

December 31, 2024

## VIA ELECTRONIC FILING

Public Utility Commission of Oregon Attn: Filing Center 201 High Street SE, Suite 100 Salem, OR 97301-3398

### Re: UM 2207(3)—PacifiCorp's 2025 Wildfire Mitigation Plan Update

PacifiCorp d/b/a Pacific Power encloses for filing its 2025 Wildfire Mitigation Plan Update in the above reference docket. Included with this filing are the initial Wildfire Mitigation Plan (WMP) Data Templates in an Excel workbook. PacifiCorp will file an update to the WMP Data Templates with its 2024 Quarter 4 data by March 31, 2025. Note that in the WMP Data Templates, Tab 7 included some cells that were protected and could not be updated with PacifiCorp data (see cell F199 as an example). PacifiCorp has added a tab entitled "7-Risk Performance (PAC)" in order to provide the data requested on Tab 7 including the data in the locked cells. The original tab with the locked cells is labeled as "7-Risk Performance (OPUC)".

The 2025 WMP Update and Tab 13 in the WMP Data Templates include confidential information. PacifiCorp is filing both a confidential and redacted version of its 2025 WMP Update and Tab 13 in its WMP Data Templates. Confidential information is provided subject to the terms of General Protective Order No. 23-132 in this proceeding.

If you have questions about this filing, please contact Cathie Allen, Manager, Regulatory Affairs, at (503) 813-5934.

Sincerely,

- Mlin

Matthew McVee Vice President, Regulatory Policy and Operations

Enclosure

### **CERTIFICATE OF SERVICE**

I certify that a true and correct copy of **PacifiCorp's 2025 Wildfire Mitigation Plan Update** was served on the parties listed below via electronic mail in compliance with OAR 860-001-0180.

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Dated this 31st day of December, 2024.

Carrie Meyer Adviser, Regulatory Operations

# UM 2207 2025 WMP Update

**Revision O** 

December 31, 2024









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# 1. INTRODUCTION

Pacific Power submits its 2025 Wildfire Mitigation Plan (WMP) update (2025 WMP Update or Update) to provide information on changes to the 2024 Wildfire Mitigation Plan (2024 WMP) that was approved at the July 9, 2024, Oregon Public Utility Commission (OPUC) Public Meeting. The Company is providing this Update based on the guidelines approved at the September 19, 2024, OPUC Public Meeting and includes the following:

- A Compliance Index describing where to find Pacific Power's adherence to Oregon Administrative Rules (OARs) regarding wildfire mitigation plans.
- Significant Risk Model Updates: Three risk models have updates, and Pacific Power also introduces a new situational awareness model. The model updates and new model are described below.
- New or Discontinued Initiatives: Discontinued initiatives are primarily projects that introduced new technological functionality or capabilities and are now operationalized.
- Existing Initiatives Updates includes changes to initiative targets and completion dates that meet the guidelines to be reported in the 2025 Update.
- 5.3 Changes to Initiative Expenditures include changes to existing initiatives that have at least a 20 percent change from the initiative's total planned expenditure in the 2024 WMP. New initiative expenditures are also presented as they were not reflected in the 2024 WMP.
- Areas for Additional Improvement provides an update on Pacific Power's actions on the recommendations for areas of improvement approved in Order 24-230

- Additional Requirements describes Pacific Power's implementation of approved data templates including "any discrete elements of the templates that would create material cost impacts, including a cost estimate, and propose alternatives."
- Program Sharing discusses improvements the Company is making after identifying gaps in its ignition incident reporting process.

# 2. COMPLIANCE INDEX

The following section describes where to find Pacific Power's adherence to requirements for OAR 860-300-0020 to OAR 860-300-0070. Each plan requirement is listed with the OAR, location of the document with the information, and where to find further details.

### OAR 860-300-0020 - WILDFIRE MITIGATION PLAN FILING REQUIREMENTS

Consistent with OAR 860-300-0020 effective September 8, 2022, per Order No. 22-335: "Wildfire Mitigation Plans and Updates must, at a minimum, contain the following requirements as set forth in Oregon Revised Statutes (ORS) 757.963 (2)(a)-(h) and as supplemented below." Table 1 shows Pacific Power's adherence to the Oregon Administrative Rules (OAR) regarding Wildfire Mitigation Plans.

		Plan Requirement	Document Reference	Corresponding Plan Section / Reference
(a)	Identified	l areas that are subject to a	2024 WMP	Please see Section 1.2 Fire High
	heighten	ed risk of wildfire, including		Consequence Area (FHCA), for a
	determin	ations for such conclusions, and		description of how Pacific Power
	are:			developed updated baseline wildfire risk
				with considerations of topography, fuel
	(A)	Within the service territory of		data, climatology, historic fire data, and
		the Public Utility, and		various other inputs to the risk modeling to
	(B)	Outside the service territory of		develop the new FHCA map.
		the Public Utility but within the		
		Public Utility's right-of-way for		
		generation and transmission		
		assets.	2025 WMP Update	
				Please see Refresh to Baseline Risk Mapping
				(FHCA Map Update) for an update on the
				initiative
(b)	Identified	I means of mitigating wildfire risk	2025 WMP Update	Please see:
. ,	that refle	cts a reasonable balancing of		Corrective action Recommendation 24-
	mitigatio	n costs with the resulting		230-05 for updates to Pacific Power's
	reduction	of wildfire risk.		work to balance mitigation costs while
				reducing wildfire risk
				Risk Spend Efficiency (RSE) Model
				Refresh
				1/61/6511

#### Table 1: Compliance Index for OAR 860-300-0020

	Plan Requirement	Document Reference		Corresponding Plan Section / Reference
(c)	Identified preventative actions and	2025 WMP Update	٠	Please see Fire Season Safety Patrols for
	programs that the Public Utility will carry			discussion of changes to the Asset
	out to minimize the risk of utility facilities			Inspection Program targets due to
	causing wildfire.			changes in the program.
		2024 WMP	•	Section 2, Inspection and Correction, for a
				description of the inspection programs
				performed to identify conditions that
				require corrections,
			•	Section 3, Vegetation Management, for
				the vegetation inspection and clearing
				work being performed around the
				transmission and distribution assets and
				rights of way.
			•	Section 4 System Hardening for the
				proactive hardening which includes line
				rebuild undergrounding and system
				automation to reduce the potential risk
				Section 5 Situational Awareness for the
			-	weather modeling that informs the
				increases awareness across the
				PacifiCorn <sup>1</sup> service territory and
				operational decision-making
				Section 6 System Operations, for how the
			•	onabling of Enhanced Safety Settings
				(ESS) contributed to the daily risk
				(ESS) contributed to the daily risk
				awareness section,
			•	Dreations to see how the field room ediust
				Practices, to see now the field may adjust
				their work practices depending on the
				local conditions along with the tools
				provided to aid field work to reduce
				potential risk,
			٠	Section 8, Public Safety Power Shutoff, for
				the criteria, communications, outreach,
				and preparedness required prior and in a
				PSPS event.

<sup>1</sup> PacifiCorp, d/b/a Pacific Power in Oregon, Washington and California, and Rocky Mountain Power in Idaho, Utah, and Wyoming,

provides electric service to customers in Oregon, Washington, California, Utah, Idaho, and Wyoming.

Plan Requirement	Document Reference	Corresponding Plan Section / Reference
		<ul> <li>Additional supporting programs include risk assessment, public safety partner coordination, industry collaboration, and external engagement.</li> </ul>
<ul> <li>(d) Discussion of outreach efforts to regional, state, and local entities, including municipalities regarding a protocol for the de-energization of power</li> </ul>	2025 WMP Update	<ul> <li>Please see Appendix A – Public Safety Partner Outreach for 2024 outreach to regional, state, and local entities.</li> </ul>
lines and adjusting power system operations to mitigate wildfires, promote the safety of the public and first responders and preserve health and communication infrastructure.	2024 WMP	<ul> <li>Please see Section 9, Public Safety Partner Coordination Strategy, which outlines the general strategy and planned exercises and workshops to facilitate public and private sector coordination, validate communications protocols, and verify capability to support communities during extreme risk events.</li> <li>See Section 10, Wildfire Safety &amp; Preparedness Engagement Strategy, for a description of how the company is engaging customers and the general public throughout its three-state service area on the topic of wildfire safety and preparedness through a variety of tactics including webinars, in-person forums, targeted paid media campaigns, press</li> </ul>
(e) Identified protocol for the de-energization of power lines and adjusting of power system operations to mitigate wildfires, promote the safety of the public and first responders and preserve health and communication infrastructure, including a PSPS communication strategy consistent with OAR 860-300-0040 through 860- 300-0050.	2024 WMP	<ul> <li>Please see Section 6, System Operations, for a description of how Pacific Power is adjusting power system operation through the implementation of Enhanced Safety Settings (ESS).</li> <li>See Section 7, Field Operations &amp; Work Practices, which includes how field operations managers deploy additional resources and perform additional patrols or augment work practices such as the deferral of any nonessential work at locations with dense and dry wildland vegetation, especially during periods of heightened fire weather conditions.</li> <li>See Section 8, Public Safety Power Shutoff (PSPS) Program, for a description of the company's PSPS protocols</li> </ul>

	Plan Requirement	Document Reference	Corresponding Plan Section / Reference
(f)	Identification of the community outreach and public awareness efforts that the Public Utility will use before, during and after a wildfire season, consistent with OAR 860-300-0040 and 860-300-0050.	2025 WMP Update	<ul> <li>Please see Appendix B – Community Outreach and Public Awareness for 2024 community outreach and public awareness efforts.</li> </ul>
		2024 WMP	<ul> <li>Please see Section 9, Public Safety         <ul> <li>Partner Coordination Strategy, for a             description of how Pacific Power facilitates             annual discussion based and functional             tabletop exercises to develop awareness             of PSPS planning and procedures.</li> </ul> </li> <li>See Section 10, Wildfire Safety &amp;         <ul> <li>Preparedness Engagement Strategy, for a             description of for the description of             webinars, in-person forums, targeted paid             media campaigns, press engagement,             distributed print materials, social media             updates, and communication through             owned channels.</li> </ul></li></ul>
(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, consistent with OAR 860-024-0018	2025 WMP Update	<ul> <li>Please see Fire Season Safety Patrols below for discussion of change in Visual Assurance Inspection targets due to change in frequency.</li> </ul>
		2024 WMP	<ul> <li>Please see Section 2, Inspection and Correction, for a description of the frequency of other asset inspections and the inspection activities.</li> </ul>
(h) (i)	Description of the procedures, standards, and time frames that the Public Utility will use to carry out vegetation management in areas the Public Utility identified as heightened risk of wildfire, consistent with OAR 860-024-0016. Identification of the development,	2024 WMP 2025 WMP Update	<ul> <li>Please see Section 3, Vegetation Management, for a description of Power's existing vegetation management program is to minimize contact between vegetation and power lines by addressing grow-in and fall-in risks.</li> <li>Please see 5.3 Changes to Initiative</li> </ul>
	implementation, and administrative costs for the plan, which includes discussion of risk-based cost and benefit analysis, including consideration of technologies		Expenditures for discussion of changes to plans costs for specific initiatives.

	Plan Requirement	Document Reference		Corresponding Plan Section / Reference
	that offer co-benefits to the utility's	2024 WMP	٠	Please see Section 13, Plan Costs,
	system.			Summary, & Benefits for detailed costs
				and the list of program achievements and
				future goals.
(j)	Description of participation in national	2025 WMP Update	٠	Please see Appendix C – Industry and
	and international forums, including			Regulatory Engagement and Forums for a
	workshops identified in section 2, chapter			list of 2024 Industry and Regulatory
	592, Oregon Laws 2021, as well as			engagement forums.
	research and analysis the Public Utility			
	has undertaken to maintain expertise in	2024 WMP	•	Please see Section 11. Industry
	leading edge technologies and			Collaboration, for a description of Pacific
	operational practices, as well as how			Power's membership in the International
	such technologies and operational			Wildfire Risk Mitigation Consortium
	practices have been used to develop and			(IWRMC) an industry-sponsored
	implement cost effective wildfire			collaborative designed to facilitate the
	mitigation solutions.			sharing of wildfire risk mitigation insights
(k)	Description of ignition inspection	2025 WMP Update	٠	Please see Changes to Initiative Targets
	program, as described in Division 24 of			for discussion of changes to the Asset
	these rules, including how the utility will			Inspection Program
	determine and instruct its inspectors to			
	determine, condition that could pose an			
	ignition risk on its own equipment and on	2024 WMP		Section 2.2 EHCA Inspection and
	pole attachments.			Correction Programs for a description of
				Pacific Power's FHCA inspection
				programs including a description of how
				fire threat conditions are determined
				which reflects conditions that nose an
				ignition risk
				ignition have

## OAR 860-300-0030 - Risk Analysis

Table 2 shows Pacific Power's adherence to the Oregon Administrative Rules (OAR) regarding risk analysis.

	Ri	sk Analysis Requirement	Document Reference	Corresponding Plan Section / Reference
(1)	The F	Public Utility must include in its	2024 WMP	Please see Section 1, Baseline
	Wildfi	re Mitigation Plan risk analysis that		Risk Analysis for a description on
	descr	ibes wildfire risk within the Public		how Pacific Power performs risk
	Utility	's service territory and outside the		modeling and has developed the
	servio	e territory of the public Utility but		baseline wildfire risk within the
	withir	the Public Utility's right of way for		service territory.
	gene	ation and transmission assets.		
	The r	isk analysis must include, at a		
	minin	ium:		
٠	Defin	ed categories of overall wildfire		Please see below A-D
	risk a	nd an adequate discussion of how		
	the P	ublic Utility categorized wildfire		
	risk. (	Categories of risk must include, at		
	a min	imum:		
	Δ	Baseline wildfire risk which	2024 WMP	For a description on how Pacific Power's
	73.	includes elements of wildfire risk		haseline risk man was developed and the
		that are expected to remain fixed		inputs that went into determining the risk
		for multiple years. Examples		refer to:
		include tonography vegetation		Section 1.2 Fire High Consequence
		utility equipment in place and		Section 1.2, The High Consequence
		climate.		Pacific Power developed undeted
		climate,		handling wildfirg rigk with
				passifie widne fisk with
				considerations of topography, rue data,
				climatology, historic file data, and
				various other inputs to the FLICA men
				inclemented in 2024
			000414/4/2	Implemented In 2024.
	В.	Seasonal wildfire risk, which	2024 WMP	For a detailed description of how Pacific
		include elements of wildfire risk		Power forecasts weather at or hear its
		that are expected to remain fixed		assets, see:
		for multiple months but may be		• Section 5, Situational Awareness,
		dynamic throughout the year or		provides a description of the weather
		from year to year; Examples		modeling performed from real time and
		include cumulative precipitation,		historical data using tools like FireCast
		seasonal weather conditions,		and FireSim.

#### Table 2: Compliance Index for OAR 860-300-0030

	Risk Analysis Requirement	Document Reference	Corresponding Plan Section / Reference
	current drought status, and fuel		
	moisture content;		
	C Pisks to residential areas served	2024 W/MP	Please refer to:
	by the Public Litility: and	2024 10101	Section 1.2 Eiro High Consequence
	by the Fublic Othity, and		Section 1.2, File High Consequence
			• Section 5, Situational Awareness,
			Appendix C – Wildfire Risk Modeling
			Data Inputs.
	D. Risks to substation or powerline	2024 WMP	Please refer to:
	owned by the public Utility		Section 1.2, Fire High Consequence
			Area (FHCA)
			Section 5, Situational Awareness,
			Appendix C – Wildfire Risk Modeling
			Data Inputs.
٠	A narrative description of how the public	2025 WMP Update	For discussion of the new tool to identify
	Utility determined areas of heightened		circuits or zones of protection that may be at
	risk of wildfire using the most updated		risk of a PSPS event, please see PSPS
	data it has available from reputable		Circuit Forecast Editor
	sources.		below.
		2024 WMP	Please refer to:
			• Section 1.2, Fire High Consequence
			Area (FHCA)
			• Section 5, Situational Awareness,
			Appendix C – Wildfire Risk Modeling
			Data Inputs.
٠	A narrative description of all data	2025 WMP Update	For discussion of the new tool to identify
	sources the Public Utility uses to model		circuits or zones of protection that may be at
	topographical and meteorological		risk of a PSPS event, please see:
	components of its wildfire risk as well as		PSPS Circuit Forecast Editor
	any wildfire risk related to the Public		below. The model inputs are in
	Utility's equipment.		Appendix D – PSPS Circuit
	A. The Public Utility must make clear		Forecast Editor Data Inputs.
	the frequency with which each	2024 WMP	For a description of other risk modeling and
	source of data is updated; and		sources used, refer to:
	B. The Public Utility must make clear		Section 1.2. Fire High
	how it plans to keep its data		Consequence Areas (FHCA) and
	sources as up to date as is		Section 1.4 Continuous
	practicable.		Improvement for the data and
	P		improvement, for the data and

Risk Analysis Requirement	Document Reference	Corresponding Plan Section / Reference
		frequency used in relation to the
		different risk modeling activities
		performed.
		Section 5, Situational Awareness
		Appendix C – Wildfire Risk
		Modeling Data Inputs.
The Public Utility's risk analysis must		Please see A-E below.
include a narrative description of how		
the Public Utility's wildfire risk models		
are used to make decisions concerning:		
A. Public Safety Power Shutoffs	2025 WMP Update	For discussion of the new tool to identify
		circuits or zones of protection that may be at
		risk of a PSPS event, please see:
		PSPS Circuit Forecast Editor
		below. The model inputs are in
		Appendix D – PSPS Circuit
		Forecast Editor Data Inputs.
	2024 WMP	To develop an understanding of how all the
		components work together to inform the risk
		and when a PSPS should be initiated, refer
		to:
		• Section 5.5 (Situational Awareness),
		Application and Use,
		• Section 6, System Operations,
		Section 7, Field Operations & Work
		Practices, and
		Section 8, Public Safety Power Shutoff
		(PSPS) Program
B. Vegetation Management	2024 WMP	For a description of the risk areas and the
		vegetation management work performed in
		the FHCA see:
		• Section 1.2, Fire High Consequence
		Area (FHCA), and
		• Section 3, Vegetation Management.
C. System Hardening	2024 WMP	For a description on how the system
		hardening initiatives are informed by the risk
		modeling work performed, please reference:
		Section 1.2, Fire High Consequence
		Area (FHCA)
		• Section 1.3, Risk Treatment – Program
		Selection and Prioritization, and
		Section 4, System Hardening.
		· •

Risk Analysis Requirement	Document Reference	Corresponding Plan Section / Reference
D. Investment decisions; and	2024 WMP	<ul> <li>For a description on how projects are identified based on the risk modeling and then prioritized, refer to:</li> <li>Section 1.3, Risk Treatment – Program Selection and Prioritization.</li> </ul>
E. Operational decisions.	2024 WMP	<ul> <li>For a description of how the risk assessment can affect operational decisions, see:</li> <li>Section 5.5, Situational Awareness, Application and Use,</li> <li>Section 6, System Operations, and</li> <li>Section 7, Field Operations and Work Practices.</li> </ul>
<ul> <li>For updated Wildfire Mitigation Plans, the Public Utility must include a narrative description of any changes to its baseline wildfire risk that were made</li> </ul>	2025 WMP Update	For discussion of updates to baseline and dynamic risk models please see Significant Risk Model Updates.
relative to the previous plan submitted by the utility, including the Public Utility's response to changes in baseline wildfire risk, seasonal wildfire risk, and Near-term Wildfire Risk.	2024 WMP	For baseline risk updates, see: • Section 1.2, Fire High Consequence Area (FHCA), and • Appendix C – Wildfire Risk Modeling For dynamic risk models, refer to: • Section 5, Situational Awareness and • Appendix C – Wildfire Risk Modeling Data Inputs.
(2) To the extent practicable, the Public Utility must confer with other state agencies when evaluating the risk analysis included in the Public Utility's Wildfire Mitigation Plan.	2025 WMP Update	Please see Public Safety Partner Portal below for changes to the initiative schedule that affect the timing of conferring with state agencies on potential updates to the FHCA.
	2024 WMP	<ul> <li>To understand how Pacific Power is collaborating on programs and associated risks, refer to:</li> <li>Section 9, Public Safety Partner Coordination Strategy</li> <li>Section 10, Wildfire Safety and Preparedness Engagement Strategy, and</li> <li>Section 11, Industry Collaboration.</li> </ul>

# OAR 860-300-0040 – Wildfire Mitigation Plan Engagement Strategies

Table 3 shows Pacific Power's adherence to the Oregon Administrative Rules (OAR) regarding Wildfire Mitigation Plans engagement strategies.

	Engagement Strategy Requirement	Reference Document	Corresponding Plan Section / Reference
(1)	The Public Utility must include in its Wildfire Mitigation Plan a Wildfire Mitigation Plan Engagement Strategy. The Wildfire Mitigation Plan Engagement Strategy will describe the utility's efforts to engage and collaborate with Public Safety Partners and Local Communities impacted by the Wildfire Mitigation Plan in the preparation of the Wildfire Mitigation Plan and identification of related investments and activities. The Engagement Strategy must include, at a minimum:	2024 WMP	To understand how Pacific Power is engaging with the community, customers, and regulators, see: • Section 10, Wildfire Safety and Preparedness Engagement Strategy.
(a)	Accessible forums for engagement and collaboration with Public Safety Partners, Local Communities, and customers in advance of filing the Wildfire Mitigation Plan. The public Utility should provide, at minimum:	2025 WMP Update	<ul> <li>Please see Appendix A – Public Safety Partner Outreach and Appendix B – Community Outreach and Public Awareness for 2024 public safety partner, community outreach and public awareness efforts.</li> </ul>
		2024 WMP	<ul> <li>For a description of the forums and other collaboration activities performed refer to:</li> <li>Section 9, Public Safety Partner Coordination Strategy and</li> <li>Section 10, Wildfire Safety and Preparedness Engagement Strategy.</li> </ul>
	A. One public information and input session hosted in each county or group of adjacent counties within reasonable geographic proximity and streamed virtually with access and functional needs considerations; and	2025 WMP Update	<ul> <li>Please see Appendix B – Community Outreach and Public Awareness for 2024 Community Forums. Videos of the forums are available at <u>Pacific</u> <u>Power - YouTube</u>.</li> </ul>

#### Table 3: Compliance Index for OAR 860-300-0040

	En	gagement Strategy Requirement	Reference Document	Corresponding Plan Section / Reference
	Β.	One opportunity for engagement	2025 WMP Update	Please see Appendix B – Community     Outreach and Public Awareness for
		up comments to the public information		2024 Community Forums
		and input session.		
(b)	A d	escription of how the Public Utility	2024 WMP	For information regarding accessibility and
	des	igned the Wildfire Mitigation Plan		availability of information in languages
	Eng	gagement Strategy to be inclusive and		other than English, please see:
	acc	essible, including considerations for		Section 10.3, Customer Service
	mul	tiple languages and outreach to access		Training and
	and	functional needs populations as		• 10.4, Wildfire Safety, Preparedness,
	ider	ntified with local Public Safety Partners.		and PSPS Webpages.
(2)	The	Public Utility must include a plan for	2024 WMP	For a description of the community
	con	ducting community outreach and public		outreach and public awareness efforts
	awa	areness efforts in its Wildfire Mitigation		performed, refer to:
	Pla	n. It must be developed in coordination		• Section 10.7 – 2023 Wildfire
	with	Public Safety Partners and informed by		Communications and Outreach Plan
	loca	al needs and best practices to educate		and
	and	inform communities inclusively about		<ul> <li>Section 9 – Public Safety Partner</li> </ul>
	wild	lfire risk and preparation activities.		Coordination Strategy.
(a)	The	e community outreach and public		Please see A-D below.
	awa	areness efforts will include plans to		
	diss	seminate informational materials and/or		
	con	duct trainings that cover:		
	Α.	A description of PSPS including why	2024 WMP	Please see
		one would need to be executed,		Section 9 - Public Safety Partner
		considerations determining why one		Coordination Strategy for the criteria
		is required, and what to expect		requiring a PSPS event and how that
		before, during, and after a PSPS;		information will be communicated by
				Pacific Power and
				Section 10 - Wildfire Safety and
				Preparedness Engagement Strategy
	Β.	A description of the Public Utility's	2024 WMP	For outreach and information on wildfire
		wildfire mitigation strategy;		safety, refer to:
				Section 10, Wildfire Safety and
				Preparedness Engagement Strategy.
	C.	Information on emergency	2024 WMP	For the preparedness information and
		kits/plans/checklists;		checklists available to customers, see:
				• Section 10.4, Wildfire Safety,
				Preparedness, and PSPS Webpages.

	Engagement Strategy Requirement	Reference Document	Corresponding Plan Section / Reference
	D. Public Utility contact and website information.	2024 WMP	<ul> <li>For a description of utility outreach that includes details on where company contact information can be found and accessed, see:</li> <li>Section 10, Wildfire Safety and Preparedness Engagement Strategy and</li> <li>Section 9, Public Safety Partner Coordination Strategy.</li> </ul>
(b)	In formulating community outreach and public awareness efforts, the Wildfire Mitigation Plan will also include descriptions of:		Please see A-C below.
	<ul> <li>Media platforms and other communication tools that will be used to disseminate information to the public;</li> </ul>	2024 WMP	<ul> <li>For a description of the types of communication methods utilized to inform and reach out to the public, please reference:</li> <li>Section 10, Wildfire Safety and Preparedness Engagement Strategy.</li> </ul>
	<ul> <li>B. Frequency of outreach to inform the public;</li> </ul>	2024 WMP	<ul> <li>Details on the frequency of communications to the public can be found in:</li> <li>Section 10, Wildfire Safety and Preparedness Engagement Strategy.</li> </ul>
	C. Equity considerations in publication and accessibility, including, but not limited to: (i) Multiple languages (ii) Multiple media platforms to ensure access to all members of a local community.	2024 WMP	<ul> <li>Details on the publication and accessibility of information, including language availability and platform type are described at length in:</li> <li>Section 10, Wildfire Safety and Preparedness Engagement Strategy.</li> </ul>
(3)	The Public Utility must include in its Wildfire Mitigation Plan a description of metrics used to track and report on whether its community outreach and public awareness efforts are effectively and equitably reaching Local Communities across the Public Utility's service area.	2025 WMP Update	For information on the TV News, email, and social media campaigns that were performed, please refer to: Appendix B — Community Outreach and Public Awareness.

	Engagement Strategy Requirement	Reference Document	Corresponding Plan Section / Reference
(4)	The Public Utility must include a Public		Please see A-B below.
	Safety Partner Coordination Strategy in its		
	Wildfire Mitigation Plan. The Coordination		
	Strategy will describe how the public Utility		
	will coordinate with Public Safety Partners		
	before, during, and after the fire season and		
	should be additive to minimum		
	requirements specific in relevant Public		
	Safety Power Shut Off requirements		
	described in OAR 860-300-0050. The		
	Coordination Strategy should include, at a		
	minimum:		
(a)	Meeting frequency and location determined	2025 WMP Update	For 2024 Public Safety Partner Outreach,
	in collaboration with Public Safety Partners;		please see Appendix A – Public Safety
			Partner Outreach.
			For information on the frequency and
			method by which Pacific Power
		2024 WMP	collaborates with public safety partners,
			refer to:
			• Section 9, Public Safety Partner
			Coordination Strategy.
(b)	Tabletop Exercise plan that includes topics	2025 WMP Update	For 2024 Public Safety Partner Outreach,
	and opportunities to participate;		please see
			<ul> <li>Appendix A – Public Safety Partner</li> </ul>
			Outreach.
(c)	After action reporting plan for lessons	2025 WMP Update	Please see Appendix A – Public
	learned in alignment with Public Safety		Safety Partner Outreach for feedback
	partner after action reporting timeline and		from outreach activities.
	processes.		

# OAR 860-300-0050 – COMMUNICATION REQUIREMENTS PRIOR, DURING, AND AFTER A PUBLIC SAFETY POWER SHUTOFF (PSPS)

Table 4 shows Pacific Power's adherence to the Oregon Administrative Rules (OAR) regarding communication requirements before, during, and after a PSPS.

	PSP	S Communication Requirement	Reference Document	Corresponding Plan Section / Reference
(1)	Wh	en a Public Utility determines that a	2024 WMP	For a description of how Pacific Power will
	PSF	PS is likely to occur, it must deliver		provide notification of a potential PSPS
	noti	fication of the PSPS to its Public		event, refer to:
	Saf	ety Partners, operators of utility-		Section 8.5 Public Safety Partner
	ider	ntified critical facilities, and adjacent		Coordination Strategy -
	loca	al Public Safety Partners.		Communication Protocol.
(a)	Tof	the extent practicable, the Public	2024 WMP	For a description of how Pacific Power will
	Utili	ity must provide priority notification		provide notification of a potential PSPS
	dire	ectly to the Public Safety Partners,		event, refer to:
	ope	erators of utility-identified critical		Section 8.5 Public Safety Partner
	faci	lities, and adjacent local Public Safety		Coordination Strategy – Communication
	Par	tners.		Protocol.
(b)	In n	otifying Public Safety Partners and	2024 WMP	For a description of how Pacific Power will
	utili	ty identified critical facilities of PSPS		provide notification of a potential PSPS
	eve	nts, including adjacent local Public		event, refer to:
	Saf	ety Partners, the utility will		Section 8.5 Public Safety Partner
	con	nmunicate the following information,		Coordination Strategy – Communication
	at a	a minimum:		Protocol.
	Α.	The PSPS zone, which would	2025 WMP Update	Please see Public Safety Partner Portal
		include Geographic Information		below for an update on the status of the
		System shapefile(s) depicting		Portal. The Portal is now available for
		current boundaries of the area		Public Safety Partners and provides
		subject to a de-energization;		access to Geographic Information System
				shapefile(s) depicting current boundaries of
				the area subject to a de-energization
				during a PSPS event.
	Β.	Date and time PSPS will be	2024 WMP	For a description of how Pacific Power will
		executed;		provide notification of a potential PSPS
				event, refer to:
				Section 8.5 Public Safety Partner
				Coordination Strategy – Communication
				Protocol.

#### Table 4: Compliance Index for OAR 860-300-0050

	PSP	S Communication Requirement	Reference Document	Corresponding Plan Section / Reference
	C.	Estimated duration of PSPS;	2024 WMP	For a description of how Pacific Power will
				provide notification of a potential PSPS
				event, refer to:
	D.	Number of customers impacted by	2024 WMP	Section 8.5 Public Safety Partner
		the PSPS;		Coordination Strategy – Communication
				Protocol.
	E.	When feasible, the Public Utility will	2024 WMP	For a description of how Pacific Power will
		support Local Emergency		provide notification of a potential PSPS
		Management efforts to send out		event, refer to:
		emergency alerts;		
	F.	At a minimum, status updates at 24-	2024 WMP	Section 8.5 Public Safety Partner
		hour intervals until service has been		Coordination Strategy – Communication
		restored;		Protocol.
	G.	Notice of when re-energization	2024 WMP	For a description of how Pacific Power will
		efforts will begin and when re-		provide notification of a potential PSPS
		energization is expected to be		event, refer to:
		complete; and		
	Η.	Information provided under this rule	2024 WMP	Section 8.5 Public Safety Partner
		does not preclude the Public Utility		Coordination Strategy – Communication
		from providing additional		Protocol.
		information about execution of the		
		PSPS to its Public Safety Partners.		
(-)		Alf in a difference of a state of	0004 14/14/2	
(C)	In n	notifying utility-designated critical	2024 WMP	For a description of how Pacific Power will
	faci	lities, the Public Utility will		provide notification of a potential PSPS
	con	nmunicate the following information,		event, refer to:
	at a	i minimum:		
	Α.	Data and time PSPS will be	2024 WMP	Section 8.5 Public Safety Partner
		executed;		Coordination Strategy – Communication
				Protocol.
	В.	Estimated duration of PSPS;	2024 WMP	For a description of how Pacific Power will
				provide notification of a potential PSPS
				event, refer to:
	C.	At a minimum, status updates at 24-	2024 WMP	For a description of how Pacific Power will
		hour intervals util service has been		provide notification of a potential PSPS
		restored;		event, refer to:
	D.	Notice of when re-energization	2024 WMP	Section 8.5 Public Safety Partner
		efforts will begin and when re-		Coordination Strategy – Communication
		energization is expected to be		Protocol.
		complete; and		

PSPS Communication Requirement	Reference Document	Corresponding Plan Section / Reference
E. In addition to the above	2025 WMP Update	Please see Public Safety Partner Portal
requirements, utilities will also		below for an update on the status of the
provide Geographic Information		Portal. The Portal is now available for
Files with as much specificity as		Public Safety Partners and provides
possible to Operators of		access to Geographic Information System
Communications facilities in the		shapefile(s) depicting current boundaries of
area of the anticipated PSPS.		the area subject to a de-energization
		during a PSPS event.
(d) ESF-12 will notify Oregon Emergency	2024 WMP	For a description of how Pacific Power will
Response System (OERS) partners and		provide notification of a potential PSPS
Local Emergency Management in		event, refer to:
coordination with Oregon's Office of		Section 8.5 Public Safety Partner
Emergency Management.		Coordination Strategy – Communication
		Protocol.)
(2) When a Public Utility determines that a	2024 WMP	A description of how a PSPS will be
PSPS is likely to occur, the Public Utility		determined and information is updated and
must provide advance notice of the		communicated can be found in:
PSPS to customers via a PSPS web-		Section 8.5 Public Safety Partner
based interface on the Public Utility's		Coordination Strategy –
website and other media platforms and		Communication Protocol.
may communicate PSPS information		Section 9.7 Public Safety Partner
directly with customers consistent with		Coordination Strategy, Public Safety
this rule.		Partner Portal, and
		Section 10 Wildfire Safety &
		Preparedness Engagement Strategy,
		Wildfire Safety, Preparedness, and
		PSPS Webpages.
(a) In providing notice to customers about a	2024 WMP	For detailed information and methods in
PSPS, the Public Utility will, at a		which the information will be
minimum:		communicated to customers in the event of
		a Public Safety Power Shutoff, please refer
		to:
		Section 8.5, Public Safety Partner
		Coordination Strategy,
		Communication Protocol.
Utilize multiple media platforms to maximize	2024 WMP	For detailed information and methods in
customer outreach, including but not limited		which the information will be
to, social media, radio, television, and press		communicated to customers in the event of
releases;		a Public Safety Power Shutoff, please refer
		to:
		Section 8.5, Public Safety Partner
		Coordination Strategy,
		Communication Protocol.

PSPS Communication Requirement	Reference Document	Corresponding Plan Section / Reference
A. Consider the geographic and	2024 WMP	For detailed information and methods in
cultural demographics of affected		which the information will be
areas, including but not limited to		communicated to customers in the event of
broadband access, languages		a Public Safety Power Shutoff, please refer
prevalent within the utility's service		to:
territories, considerations for those		Section 8.5, Public Safety Partner
who are vision or hearing impaired;		Coordination Strategy,
and		Communication Protocol.
B. Display on its website homepage a	2024 WMP	For detailed information and methods in
prominent link to access current		which the information will be
information about the PSPS,		communicated to customers in the event of
consistent with OAR 860-300-0060,		a Public Safety Power Shutoff, please refer
including a depiction of the		to:
boundary. The PSPS information		Section 8.5, Public Safety Partner
must be easily readable and		Coordination Strategy,
accessible from mobile devices.		Communication Protocol.
(b) The Public Utility may directly notify its	2024 WMP	For detailed information and methods in
customers through email communication		which the information will be
or telephonic notification (e.g., text		communicated to customers in the event of
messaging and phone calls) when it will		a Public Safety Power Shutoff, please refer
not impede Local Emergency		to:
Management alerts due to capacity		Section 8.5, Public Safety Partner
limitations. If the Public Utility provides		Coordination Strategy,
direct notification, the Public Utility will		Communication Protocol.
communication the following information,		
at a minimum:		
A. A statement of impending PSPS	2024 WMP	For detailed information and methods in
execution, including an explanation		which the information will be
of what a PSPS is and the risks that		communicated to customers in the event of
the PSPS would be mitigating;		a Public Safety Power Shutoff, please refer
		to:
B. Date and time PSPS will be	2024 WMP	Section 8.5, Public Safety Partner
executed;		Coordination Strategy,
		Communication Protocol.
C. Estimated duration of PSPS;	2024 WMP	For detailed information and methods in
		which the information will be
		communicated to customers in the event of
		a Public Safety Power Shutoff, please refer
		to:
D. A 24-hour means of contact	2024 WMP	Section 8.5, Public Safety Partner
customers may use to ask		Coordination Strategy,
questions or seek information;		Communication Protocol.

	PSP	PS Communication Requirement	Reference Document	Corresponding Plan Section / Reference
	E.	How to access details about the	2024 WMP	For detailed information and methods in
		PSPS via the Public Utility's		which the information will be
		website, including education and		communicated to customers in the event of
		outreach materials disseminated in		a Public Safety Power Shutoff, please refer
		advance of the annual wildfire		to:
		season;		Section 8.5, Public Safety Partner
				Coordination Strategy,
				Communication Protocol.
	F.	After initial notification, the Public	2024 WMP	For detailed information and methods in
		Utility will provide, at a minimum,		which the information will be
		status updates at 24-hour intervals		communicated to customers in the event of
		until the conditions prompting the		a Public Safety Power Shutoff, please refer
		PSP have ended; and		to:
				Section 8.5, Public Safety Partner
				Coordination Strategy,
				Communication Protocol.
	G.	Notice of when re-energization	2024 WMP	For detailed information and methods in
		efforts will begin and when re-		which the information will be
		energization is expected to be		communicated to customers in the event of
		complete.		a Public Safety Power Shutoff, please refer
				to:
				Section 8.5, Public Safety Partner
				Coordination Strategy, Communication
				Protocol.
(3)	То	the extent possible, the Public Utility	2024 WMP	For a description on the timeline for
	will	adhere to the following minimum		notifications, see:
	not	ification prioritization and timeline in		Section 8.5 Public Safety Partner
	adv	vance of a PSPS;		Coordination Strategy,
				Communication Protocol.
(a)	48-	72 hours in advance of anticipated	2024 WMP	For a description of the timeline for
	de-	energization, priority notification to		notifications, see:
	Pul	blic Safety Partners, operators of		Section 8.5 Public Safety Partner
	utili	ity-identified critical facilities, and		Coordination Strategy,
	adj	acent local Public Safety Partners;		Communication Protocol.
(b)	24-	48 hours in advance of anticipated	2024 WMP	Section 8.5 Public Safety Partner
	de-	energization, when safe: secondary		Coordination Strategy,
	not	ification to all other affected		Communication Protocol.
	cus	stomers; and		
(C)	1-4	hours in advance of anticipated de-	2024 WMP	For a description on the timeline for
	ene	ergization, if possible: notification to all		notifications, see Section 8.5 Public Safetv
	affe	ected customers.		Partner Coordination Strategy
				Communication Protocol.

	PSPS Communication Requirement	Reference Document	Corresponding Plan Section / Reference
(4)	The Public Utility's communications	2024 WMP	Information on how Pacific Power works
	required under this rule do not replace		with public safety partners including law
	emergency alerts initiated by local		enforcement and fire agencies can be
	emergency response.		found in:
			Section 8.5 Public Safety Partner
			Coordination Strategy,
			Communication Protocol.
(5)	Nothing in this rule prohibits the Public	2024 WMP	For a description on the information that
	Utility from providing additional		will be shared to public safety partners,
	information about the execution of the		critical facilities, and customers, please
	PSPS to Public Safety Partners, utility-		reference:
	identified critical facilities, or customers.		Section 8.5 Public Safety Partner
			Coordination Strategy,
			Communication Protocol.

# OAR 860-300-0060 - ONGOING INFORMATIONAL REQUIREMENTS FOR PUBLIC SAFETY POWER SHUTOFFS (PSPS)

Table 5 shows Pacific Power's adherence to the Oregon Administrative Rules (OAR) regarding ongoing informational requirements for PSPS.

	PSPS Informational Requirement	Reference Document	Corresponding Plan Section / Reference		
(1)	The Public Utility will create a web-	2025 WMP Update	Please see the Public Safety Partner Portal		
	based interface that includes real-time,		below for an update on the status of the		
	dynamic information non location, de-		Portal. The Portal is now available for		
	energization duration estimates, and		Public Safety Partners		
	re-energization estimates. The web-	2024 WMP	For details on the information Pacific Power		
	based interface will be hosted on the		shares with customers regarding its		
	Public Utility's website and must be		evaluation of the likelihood of PSPS, refer		
	accessible during a SPSP event. The		to:		
	Public Utility will complete the web-		• Section 10.4, Wildfire Safety,		
	based interface before March 31,		Preparedness, and PSPS Webpages.		
	2024.				

	PSPS Informational Requirement	Reference Document	Corresponding Plan Section / Reference
(2)	The Public Utility will make its	2024 WMP	For details on the information Pacific Power
	considerations when evaluating the		shares with customers regarding its
	likelihood of a PSPS publicly available		evaluation of the likelihood of PSPS, refer
	on its website. These considerations		to:
	include, but are not limited to strong		Section 10.4, Wildfire Safety,
	wind events, other current weather		Preparedness, and PSPS Webpages.
	conditions, primary triggers in high-risk		
	zones that could cause a fire, and any		
	other elements that define an extreme		
	fire hazard evaluated by the Public		
	Utility.		
(3)	The Public Utility will ensure that its	2024 WMP	The bandwidth capacity of the Public Safety
	website has the bandwidth capable of		Power Shutoff webpage is described in:
	handling web traffic surges in the		• Section 10.4, Wildfire Safety,
	event of a Public Safety Power		Preparedness, and PSPS Webpages.
	Shutoff.		
(4)	The Public Utility will work to provide	2025 WMP Update	Please see the Public Safety Partner Portal
	real-time geographic information		below for an update on the status of the
	pertaining to PSPS outages		Portal. The Portal is now available for
	compatible with Public Safety Partner		Public Safety Partners.
	GIS platforms.		
		2024 WMP	For details on the information Pacific Power
			shares with customers regarding its
			evaluation of the likelihood of PSPS, refer
			to:
			• Section 10.4, Wildfire Safety,
			Preparedness, and PSPS Webpages.
1			

# OAR 860-300-0070 - REPORTING REQUIREMENTS FOR PUBLIC SAFETY POWER SHUTOFFS (PSPS)

Table 6 shows Pacific Power's adherence to the Oregon Administrative Rules (OAR) regarding reporting requirements for PSPS.

	PSPS Reporting Requirement	Reference Document	Corresponding Plan Section / Reference
(1)	The Public Utility is required to file	2024 WMP	Please see Pacific Power's Annual PSPS Report,
	annual reports on de-energization		filed with the OPUC as Investor-Owned Utilities
	lessons learned, providing a narrative		Public Safety Power Shut Off (PSPS) Reports in
	description of all PSPs events which		docket UM 2268 and referenced in Section 8.8
	occurred during the fire season.		Public Safety Power Shutoff Program, Experience.
	Reports must be filed not later than		
	December 31 <sup>st</sup> of each year.		
(2)	Non-confidential versions of the	2024 WMP	See Pacific Power's Annual PSPS Report filed in
	reports required under this section		docket UM 2268 which is also referenced in Section
	must also be made available on the		8 Public Safety Power Shutoff (PSPS) Program,
	Public Utility's website.		Experience.

#### Table 6: Compliance Index for OAR 860-300-0070

# 3. SIGNIFICANT RISK MODEL UPDATES 3.1 Significant Updates

Below are discussed Pacific Power's risk models which had changes or are new models in 2024:

- Changes to FireSight, the model that is used for baseline risk assessment.
- Changes to the FireRisk and FireSim models that are used for situational awareness.
- A new PSPS Circuit Forecast Editor Model that is used to produce a circuit by circuit forecast in advance of a potential public safety power shutoff.

## FIRESIGHT MODEL UPDATE

The FireSight risk model is used for baseline risk by combining utility asset information and data with public data regarding community characteristics, terrain, vegetation, and weather information, to provide ignition risk scores at points along a circuit. The model is described in detail in Section 1.2<sup>2</sup> of the 2024 WMP.

In 2024, Pacific Power expanded the domain included in FireSight risk modeling to include all its service territory and Company owned transmission outside of its service territory. Figure 1 below shows the changes in domain from 2023 to 2024, with the service territory included in the 2023 risk modeling in blue and expanded service territory shown in yellow and the company-owned transmission outside of the service territory is shown in purple.

<sup>2 2024</sup> Oregon Wildfire Mitigation Plan. Pages 18-27.



Figure 1: Changes in Service Territory Modeled in FireSight from 2023 to 2024

In 2024 Pacific Power modeled eight-hour and 24-hour risk using the FireSight model data in the expanded domain to better understand if there are significant differences that may impact how the Company identifies baseline risk<sup>3</sup>. After reviewing the eight-hour and 24hour results and discussing the results other utilities and with Technosylva, the vendor that owns and operates the FireSight risk model, Pacific Power will continue to use the eight-hour model outputs for baseline risk.

Technosylva made changes to the model regarding fuel models, weather days, estimation of live fuel moisture content, wildfire urban interface updates, historic fire incident analysis, and disturbance analysis. Information on the specific changes and impacts on the FireSight model is proprietary and can be provided upon request to the OPUC confidentially under OAR 860-001-0070.

<sup>3 &</sup>lt;u>2024 Oregon Wildfire Mitigation Plan.</u> Page 20.

## FIRERISK AND FIRESIM MODEL UPDATES

As described in Section 5.4 of the 2024 WMP, FireRisk and FireSim are two seasonal wildfire models used by the Company to forecast the risk of wildfire and the potential behavior of a wildfire, should it occur<sup>4</sup>. In 2024, Pacific Power expanded the domain modeled by FireRisk and FireSim to the same area as shown in Figure 1 above. The updates to fuels, fire incident analysis, disturbance analysis, and annual update of population and building layers described above in FireSight Model Update also apply to FireRisk and FireSim.

### PSPS CIRCUIT FORECAST EDITOR

The PSPS Circuit Forecast Editor is a tool that streamlines the process for the Meteorology team to produce a circuit by circuit forecast in advance of a potential public safety power shutoff (PSPS) event. Prior to the implementation of this tool, circuit forecasts were created by individual Meteorologists, which could take up to a day to produce if a PSPS event was forecast to be a widespread event. With the implementation of the PSPS Circuit Forecast Editor tool, forecasters can identify circuits or zones of protection (ZOPs) that are at most risk of meeting the PSPS criteria more quickly and up to 96 hours (four days) in advance of a potential PSPS event. As a result, Pacific Power can provide more lead time to communicate with customers and Public Safety Partners about a PSPS event. The tool allows quicker identification of isolation facility points and weather stations that need to be monitored by Meteorology. The PSPS Circuit Forecast Editor is not the determining factor in whether a PSPS event will occur but is a tool to identify the circuits and ZOPs that would be under consideration for de-energization should a PSPS be initiated. Model inputs are in Appendix D – PSPS Circuit Forecast Editor Data Inputs.

When there is a forecast that indicates the conditions may be met for a PSPS event, the Meteorology team uses the PSPS Circuit Forecast Editor to identify the circuits and ZOPs

<sup>4 &</sup>lt;u>2024 Oregon Wildfire Mitigation Plan</u>. Pages 99-103.

where wind gusts may meet or exceed the 96<sup>th</sup> percentile for that location. Figure 2 below is an example of how this is displayed with the circuits in yellow, orange, and red representing the ZOPs where the wind gusts are forecast to exceed the 96<sup>th</sup> percentile within the forecast window.



Figure 2: Example of Zones of Protection with Forecasted Wind Gusts Exceeding the 96<sup>th</sup> Percentile.

Figure 3 below shows the wind gust percentile scale.



Figure 3: Wind Gust Percentile Scale

After identification of the circuits and ZOPs that may reach the 96<sup>th</sup> percentile of gusts, a list is generated that identifies every weather station, both Pacific Power owned and publicly owned, that is assumed to be representative of weather conditions along each circuit, as well as a forecast wind gust graph from multiple weather forecast models for the selected circuits. As shown below in Figure 4 the list on the top shows the calculated historical 95<sup>th</sup> and 99<sup>th</sup> percentile wind gusts observed for each of the weather stations providing reference for forecasters to generate a forecast.

STD Forecast: Editor 🏠 🚯 STD Viewer (Add Circuits by Polygon)											
<b>T</b> =							💉 Edit Single Fo	recast 🧪 Edit Multiple Fore	casts 🛛 💼 Delete Multiple Forei	casts 💮 New Forecast 🧄 Expo	ort Forecast
KEYWORD (PRESS ENTER TO SEARCH) Keyword (Press Enter to search)		3 Gircuits in Forecast 0 With Missing W	leather Stations			13 -				Add Circuits by Polygor	3
CIRCUIT ID				WWG Station ID							Peak Gus
<ul> <li>✓ 4U22</li> <li>✓ 5U83</li> </ul>	4	5U84	PC243	PAC-3447	PacifiCorp	28	34			Oct 12, 2024, 9:00 AM	13
<b>5U84</b>	7	5U84	PC227	PAC-3393	PacifiCorp					Oct 13, 2024, 2:00 PM	14
		5U84	PC218	PAC-3459	PacifiCorp	28	35.8			Oct 12, 2024, 8:00 PM	
WEATHER STATION ID		5U84	PC216	PAC-3431	PacifiCorp	37.4	45.9			Oct 12, 2024, 6:00 AM	
	1 2	5U84	PC212	PAC-3406	PacifiCorp	21.2	30.8	Oct 12, 2024, 7:00 PM	Oct 12, 2024, 8:00 PM	Oct 12, 2024, 7:00 PM	
PC207	1	5U84	PC207	PAC-3450	PacifiCorp	21.7	27.7	Oct 12, 2024, 7:00 PM	Oct 12, 2024, 8:00 PM	Oct 12, 2024, 7:00 PM	23
PC208	1	5084	NBKU3 PC243	No volue	PacifiCorp	39	34			Oct 12, 2024, 7:00 PM	12
PC212	1	3003	10240	The state	racincorp	20	5.	NO-NOIDE		OLL 12, 2027, 3100 MM	15
Show more	Ri	ight click a cell to edi	it an individual fore	cast. Use the checkmar	ks to select multiple	forecasts to edit at once	. All timestamps shown in us	er's local timezone.			
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Figure 4: Example of Weather Station Data and Circuit Forecast Data in the PSPS Circuit Forecast Editor

For each weather station, the forecaster enters a forecast time for when wind gusts are expected to exceed and drop below the 95<sup>th</sup> and 99<sup>th</sup> percentile, as well as when it is expected to peak in strength and at what speed. This is shown in an example in Figure 5 below.
PSPS Circuit Forecast Edito	or 🔆 🛛 🚷 Home 🕅 SEDI Viewer	(Add Circuits by Polygon)				T SF0i Forecast: 1	SFDI-2024-10-10 15:00:53.980416	0 × 0
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CIRCUIT ID								
4U22 10		/ Update Multiple Forecast Cells						
SU83 4		6						
		21 [PSPS] Circuit Weather Station Fore	casts					
WEATHER STATION ID		2 P95 Gusts						
NBK03 1			Edited		Edited			
PC206 1		Oct 11, 2024, 4:00 AM	MDT	Oct 11, 2024, 8:00 PM	MDT			
PC208 1								
PC212 1		P99 Gusts						
Show more		P99 Gust Start Timestamp	Edited	P99 Gust End Timestamp	Edited			
		OCI 11, 2024, 11:00 AM	MDI	Oct 11, 2024, 4.00 PM	MDI			
		Peak Gusts						
		Peak Gust Timing	Edited	Peak Gust Value	Edited			
		Oct 11, 2024, 2:30 PM	MDT	37	~			
					C Reset Submit			
							WWG Observed Gusts	
Add filter		06 PM Fri 11 06 AM 12 PM				AM 12.PM 06.PM		

Figure 5: Example of Wind Gust Timing in the PSPS Circuit Forecast Editor

When the forecasts are complete, a summary including the list of circuits, the facility point where ZOPs can be isolated when applicable, associated weather station information and forecast information is exported into an Excel spreadsheet to be distributed to the appropriate personnel to prepare for PSPS watch.

# **3.2 Top Risk-Contributing Circuits, Segments, or Spans**

At this time, Pacific Power has no changes to list of the top risk-contributing circuits, segments, or spans presented in Table 5 of the 2024 WMP<sup>5</sup>.

<sup>5 &</sup>lt;u>2024 Oregon Wildfire Mitigation Plan.</u> Pages 33-34.

# 4. NEW OR DISCONTINUED INITIATIVES

Table 7: New and Discontinued Initiatives below shows the new or discontinued initiatives. A discussion of the new and discontinued initiatives is below the table.

Initiative	Initiative Subcategory	Utility Initiative Name	2024 WMP Page(s)	New Initiative	Discontinued Initiative	Reason for Change
Community Outreach and Public Awareness	Best Practice Sharing with Other Utilities	Western Utilities Wildfire Communications Workshop	N/A	$\checkmark$		Regulatory
Grid Design and System Hardening	Traditional Overhead Hardening	Line Rebuild — Transmission	N/A	$\checkmark$		Other
Grid Design and System Hardening	Transmission pole/tower replacements and reinforcements	Transmission Pole Replacement	N/A	$\checkmark$		Other
Grid Design and System Hardening	Distribution pole replacements and reinforcements	Pole Wrapping	N/A	$\checkmark$		Internal Policy Change
Grid Operations and Protocols	Grid Operations and Protocols - Performance Monitoring	Distribution Protection Settings Review	110	$\checkmark$		Other
Situational Awareness and Forecasting	Situational Awareness and Forecasting-Other	Wildfire Intelligence Center	N/A	$\checkmark$		Other
Risk Methodology and Assessment	Risk Methodology and Assessment	Fire Incident Root Cause Analysis	47, 49		$\checkmark$	Other

#### Table 7: New and Discontinued Initiatives

# 4.1 New Initiatives

## WESTERN UTILITIES WILDFIRE COMMUNICATIONS WORKSHOP

**Reason for New Initiative:** In response to Recommendation 24-230-O, Pacific Power hosted a one-day workshop on November 19, 2024, in Portland, Oregon to meet with communications teams from western utilities to discuss wildfire communications. Events included discussions on internal communications, digital media, paid media, media relations, community engagement, lessons learned from the 2024 wildfire season and a look ahead to 2025 challenges. Communications teams were invited from AltaLink, ATCO, Avista, Fortis Alberta, Fortis BC, Idaho Power, NV Energy, Pacific Gas and Electric, Pacific Page 34 Power, Portland General Electric, Puget Sound Energy, Rocky Mountain Power, San Diego Gas and Electric, and Xcel. To support this initiative, two additional workshops are planned for March and November 2025.

# LINE REBUILD - TRANSMISSION

**Reason for the Change:** Pacific Power has approximately 643 miles of transmission in the FHCA<sup>6</sup>, the Company will begin hardening overhead transmission lines as part of the Company's effort to mitigate ignition risk from utility equipment in the FHCA.<sup>7</sup>

## TRANSMISSION POLE REPLACEMENT

**Reason for the Change:** As discussed above in Line Rebuild — Transmission, Pacific Power installing hardened transmission line as part of the line rebuild program to mitigation ignition risk from utility equipment in the FHCA. To support the new hardened transmission lines, the Company will install new transmission poles.

## **POLE WRAPPING**

**Reason for the Change:** Previously, pole wrapping was reactive in response to a potential wildfire threat. With this change, Pacific Power will proactively install fire mesh wrap ("pole wrap") around wooden distribution poles in areas of heightened wildfire risk where it is identified that the fire mesh wrapping will be an effective mitigation approach.

<sup>6</sup> Table 4. 2024 Oregon Wildfire Mitigation Plan. Page 30.

<sup>7</sup> The Company allocates the capital costs of transmission line rebuilds using the System Generation (SG) factor as set forth in the 2020 Inter-Jurisdictional Cost Allocation Agreement. On December 19, 2024, the OPUC issued Order No. 24-447 in the Company's most recently filed general case which disallowed the Company recovery of the Oregon allocated portion of the Utah transmission linerebuild costs incurred pursuant to the Utah wildfire rate mitigation plan. The Company is still reviewing the impacts of OPUC Order No. 24-447.

# DISTRIBUTION PROTECTION SETTINGS REVIEW

**Reason for the Change:** Pacific Power has identified new settings for distribution relay/recloser settings risk. The Company will engage a contractor to update the settings.

# WILDFIRE INTELLIGENCE CENTER

**Reason for the Change:** The Wildfire Intelligence Center is a new team in Emergency Management that will eventually provide 24/7 monitoring of hazards, gathering relevant situational intelligence, maintain updates for internal stakeholders, and escalate as required for appropriate actions to be taken.

# **4.2 Discontinued Initiatives**

# FIRE INCIDENT ROOT CAUSE ANALYSIS

**Reason for Discontinuing the Initiative:** In response to Recommendation 23-220-05 as described in the 2024 WMP<sup>8</sup>, Pacific Power had two projects to support tracking of ignition risk, Advanced Data Analytics and Fire Incident Root Cause Evaluation. After the implementation of Advanced Data Analytics, Pacific Power would assess the processes regarding investigation of ignition incidents and consider if any process updates were required. At this time there are no changes to investigation of ignition incidents, there is limited incident history and Pacific Power cannot estimate when there will be enough data to indicate a trend that may support a change in inspection program.

<sup>8 &</sup>lt;u>2024 Oregon Wildfire Mitigation Plan</u>. Page 200.

# 5. EXISTING INITIATIVES UPDATES 5.1 Changes to Initiative Targets

Table 8 below shows the changes in initiative target that meet the reporting requirements as described in OPUC Order 24-326:

- Changes of ten percent or greater for large volume work (equal to or greater than 100 units), from the most recently approved 2024 WMP.
- Changes of 20 percent or greater for small volume work (less than 100 units), from the approved 2024 WMP.

The original targets are presented in Appendix F — Program Goals, of the 2024 WMP and initiatives are discussed in the 2024 WMP at the specific page numbers listed in Column "2024 WMP Page(s)." Pacific Power has made its best efforts to map the initiative targets as presented in the 2024 WMP to the new initiative categories and subcategories approved by the OPUC and below present the initiative subcategories that meet the threshold to be discussed in the update.

Initiative	Initiative Subcategory	2024 WMP Page(s)	Units	2025 Target in 2024 WMP	2025 Target in WMP Update	% Change	Reason for Change
Community Outreach and Public Awareness	Best Practice Sharing with Other Utilities	N/A	Meetings	0	2	100%	Regulatory
Grid Design and System Hardening	Distribution Pole Replacements and Reinforcements	80	Assets	2,750	4,225	54%	Internal Policy Change, Other,

#### Table 8: Initiatives with Changes to Targets

Initiative	Initiative Subcategory	2024 WMP Page(s)	Units	2025 Target in 2024 WMP	2025 Target in WMP Update	% Change	Reason for Change
Grid Design and System Hardening	Covered Conductor Installation (Tree Wire)	77-79, 81-	Milco	105	165	40%	Other
Grid Design and System Hardening	Spacer Cable Installation	83, 177	Miles	125	10	40%	Other
Grid Design and System Hardening	Installation of System Automation Equipment	86-87	Assets	2,540	1,258	-50%	Other
Grid Design and System Hardening	Installation of System Automation Equipment (CFCI)	86-87	Assets	4,070	2,170	-48%	Other
Grid Design and System Hardening	Grid Design and System Hardening: Other Technologies Not Listed Above	85-86	Assets	5,537	8,000	44%	Other
Grid Design and System Hardening	Traditional Overhead Hardening	N/A	Miles	0	10	100%	Other
Grid Design and System Hardening	Transmission Pole/Tower Replacements and Reinforcements	N/A	Assets	0	180	100%	Other
Inspect/Correct	Asset Inspections	54-67, 171, 176-177, 227	Miles	2,250	2,574	29%	Other

Initiative	Initiative Subcategory	2024 WMP Page(s)	Units	2025 Target in 2024 WMP	2025 Target in WMP Update	% Change	Reason for Change
Inspect/Correct	Fire Season Safety Patrols	54-67, 171, 176-177, 227	Assets	71,500	124,321	74%	Internal Policy Change
PSPS/Emergency Preparedness	Battery Programs	165-166, 176, 231	# of Medically Vulnerable Customers	200	50	-75%	Lessons Learned

# BEST PRACTICE SHARING WITH OTHER UTILITIES

**Reason for the Change:** As discussed above, Pacific Power has a new initiative, Western Utilities Wildfire Communications Workshop, and the plan is to host two workshops in 2025. As a result, this is an overall target increase in the best practice sharing with other utilities.

# DISTRIBUTION POLE REPLACEMENTS AND REINFORCEMENTS

**Reason for the Change:** There are two drivers for the change in the 2025 target:

- As discussed below, Pacific Power is increasing the target for Covered Conductor Installation (Tree Wire) and Spacer Cable Installation. As a result, the Company is increasing the target for the number of distribution poles replaced to support the rebuilt lines. Costs for distribution pole replacement are included in the line rebuild initiative costs.
- 2. As discussed in 4.1 New Initiatives, Pole Wrapping is a new program and 2025 will be the first year there are targets for installation.

# COVERED CONDUCTOR INSTALLATION (TREE WIRE) AND SPACER CABLE INSTALLATION

**Reason for the Change:** Due to the expansion of the FHCA in 2024, Pacific Power has identified additional overhead distribution for hardening to mitigate the risk of ignition from overhead distribution equipment. The 2024 WMP did not differentiate between tree wire and spacer cable in setting the 2025 target of 125 miles, the updated 2025 target is 175 miles with 165 miles of tree wire and ten miles of spacer cable.

# INSTALLATION OF SYSTEM AUTOMATION EQUIPMENT

**Reason for the Change:** There are two drivers for the change in target

- For Enhanced Safety Setting (ESS) Circuit Setting, Pacific Power has adjusted the target from 40 to eight based on updated information on the circuits planned for ESS hardening in 2025.
- 2. The Fast Trip Fault Indicators target has changed as the Company has shifted to using CFCIs for fault detection.

# INSTALLATION OF SYSTEM AUTOMATION EQUIPMENT (CFCI)

**Reason for the Change:** In the 2024 WMP filing, Pacific Power communicated that there would be 2,500 CFCIs installed in 2025<sup>9</sup>. The 2,500 represented the total number of planned CFCI installations for all six states the Company serves and not number of planned 2025 installations in Oregon, which is 600.

<sup>9 2024</sup> Oregon Wildfire Mitigation Plan. Page 228 "Fast Trip Fault Indicators."

# GRID DESIGN AND SYSTEM HARDENING: OTHER TECHNOLOGIES NOT LISTED ABOVE

**Reason for the Change:** The expulsion fuse replacement target has increased due to the expansion of the FHCA in 2024, which identified additional fuses that need to be replaced by the Company.

# TRADITIONAL OVERHEAD HARDENING

**Reason for the Change:** As discussed above in Section 4.1 New Initiatives, Pacific Power will begin hardening transmission lines and is targeting ten miles of installation in 2025.

# TRANSMISSION POLE/TOWER REPLACEMENTS AND REINFORCEMENTS

**Reason for the Change:** As discussed in Line Rebuild — Transmission, the Company has a new initiative to harden transmission lines, because of this initiative the Company also has a new initiative for replacing transmission poles to support the ten miles of transmission line rebuilds targeted in 2025. Costs for transmission pole replacement are included in the line rebuild initiative costs.

## ASSET INSPECTIONS

**Reason for the Change:** Pacific Power has confirmed that the miles of infrared inspections for transmission have increased for 2025, from 2,000 to 2,574.

## FIRE SEASON SAFETY PATROLS

**Reason for the Change:** The change due to a change in Company policy that adjusts the frequency of overhead visual assurance inspections for distribution equipment outside the FHCA from biennial to annual. The Company made this change to create consistency in its equipment inspection practices across the six-state service territory.

## **BATTERY PROGRAMS**

**Reason for the Change:** Based on lessons learned from Pacific Power's Medical Baseline Relate program in California and Oregon, the Company has adjusted its 2025 targets accordingly. For discussion on program effectiveness evaluation, please see Recommendation 24-230-13.

# **5.2 Changes to Initiative Completion Dates**

Table 9 below shows the initiatives with completion dates that shifted into the next calendar year.

Initiative	Initiative Subcategory	Utility Initiative Name	2024 WMP Page(s)	Forecasted Completion in 2024 WMP	Forecasted Completion Date in 2025 WMP Update	Reason for Change
PSPS/Emergency Preparedness	Public Safety Portal	Public Safety Partner Portal	125, 135, 142, 173	2024	2025	Other
Risk Methodology and Assessment	Risk Methodology and Assessment	Refresh to Baseline Risk Mapping (FHCA Map Update)	33, 49	2024	2025	Other
Risk Methodology and Assessment	Risk Methodology and Assessment	Risk Spend Efficiency (RSE) Model Refresh	41-45, 47, 50	2024	2025	Regulatory

#### Table 9: Initiatives with Changes to Completion Dates

# PUBLIC SAFETY PARTNER PORTAL

**Reason for the Change:** In 2024, the Public Safety Partner Portal went live for Public Safety Partners. The project was split into two phases to deliver functionality for Public Safety Partners in 2024 with phase two expected to be completed in 2025.

## **REFRESH TO BASELINE RISK MAPPING (FHCA MAP UPDATE)**

**Reason for the Change:** As described in the 2024 WMP "Pacific Power also intends to continue evaluating the FHCA on an annual basis to incorporate new data, modeling techniques, and stakeholder input. . . If appropriate, Pacific Power may further refine the

FHCA boundaries for use in the 2025 Wildfire Mitigation Plan.<sup>10</sup>" After reviewing the data, Pacific Power decided to not make any changes to the FHCA, as there were no material changes in the risk data but will evaluate the updated FireSight data in 2025 to determine if changes should be made to the FHCA for 2026. Pacific Power will consult with state agencies in 2025 regarding potential changes to the FHCA in adherence to OAR 860-300-0030 (2).

## RISK SPEND EFFICIENCY (RSE) MODEL REFRESH

**Reason for the Change:** Pacific Power made progress on RSE modeling and estimated the effectiveness of undergrounding to serve as a baseline for modeling other mitigations' effectiveness. Additional work on RSE will account for the outcomes of OPUC Staff led working groups to "adopt Risk Mitigation and Cost Valuation (RSE) as its part of its area of focus" for Recommendation 24-230-L. Pacific Power will participate in the workshops and integrate learning into its RSE modeling.

#### 5.3 Changes to Initiative Expenditures

Table 10 below shows the changes in expenditures that have a change of at least 20 percent from the initiative's total planned expenditures (capital and expense) in the 2024 WMP filing. Pacific Power has made its best efforts to map changes to initiative expenditures as presented in Tables 37 and 38 the 2024 WMP to the new initiative categories and subcategories approved by the OPUC and below present the initiative subcategories that meet the 20 percent threshold to be discussed in the update.

Initiative	Initiative Subcategory	2024 WMP Page(s)	2025 Expenditures in 2024 WMP (in millions)	2025 Expenditures in WMP Update (in millions)	% Change	Reason for Change
Community Outreach and Public Awareness	Best Practice Sharing with Other Utilities	N/A	\$ 0.00		100%	Regulatory

#### CONFIDENTIAL Table 10: Initiatives with Changes to Expenditures

10 2024 Oregon Wildfire Mitigation Plan. Page 49.

#### REDACTED

Initiative	Initiative Subcategory	2024 WMP Page(s)	2025 Expenditures in 2024 WMP (in millions)	2025 Expenditures in WMP Update (in millions)	% Change	Reason for Change
Community Outreach and Public Awareness	Community Outreach and Engagement- Performance Monitoring	155- 164, 173	\$ 0.05		33%	Other
Community Outreach and Public Awareness	WMP Engagement, Outreach, and Education Awareness Program	143- 155, 176, 232	\$ 1.45		-55%	Other
Grid Design and System Hardening Grid Design and	Covered conductor installation (Tree Wire)	77-79, 81-83, 177	\$113.75		- 178%	Other
System Hardening	Installation					
Grid Design and System Hardening	Distribution Pole Replacements and Reinforcements	N/A	\$ 0.00		100%	Internal Policy Change
Grid Design and System Hardening	Installation of System Automation Equipment (CFCI)	86-87	\$ 0.35		590%	Other
Grid Design and System Hardening	Traditional Overhead Hardening	N/A	\$ 0.00		100%	Other
Grid Design and System Hardening	Grid Design and System Hardening: Other Technologies Not Listed Above	85-86	\$ 11.10		44%	Other
Grid Operations and Protocols	Grid Operations and Protocols: Other Technologies and Systems Not Listed Above	118	\$ 0.05		384%	Other
Grid Operations and Protocols	Grid Operations and Protocols - Performance Monitoring	110	\$ 0.00		100%	Other
Grid Operations and Protocols	Grid Response Procedures and Notifications (Grid Ops)	112, 119 124- 125, 173 176, 230	\$ 3.03		-72%	Other

#### REDACTED

Initiative	Initiative Subcategory	2024 WMP Page(s)	2025 Expenditures in 2024 WMP (in millions)	2025 Expenditures in WMP Update (in millions)	% Change	Reason for Change
Inspect/Correct	Asset Inspections	54-67, 171, 176- 177, 227	\$ 0.75		20%	Other
Inspect/Correct	Fire Season Safety Patrols	54-67, 171, 176- 177, 227	\$ 0.47		83\$	Internal Policy Change
PSPS/Emergency Preparedness	Battery Programs	165- 166, 176, 231	\$ 0.08		369%	Lessons Learned
PSPS/Emergency Preparedness	Preparedness and Planning for Service Restoration	132-133	\$ 0.14		112%	Other
PSPS/Emergency Preparedness	PSPS and Emergency Preparedness- Other	120-135	\$ 0.14		95%	Other
PSPS/Emergency Preparedness	Public Safety Partner Collaboration and Coordination	129, 134, 136, 137- 138, 173, 176, 231	\$ 0.03		-50%	Lessons Learned
PSPS/Emergency Preparedness	Public Safety Portal	142	\$ 0.00		100%	Other
Situational Awareness and Forecasting	Near Term Risk Modeling	99-108	\$ 1.24		59%	Other
Situational Awareness and Forecasting	Weather Forecasting	92-96, 98-99, 176, 177, 229	\$ 1.83		220%	Other
Wildfire Mitigation Strategy Development	Wildfire Mitigation Strategy Development	169- 170, 176	\$ 0.61		-28%	Other
Vegetation Management	Vegetation Inspections	69-74, 172, 176, 179, 228	\$ 16.31		-46%	Other
Wildfire Mitigation Strategy Development	Wildfire Mitigation Strategy Development	169- 170, 176	\$ 0.61		-25%	Other

# BEST PRACTICE SHARING FOR OTHER UTILITIES

**Reason for the Change:** This change is to account for costs related to the new initiative Western Utilities Wildfire Communications Workshop.

# COMMUNITY OUTREACH AND ENGAGEMENT-PERFORMANCE MONITORING

**Reason for the Change:** These costs are related to the customers surveys conducted before and after wildfire season. Costs reflect updated information on estimated 2025 survey costs.

# WMP ENGAGEMENT, OUTREACH, AND EDUCATION AWARENESS PROGRAM

**Reason for the Change:** Initiative costs include ad campaigns, bill messages, collateral material development and production, and wildfire forums. The 2025 estimates were updated based on 2024 costs.

# COVERED CONDUCTOR INSTALLATION (TREE WIRE) AND SPACER CABLE INSTALLATION

**Reason for the Change:** Due to an increase of 50 miles for distribution line rebuild, there are incremental costs to build the additional line miles. The cost per mile has also changed, the forecasted costs in the 2024 filing were based on 2023 actuals, since that time, bids for materials have been higher than 2023 actuals. In addition, Pacific Power brought on a vendor to manage project construction, and this has increased initiative costs.

# DISTRIBUTION POLE REPLACEMENTS AND REINFORCEMENTS

**Reason for the Change:** This change in variance is due to the Pole Wrapping initiative. As discussed above in 4.1 New Initiatives, this work has previously been performed in response to a wildfire risk and was not budgeted for in the 2024 WMP. This work will now be performed proactively in areas of wildfire risk where it has been identified through inspections that pole wrapping would be a useful mitigation.

# INSTALLATION OF SYSTEM AUTOMATION EQUIPMENT (CFCI)

**Reason for the Change:** In the 2024 WMP filing, there was an oversight, and no costs were estimated for installation of new CFCI devices though, as described above in 5.1

Changes to Initiative Targets, there was a target. In addition, there has been an increase in data collection and management as the Company has changed to a new vendor who will provide analytics and data collection.

# TRADITIONAL OVERHEAD HARDENING

**Reason for the Change: As** discussed above, in 2025 Pacific Power will begin hardening transmission lines in Oregon and is targeting ten miles of installation in 2025. These costs were not originally forecast in the 2024 WMP.

# GRID DESIGN AND SYSTEM HARDENING: OTHER TECHNOLOGIES AND SYSTEMS NOT LISTED ABOVE

**Reason for the Change:** As discussed above, the target for the Grid Design and System Hardening: Other Technologies Not Listed Above has increased due to the expansion of the FHCA in 2024. The expenditure increase reflects the increased targets.

# GRID OPERATIONS AND PROTOCOLS: OTHER TECHNOLOGIES AND SYSTEMS NOT LISTED ABOVE

**Reason for the Change:** In 2024, Pacific Power procured 23 Starlink devices to support communications instead of the planned six devices described in the 2024 WMP. As a result of procuring more Starlink devices than forecast in the 2024 WMP, the cost for data plans to support communications in the field will increase.

# **GRID OPERATIONS AND PROTOCOLS -PERFORMANCE MONITORING**

**Reason for the Change:** As described above in New Initiatives, Pacific Power is initiating a project, Distribution Protection Settings Review, to review and update relay recloser settings. The 2025 costs are for the vendor being hired to update the settings.

# GRID RESPONSE PROCEDURES AND NOTIFICATIONS (GRID OPS)

In the 2024 WMP, the 2025 budget originally included forecast costs for patrols during high-risk events such as a PSPS, these have been removed from the budget as it is difficult to forecast due to limited history. The Company continues to budget for ESS patrols based on experience of the number of ESS patrols.

# ASSET INSPECTIONS

**Reason for the Change:** The Company has received an updated quote from the vendor who performs infrared inspections of overhead lines which is reflected in the increase in asset inspection costs.

# FIRE SEASON SAFETY PATROLS

**Reason for the Change:** As discussed above in 5.1 Changes to Initiative Targets, Pacific Power is aligning overhead visual inspections to be annual for all overhead equipment. This change increased the number of inspections performed, which increased the cost of the initiative.

# BATTERY PROGRAMS

**Reason for the Change:** As discussed above in 5.1 Changes to Initiative Targets, Pacific Power has applied the learnings from California and Oregon Medical Baseline Backup Battery Rebate Program to adjust the program target. The Company has also increased the amount of the rebate available per customer.

# PSPS AND EMERGENCY PREPAREDNESS-OTHER

**Reason for the Change:** The increase is due to increased personnel in Emergency Management to respond to wildfires and staff the Wildfire Intelligence Center. These teams are part of the Emergency Management organization, and the cost variance represented in Table 10 above are presented relative to the forecasted 2025 Emergency Management costs in the 2024 WMP.

# PUBLIC SAFETY PARTNER COLLABORATION AND COORDINATION

**Reason for the Change:** Decrease in costs based on the actual costs to host tabletop exercises in 2024.

# PUBLIC SAFETY PORTAL

**Reason for the Change:** As discussed above in 5.2 Changes to Initiative Completion Dates, the project was split into two phases to deliver functionality for Public Safety Partners in 2024 with phase two expected to be completed in 2025. 2025 costs also include maintenance costs.

# PREPAREDNESS AND PLANNING FOR SERVICE RESTORATION

**Reason for the Change:** Pacific Power has a helicopter on standby during wildfire season to support PSPS restoration. While not specifically identified in the 2024 WMP, helicopters are a resource to support PSPS restoration.

## NEAR TERM RISK MODELING

**Reason for the Change:** The change in the forecasted costs is due to the expanded domain for the FireSight and FireSim risk modeling as described above in FireRisk and FireSim Model Updates. The expanded domain cost modeling was not included in the 2024 WMP filing.

## WEATHER FORECASTING

**Reason for the Change:** Weather forecasting include the Meteorology team as well as the tools and data to forecast the weather including weather stations. The drivers for the increase are procurement of five high-performance computing clusters (HPCC) to increase modeling capabilities, two of the HPCCs are replacing the current clusters that are at end

of life and three are incremental and improvement to the Weather Research and Forecast (WRF) model.

# VEGETATION INSPECTIONS

**Reason for the Change:** The decrease in forecasted 2025 costs is due to a decrease in the targeted number of vegetation inspections targeted for the year. The Vegetation Management inspection plan is structured on a multiyear year cycle. The first year focuses on intensive inspection and analysis, and the following year focuses on targets that were recognized during the previous year's analysis as needing additional work later in the cycle.

# WILDFIRE MITIGATION STRATEGY DEVELOPMENT

**Reason for the Change:** The decrease in costs is due to a reorganization of the Wildfire Delivery team, with allocation of personnel specifically to support Pacific Power Wildfire Program Delivery and estimated allocation of the team member's time to Oregon program and strategy development.

# 6. AREAS FOR ADDITIONAL IMPROVEMENT 6.1 2024 WMP Areas for Additional Improvement

Below is a summary of the recommendations from UM 2207 Order 24-230 and Pacific Power's actions on the recommendation as of the filing of the 2025 WMP Update.

OAR 860-300-0020 (1)(A)(A) & (B)

# Recommendation 24-230-01

**Requirement:** Provide information on how climate change impacts are anticipated to influence fire risk area designation over the long term.

Utility Response: As described beginning on page 22 of the 2024 WMP:

"A 2018 study by the Climate Adaptation Science Centers warned that, "A warming climate will have profound effects on fire frequency, extent, and severity in the Pacific Northwest. Increased temperatures, decreased snowpack, and earlier snowmelt will lead to longer fire seasons, lower fuel moisture, higher likelihood of large fires, and greater area burned by wildfire. Interactions between fire and other disturbance agents (e.g., drought, insect outbreaks) will drive ecosystem changes in a warming climate. Increased tree stress and interacting effects of drought, insects, and disease may also contribute to increasing wildfire severity and burned areas. Climatic changes and associated stressors will interact with vegetation conditions, as affected by historical land uses such as tree harvest and fire suppression, to affect fire regimes and forest conditions in the future.<sup>11</sup>"

With lower fuel moisture there may be a change in the long-term risk modeling as the vegetation fuels change in response to the changing climate, the FireSight model currently accounts for climate change in modeling of the surface and canopy fuels outlook. Over the long term, climate change may result in areas being included in a FHCA that were not previously contemplated due to the changes in fuels.

<sup>11</sup> Harvey, B., Peterson, D., Havlovsky, J. "Changing Fires, Changing Forests: The Effects of Climate Change on Wildfire Patterns and

Forests in the Pacific Northwest." Sourced September 22, 2023.

### Recommendation 24-230-02

**Requirement:** 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.

**Utility Response:** As described in Section 1.2 of the 2024 WMP, Pacific Power selects the attributes, percentiles, and weightings used in the fuel/terrain-driven and wind-driven ignition risk calculation and the Asset Risk Department performs the composite (ignition) risk calculations for fuel-driven, wind/terrain-driven, and combined composite risk. The attributes, percentiles, and weightings Pacific Power selects to create and calculate the fuel/terrain-driven and wind-driven and combined composite risk scores are shown in Figure 6 below.

Risk Associated w Con	vith Ignition Loo Aponent: 60%	cation (RAIL)		Risk Associated wit Comp	h Value Exposionent: 40%	ure (RAVE)
RAIL Inputs	Percentile	Weight (%)		RAVE Inputs	Percentile	Weight (
Fire Behavior Index	95	20%	Те	rrain Difficulty Index	N/A	25%
ire Size Potential	95	20%	🛨 Fir	e Station Density	N/A	10%
Flame Length	95	20%	Fu	el Model Majority	N/A	5%
Risk Associated w Con	vith Ignition Loc Apponent: 80%	cation (RAIL)		Risk Associated wit Comp	h Value Exposi onent: 20%	ure (RAVE)
Risk Associated w Con RAIL Inputs	rith Ignition Loo aponent: 80% Percentile	cation (RAIL) Weight (%)		Risk Associated wit Comp RAVE Inputs	h Value Exposi onent: 20% Percentile	ure (RAVE) Weight (१
Risk Associated w Con RAIL Inputs Rate of Spread	vith Ignition Loc aponent: 80% Percentile 95	Cation (RAIL) Weight (%) 30%	Te	Risk Associated wit Comp RAVE Inputs rrain Difficulty Index	h Value Exposi onent: 20% Percentile N/A	ure (RAVE) Weight ( 10%
Risk Associated w Con RAIL Inputs Rate of Spread Population Impacted	vith Ignition Loc nponent: 80% Percentile 95 95	Weight (%) 30% 25%	Te Di:	Risk Associated with Comp RAVE Inputs rrain Difficulty Index sability Population	th Value Exposi onent: 20% Percentile N/A N/A	Weight ( 10% 5%

Figure 6: Attributes and Percentiles Selected for Composite Risk Calculations

## Recommendation 24-230-03

**Requirement:** 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.

**Utility Response:** At this time Pacific Power uses, multiplication, addition, and division to calculate composite risk scores described in Section 1.2 of the 2024 WMP:

 Multiplication is used to derive the scores for the individual attributes in a composite risk score. For example, for the Fire Behavior Index attribute shown used in fuel/terrain-driven composite risk score as shown in Figure 6 above, the multiplication is:

# (Fire Behavior Index Score) x (Weight)

Where the Fire Behavior Index Score is the risk score for a particular circuit or circuit segment at the 95<sup>th</sup> percentile and the weight the 20% as shown in Figure 6. Each individual attribute in the composite scores will use the same (Score x Weight) calculation to compute the individual attribute score.

 Addition is used to create the composite risk scores for fuel/terrain-driven, winddriven, and combined composite risk scores and is shown in Figure 9 of the 2024 WMP, but also described in the calculation below using fuel/terrain driven composite risk attributes shown in Figure 6 of this update:

((95th Percentile Fire Behavior Index) x (20%))

- + (95th Percentile Fire Size Potential) x (20%)
- + (95th Flame Length) x (20%) + (Terrain Difficulty Index) x (25%)
- + (Fire Station Density) x (10%) + (Fuel Model Majority) x (5%)

• The combined composite risk score is depicted in Figure 10 of the 2024 WMP and uses addition and division:

(Fuel Terrain Driven Composite Risk Score + Wind Driven Composite Risk Score) ÷ Largest Composite Risk Score for All Circuits

For the FireSight model, Pacific Power has provided Technosylva 31 years of data from the Weather Research and Forecast (WRF) Model to calculate 3,775 weather days in over 106 weather zones that best represent the days when weather and fuel conditions can lead to increased risk of ignition. FireSight uses historical fire weather days to best represent days when and where the weather and fuel conditions will most likely lead to increased risk of ignition. The model used to select the fire weather days is probabilistic and is not intended to provide a deterministic weather forecast. The fire weather days are selected using the following inputs:

- The Hot, Dry, Windy (HDW) Index
- Energy Release Component (ERC) for fuel conditions
- Wind Gusts Percentile (Gust)

The FireSight model also includes a probability of fault (POF) which predicts at the hourly level fault probabilities using wind and asset attributes across all circuits. The POF model examines all sustained outages with the potential to cause ignition including equipment faults, contact from object, vegetation contacts and integrates them with historical weather data to create dynamic circuit fragility curves. The fragility curves have two components: a static probability of fault that represents the POF in the absence of wind and the dynamic exponential increase due to wind. These curves are then used to calculate fault probabilities for each circuit on a given historical weather day within FireSight. The POF ranges on a scale from 0 to 1 and is calculated at ignition points approximately every 100 meters along distribution and transmission circuits.

Currently Pacific Power is not factoring the length of circuit exposure into the risk ranking of circuits.

#### OAR 860-300-0020 (1)(B)

## Recommendation 24-230-04

**Requirement:** 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.

**Utility Response:** Currently, Pacific Power collects information on utility-related incidents such as ignitions and outages and performs analysis of the incidents. Based on the results of the analysis, there may be updates to company material or construction standards, asset management policies and procedures, or no additional action if it was determined the equipment performed as expected.

As an example of data collected from outages leading to a mitigation activity, Pacific Power found during an outage investigation that at one point that hotline clamp connectors were connected directly to primary lines, increasing the potential for an ignition. To mitigate this risk, the Company is proactively identifying these lines during inspections and updating the equipment to the current standard. From the data being collected on outages, Pacific Power is not seeing similar issues with equipment installed to current standards.

#### Recommendation 24-230-05

**Requirement:** 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.

**Utility Response:** Pacific Power currently models short-term and long-term risk. For short-term risk, short-term fuels and regrowth in the burn area are not considerations in operational actions or selection of mitigations as they still can present a risk.

For long term risk modeling in FireSight, the primary fuels affected by the fire, severity of the fire, and the fire scar are incorporated into the model. Regrowth of fuels is also included in the model from historic fires. Simulations are run to project the regrowth of fuels over time that is accounted for in the FireSim model, and ultimately the composite risk score that Pacific Power calculates. The composite risk score, as described in Section 1.2 of the 2024 WMP is used to establish the FHCA which informs vegetation management and asset inspection activities.

Also discussed in Section 1.2 of the 2024 WMP Pacific Power is beginning to use the composite risk scores to prioritize work for planning of long term mitigations. The sequencing of the work may be affected by "information such as the results of the technical feasibility, customer and community feedback, or changes in regulation and will be updated as those issues become known.<sup>12</sup>"

## Recommendation 24-230-06

**Requirement:** 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).

**Utility Response:** As discussed above in Risk Spend Efficiency (RSE) Model Refresh, Pacific Power is making progress in measuring the effectiveness of select mitigations. The Company will also participate in the OPUC Staff-led workshops in support of Recommendation 24-230-K to calibrate on risk modeling to support quantification of

<sup>12 &</sup>lt;u>2024 Oregon Wildfire Mitigation Plan</u>. Page 40.

estimated effectiveness of individual mitigations, which is needed to quantify the cumulative risk reduction.

## Recommendation 24-230-07

**Requirement:** Provide details on any grants received and their impact on plan costs and impact to customer rates.

**Utility Response:** Pacific Power is pleased to provide an update on the status of Federal grant opportunities. With the November 2021 enactment of the Infrastructure Investment and Jobs Act (IIJA), or Bipartisan Infrastructure Law (BIL), the federal government introduced billions in grant and Ioan funding across various initiatives. PacifiCorp<sup>13</sup> carefully evaluated these programs and strategically prioritized the following key Transmission and Distribution (T&D) funding opportunities:

- Grid Resilience and Innovation Partnerships (GRIP) Program:<sup>14</sup> Encompasses grants under Sections 40101c, 40107, and 40103b, distributed over three funding rounds.
- Grid Resilience State and Tribal Formula Grants (40101d).<sup>15</sup>

PacifiCorp has actively pursued all eligible GRIP opportunities. The funding schedule for GRIP is as follows:

- Round 1: Announced in November 2022, covering Sections 40101c, 40107, and 40103b.
- Round 2: Announced in November 2023, covering the same sections.
- Round 3: Expected in early 2025.

<sup>13</sup> Grants applications were submitted as PacifiCorp as the proposed projects encompassed the six states the company serves as Pacific Power and Rocky Mountain Power.

<sup>14</sup> Grid Resilience and Innovation Partnerships (GRIP) Program | Department of Energy

<sup>15</sup> Grid Resilience State And Tribal Formula Grant | netl.doe.gov

PacifiCorp developed six GRIP applications across Rounds 1 and 2, as either primary or sub-applicant. Three projects have been awarded or invited for negotiation. PacifiCorp prioritized customer rate balance, innovation, workforce development, and support for disadvantaged communities. The awarding of grants begins an extended period of negotiations with the DOE. Successful completion of this critical negotiation period precedes any release of funding. PacifiCorp is currently under award negotiations with DOE.

**PEER**: PacifiCorp's Equity-aware Enhancement of grid Resiliency (PEER) is one of the 5.5% of applicants awarded GRIP funds across the country. As a GRIP first round winner with the DOE's Grid Deployment Office (GDO), the negotiations are ongoing, this is not uncommon for first round recipients. The PEER award promises federal funds for company projects including installation of covered conductor in the FHCA. As negotiations with the DOE are ongoing, the total dollars awarded are not confirmed until contracts are signed, and subsequent formal, specific scopes are developed that align with current project and materials costs and project timelines.

**REFORM**: PacifiCorp's Resiliency Enhancement for Fire mitigation and Operational Risk Management (REFORM) is one of the 10.4% of applicants awarded across the country. As with PEER, REFORM is a first-round winner through GRIP, and the negotiations are ongoing. REFORM award promises federal funds for company projects including wildfire detection cameras, communicating faulted circuit indicators (CFCI), advanced weather forecasting, microprocessor relays and substation connectivity. All of these circuit/substation intelligence efforts support wildfire mitigation. Negotiations with the DOE are ongoing, the total dollar amounts remain theoretical until contracts are signed, and subsequent formal, specific scopes are developed that align with current project and materials costs and project timelines.

**Oregon 40101d:** PacifiCorp proposes installing covered conductor and fire-resistant poles in rural, disadvantaged communities (DAC) northwest of Grants Pass. This initiative will support resilience in Josephine County, an area characterized by high wildfire risk and Page 58 exposure to natural hazards, which exacerbate the challenges in the mainly low-income rural communities. Resilience objectives are twofold: minimize the ignition risk and ensure a more resilient system with fewer outages. Installing covered conductor reduces phaseto-phase contacts that can cause outages or potential ignition. Replacement of wood poles with fire-resistant composite and/or steel poles reduce the risk of failure during wildfires.

All the grants require PacifiCorp to first pay project costs and then demonstrate that the cost match commitments and appropriate milestones are met, then the grant will reimburse part of the costs. PacifiCorp is considering a reimbursement approach where expenses are pooled on a monthly basis and submitted with supporting documentation to the DOE. The DOE will then review eligibility of the reimbursement request and reimburse the Company for eligible expenses. It can take approximately 60-90 days for the costs charged to the project to be reimbursed.

PacifiCorp aims to leverage federal dollars to create a more resilient, reliable, and safer grid for its customers in the most cost-efficient way possible. While these federal funding programs present significant opportunities to reduce plan costs, it is difficult to quantify the future impact now.

## OAR 860-300-0020 (1)(I)

## Recommendation 24-230-08

**Requirement:** Explain the company's experience with deployment of CFCls and explain the lack of installations in 2023.

**Utility Response:** In 2021 and 2022, Pacific Power installed approximately 2,500 communicating fault circuit indicator (CFCI) devices across its service territory. In 2023, Pacific Power ensured internal processes and training were in place to use the CFCI's appropriately across the organization.

## OAR 860-300-0020 (1)(D)

# Recommendation 24-230-09

**Requirement:** 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 Partner Portal evolves, ensure discussions with Public Safety Partners includes how the portal helps to make such contact more reliable and effective.

**Utility Response:** Public Safety Partners include:

- Emergency responders from federal, state, local and tribal governments
- Telecommunications providers
- Water agencies
- Publicly owned utilities
- Emergency hospitals
- Transportation agencies

Pacific Power utilizes the emergency management point of contact list sent monthly by Oregon Office of Emergency Management for changes to state, county, and tribal emergency management contacts. The Company also relies on local Public Safety Partners to provide updates to contacts.

## OAR 860-300-0020 (1)(E)

## Recommendation 24-230-10

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

**Utility Response:** Pacific Power emergency management and regional business managers routinely coordinate with Community Based Organizations and other organizations that provide key services to the community such as hospitals, public health, and disability organizations. Emergency management and regional business managers serve as a conduit of information to and from these community partners, including information about Company programs for customers with access and functional needs. Pacific Power is reviewing and updating the PSPS access and functional needs outreach strategy, including ways to amplify messages through these community partners. Implementation of the updated outreach strategy will begin before the 2025 wildfire season.

#### Recommendation 24-230-11

**Requirement:** Continue to evaluate effectiveness of outreach and determine optimal methods to inform communities and customers about Public Safety Power Shutoffs and other operational changes.

**Utility Response:** Pacific Power did multiple communications efforts on enhanced safety settings, or "fast trip" settings for customers before and during wildfire season. Enhanced safety settings were covered in Oregon Customer Wildfire Forums; the 2024 Oregon WMP Webinar; and a pre-wildfire season email to customers. A new enhanced safety settings video was developed and shared on social media, website, presentations and sent to Public Safety Partners. A dedicated enhanced safety settings webpage was created in English and Spanish, and customers were directed to the website through a variety of collateral pieces handed out at customer and community events. Pacific Power also focused paid media messaging on enhanced safety settings in the second and third quarters of 2024. Customers received an email or letter when their circuit was placed in enhanced safety settings for the season.

Pacific Power created a series of materials on wildfire resilience and safety that covered enhanced safety settings, emergency de-energization due to wildfire and public safety power shutoffs. This included a video in English and Spanish explaining these types of deenergizations to customers. A pamphlet for field employees, a brochure, an infographic, Page 61 and a slide deck covering these wildfire resilience and safety practices were developed and provided online and at community and customer events. A dedicated webpage for emergency de-energization due to wildfire was created in English and Spanish, featuring the materials listed above and a frequently asked questions (FAQs) section based on common questions from customers. Pacific Power also focused paid media messaging on emergency de-energization in the second and third quarters of 2024. Appendix B — Community Outreach and Public Awareness has more information on Pacific Power's outreach efforts.

Pacific Power is meeting with tribal groups to better understand communication channels and needs for wildfire mitigation and safety. The learnings from these meetings will shape how wildfire safety information will be communicated to tribal customers and communities going into 2025.

# Recommendation 24-230-12

**Requirement:** Outline the strategy for restoration actions, should a PSPS 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.

**Utility Response:** Pacific Power's restoration practices are described in Section 8.7 of the 2024 WMP. As described in that section "a step restoration process is leveraged where possible so that power to customers may be restored as the assessments progress instead of waiting for the assessment of the entire impacted area to complete prior to re-energization.<sup>16</sup>" Figure 7 below depicts a single restoration process vs. a step restoration process.

<sup>16 &</sup>lt;u>2024 Oregon Wildfire Mitigation Plan</u>. Page 132.



Figure 7: Visual Depiction of Single Restoration vs Step Restoration

To support a stepped restoration, Pacific Power situational awareness tools and work practices including:

- Isolation devices are utilized so customers can be re-energized in a stepped approach.
- The PSPS Circuit Forecast Editor described above which can be used to forecast at the circuit and ZOP level. These situational awareness tools inform when conditions improve, and restoration efforts can begin.
- Crews are staged so patrols can begin when conditions improve.

Drone inspections can be deployed where terrain and access pose a challenge. Use
of drone inspections provide Pacific Power with real time visual information on
what has potentially failed and needs to be fixed.

#### Recommendation 24-230-13

**Requirement:** Detail information regarding battery rebate program and its effectiveness.

**Utility Response:** Backup power rebate programs initiated in California, where on June 24, 2021, the commission approved Decision 21-06-034 with reporting requirements on a results-based approach to mitigate the impacts of PSPS events, including free and/or subsidized backup battery programs. These guidelines governed programs that sought to balance the risk of harm from wildfire mitigation efforts against the potential public harm associated with shutting off the power.

Initial participation in the California program was low, approximately 2%, thus a pilot was developed to test the impact of the value of the rebate and the impact to the different customer groups (medical baseline and non-medical baseline). In 2023, the pilot was expanded to Oregon, testing a larger rebate amount on backup power supplies to medical baseline customers. A summary of the current California and Oregon rebates is in Table 11 below.

State	Years Program Implemented	Customers Eligible	Years Program Implemented	Total Customer Count	Total Medical Certificate Customers	Number of Rebates to Date	% of Rebates/ Per Eligible Customers
California	3	All Customers	3	11,292	N/A	631	5.6%
Oregon	1	Medical Baseline Customers	1	626,941	1,642	26	1.6%

Table 11: Summary of Battery Rebate Programs in California and Oregon

While this is a small dataset and may not be a representative sample of decades of data collection, there are useful observations. For example, there is an average annual participation rate of approximately 2% of the qualified customer group. Additionally, the Page 64

rate averages a 2% increase a year for each state, regardless of the significant difference in rebate value, indicating that rebate value may not additionally incentivize customers or increase the number of customers that apply for a rebate.

To evaluate the effectiveness of the battery rebate program, Pacific Power is considering three groupings of metrics:

- Intake evaluation A methodology for comparing a broad list of programs that reduce the customer impact of wildfire mitigations, programs could include customer surveys, rebate programs and customer outreach. This evaluation will include numbers of customers, the type of impact and customer risk categorization. Development of this methodology is in progress.
- 2. Effectiveness The Oregon rebate program has less than a year's data, therefore California data is to evaluate effectiveness.

How is the rebate program potentially reducing the customer impact of wildfire mitigation de-energization related programs? Backup power, when used by customers in the medical baseline program, can support medical equipment power needs during a power outage such as those experienced during Enhanced Safety Settings and encroachment de-energizations. An effective medical baseline backup power rebate program should provide power to be used during an outage and in 2023, 227 customers who received backup power rebates experienced a wildfire mitigation program related outage.

How is the rebate program participation evaluated? Participation in both the California and Oregon backup power rebate programs have averaged approximately 2% of eligible participants a year. There are many reasons why a customer may not participate in a backup power program, including but not limited to, they already had backup power, they do not have the means to maintain backup power, their emergency plans do not require backup power, they do not have the financial means to purchase the backup power, or backup power is provided by

another means. Pacific Power recommends a target of 3% participation based on a study of utility residential rebate programs and will track progress on this goal.

3. Quantifiable benefit – Development of this benefit is in progress.

## OAR 860-300-0020 (1)(F)

## Recommendation 24-230-14

**Requirement:** 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.

**Utility Response:** Pacific Power emergency management and regional business managers routinely coordinate with Community Based Organizations and other organizations that provide key services to the community such as hospitals, public health, and disability organizations. Emergency management and regional business managers serve as a conduit of information to and from these community partners, including information about Company programs for customers with access and functional needs. Pacific Power is reviewing and updating the PSPS access and functional needs outreach strategy, including ways to amplify messages through these community partners. Implementation of the updated outreach strategy will begin before the 2025 wildfire season.

# OAR 860-300-0020 (1)(G)

# Recommendation 24-230-15

**Requirement:** 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.

**Utility Response:** Pacific Power made two changes regarding inspection and correction actions:

 A change that Pacific Power made in 2024 was to create an asset inspection condition I - Imminent, which is used when there is an imminent risk to safety or reliability. An imminent condition is corrected immediately upon discovery through repair, disconnection, or isolation. Table 12 shows the condition correction timelines.

Priority	Energy Release Risk	Non-FHCA	FHCA
Imminent	N/A	Immedia	ately
A	Yes	120 Days	30 Days
В	Yes	2 Years	1 Year
A	No	120 Days	120 Days
В	No	2 Years	2 Years

#### Table 12: Condition Correction Timelines

 Beginning in 2025, the Company will perform Fire Season Safety Patrols for all overhead distribution equipment annually. Currently, overhead distribution equipment inside the FHCA is inspected annually and outside of the FHCA is inspected biennially. This change will align practices for consistency across the service territory.

#### OAR 860-300-0020 (1)(H)

## Recommendation 24-230-16

**Requirement:** 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.

**Utility Response:** Pacific Power conducted a review of historical information to determine appropriate frequency of routine cycle maintenance. Due to data limitations, cycle frequency optimization could not be definitively determined, however, the analysis did support increase in frequency of inspection to yield increased program performance against maintaining clearance distances. The results of this limited analysis support increased frequency of inspection to identify and address vegetation conditions, which is consistent with the rationale of conducting off-cycle inspection in the FHCA. In addition, The Company is working on an ongoing project to implement a new work management software that will improve data quality and subsequent ability for data analysis.

## Recommendation 24-230-17

**Requirement:** 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.

**Utility Response:** Currently with the FireSight model Pacific Power can quantify ignition risk approximately every 100 meters along a circuit, the information presented in Table 5
of the 2024 WMP<sup>17</sup> reflects the combined composite risk score for a circuit. Pacific Power will participate in the workshops as described in Recommendations K and L to understand if there are more appropriate methodologies to rank circuits and circuit segments.

## JOINT UTILITY RECOMMENDATIONS

### Recommendation 24-230-A

**Requirement:** All utilities should provide Plans that allow a determination on compliance within the body of its Wildfire Mitigation Plan.

**Utility Response:** Per Order 24-326 that was approved at the September 19, 2024, Public Meeting, the Update will have a "WMP Regulatory Compliance Index which is a table identifying where the most current information is located for each WMP requirement articulated in the administrative rules (page 8)." In this 2025 WMP Update, Pacific Power has provided a Compliance Index that provides information on adherence to Oregon Administrative Rules.

The standard WMP format discussed in 24-230-D will include information that will allow a determination on compliance within the body of the WMP.

### Recommendation 24-230-B

**Requirement:** All utilities should provide multi-year Plans which are updated on an annual basis.

**Utility Response:** Pacific Power is filing this 2025 WMP Update to its approved 2024 WMP to meet the requirements of Order 24-326. Pacific Power will file a multi-year plan beginning with the 2026 WMP.

<sup>17 &</sup>lt;u>2024 Oregon Wildfire Mitigation Plan.</u> Pages 33-34.

#### Recommendation 24-230-C

**Requirement:** 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.

**Utility Response:** As described as part of the Phase 2 work in Order 24-230, Pacific Power is collaborating with Idaho Power and Portland General Electric on a glossary of shared terminology to be used beginning with the 2026 WMP filing.

#### Recommendation 24-230-D

**Requirement:** All utilities should provide WMPs in a standard format which adopts uniform chapter and section headings, as well as other agreed upon organizational features.

**Utility Response:** As described as part of the Phase 2 work in Order 24-230, Pacific Power is collaborating with Idaho Power and Portland General Electric on a standard WMP format creating uniform chapters, section headings, and other agreed-upon organizational features.

#### Recommendation 24-230-E

**Requirement:** All utilities should provide the program level details though a standard reporting templates.

**Utility Response:** Standard reporting templates were approved at the September 19, 2024, Public Meeting. Order 24-326 provides the templates and data field definitions. The data tables for reporting the first through third quarters of 2024 are submitted as part of this WMP Update, and full year 2024 data will be filed by March 31, 2025.

#### Recommendation 24-230-F

**Requirement**: All utilities should provide inspection and 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 bench markable across a broader region).

**Utility Response:** Standard reporting inspection and correction reporting templates were approved at the September 19, 2024, Public Meeting. Order 24-326 provides the templates and data field definitions. Data Tables 3-T&D Inspection and 4-T&D Correction with reporting for the first through third quarters of 2024 are submitted as part of this WMP Update, and full year 2024 data will be filed by March 31, 2025.

#### Recommendation 24-230-G

**Requirement:** 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

**Utility Response:** Standard reporting inspection and correction reporting templates were approved at the September 19, 2024, Public Meeting. Order 24-326 provides the templates and data field definitions. Data Table 5-Vegetation Management with reporting for the first through third quarters of 2024 is submitted as part of this WMP Update, and the full year 2024 data will be filed by March 31, 2025.

#### Recommendation 24-230-H

**Requirement:** All utilities should provide industry engagement information though a standard reporting template which outlines participation in industry forums and expected information to be shared in such forums, including results from pilots prior to widescale adoption, and pilot valuation methods.

**Utility Response:** As part of the Phase 2 work described in Order 24-230, Pacific Power is collaborating with Idaho Power and Portland General Electric on a standard template for reporting participation in industry forums as part of the standard WMP template described in Recommendation 24-230-D.

In this 2025 WMP Update, please see Appendix C – Industry and Regulatory Engagement and Forums for Pacific Power's 2024 participation in industry forums.

### Recommendation 24-230-I

**Requirement:** 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. 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
- Infrared patrols.

**Utility Response:** As part of the Phase 2 work described in Order 24-230, Pacific Power is collaborating with Idaho Power and Portland General Electric on a standard template for reporting pilot technologies.

#### Recommendation 24-230-J

**Requirement:** 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.

**Utility Response:** Pacific Power used the data from the FireSight risk model to update the Fire High Consequence Area (FHCA) map. The FireSight model and calculations is discussed in Section 1.2 of the 2024 WMP and the model inputs are in Appendix B. Changes to the FireSight risk model are discussed in the Significant Risk Model Updates section above.

#### Recommendation 24-230-K

**Requirement:** 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.

**Utility Response:** Pacific Power will participate in the OPUC Staff lead WMP working group described in Order 24-230 to discuss risk modeling methods and underlying assumptions in determining line segment risk.

#### Recommendation 24-230-L

**Requirement:** 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.

**Utility Response:** Pacific Power will participate in the OPUC Staff lead WMP working group described in Order 24-230 regarding risk quantification guidelines.

#### Recommendation 24-230-M

**Requirement:** 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.

**Utility Response:** Pacific Power participates in forums with other California utilities to share experiences, learnings, and industry best practices regarding system protection and wildfire risk. These meetings include representatives from Liberty Utilities, Nevada Energy, Pacific Gas and Electric, San Diego Gas and Electric, and Southern California Edison.

Pacific Power is also a member of IEEE Power System Relaying and Control (PSRC) Committee whose scope is "Treatment of all matters in which the dominant factors are the principles, application, design, construction, testing, and operation of power system protection and control. Protection and control systems include one or more of the following functions: sensing, data acquisition and processing, fault detection, manual or automatic control, and auxiliary operation.<sup>18</sup>" The Company is participating in PSRC Working Group D45, which is drafting a report "Protection Methods to Reduce Wildfire Risks due to Transmission and Distribution Lines," which will document protection methods used to reduce wildfire risks due to transmission and distribution lines.<sup>19</sup>

#### Recommendation 24-230-N

**Requirement:** 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.

**Utility Response:** In 2024, Pacific Power hosted or participated in 39 community events including nine Oregon Wildfire Mitigation Plan in person forums, with livestream, ASL and Spanish interpretation. These forums are available on demand. Pacific Power attended

<sup>18</sup> PSRC Committee. Sourced October 30, 2024.

<sup>19</sup> PSRC Line Protection Subcommittees. Sourced October 30, 2024.

four safety fairs, and two fairs focused on providing services to the access and functional needs population. Pacific Power has hosted or attended over 50 local Public Safety Partner meetings to date. Meetings include local emergency management meetings, Local Emergency Planning Committees, Regional Disaster Preparedness Organization (RDPO) and others. Pacific Power provided PSPS and wildfire preparedness presentations to various local and state partners including Oregon Health Authority, Oregon Department of Emergency Management, Oregon Emergency Management Association, Oregon Counties Association and Eastern Oregon Correctional Institution.

Pacific Power works with other utilities regarding PSPS, wildfire season and winter storm activations, preparation efforts and best practices. Pacific Power and PGE leadership meet monthly, participated in two wildfire focused forums, and meet additionally ad hoc as conditions dictate. Throughout 2024, Pacific Power has met with Avista, PGE, Bonneville Power Administration. Idaho Power, Eugene Water and Electric Board and other Oregon utilities. Pacific Power worked with the Subcommittee on Recommendations for Alerting Practices (SCRAP) to assist with crafting PSPS and energy conservation wireless emergency alerts (WEA) messaging for Public Safety Partners to use. This effort streamlined message templates to provide succinct and consistent information during PSPS events and heat dome or extreme cold events requiring public energy conservation. This effort was initiated following the 2022 PSPS event where public safety messaging content and cadence did not match utility messaging creating mass confusion in some areas that were impacted by PSPS.

Pacific Power regularly works with Emergency Support Function (ESF) 12 during emergency response events, mutual assistance efforts and lessons learned meetings.

Pacific Power serves as the Oregon industry representative on the newly established Oregon State Emergency Response Executive Commission.

Pacific Power participated in the RDPO strategic planning workshops where Pacific Power advocated for prioritizing Urban Area Security Initiative (UASI) grant funding to support emergency energy planning and funding of emergency energy resources for critical Page 76 facilities in the Portland metropolitan area during a Cascadia Subduction Zone or other widespread disaster. This grant funding could potentially benefit publicly owned utilities and the most vulnerable communities. Pacific Power also participated in the Oregon Department of Energy's Energy Security plan kickoff and looks forward to assisting the state with continued energy security planning.

The Pacific Power Director met in person with leadership from Multnomah County Emergency Management, Portland Bureau of Emergency Management, TriMet and Oregon Department of Emergency Management at the International Association of Emergency Managers conference.

Pacific Power also participates in the Western Regional Mutual Aid Assistance Group that meets twice a year to discuss emergency management topics, including coordinating with Public Safety Partners.

Pacific Power also hosted a one-day workshop on November 19, 2024, in Portland, Oregon to meet with communications teams from western utilities to discuss wildfire communications which included discussion of community engagement, lessons learned from the 2024 wildfire season and a look ahead to 2025 challenges. Communications teams were invited from AltaLink, ATCO, Avista, Fortis Alberta, Fortis BC, Idaho Power, NV Energy, Pacific Gas and Electric, Pacific Power, Portland General Electric, Puget Sound Energy, Rocky Mountain Power, San Diego Gas and Electric, and Xcel. Two additional workshops are planned for March and November 2025.

#### Recommendation 24-230-O

**Requirement:** 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 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.

**Utility Response:** Pacific Power hosted a one-day workshop on November 19, 2024, in Portland, Oregon to meet with communications teams from western utilities to discuss wildfire communications. Events included discussions on internal communications, digital media, paid media, media relations, community engagement, lessons learned from the 2024 wildfire season and a look ahead to 2025 challenges. Communications teams were invited from AltaLink, ATCO, Avista, Fortis Alberta, Fortis BC, Idaho Power, NV Energy, Pacific Gas and Electric, Pacific Power, Portland General Electric, Puget Sound Energy, Rocky Mountain Power, San Diego Gas and Electric, and Xcel. Two additional workshops are planned for March and November 2025.

Pacific Power is reporting customer reliability complaints and inquiries and OPUC recorded reliability complaints in Table 7-Risk Performance of the data templates submitted as part of this filing.

#### Recommendation 24-230-P

Requirement: All utilities should collaborate to develop a "template" for reporting PSPS details during the execution of a PSPS.

**Utility Response:** Per Order 24-230, this recommendation will be addressed by a "joint working group after the 2026 WMPs...," at which time Pacific Power will collaborate with Idaho Power and Portland General Electric to develop a template for reporting the details of a PSPS.

# 7. ADDITIONAL REQUIREMENTS 7.1 Implementation of Data Templates

In Order 24-326, the Oregon Public Utility Commission stated, "We provisionally approve Staffs data guidelines with the direction that the utilities use best efforts to provide the data requested by January 1, 2025. We expect the utilities to make best efforts to fill out the templates without incurring significant incremental costs (e.g., to upgrade systems or add personnel) in consultation with Staff to ensure mutual understanding of the information sought. Utilities should strive to make meaningful advances in the quality, clarity, and completeness of their data collection and reporting, while also identifying with specificity and concreteness areas where the costs and challenges associated with Staffs template expectations are out of proportion to their ability to advance the PUC's goal of maturing analysis of cost-effective wildfire risk mitigation. To that end, as part of their January 1, 2025, filings, utilities should describe any discrete elements of the templates that would create material cost impacts, including a cost estimate, and propose alternatives."

Pacific Power appreciates the OPUC's interest in the challenges and material costs to implement the data templates. The Company has provided structured data reporting to California's Office of Energy Infrastructure Safety (Energy Safety) since 2020 and while there are some similarities between the reporting requirements in Oregon and California, the data requested is not identical. The Company has made its best efforts to complete the data templates based on the instructions provided and the available data.

Below Pacific Power explains some of the challenges for specific tables. One of the themes throughout is the need for definition of terms. As described in Order 24-230, one of the purposes of the data templates is to "...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...Use of standard templates likewise ensures clear expectations of what data is required and enables an apples-to-apples comparison of mitigation efforts.<sup>20</sup>" Lack of definitions could lead to different interpretations by stakeholders which may render comparisons between IOUs or year over year for individual utilities difficult. Pacific Power suggests that common definitions be created to enable a shared understanding among stakeholders and support standardization of information provided by IOUs.

### COVER SHEET INFORMATION

The cover sheet includes information that informs the data presented in the subsequent tables, in this section, Pacific Power describes how it interprets some of the requested information.

**Fire Season:** In 2024, Pacific Power's fire season in Oregon began when the first circuit in the FHCA moved into Enhanced Safety Settings (ESS) and ended when the last circuit in the FHCA moved out of ESS.

**HFRZ:** The Company uses FHCA as its reported naming convention for the HFRZ, and this terminology is used throughout the data templates, "non-FHCA" is the same as "non-HFRZ."

**Other Risk Category:** This is described in the cover sheet as "area risk is not equivalent to a HFRZ, but the utility has designated as an area that has some elevated risk beyond a Non-HFRZ. Ex: Area of interest." In the 2024 WMP, Pacific Power explained Areas of Interest, as "Pacific Power continues to study other geographic areas for wildfire risk; even if FireSight model risk scores did not warrant inclusion of such areas in the FHCA at this time... Pacific Power will continue to evaluate those areas, including for possible future expansion of the FHCA<sup>21</sup>." For this WMP Update, Areas of Interest are considered non-FHCA as these areas receive the same risk mitigation treatment as other non-FHCA areas.

<sup>20</sup> UM 2207. Order 24-230. Page 7.

<sup>21 2024</sup> Oregon Wildfire Mitigation Plan. Pages 30-31.

#### TABLE 1-SYSTEM OVERVIEW

The system overview provides information on Pacific Power's service territory and system. The Company's Geospatial Information System (GIS) Department provided the information on service territory, customers, and equipment, however there is some equipment information that is unavailable in GIS that is described below:

- Connected Controllable or Non-Controllable Devices: GIS has information on controllable devices and that is provided in Table 1, however there is no specific information on the number devices that are connected or non-connected. To provide this information will require development of processes to provide GIS this information.
- Non-expulsion Fuses: This information is not captured in GIS.

### **TABLES 2-INITIATIVES**

Pacific Power had two primary challenges in completing this table. The first challenge Pacific Power encountered was retroactively mapping 2024 initiatives to the initiative categories and subcategories. The approach the Company generally took was to present initiatives as they were presented in Tables 37 and 38 of the 2024 WMP<sup>22</sup>.

The second challenge was the lack of definitions for key terms. For example, in assigning Initiative Categories and Subcategories, the Company made its best efforts to assign initiatives to categories and subcategories based on Pacific Power's understanding of the categories. As stated above in the overview of Section 7.1 "Lack of definitions could lead to different interpretations by stakeholders which may render comparisons between IOUs or year over year for individual utilities difficult. Pacific Power suggests that definitions be created to support standardization of information provided by utilities."

<sup>22 2024</sup> Oregon Wildfire Mitigation Plan. Pages 175-176.

In the absence of OPUC- provided definitions for "Risk Target Reduction," Pacific Power has applied the definitions for Risk and Risk Component Identification provided by California Office of Energy Infrastructure Safety (Energy Safety) in the 2023-2025 WMP Technical Guidelines<sup>23</sup>. Pacific Power has made its best efforts to apply the categories and definitions to initiatives, but may not be able to apply the definitions to all initiatives retroactively.

**Equipment ignition likelihood:** The likelihood that electrical corporation-owned equipment will cause an ignition either through normal operation (such as arcing) or through failure.

**Contact from vegetation ignition likelihood:** The likelihood that vegetation will contact electrical corporation-owned equipment and result in an ignition.

**Contact by object ignition:** The likelihood that a non-vegetative object (such as a balloon or vehicle) will contact electrical corporation-owned equipment and result in an ignition.

**Wildfire hazard:** The potential intensity of a wildfire at a specific location within the service territory given a probabilistic set of weather profiles, vegetation, and topography.

**Wildfire spread:** The likelihood that a fire with a nearby but unknown ignition point will transition into a wildfire and will spread to a location.

**Wildfire exposure potential:** The potential physical, social, or economic impact of wildfire on people, property, critical infrastructure, livelihoods, health, environmental services, local economies, cultural/historical resources, and other high-value assets. These may include direct or indirect impacts, as well as short- and long-term impacts.

**Wildfire vulnerability:** The susceptibility of people or a community to adverse effects of a wildfire, including all characteristics that influence their capacity to anticipate, cope with,

<sup>23</sup> California Office of Energy Infrastructure Safety. <u>TN11745\_20221207T142120\_2023-2025 WMP Technical Guidelines</u>. Sourced December 13, 2024.

resist, and recover from the adverse effects of a wildfire (e.g., access and functional needs customers, Social Vulnerability Index, age of structures, firefighting capacities).

**PSPS likelihood:** The likelihood of an electrical corporation requiring a PSPS given a probabilistic set of environmental conditions.

**PSPS exposure potential:** The potential physical, social, or economic impact of a PSPS event on people, property, critical infrastructure, livelihoods, health, local economies, and other high-value assets.

**PSPS vulnerability:** The susceptibility of people or a community to adverse effects of a PSPS event, including all characteristics that influence their capacity to anticipate, cope with, resist, and recover from the adverse effects of a PSPS event (e.g., high AFN population, poor energy resiliency, low socioeconomics).

**Other:** No definition provided in Energy Safety guidelines. Pacific Power used this designation where an initiative addresses multiple risk targets.

The "Unit Measurement" column includes a combination of outputs such as cameras, meters, number of assets, number of customers and outcomes such as number of events, number of ignitions, number of outages, etc. Where applicable Pacific Power has provided the initiative outputs for unit measurement.

The 2024 Actual Units and 2024 Costs columns will be provided for Table 2 Final filing due March 31, 2025.

#### TABLES 3-T&D INSPECTION AND 4-T&D CORRECTION

Tables 3 and 4 relate to inspections and found, open and corrected conditions. Since the two tabs have similar field names and relate to various stages of the inspection-condition life cycle, we will discuss them together. In an effort to minimize the risk of double-counting inspections, analysis was performed to ensure alignment of Pacific Power's inspection types with the inspection types provided by the OPUC. Per OAR 860-024-0011-2c, safety patrol inspections are required every two years. Detailed inspections are

required every ten years per OAR 860-024-0011-1A. Pacific Power policy which defines inspection intervals by inspection type, outlines the following frequencies meeting or exceeding OAR requirements:

- Beginning January 1, 2025, all overhead distribution and transmission equipment has an annual safety patrol inspection, also known as an overhead visual assurance inspection. These inspections go beyond the biannual frequency required by OAR 860-024-0011-2c.
- All main grid transmission equipment receives a detailed non-intrusive inspection every two years.
- Overhead distribution and local transmission equipment in the FHCA receives a detailed non-intrusive inspection every five years.
- All overhead distribution and transmission equipment receives a detailed intrusive inspection every ten years.

Pacific Power is mapping the Company's inspections to the following inspection types in Tables 3 and 4:

- Pacific Power defines an "Ignition Prevention Inspection" as an "extra" inspection above and beyond what the state requires.
- The annual safety patrol inspection will be presented in Table 3 as two inspection types to reflect that that inspections happen more frequently than required by OAR 860-024-0011-2c:
  - Safety inspections performed in even numbered years (ex: 2024) will be presented in the "Patrol Inspection — Other" inspection type.
  - Safety inspections performed in odd numbered years (ex: 2025) will be presented in the "Ignition Prevention Inspection" inspection type.
- Since all overhead structures receive a detailed intrusive inspection every ten years, this will serve as the required detailed inspection. This can be seen under "Detailed Inspection-Other."

- All detailed non-intrusive inspections will represent an extra inspection noted under the "Ignition Prevention Inspection" inspection type.
- Audit inspections will use the "Other Inspection-Other" inspection type.
- All drone or helicopter (infrared) inspections will be counted in the "Other Inspection" category associated with their respective inspection method, drone or aerial.

The categories associated with finding and correcting conditions need to be aligned to ensure mutual understanding of the inspection findings and conditions in Tables 3 and 4, OARs, and Pacific Power's internal condition codes. Table 13 below shows the mapping of the OAR requirements and OPUC reporting requirements to the Pacific Power condition codes, this was discussed at an October 16, 2024, meeting with OPUC Staff and the Company.

Tables 3 and 4: Inspection Findings and Corrections	Definition Per OAR	Pacific Power Condition
Priority A Conditions and Findings	"A violation of the Commission Safety Rules that poses an imminent danger to life or property must be repaired, disconnected, or isolated by the Operator immediately after discovery."	Priority I (Imminent) & Priority A
Priority B Conditions and Findings	"Except as otherwise provided by this rule, the Operator must correct violations of Commission Safety Rules no later than two years after discovery."	Priority B
Priority C Conditions and Findings	"An Operator may elect to defer correction of violations of the Commission Safety Rules that pose little or no foreseeable risk of danger to life or property to correction during the next major work activity."	Priority C
Ignition Prevention Findings	A violation of Commission Safety Rules which poses a risk of fire ignition identified by an HFRZ Ignition Prevention Inspection or safety patrol in ar HFRZ.	Fire Threat Conditions in the FHCA discovered through inspections.

Table 13: Mapping of Data Table 3 and 4 Findings and Corrections to Pacific Power Condition

### TABLE 5-VEGETATION MANAGEMENT

One of the data elements requested is the number of trees inspected, Pacific Power does not count the number of trees inspected, but identifies trees requiring vegetation management actions consistent with the Company's specifications. In lieu of the number of trees inspected, Pacific Power is providing the number of trees identified requiring work, this is calculated by adding the number of trees requiring trimming and the number of trees requiring removal.

To categorize vegetation management work into the required inspection types, Pacific Power defined the work inspection types using the following guidelines to align with how work vegetation management organizes work:

- Routine Non-Wildfire: Regular vegetation work performed on a cycle.
- Routine Wildfire: Annual vegetation patrols
- Non-Routine: Other work such as customer call ins, compliance work, hotspots, and unscheduled work in the FHCA.

### TABLE 6-PERFORMANCE METRICS

The performance metrics Pacific Power provides for similar filings in California include metrics on risk events, utility-related ignitions, asset inspection findings, resolution of asset inspection findings, and vegetation management. These metrics are generally addressed in other data tables and at this time the Company has no additional performance metrics but will continue to evaluate if there are other performance metrics to

#### TABLE 7-RISK PERFORMANCE

For the initial filing, Pacific Power can provide limited information on risk performance, while the Company looks at high wind warnings, red flag warnings, high elevated fire potential index and other watches and warnings as part of daily situational awareness activities, it has not integrated this information with outage and ignition events to identify potential trends.

Pacific Power does not separately track customer reliability inquiries and complaints. As a proxy, when customer care agents record outage power quality as a reason for a customer call, this is considered a customer reliability inquiry, if outage power quality calls are escalated to the customer advisory team these will be considered customer reliability complaints. At this time Pacific Power has no plans to create a separate reason code for outage power quality complaints. At this time Pacific Power has no plans to create a separate reason code for outage power quality complaints. At this time Pacific Power has no plans to create a separate reason code for outage power quality complaints. At this time Pacific Power has not integrated information systems to differentiate inquiries and complaints between FHCA and non-FHCA and has included all the results in the non-FHCA category,

Pacific Power suggests that definitions be provided for Table 7 terms such as "forced outage," "active utility work," "alternate settings," and "default settings" to ensure consistency between utilities and mutual understanding among stakeholders.

### TABLES 8-RISK EVENTS AND 9-IGNITION EVENTS

Tables 8 and 9 are discussed together as they require similar information for different event types. To provide the information for these tables, the Pacific Power collaborated with the other Oregon IOUs to define interruption causes, these are shown in Table 21 in Appendix E – Interruption Cause Categories for Data Tables 8 – Risk Events and 9 – Ignition Events. Pacific Power then mapped outages and ignition events to these categories to present the information in the tables.

### TABLES 10-ASSET INDEX AND 11-ASSET INDEX CHANGES

The effort to assign sections of assets across multiple dimensions is complex as equipment could be in multiple categories as show in Table 14 below.

Utility Circuit	Wildland Urban Interface (WUI) FHCA	WUI Non-High Fire Risk Zone (HFRZ)	Non- WUI FHCA	Non-WUI Non-HFRZ
Urban	$\checkmark$		$\checkmark$	
Urban	$\checkmark$			$\checkmark$
Urban		$\checkmark$	$\checkmark$	
Urban		$\checkmark$		$\checkmark$
Suburban	$\checkmark$		$\checkmark$	
Suburban	$\checkmark$			$\checkmark$
Suburban		$\checkmark$	$\checkmark$	
Suburban		$\checkmark$		$\checkmark$
Rural	$\checkmark$		$\checkmark$	
Rural	$\checkmark$			$\checkmark$
Rural		$\checkmark$	$\checkmark$	
Rural		$\checkmark$		$\checkmark$

Table 14: Asset Location Combinations in Data Tables 10 and 11

Pacific Power's approach for assigning and the asset location designations is described below:

- Subject matter experts provided information regarding equipment in service, planned to be placed in service, or removed. Where applicable, weather stations and cameras were associated with a distribution circuit.
- The GIS department segmented Pacific Power's distribution circuits by mile into urban, suburban, and rural categories by applying the IEEE 1782-2024 3.3 System Characterization standard (IEEE Standard) as directed by the OPUC in Order 24-326. The IEEE Standard uses number of customers to designate urban, suburban, and rural categories, Pacific Power used customer points (meters) as a proxy for number of customers.
- To assign distribution substations based on the IEEE Standard (Urban, Suburban, Rural) the Company added up all customer points (meters) associated with the substation and divided by total line miles of the circuits associated with the

substation. The customer points per mile was used to determine the IEEE System Characterization.

• Pacific Power applied the draft WUI map<sup>24</sup> and the Company's FHCA boundaries to the distribution circuit information.

A challenge that arose in completing Tables 10 and 11 was applying the IEEE Standard to Transmission. Transmission lines and substations do not have customers or customer points associated with to apply an area type of Urban, Suburban, or Rural. This also impacted categorizing cameras and weather stations associated with transmission. Pacific Power is open to collaborating with OPUC and the other IOUs to clarify the approach to categorize transmission to meet the data template requirements.

For "critical facilities," Pacific Power used the definition provided by California Energy Safety described below. As described in the Section 7.1 overview, aligning on common definitions for terms such as critical facilities would be useful for the Commission, stakeholders and utilities:

"Facilities and infrastructure that are essential to public safety and that require additional assistance and advance planning to ensure resiliency during PSPS events. These include the following:

"Emergency services sector:

- Police stations
- Fire stations
- Emergency operations centers

<sup>24</sup> The Company applied the WUI data at the direction of the OPUC in Order 24-326. The draft WUI data was provided to Pacific Power by the OPUC on November 21, 2024. Per the Oregon Department of Forestry, the WUI map is expected to be published on <u>Oregon Explorer</u> in early 2025. For more information on the WUI process please see <u>Wildland-Urban Interface | OSU Wildfire Risk</u> Mapping.

• Public safety answering points (e.g., 9-1-1 emergency services)

"Government facilities sector:

- Schools
- Jails and prisons

"Health care and public health sector:

- Public health departments
- Medical facilities, including hospitals, skilled nursing facilities, nursing homes, blood banks, health care facilities, dialysis centers, and hospice facilities (excluding doctors' offices and other non-essential medical facilities)

"Energy sector:

 Public and private utility facilities vital to maintaining or restoring normal service, including, but not limited to, interconnected publicly owned electrical corporations and electric cooperatives

"Water and wastewater systems sector:

• Facilities associated with provision of drinking water or processing of wastewater, including facilities that pump, divert, transport, store, treat, and deliver water or wastewater

"Communications sector:

• Communication carrier infrastructure, including selective routers, central offices, head ends, cellular switches, remote terminals, and cellular sites

"Chemical sector:

• Facilities associated with manufacturing, maintaining, or distributing hazardous materials

"Transportation Sector:

• Facilities associated with transportation for civilian and military purposes: automotive, rail, aviation, maritime, or major public transportation"<sup>25</sup>

## TABLE 12-DE-ENERGIZATION & PSPS METRICS

For the initial filing, Pacific Power can provide limited information on de-energization metrics, while the Company looks at high wind warnings, red flag warnings, high elevated fire potential index and other watches and warnings as part of situational awareness activities, it has not integrated this information with frequency of sensitive setting (ESS) events, emergency de-energizations and the scope of events to identify potential trends. The Company can provide the total number of ESS, emergency de-energizations due to encroachment, and PSPS events in the December 31, 2024, data template submission.

### TABLE 13-MITIGATION INITIATIVES

Pacific Power encountered similar challenges for Table 13 as described in Table 2 of mapping initiatives began prior to 2025 to the initiative categories and subcategories and identify the year the initiative began and prior year costs. The Company has made its best efforts to provide this information.

For "Area of Application" Pacific Power assumed that "Oregon Allocation" costs are those proportionally allocated to Oregon as one of the six states the Company serves or are Oregon-specific costs, for example, the Wildfire Forums are public engagement sessions required by Oregon under OAR 860-300-0040 (1)(a)(A). Where an area has been prepopulated as FHCA or non-FHCA, the Company has made its best effort to assign the targets and costs to the area where the majority of the initiative work is likely to take place as the company does not track all activity at that level of detail.

<sup>25</sup> California Office of Energy Infrastructure Safety. <u>2023-2025 Base WMP Guidelines</u>. Pages A-2-A-4.

Pacific Power currently does not assign Primary Driver Targeted and Secondary Driver Targeted to initiatives and suggests creating standard definitions to align with definitions for risk events and ignition events in Tables 8 and 9 respectively to ensure consistency for IOUs completing the tables and stakeholders reviewing the information.

Similar to Table 2, the "Unit Measurement" column includes a combination of outputs such as cameras, meters, number of assets, number of customers and outcomes such as number of events, number of ignitions, number of outages, etc. Pacific Power has provided the initiative outputs for unit measurement.

The 2024 Actual Units and 2024 Costs columns will be provided for Table 13 in the Final filing due March 31, 2025. The Company will provide Table projected 2026-206 initiative targets for Table 13 as part of the three-year 2026-2028 WMP filing in December 2025.

## COST TO IMPLEMENT

Pacific Power appreciates the OPUC's interest in the material costs to implement the data templates. To enable providing information in the templates in a repeatable consistent process that minimizes the risk of errors, the cost estimate ranges from \$80,000-\$350,000. The lower end of the estimate provides outputs for Tables 1-System Overview, 5-Vegetation Management, 8-Risk Events, 9-Ignition Events, and a partial asset index for Tables 10-Asset Index and 11-Asset Index Changes. The higher end of the estimate includes the tables previously listed as well as outputs for Tables 3-T&D Inspection, 4-T&D Correction, 7-Risk Performance, and 12-De-energization & PSPS Metrics. The wide estimate range reflects that the Company has not developed detailed requirements or scope of work yet. The initiative to implement reporting processes will be included in the 2026 WMP filing, to allow for time for any adjustments to the data tables requirements by the Commission after the initial submittal.

# 8. PROGRAM SHARING

### **8.1 Ignition Incident Reporting Improvements**

Per OAR <u>860-024-0050</u> Incident Reports, utilities must do the following reporting regarding fire-related incidents:

"(3) As soon as practicable following knowledge of the occurrence, all investor-owned electric utilities must report by telephone, by facsimile, by electronic mail, or personally to the Commission fire-related incidents...

" (4) Except as provided in section (6) of this rule, every reporting operator must, in addition to the notice given in sections (2) and (3) of this rule for an incident described in sections (2) and (3), report in writing to the Commission within 20 days of knowledge of the occurrence using Form 221 (FM221) available on the Commission's website..."

Pacific Power discovered that not all fire-related incidents that met the requirements for reporting were reported, or the initial incident notification was performed but FM221 was not submitted to the OPUC. On December 3, 2024, Pacific Power discussed the matter with OPUC Staff, including the analysis performed to identify why the notifications were not happening and identified the actions to correct the issue. The steps being taken to address the issue take a people, process, and technology approach that includes the elements below:

People:

- Provide training for field, control center, and operations personnel, beginning in 2025.
- Update process documentation, procedures, and job aids prior to 2025 wildfire season.
- Appointed a fire incident tracking and reporting program manager who was onboarded in October 2024.

#### Process:

- Create a formal process and procedure for fire incident reporting and tracking with process control points and roles and responsibilities clearly documented. This work is in process and scheduled for completion in 2025.
- Annual review/updates through formal governance.

## Technology:

- Implement improvements to the Pacific Power's Fire Incident Tracking and Reporting application.
- Streamline internal fire incident reporting by integrating a single web-based form for fire incident reporting with the Fire Incident Tracking and Reporting application.
- Improve reporting consistency by including dropdowns and prepopulated fields in reporting forms, beginning in 2025

With implementation of these improvements, the Company anticipates capturing higher quality incident data and consistently meeting incident reporting requirements. The company will know whether these improvements have been successful if it observes an increase in the number of incidents tracked and reported with improved consistency and accuracy in the data reported.

# **APPENDIX A – PUBLIC SAFETY PARTNER OUTREACH**

Consistent with OAR 860-300-0020 (d), Table 15Table 15 below shows Pacific Power's 2024 outreach to regional, state, and local entities, including municipalities regarding protocol for the de-energization of power lines and adjusting power system operations to mitigate wildfires, promote the safety of the public and first responders and preserve health and communication infrastructure. Outreach is through November 30, 2024.

Location	Date	Date Title of Outreach Meeting Topic	
Oregon	1/25/2024	Pacific Northwest National Forest Foundation	Presented on wildfire mitigation projects.
Oregon	2/20/2024	Oregon Health Authority Region 7 (Central Oregon) Access and Functional Needs Workgroup	Presented PSPS event scenarios in Central Oregon area and worked with partners on problem solving scenarios.
Oregon	3/6/2024	Oregon Emergency Management Association	Overview of PacifiCorp emergency management program, wildfire mitigation plan, and overall response procedures and experience.
Oregon	3/19/2024	WMP workshop	Hosted a virtual workshop for Oregon Department of Emergency Management and city, county, tribal and state public safety partners.
Oregon	3/21/2024	Wildfire/Hazards Workshop	Presented the 2024 WMP to 15 members of the Oregon Living with Fire Steering Committee comprised of United States Forest Service supervisors, county commissioners, Oregon State Fire Marshals office and other community stakeholders.
Crook County, Deschutes County, Klamath County, Oregon	3/21/2024	WMP Presentation	2024 WMP presentation.
Oregon	3/30/2024	Oregon Counties Virtual Workshop	Participation from 40+ Oregon county emergency managers, state partners and local partners.
Deschutes County, Oregon	4/18/2024	Fire and Frost Spring seminar	Review of fire season preparation, evacuation, and wildfire activities. Participated in TTX.
Oregon	4/22/2024	Oregon Prepared Conference	Participation from over 200 Oregon Emergency Managers, Public Health groups and Oregon Department of Emergency Management
Portland, Oregon	6/25/2024	Portland General Electric (PGE) Public Safety Partner Summit	Public safety partner summit hosted by PGE

#### Table 15: 2024 Outreach to Regional, State, and Local Entities

# APPENDIX B - COMMUNITY OUTREACH AND PUBLIC AWARENESS

Consistent with OAR 860-300-0020 (f), Pacific Power provides in Table 16Table 16 identification of the community outreach efforts through November 30, 2024, that the Public Utility used before, during and after 2024 wildfire season, consistent with OAR 860-300-0040 and 860-300-0050.

#### Location Date **Outreach Type Estimated Number** Topic of Attendees/Viewers Presentation to discuss self-Wildfire Preparedness Deschutes County, preparedness and preparation of 3/28/2024 Not tracked Oregon Seminar Presentation home and neighborhood from the threat of wildfire in Central Oregon. Presentation to discuss self-Hood River County, preparedness and preparation of Mosier Spring Wildfire Sherman County, Wasco 3/30/2024 home and neighborhood from the Not tracked Town Hall threat of wildfire in the Columbia County, Oregon Gorge. Wallowa County Firewise Wallowa County, Oregon 4/16/2024 Program review of WMP. Not tracked Program Emergency management and meteorology staffed a booth at a Community Outreach 4/19/2024 community wildfire to provide Not tracked Sherman County, Oregon Event information on wildfire mitigation efforts. Pacific Power Wildfire Mitigation State of Oregon 5/2/2024 Webinar 30 Plan Medford, Jackson County Pacific Power Wildfire Forum 87 5/7/2024 Meeting Pacific Power Wildfire Forum Coos Bay, Coos County 5/8/2024 Meeting 39 Pendleton, Umatilla Pacific Power Wildfire Forum 5/14/2024 Meeting 31 County Wasco, Sherman County 5/15/2024 Meeting Pacific Power Wildfire Forum 12 Hood River, Hood River 5/16/2024 Pacific Power Wildfire Forum 39 Meeting County Bend, Deschutes County 6/4/2024 Meeting Pacific Power Wildfire Forum 41 Lebanon, Linn County 6/5/2024 Meeting Pacific Power Wildfire Forum 39

#### Table 16: Community Outreach Events

Location	Date	Outreach Type	Outreach Type Topic	
				Attendees/Viewers
Lincoln City, Lincoln County	6/11/2024	Meeting	Pacific Power Wildfire Forum	39
Portland, Oregon	6/12/2024	Wildfire Ready Event	Virtual community forum hosted by PGE	Not tracked
Astoria, Clatsop County	6/12/2024	Meeting	Wildfire Forum	31
Wallowa County, Oregon	6/15/2024	Firewise Roundup	Presented wildfire mitigation program at community education forum	Not tracked
Multnomah County, Oregon	8/26/2024	Community Outreach Event	Pacific Power hosted booth to provide information targeted to intellectual and developmentally disabled community.	Not tracked
Lincoln County, Oregon	9/7/2024	Community Outreach Event	Pacific Power hosted a booth to provide wildfire safety and preparedness information.	Not tracked
Philomath, Oregon	9/8/2024	Community Outreach Event	Pacific Power hosted a booth to provide wildfire safety and preparedness information.	Not tracked
Talent, Jackson County	9/11/2024	Meeting	Town Hall	100
Lincoln City, Oregon	9/17/2024	Community Outreach Event	Pacific Power hosted a booth to provide wildfire safety and preparedness information.	Not tracked
Multnomah County, Oregon	10/14/2024	Community Outreach Event	Community Outreach Event	Not tracked
Multnomah County, Oregon	11/9/2024	Community Outreach Event	Pacific Power hosted booth to provide information targeted to intellectual and developmentally disabled community.	Not tracked
Portland, Oregon	11/19/2024	Community Outreach Event	Pacific Power hosted booth to provide information targeted to intellectual and developmentally disabled community.	Not tracked

Table 17 below lists the public awareness efforts through paid media that the Public Utility used before, during and after 2024 wildfire season.

#### Table 17: Paid Media

Media Type	Dates	Impressions	Click Throughs/Video Completion	Click Through Rate/Video Completion Rate
Paid Media — Display	April 1-September 30, 2024	1,583,798	5,366	0.34%
Paid Media — Social	April 1-September 30, 2024	3,839,743	37,086	0.97%
Paid Media — Over the Top Video	April 1-September 30, 2024	458,786	450,344	98.32%

Table 18 below lists the media inquiries, interviews, and proactive stories through November 30, 2024, related to Pacific Power's wildfire season.

#### Table 18: Media Inquiries, Interviews, and Proactive Stories

Type of Media	Number
Inquiries	74
Interviews	17
Proactive Stories	32

# APPENDIX C - INDUSTRY AND REGULATORY ENGAGEMENT AND FORUMS

Consistent with OAR 860-300-0020 (j), Table 19 below shows Pacific Power's 2024 participation in industry forums through November 30, 2024.

#### Table 19: 2024 Industry Forums and Regulatory Engagement

Date	Meeting	State	Торіс	Pacific Power Attendee Role/Team
1/8/2024	EPRI Operations & Protocols Workgroup Monthly Meeting	ALL	Member Presentation/Discussion: Alberta Fires Post-Event Observations and Assessment	Project Manager, Wildfire Mitigation Program Delivery
1/9/2024	EPRI Asset Management Workgroup Monthly Meeting	ALL	Vendor Presentation: Grid Wrap	Project Manager, Wildfire Mitigation Program Delivery
1/11/2024	California WMP Joint IOU Monthly Meeting	CA	Maturity Model Discussion Pilot Projects	Wildfire Mitigation Program Delivery, Project Manager, Wildfire Mitigation Program Delivery
1/16/2024	Wildfire Mitigation Advisory Committee	CA	Wildfire Mitigation	Director, Wildfire Mitigation Program Delivery, Project Manager, Wildfire Mitigation Program Delivery
1/16/2024	Joint IOU Working Group: Estimated and Recorded Effectiveness	CA	Effectiveness Comparisons	Business Integration Manager, Wildfire Mitigation Program Delivery
1/24/2024	Risk Management Workgroup Monthly Meeting, Presentation and Group Discussion	ALL	Presentation and Group Discussion	Project Manager Wildfire Mitigation Delivery
1/31/2024	OWDCIC Detection Camera Statewide Interoperability Committee	OR	Review Charters and Requirements, Legislative Challenges	Wildfire Mitigation Program Delivery
1/31/2024	OR Wildfire Mitigation Joint IOU Call	OR	Discussion on 2024 WMP DRs, WMP presentation schedule, and RSE workshop scoping	Director, Wildfire Mitigation Program Delivery, Project Manager, Wildfire Mitigation Program Delivery, Business Integration Manager, Wildfire Mitigation Program Delivery, Director, Asset Risk
2/12/2024	Operations & Protocols Workgroup Quarterly Webinar	ALL	Discussion of Microgrid applications, AI Cameras, KPIs	Project Manager, Wildfire Mitigation Program Delivery
2/13/2024	Asset Management Workgroup Quarterly Webinar	ALL	Presentation: PG&E- Distribution & Transmission Induction in Regard to PSPS	Project Manager, Wildfire Mitigation Program Delivery

Date	Meeting	State	Торіс	Pacific Power Attendee Role/Team
2/28/2024	Joint IOU Meeting	OR	Discuss approach to sharing information on risk models and risk spend efficiency.	Discuss approach to sharing information on risk models and risk spend efficiency.
3/8/2024	Joint IOU Meeting	OR	Share information on what utilities will present in March OPUC meeting regarding their WMPs.	Director, Asset Risk, Director, Wildfire Mitigation Program Delivery, Business Integration Manager
3/20/2024	Risk Modeling Working Group	CA	Discuss proposed 2024 RMWG Work	Director, Asset Risk, Director, Data Science
4/22/2024	Western Region Mutual Assistance Group	OR	Joint IOU meeting to discuss standards, best practices	Director of Wildfire and Emergency Response
4/23/2024	Western Region Mutual Assistance Group	OR	Joint IOU meeting to discuss standards, best practices	Director of Wildfire and Emergency Response
6/25/2024	Washington Wildfire Mitigation Planning Working Group	WA	Project Management and Planning Considerations for developing PSPS Programs	Director, Pacific Power WMPD
6/26/2024	Meeting with OPUC Staff and IOUs	OR	Review revisions to draft Joint IOU Recommendations from 2024 WMP Filings	Vice President Transmission and Operations, Director, Pacific Power WMPD, Direction PacifiCorp WMPD, Director, Asset Risk
6/26/2024	Risk Modeling Working Group	CA	Established 2024-2025 RMWG Work Plan	Manager, Data Science, WMPD Project Manager
6/27/2024	Washington Wildfire Mitigation Planning Working Group	WA	Multi-temporal wildfire hazard analysis for Climate Infrastructure Resiliency	Director, Asset Risk, Director, Pacific Power WMPD
7/9/2024	Washington Wildfire Mitigation Planning Working Group	WA	Mitigation Strategies	Director, Pacific Power WMPD
7/23/2024	Washington Wildfire Mitigation Planning Working Group	WA	Discussion of WMP Template	Director, Pacific Power WMPD
8/20/2024	Wildfire Mitigation Advisory Committee	CA	Proposed Wildfire Mitigation and Preparedness Land Use Planning and Density Working Group	Director, Pacific Power WMPD
9/11/2024	Joint IOU Meeting: Undergrounding	CA	Right of Entry and Customer Communications	Director, Pacific Power WMPD
9/18/2024	Vegetation Management Workgroup Monthly Meeting	ALL	Workforce development: technology update (satellite enhanced by AI), hazard tree benchmarking study, lessons from Fire Safety Research Institute report on Maui Wildfire	Vegetation Management Support
9/19/2024	International Wildfire Risk Management Consortium (IWRMC) Quarterly Webinar	ALL	Use of satellite imagery	Director, Asset Risk

Date	Meeting	State	Торіс	Pacific Power Attendee Role/Team
9/20/2024	Joint IOU Meeting	CA	Prep for workstream meetings	Director, Pacific Power WMPD
9/20/2024	Disadvantaged Communities Advisory Group	CA	California Federal Funding Opportunities and Status, Equity Framework	Director, Pacific Power WMPD
9/25/2024	Oregon Joint IOU Meeting	OR	2026 WMP Template	Director, Pacific Power WMPD
9/30/2024	Edison Electric Institute Conference	All	Emergency management mutual assistance conference.	Emergency Management Personnel
10/2/2024	Western Electrical Institute	N/A	Emergency management mutual assistance conference	Emergency Management Personnel
10/9/2024	Oregon Joint IOU Meeting	OR	2026 WMP Template and Glossary	Director, Pacific Power WMPD, Project Manager
10/11/2024	WMP Joint IOU Monthly Meeting	CA	General Topics	Director, Pacific Power WMPD, Direction PacifiCorp WMPD, Director, Asset Risk
10/15/2024	IWRMC Executive Strategy Track	ALL	Program Updates, 2024 Fire Season Impacts & Learnings, Vegetation Management and Risk, "Risk Spend Efficiency in a Changing Climate", "Hazard Strike Tree Project", "Digital Twin Development & Implications"	Program Manager, Pacific Power WMPD, Vice President, Asset Management & Wildfire
10/16/2024	IWRMC Executive Strategy Track	ALL	Program Updates, 2024 Fire Season Impacts & Learnings, Vegetation Management and Risk, "Risk Spend Efficiency in a Changing Climate", "Hazard Strike Tree Project", "Digital Twin Development & Implications"	Vice President Asset Management and Wildfire
10/17/2024	Asset & Risk Management	ALL	Utilizing digital twins to optimize asset replacements and risk. Merging data from your Enterprise Asset Management (EAM - Maximo) System with geospatial data from GIS.	Managing Director, Power Delivery Asset Management / Director, Asset Investment Strategy & Policy
10/18/2024	Disadvantaged Communities Advisory Group Meeting	CA	Standing Meeting Agenda Topics	Director, Pacific Power WMPD
10/23/2024	Oregon Joint IOU Meeting	OR	2026 WMP Template and Glossary	Director, Pacific Power WMPD, Project Manager
11/6/2024	Oregon Joint IOU Meeting	OR	2026 WMP Template and Glossary	Director, Pacific Power WMPD, Project Manager

Date	Meeting	State	Торіс	Pacific Power Attendee Role/Team
11/15/2024	International Association of Emergency Managers (IAEM) Conference	N/A	Emergency management conference	Emergency Management
11/19/2024	Western Utilities Wildfire Communication	ALL	Internal communications, digital, media relations, community engagement, 2024 lessons learned and a look ahead to 2025 challenges	Wildfire Communications Program Manager
11/20/2024	Oregon Joint IOU Meeting	OR	2026 WMP Template and Glossary	Director, Pacific Power WMPD, Project Manager
11/22/2024	California Joint IOU Meeting	CA	2026 WMP Guidelines	Director, Pacific Power

# **APPENDIX D - PSPS CIRCUIT FORECAST EDITOR DATA INPUTS**

The following Table 20 describes the general model inputs, data sources, update frequency, and update plans for data in the new PSPS Circuit Forecast Editor tool described in Significant Risk Model Updates above.

Dataset	Spatial Resolution (Meters)	Dataset Update Frequency	Start of Dataset	Source
Weather And Atmospheric Data	l			
Wind Gust	2,000	Hourly / 96 Hour Forecast	1990	Technosylva: Atmospheric Data Solutions (ADS)
Historical Weather Observations Data (Weather Station Data)	Points	10 Min	1990	Synoptic
Potential Ignition Locations				
Distribution & Transmission Lines	Linear Segments	Updated Quarterly	2022	Pacific Power
Poles & Equipment	Points	Updated Quarterly	2022	Pacific Power

#### Table 20: PSPS Circuit Level Risk Modeling Data Inputs

# APPENDIX E - INTERRUPTION CAUSE CATEGORIES FOR DATA TABLES 8 - RISK EVENTS AND 9 - IGNITION EVENTS

Table 21 below shows the categories and subcategory definitions used to categorize risk

and ignition events for reporting.

Category	Definition
Equipment	Equipment refers to any interruption caused by a piece of distribution system equipment that is defective or fails and causes an interruption of service to customers.
Degradation	Equipment that has exceeded its designed life span initiates a failure because the equipment can no longer perform as expected.
Equipment Error	Equipment does not operate as intended because of its placement, component/control design, or erroneous operation (or mis-operation) in response to faults when no other cause is identified.
Environmental	Equipment fails prior to its expected end of useful life because of manufacturing defect or unexpected environmental intrusion (such as water entering)
Other	Any piece of equipment that is not covered by other items in this subcategory and that fails to operate as expected under reasonable operating conditions. The failure could be a result of wear, fatigue, corrosion, contamination, or long-term exposure to the environment.
Lightning	All interruptions caused by lightning, whether by a direct strike contacting the wires or other equipment, or by a lightning-induced flashover of the wires or other equipment. Note – A lightning strike would not apply to a failed arrester.
Direct Strike	A lightning strike makes direct contact with equipment causing an outage.
Indirect Strike	A lightning strike makes contact with the area surrounding equipment, causing protection schemes to operate for reasons including lightning-induced flashover of the wires or other piece or equipment.
Planned	Including, but not limited to, road construction, distribution-line maintenance and repairs, load swaps, and equipment replacements. Typically, planned interruptions can be delayed by utility personnel and performed only after appropriate or required customer notification. <i>Many regulatory commissions have specified rules for planned interruptions</i> .
New Construction	This subcategory applies to any planned power outage that results from a distribution line needing to be deenergized to accommodate building of new structures. The new construction can be undertaken by the utility, local municipality, or other utility.
Maintenance	This subcategory applies to planned outages resulting from deenergizing a line so maintenance work can be completed safely.
Customer Request	This subcategory applies to planned outages resulting from a customer request. For example, so that work at a customer's address can be completed safely. An outage of this type can sometimes affect surrounding customers.
Other Utility Request	This subcategory applies to outages that result from the request of another electric or nonelectric utility.
Other	This subcategory applies to any planned outage that is not covered by other definitions in this category.
Public	Any interruption resulting from an act of the public at large, such as customer trouble; nonutility employee or contractor dig-in; fire/police requests; foreign contact (e.g., Mylar balloon, crane boom, and aluminum ladder); traffic accidents; vandalism; and fires, explosions and smoke not originating on or within utility-owned equipment.
Dig-In	This subcategory applies to interruptions that result from a dig-in to distribution underground facilities. A variety of entities can be responsible for a dig-in, including homeowners, subcontractors, third-party contractors, and unknown entities, and causes can include mismarked dig locations or utility facilities.
Foreign Contact	This subcategory applies any time a foreign object (not including vegetation or vehicles) contacts the electricity distribution system, causing an interruption in electricity service. Examples of foreign objects that can cause outages include balloons (Mylar or rubber), metal building components, trampolines, and cranes or backhoes
Vehicle	The subcategory includes any interruption by vehicle accidents and contact with utility equipment.
Other	This subcategory includes interruptions caused by vandalism, nonutility tree-trimming incidents, and other similar circumstances

#### Table 21: Interruption Cause Category Definitions
Category	Definition
Vegetation	Interruptions caused by falling trees or limbs or growth of trees, vines, and roots. If a tree is involved, the cause category is "vegetation."
Within Clearance Zone (Right-of-Way)	This subcategory applies to outages caused by vegetation that is within the utility's vegetation clearance zone (right-of-way) [ROW]). Specific causes of within clearance zone vegetation caused outages include vegetation growth into conductors, vines within ROW, and trees or limbs, located within the ROW and fall onto distribution system facilities.
Outside Clearance Zone	This subcategory applies to outages caused by vegetation outside of the utility's maintained vegetation clearance zone (ROW). Specific causes of outside clearance zone vegetation caused outages include trees and limbs falling onto distribution system facilities.
Other	This subcategory applies to any vegetation caused outage not covered by other definitions within the vegetation category.
Weather	Interruptions resulting directly or indirectly from a weather phenomenon such as wind, snow, ice, hail, rain, and flooding when the weather itself caused the interruption by exceeding the system's design limits. Wind does not include slapping or galloping conductors, which fall under the "equipment" category. Ice forming on conductors and tearing them down or flooding of power facilities would be included in the weather category.
Precipitation	An outage should be categorized as resulting from weather when snow, sleet, or heavy rain causes an interruption to distribution system customers. Outages caused by ice are coded separately.
lce	This subcategory applies to outages caused by ice buildup on the distribution system.
Wind	This subcategory applies when any of the following phenomena cause an interruption to distribution system customers: tornadoes, hurricanes, and wind gusts strong enough to by themselves damage equipment and thereby cause an interruption.
Extreme Temperature	This subcategory applies when the temperature is extreme enough to cause damage to distribution equipment/wires and as a result interrupt electricity service to customers.
Other	This subcategory applies when weather-induced phenomena or natural disasters not listed in the other "weather" subcategories, such as mudslides, floods, and earthquakes, cause interruptions in electricity service to distribution system customers.
Wildlife	Mammals, birds, reptiles, insects, or any other nonhuman member of the animal kingdom that cause an interruption directly through contact or indirectly (e.g., nests or bird excrement that affect equipment).
Mammal	This subcategory applies to outages caused by a mammal's interaction with the electricity distribution system. Squirrels, beavers, raccoons, and rodents are examples of species that cause outages by coming into contact with distribution system infrastructure.
Bird	This subcategory applies to outages caused by a bird's interaction with the electrical distribution system. Specific types of interactions with the system can vary depending on the type of bird, for example, raptors perching. The "bird" subcategory can also include outages resulting from bird nests or bird excrement contacting system infrastructure.
Reptile/Amphibian	This subcategory applies to outages caused by a reptile's or an amphibian's interaction with the electrical distribution system. Species commonly involved in reptile/amphibian outages are snakes, frogs, and lizards
Other	This subcategory applies to any outage caused by wildlife but not covered by other definitions in this category. Examples of species that fall into the "other" subcategory include insects and fish.
Unknown	Any interruption for which a definitive cause cannot be determined after an investigation. The level of investigation required is determined by the individual utility.
No Specific Cause Found	This subcategory applies when the affected line has been patrolled (or evaluated) and a definitive cause cannot be determined.
Other	Any interruption cause that is known but does not fall into any of the previously listed cause categories.
Utility Error	This subcategory applies whenever an outage results from an electric utility or its field personnel making a mistake, for example, in areas such as construction, distribution automation, maintenance, operations, or protection.
Other Utility Initiated	This subcategory applies when another utility ("utility B") causes a loss of service to utility A's distribution customers. Examples include problems with equipment belonging to another electrical or nonelectrical utility (utility B) that is housed on a common structure (or in a shared trench) resulting in an interruption to utility A's customers. Planned outages that are initiated/requested by other utilities should be coded as "Other Utility Request" code within the "Planned" subcategory.
Other	This subcategory applies to any outage for which the cause is known but not covered by other definitions in this or any of the other main categories.