding this approach can be found at California Office of Energy Infrastructure Safety, 2022 Wildfire Mitigation Plan Update Guidelines, https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51912&shareable=true.

to quickly react to heightened operations impacting customers' reliability. Customers and communities may benefit from awareness of other outage causes (beyond weather), which impact reliability and during "sensitive settings" or "fire season" period or which could result in unusual reliability.

P. All utilities should collaborate to develop a "template" for reporting PSPS details during the execution of a PSPS, and Staff would appreciate participating in these sorts of collaborative development efforts.