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U-210254

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Filed via Web Portal

Amanda Maxwell
Executive Director and Secretary
Washington Utilities and Transportation Commission
621 Woodland Square Loop SE
Lacey, Washington 98503

Re: Docket U-210254 – PSE's 2022 Wildfire Mitigation and Response Plan

Dear Ms. Maxwell:

Puget Sound Energy (PSE) submits the enclosed 2022 Wildfire Mitigation and Response Plan (2022 Plan) in response to the Washington Utilities and Transportation Commission's (Commission) March 18, 2022 Notice in this docket. Below, PSE responds to the questions posed in the March 18 Notice. For ease of cross-reference, PSE's responses include citations to the sections of the 2022 Plan that address these topics in more detail.

Introduction

As the Western United States prepares for what is again expected to be a high-risk wildfire season, PSE remains committed to meeting customers' needs for safe, reliable, and affordable clean energy. PSE's 2022 Plan, provided as Attachment A, documents strategies, programs, procedures, and specific actions for identifying, preventing, and responding to evolving wildfire risks in PSE's service territory, enhancing situational awareness, and communicating with agency partners and the public. The 2022 Plan also details PSE's planned actions, through 2025, in the areas of fault protection and fault reduction, including approximately 170 planned projects and over $110 million in anticipated system investment to address wildfire risk.

The 2022 Plan represents a comprehensive portfolio of planning, operational, and communications tools designed to enhance safety, reliability, and resilience. However, it is only one component of PSE's broader grid modernization strategy. In conjunction with other safety, reliability, and resiliency programs, the 2022 Plan contributes to an overarching framework and roadmap for a holistic, programmatic approach to advance and sustain the grid.

The 2022 Plan incorporates industry best practice models from risk management, operations, emergency management, communications, training, and continuous improvement, with the ultimate priority being the safety of the customers and communities PSE serves, and PSE

employees and contractors. As discussed below, the 2022 Plan also includes approaches to evolve strategies, programs, and procedures and reflect learnings as PSE regularly evaluates and monitor evolving risks, available data, and emerging technologies.

PSE looks forward to discussing the 2022 Plan with the Commission, agency partners, and the public. The strategies, programs, procedures, and investments included in the 2022 Plan will continue to evolve as PSE safely manages, develops, and operates the electric and natural gas utility systems. This summer PSE will obtain valuable community and customer feedback on wildfire mitigation and response strategies, including the design of a public safety power shut-off (PSPS) plan.

Responses to Notice Questions

1. **Please provide a synopsis of the utility's experience with the 2021 fire season. Please identify the fire events that happened in your service territory, the location of those events, and how much damage to utility infrastructure and local communities occurred, if any.**

Based on data from the Northwest Interagency Coordinating Center's 2021 Annual Report and PSE records, there were five wildfires within or near PSE's territory in 2021. However, no wildfires affected PSE infrastructure.

PSE's pre-wildfire season actions reduced wildfire risk throughout the service territory and enabled improved situational awareness and operational decision-making. Before July 1, 2021, PSE conducted pre-season inspections of over 580 miles of distribution circuits and 187 miles of transmission lines in higher wildfire risk areas. These inspections led to the removal of 473 hazard trees and trimming of 1,690 trees.

Additionally, with formalized operational procedures in place in 2021, PSE responded effectively to evolving operational conditions during periods of elevated wildfire risk. The National Weather Service (NWS) issued 10 Red Flag Warnings applicable to parts of PSE's service territory in Central Washington; eight of these were for areas east of the Cascade Mountains, whereas two were for areas on the Western slopes of the Cascades. Consistent with section 4.1.3 of the 2022 Plan, these warnings served as activation thresholds that triggered PSE's evaluation of specific conditions and the potential exercise of operational actions to reduce the risk of an adverse event. In 2021, these operational actions included eight instances where PSE stopped manual testing of transmission lines and de-energized lines non-consequential to serving load, as well as two instances where PSE disabled automatic reclosing and enabled instantaneous trip via Supervisory Control And Data Acquisition (SCADA) systems.

2. **How is the utility identifying areas of greatest wildfire risk within its service territory? Where are those areas located?**

PSE's approach to identifying wildfire risk within its service territory is discussed in section 3.2 of the 2022 Plan. Most areas subject to higher wildfire risk in the service territory are located on

the Eastern side of the Cascade Mountains in Kittitas County. However, discrete areas in the northern and southern parts of PSE's service territory also present risk profiles, primarily due to higher portions of these areas being located within the Wildfire Urban Interface (WUI) (rather than, for example, areas with higher wildfire hazard potential or burn probability).

Notably, overall risk in the southern portion of PSE's service territory declined in 2022 relative to the 2021 risk assessment. As discussed in section 3.2.6 of the 2022 Plan, PSE incorporated updated data sets for wildfire hazard potential data from the United States Forest Service (USFS) into the risk model, which resulted in more granular delineation between areas of "moderate" and "low" wildfire hazard (i.e., "burn") potential, as defined by the USFS.

- **What data is being used in this analysis?**

The specific data PSE incorporates into the wildfire risk model is detailed in section 3.2 of the 2022 Plan. As described there, PSE's risk model assesses the likelihood and potential impacts of a wildfire event in PSE's service territory by incorporating various geospatial data sets and overlaying this information onto maps of PSE's overhead electrical equipment.

Key data components include geospatial data related to wildfire ignition potential and consequence from the USFS, as well as WUI mapping data from the Washington State Department of Natural Resources. In addition, PSE incorporates specific asset management data elements into the model, which include conductor technology types and vegetation cycle data for PSE equipment. These data sets are then incorporated into the model to develop an annual circuit risk ranking, which PSE uses to inform pre-wildfire season inspection and mitigation priorities.

- **What modeling is the utility using to predict periods of heightened wildfire risk based on high winds or other factors contributing to the sparking or spread of wildfire?**

Weather (e.g., wind and humidity) and terrain/fuels are the biggest drivers of ignition events spreading into wildfires. PSE's use of USFS wildfire hazard potential and burn probability data incorporates the risks created by fuel types and terrain. Accordingly, PSE separately incorporates specific data sets for weather and environmental conditions to help predict, monitor, and prepare for imminent fire weather conditions.

To enhance situational awareness, PSE developed a dashboard tool to assess wildfire risk in real time and make necessary operational determinations. This tool incorporates the annual circuit risk rankings from PSE's wildfire risk model and adds in real-time weather conditions to give system operators an indication of conditions in the field. Currently, data pertaining to weather watches and warnings from the National Oceanic and Atmospheric Administration (NOAA), the NWS, and the Northwest Predictive Services (NWPS) from the Northwest Interagency Coordination Center contribute to PSE's daily assessment of real-time conditions. For 2022, specifically, PSE has updated the model supporting this dashboard to incorporate predicted wind conditions, Fire Weather Watches, and Red Flag Warnings. For additional detail, please see section 4.1.2 of the 2022 Plan.

- **What strategies is the utility using to mitigate risk in each of its service territory risk areas? Do those strategies change during times of heightened wildfire risk?**

PSE continues to evaluate wildfire risk identification and preparedness strategies in light of trends in our regional climate and weather and the unique risk profiles of specific areas and equipment within the service territory. PSE's electric system consists of approximately 10,000 miles of overhead distribution and 2,100 miles of transmission. However, PSE's risk model identifies only 55 miles of the distribution system and 38 miles of the transmission system—approximately one percent of PSE's service territory—that traverse areas identified by the USFS as having "high" or "very high" burn potential.

Although this is a small percentage of PSE's system, the 2022 Plan incorporates several strategies to identify and reduce risk, enhance situational awareness, and protect against and reduce faults. Appendix B to the 2022 Plan details PSE's specific plans to implement the 2022 Plan's elements and strategies through a variety of planned system investments. These investments include a targeted hazard tree removal program, deploying covered overhead conductors, strategic undergrounding, and other grid modernization programs. These investments and the related business cases represent a broad portfolio of planned actions that will help PSE identify and address evolving fire risks across all parts of PSE's service territory.

PSE also adapts its strategies in response to forecasted and real-time conditions. Specific actions taken by PSE during times of heightened wildfire risk are described in section 4.1.3 of the 2022 Plan.

3. **What lessons, if any, did the utility learn in the 2021 wildfire season, and how have these lessons changed plans for the 2022 wildfire season, if at all?**

Although the 2021 wildfire season was relatively uneventful in PSE's service territory, PSE nonetheless learned valuable lessons that have informed updates to the 2022 Plan. These lessons and enhancements to the 2022 Plan include the following:

- *Formalized operational procedures enhance situational awareness.* Situational awareness and formalized operational procedures are critical elements of the 2022 Plan, as rapid communications and decision-making are often needed during the short timelines and constraints associated with various weather forecasts, such as NWS notices of Fire Weather Watches or Red Flag Warnings. In section 4.1.3 of the 2022 Plan, PSE has included additional detail summarizing the operational procedures and action plans that inform PSE's wildfire season operations and decision-making during times of elevated risk.

- *Annual pre-season inspections and vegetation management continue to be a priority.* PSE conducts targeted, proactive inspections and vegetation management specific to wildfire risk before wildfire season begins based on priorities identified in PSE's annual risk assessment. As in 2021, PSE is conducting these inspections for 2022. This year PSE is

also targeting inspection activity to higher wildfire risk areas based on the updates to the wildfire risk model described in the 2022 Plan.

- *Enhanced incident capture capabilities will support plan implementation and future program development.* As described in section 4.1.4 of the 2022 Plan, PSE is implementing a new software solution in 2022 to enhance our ability to log daily ignition and fire incidents. This more granular, data-driven approach to event logging procedures will help us evaluate multi-season trends and tailor appropriate solutions to address areas that require correction. PSE expects that this enhanced data capture capability will improve situational awareness and operational procedures going forward, as well as inform development of the performance metrics described in section 2.5 of the 2022 Plan.

4. **Is the utility aware of best practices for utility wildfire mitigation implemented in other jurisdictions? Please identify these best practices, the source of these best practices, and any steps the utility is taking to incorporate these best practices into its own wildfire mitigation practices.**

Wildfire risk is an evolving threat, one that is attracting the attention of utilities, communities, and customers across many areas of the United States, but particularly in western states. Through continuous improvement and adaptive management of mitigation and response strategies and related programs, PSE continues to evaluate the unique risk profiles of areas within the service territory and incorporate all applicable industry best practices into PSE's planning, operations, and communications toolbox.

To this end, PSE collaborates proactively with a wide range of industry and governmental stakeholders to ensure that lessons learned are shared effectively. PSE and other industry partners participate in several different venues to enable this coordination, improve the allocation of resources, identify and address public policy issues, and prepare to work with customers and communities in higher risk areas. These venues include the Edison Electric Institute's (EEI) CEO-led Wildfire Task Force, EEI's Electricity Subsector Coordinating Council (ESCC) Wildfire Working Group, and the Western Energy Institute (WEI).

The ESCC serves as the principal liaison between the federal government and the industry and focuses on actions and strategies to protect the energy grid. Recently, the ESCC made wildfire mitigation and response a priority, with areas of focus including mitigation, risk identification, wildfire detection, and wildfire response—all elements included in the 2022 Plan.

In early April 2022, relevant PSE teams participated in a WEI program that brought together senior leaders responsible for wildfire planning and mitigation strategies for an interactive peer-to-peer session. This discussion enabled the sharing and discussion of industry practices around strategies for planning, operations, technology, and various other tactics to mitigate and plan for wildfires.

5. **What local, state, federal, or other privately funded research, pilots, or programs exploring emerging wildfire mitigation technologies or best practices are you participating in?**

As discussed in section 4.1.5 of the 2022 Plan, PSE is exploring several technologies to enhance our ability to inspect equipment and assess environmental conditions, both in advance of the wildfire season and during real-time operations. These technologies include pilot programs that aim to provide PSE with more detailed assessments of equipment condition and vegetation encroachment. PSE is currently exploring these programs irrespective of any local, state, federal, or other private funding that may be available.

As implementation of the federal Infrastructure Investment and Jobs Act continues, PSE anticipates pursuing opportunities to obtain federal funding to augment PSE's ongoing exploration of these emerging technologies and wildfire resilience strategies. More broadly, PSE also continues to explore wildfire mitigation activities and other holistic grid modernization strategies that may prevent outages and enhance overall resilience of the electric grid. PSE will further define and seek potential grant opportunities associated with the Infrastructure Investment and Jobs Act and, if successful, will consider modifying and supplementing existing plans accordingly.

As noted elsewhere, PSE also continues to participate in the Washington Department of Natural Resources Electric Utilities Wildland Fire Prevention Task Force.

6. **What vegetation management strategies and actions are you taking to mitigate the risk and potential impact of wildfire in your service territory for 2022?**

Sections 4.2 and 4.3 of the 2022 Plan outline PSE's strategies, programs, procedures, and investments related to fault reduction and protection. PSE's enhanced vegetation management program includes vegetation management activities targeted specifically at mitigating wildfire risk by reducing limb- and tree-caused faults. Pre-season inspections identify vegetation that may encroach on conductors during the summer growing season and PSE conducts targeted off right-of-way tree removal, which provides benefits for both fire mitigation and system reliability.

PSE's 2022 Multi-Year Rate Plan (MYRP) includes a business case that proposes the implementation of a targeted hazard tree removal program, called TreeWatch. PSE would prioritize the TreeWatch program in higher wildfire risk areas, as identified by the risk model, and apply new remote-sensing technologies and data collection and analysis tools to enhance capabilities. For additional detail on this proposed program, please see section 4.2.1 of the 2022 Plan.

- **How do these actions differ, if at all, from business-as-usual vegetation management practices? What changes, if any, has the utility identified or made for the 2022 wildfire season compared to the 2021 fire season?**

Pre-season vegetation inspections and the necessary follow-up actions PSE takes to mitigate identified risks on higher risk circuits occur on an annual basis before each wildfire season begins, regardless of what PSE's normal vegetation management cycle might prescribe. PSE's reliability-focused vegetation management cycle ranges from four to six years, whereas annual pre-season inspections on distribution circuits augments this cycle and is designed specifically for addressing vegetation-related risk for the upcoming wildfire season.

For the 2022 wildfire season, the scope of PSE's pre-season inspection and follow-up vegetation management activities is similar to 2021. Refinements to the annual wildfire risk model this year, which now include more granular data from the USFS, enable PSE to tailoring this year's pre-season inspections and vegetation management activities allowing more timely and efficient completion of critical projects.

- **Is the utility prioritizing vegetation management according to areas of greatest risk? If so, please describe.**

Yes. As described in section 3.2.6 of the 2022 Plan, PSE prioritizes the distribution circuits and transmission lines that are designated for annual pre-season inspections and follow-up maintenance based on their ranking in PSE's annual analysis using the wildfire risk model.

- **What technical methods (aerial, on-the-ground, etc.) does the utility use to inspect vegetation near its equipment throughout its service territory. What is the frequency of vegetation inspections?**

PSE primarily conducts vegetation inspections via ground patrols—both during pre-season inspections and when evaluating the real-time conditions relevant to making reclosing determinations during times of elevated wildfire risk. However, PSE also uses aerial patrols in certain circumstances, such as for hard-to-reach areas or long sections of off-road transmission corridors. In addition to the annual pre-season inspections discussed above, PSE conducts routine, annual maintenance and reliability inspections of the 230 kV transmission system, inspections every three years for 55-115 kV transmission lines, and inspections every four or six years for distribution circuits, depending on their location.

7. **How is the utility considering infrastructure hardening in its wildfire mitigation plans for 2022?**

PSE's overarching grid modernization strategy includes numerous targeted business cases that, taken together, have comprehensive resilience, reliability, and wildfire risk reduction benefits. For additional detail regarding specific planned grid modernization investments and estimated wildfire risk reduction impacts of these investments, please see the table included in the introduction to the 2022 Plan and the supporting materials in Appendix B.

- **What hardening strategies have been identified for the utility's system, including areas at higher risk for fire?**

Appendix B details specific planned investments that PSE anticipates will have wildfire mitigation-related benefits. Specifically, PSE continues to make reliability and resilience investments throughout the service territory that provide benefits to higher wildfire risk areas. As described in Appendix B, these strategies and investments include: the replacement of aging and smaller copper conductor in higher wildfire risk areas: several distribution automation projects, which allow for better circuit sectionalizing and reduction of faults by identifying arcing conditions; continuing to identify, reinforce, and replace failing poles; evaluating feeder underground conversions; installing tree wire to prevent vegetation contact and arcing; and assessing overhead system rebuilds.

- **How do these strategies compare to peer West Coast utilities with similar service territory characteristics?**

Since establishing a Wildfire Task Force in 2018, PSE's comprehensive strategies and actions governing planning, operations, communications, and emergency response have helped mitigate wildfire risks in PSE's unique service territory. It is important to emphasize that PSE's service territory has markedly different geographic and environmental characteristics than the territories of many peer utilities, and consequently does not benchmark well against other West Coast utilities. PSE's strategies and procedures were developed through close consultation with peers in the Western United States, including utility companies in California, but with consideration to the service territory-specific characteristics. Through continued improvement and adaptive implementation of the 2022 Plan, PSE will continue to refine and enhance wildfire program strategies and procedures to address the unique wildfire risks presented in our service territory.

Traditionally, wildfire risk drivers were addressed by multiple reliability business plans across the company. These plans continue to provide wildfire mitigation benefits, as described in Appendix B to the 2022 Plan. Going forward, however, PSE aligned wildfire mitigation-specific investments into an operations plan that enhances our collective focus on higher risk wildfire areas. PSE continues to explore partnership opportunities with experts from across the utility and wildfire industries, as well as with state and local agencies, to ensure that plan elements are aligned with emerging technologies and best practices.

- **How often does the utility inspect its infrastructure, particularly in areas of heightened fire risk? What types of inspections are performed (aerial, on-the-ground, etc.)?**

As discussed above, PSE conducts annual inspections of distribution circuits and transmission lines in higher wildfire risk areas, as identified in the annual update of the wildfire risk model. These inspections include both ground-based and aerial patrols depending on terrain and ground conditions, and they are performed by qualified electrical workers and vegetation management personnel.

As described in section 4.1.5 of the 2022 Plan, PSE is also increasing drone-mounted infrared and camera inspections, as well as piloting the application of artificial intelligence machine learning technologies to assess tremendous volumes of satellite imagery data in higher wildfire risk areas. As PSE's familiarity with these emerging technologies grows, the ability to make decisions in advance of wildfire season and during real time operations will improve.

- **How are planned grid hardening activities being balanced or coordinated with vegetation management activities? How is general maintenance of infrastructure being balanced or considered in tandem with wildfire-related infrastructure hardening?**

PSE's Vegetation Management and System Planning departments collaborate to ensure appropriate coordination of reliability-based strategies for system improvements. This coordination also occurs for specific wildfire-related investments due to the nexus between reliability and system hardening improvements for wildfire mitigation across PSE's integrated approach to grid modernization.

8. **What strategies will the utility use or explore for this wildfire season to enhance situational awareness for utility operations and for its customers?**

Situational awareness is critical to informing System Operators of real-time field conditions and enabling informed operational decisions to prevent PSE from energizing equipment into fault conditions in higher wildfire risk areas. Accordingly, section 4.1 of the 2022 Plan discusses several procedures that will lead to improved situational awareness for PSE and increased communication with the public and agency partners. These strategies include enhanced operational procedures, which will be informed by weather-related updates to PSE's real-time dashboard. As noted above, PSE has also implemented new tools in 2022 to assist in the capture of more granular ignition incident data for ongoing analysis of key trends.

In 2022, PSE will also implement several strategies to enhance situational awareness that are in earlier stages of development. These include satellite imagery analysis and subsequent use of artificial intelligence machine learning capabilities to analyze imagery data, utilization of HD cameras, and piloting drone-based remote LiDAR sensing systems.

- **What information, datasets, or programs, such as those compiled and managed by federal agencies like NOAA, does the utility have at its disposal to enhance situational awareness? What new technologies such as enhanced weather forecasting or LIDAR scans of transmission lines are you using to prepare for the wildfire season?**

As noted earlier, section 4.1.2 of the 2022 Plan describes how PSE has updated its real-time dashboard to include weather-related data sets from NOAA, the NWS, and the NWPS. PSE's incorporation of these data sets into the dashboard, and their update on an hourly basis, will enhance situational awareness.

Section 4.1.5 of the 2022 Plan also highlights how PSE is evaluating and implementing several technologies to enhance situational awareness during wildfire season operations. These include the use of satellite imagery and artificial intelligence analysis technologies, as well as the use of LiDAR-mounted drones and HD cameras.

- **Are there specific deficiencies in information that the utility plans to address to prepare for this wildfire season? What information deficiencies are challenging for the utility to address or resolve on its own?**

PSE's risk model and real-time dashboard incorporate robust amounts of data to inform proactive efforts to address wildfire risk before fire season and to improve how PSE makes operational decisions in real time. Potential data enhancements and opportunities for additional state investment would enable utilities to incorporate more granular local weather forecast data, fuel condition, and fire propagation modeling into near-time and real-time assessments. These enhancements will be particularly beneficial in the context of developing a PSPS plan, as additional local weather forecasting and modeling technologies may be necessary to help utilities estimate the likelihood of electrical assets being affected by localized conditions or involved in an ignition.

Currently, PSE uses a geographic mapping layer of the WUI and the Department of Natural Resources' wildfire risk assessment, in addition to historical wildfire data, to assess where overhead electrical assets have the greatest potential of being involved in an ignition. In the absence of this historical ignition data, PSE uses outage data as a proxy to determine where there may be higher potential for assets involved in wildfire events.

To address data gaps, PSE has been working with other stakeholders on the State's Electric Utility Wildland Fire Prevention Task Force to improve information available to utilities and agencies to prevent and respond to wildfires, and to provide opportunities for communication and education channels. PSE will continue this work to reduce wildfire risk and develop consistent approaches and shared data regarding fire prevention, safety, vegetation management, and energy distribution systems. However, no funding source has yet been proposed to create the kind of granular and dynamic risk modeling tools that can help utilities understand ignition and fire propagation potential based on real-time conditions, which will be necessary to make certain targeted, proactive operating decisions.

By comparison, California has made substantial state investments over a decade or more to create these granular and dynamic models and tools for utilities and state agencies. PSE continues to utilize and enhance risk assessment models and incorporate additional and available weather forecast data to tune and configure the system and increase operational readiness. Yet the lack of similarly robust tools and available data compared to California's dynamic risk model is not something that can be addressed prior to this, or any near-term, fire season.

- **What partnerships has the utility cultivated with first responders, land managers, and emergency operations personnel in preparing for the 2022 wildfire season?**

PSE has well-established partnerships in place for storms and other emergencies that PSE will utilize to provide customers with information and updates during the 2022 wildfire season. Please see section 5 of the 2022 Plan for additional information. PSE also continues to participate in the State's Electric Utilities Wildland Fire Prevention Task Force.

In 2022, PSE will also participate in six county emergency management summer hazards workshops. These workshops, sponsored by relevant county emergency management agencies, will focus on extreme heat events, including long-range summer weather forecasts, extreme heat preparedness, and wildfire/WUI events. In addition to PSE, presenters include the NWS, the State Department of Natural Resources, and county emergency management agencies. Audience members include first responders, county and local emergency management, 911 centers, public health, the state Department of Transportation (DOT), and school districts.

- **What communications channels and procedures are in place to coordinate planning and response efforts with these entities?**

As noted above, PSE participates in emergency planning at the county level as requested and needed, both in advance of summer hazards and in response to specific events. PSE also coordinates with these agencies to provide input or establish coordination expectations during specific events. Section 5.6 of the 2022 Plan describes the external coordination and communication protocols that are in place to coordinate wildfire planning and response.

During an active event, PSE provides emergency response and management agencies with emergency escalation phone numbers. PSE also maintains a list of emergency management, fire district numbers, and DOT emergency numbers if there is a need to coordinate during a specific event.

- **What plans does the utility have in place to communicate with customers, including highly impacted communities, vulnerable populations, and medically vulnerable customers, about wildfire risk for this season overall, as well as specific wildfire risks or events?**

PSE communicates broadly with all customers before wildfire season. For these broad communications, the focus is on preparedness: educating customers about the 2022 Plan and directing customers to information from the State Department of Natural Resources on how they can help prevent wildfires. However, PSE also uses the tools described in section 6 of the 2022 Plan to engage with community organizations, agencies, and jurisdictions, including partners that serve vulnerable and hard-to-reach populations.

In response to specific conditions, PSE can also target communications to customers in discrete areas, including customers in higher wildfire risk areas. PSE has the capability to communicate

directly with these customers by email or robo-call on a circuit-by-circuit basis, a process used for planned outages. This works well in several cases, including when the NWS issues Red Flag Warnings with advance notice. However, this tool is not designed for use during emergencies or to communicate real-time actions, as it is a manual process and relies upon customers (including medical needs customers) maintaining current contact information. When PSE communicates with specific customers by email or robo-call on a circuit-by-circuit basis, the process entails individual outreach to customers who have a medical flag on their account, typically by phone.

In 2022, PSE is planning a series of targeted communications and in-person community town hall sessions to engage with communities and customers in areas of higher wildfire risk within PSE's service territory. The first such event will be on June 8, 2022, in Cle Elum, Washington. As noted in section 4.2.2 of the 2022 Plan, the purposes of this meeting are to inform customers about PSE's 2022 Plan, specific wildfire risk reduction efforts in Kittitas County, and, through a facilitated conversation, gather feedback from community members on PSE's design and implementation of a PSPS plan. PSE intends to replicate this meeting format in other higher wildfire risk areas within the service territory areas throughout the summer, incorporating lessons learned from the initial meeting. To ensure broad and inclusive outreach, PSE will be using a variety of outreach methods to invite customers to attend, including direct customer mailers; email invitations; and coordination with community-based organizations, local and state officials, and the media. PSE's town hall event plan includes the option of translation and interpretation services as needed based on customer and community demographics.

As noted in section 6 of the 2022 Plan, PSE also has well-established communication protocols and channels in place for storms, unplanned outages, and other emergencies that we will use to provide customers with information and updates. Specifically, in the event of an active outage due to a wildfire, PSE will leverage best practices and existing customer knowledge and preferences for how to receive information from the utility, with the objective to provide, if known, the cause and nature of any service disruption—such as whether the disruption is due to system damage or is precautionary—and an estimated time of service restoration. These procedures enable customers to take necessary preparedness actions and to minimize the inconvenience and hazards of a loss of energy service.

In addition to PSE's communications efforts (both broad and targeted) as detailed above, PSE's current process and approach to reach highly impacted communities, vulnerable populations, and medically vulnerable customers is to partner with local jurisdictions, agencies, and community organizations. However, as PSE gains valuable feedback from community members and customers in higher wildfire risk areas, PSE will continue to develop and improve wildfire communications plans with a particular focus on PSPS implementation, as it is imperative to reliably reach all customers during a PSPS event. Accordingly, another goal of the June 8 meeting in Kittitas County will be to obtain updated customer contact information and share information about how to add medical flags to customer accounts, in addition to feedback on communication and notification preferences for potential PSPS communications.

- **What information will the utility provide customers about the wildfire risk mitigation work it is performing? Does the utility offer programs for customers to request vegetation management work if they identify trees or vegetation that is in contact with power lines? How successful are these programs?**

PSE's wildfire-related communications are designed to provide customers with an overview of the actions PSE is taking, while also directing them to more detailed information in the 2022 Plan, which is available at pse.com/wildfireplan. PSE will also discuss the 2022 Plan and related efforts at upcoming summer hazard workshops on a county-specific basis. Additionally, PSE will engage this summer with communities and customers in higher wildfire risk areas to discuss the 2022 Plan and efforts to develop new tools, such as a PSPS plan. These community town hall meetings are discussed in section 4.2.2 of the 2022 Plan.

PSE offers programs for customers to request vegetation management work if they identify trees or vegetation that is in contact with power lines. PSE encourages customers that see trees dangerously close to overhead power lines to contact PSE or a consulting utility forester (certified arborists) to request a no-cost investigation. PSE investigates these requests and prioritizes follow up actions depending on the conditions reported by the investigator.

9. **What operational tools are in the utility's toolkit for responding to wildfire events or potential triggers of wildfire events this season, such as heatwaves or high wind events?**

Section 5 of the 2022 Plan describes PSE's operational procedures that contribute to the evaluation of specific fire weather conditions and the various steps and action plans that can be utilized to respond to those conditions. Consistent with past practice, PSE will monitor public weather data and warnings and—new in 2022—incorporate this data into the real-time dashboard to ensure situational awareness. This enhanced situational awareness will enable appropriate operational actions, which may include de-energization of non-customer load bearing lines, turning off reclosing, or enabling instantaneous trip settings via SCADA systems in higher wildfire risk areas. As noted in response to question 1, these operational actions proved effective during 2021.

- **Do these tools include public safety power shutoffs or other depowering/de-energization mechanisms such as more sensitive system settings that could trigger a power outage? Please explain any programs that result in customers' power being shut-off proactively or reactively due to fire risk?**
    - **What are the criteria, triggering events, provisions, or thresholds that would result in a utility implementing any depowering or de-energization mechanism?**
    - **What communication protocols are in place to notify and prepare customers, first responders, and state and federal emergency**

operations personnel of such an event? In particular, what are the utility's plans for communicating with medical and life support customers, vulnerable and low-income customers, and customers with limited English proficiency or other language or accessibility needs?

As noted in section 4.2.2 of the 2022 Plan, PSE is developing a PSPS plan for future wildfire seasons; however, PSE does not plan to use a PSPS tool during the 2022 wildfire season.

As described in section 4.1.3 of the 2022 Plan, however, PSE's operational procedures also include other near- or real-time actions to reduce wildfire risk that could potentially result in de-energization. These actions may include selective de-energization of lines that will not result in a loss of service to customers, disabling automatic switching and reclosing functions, enabling instantaneous trip settings on protective devices, and potential cancellation of scheduled customer work and construction activities in affected areas. PSE evaluates these operational actions based on the risk indicators from the daily wildfire risk dashboard described in section 4.1.2 of the 2022 Plan and defined operational action thresholds (Fire Weather Watches, Red Flag Warnings, and high wind speeds forecasted in higher risk portions of the service territory). However, PSE endeavors to balance meaningful risk mitigation relative to potential negative consequences, such as outages.

Although these actions could potentially result in an unintended outage, they do not constitute what is widely understood to be a PSPS tool or event. Accordingly, PSE's communications strategies for real-time operations differ from the strategies that will be needed in the PSPS context, where communication with first-response, local, and state partners and customers will be critical—especially customers who may be more difficult to reach through traditional channels, including medical and life support customers, vulnerable and low-income customers, and customers with limited English proficiency or other language or accessibility needs. Additionally, in the context of PSPS, development of communications strategies to reach these stakeholders and customers will require tools and processes that PSE does not yet have, as well as dedicated staff support. Despite these challenges, PSE is committed to developing a PSPS plan for use as a tool of last resort. PSE looks forward to discussing design and implementation issues at the June 8, 2022 community meeting in Kittitas County.

- **If the utility's wildfire mitigation plan includes public safety power shutoffs, what resources does the utility provide to impacted customers to mitigate customer impacts during a shutoff event?**

Through robust engagement with potentially affected communities and customers in higher wildfire risk areas, PSE intends to solicit feedback on the development of its PSPS plan. This question will be a key discussion topic at the June 8 meeting and in near-term discussions with other community, local, and state partners.

- **If depowering in any form is not part of a utility's toolkit, what provisions are in place as an alternative, specifically in circumstance where high winds**

and dry conditions are predicted? How does the utility plan to communicate these provisions with customers, including medical and life support customers, vulnerable and low-income customers, and customers with limited English proficiency or other language or accessibility needs?

To be clear, the de-energization of lines and electrical equipment that are non-consequential to serving load is an action that PSE currently evaluates and may take in response to elevated fire weather conditions in near real-time. In the event of a Red Flag Warning combined with specific wind gust thresholds, PSE may also take operational actions that could include turning off reclosing or enabling instantaneous trip settings in higher wildfire risk areas. As noted above, PSE took these operational actions in several instances in 2021 and is committed to doing so in 2022 if circumstances require.

PSE again emphasizes that these operational actions do present the risk of outages for customers, even though PSE does not plan to proactively de-energize lines consequential to serving customer load in 2022. To date, however, PSE has not implemented what is widely understood to be a proactive PSPS—i.e., the de-energization of equipment that would result in power shutoffs for customers. This is a tool of last resort that PSE is developing now.

As noted in section 4.2.2 of the 2022 Plan, the potential impacts to customers of PSPS could be far-reaching and there are many considerations and requirements that must inform the development of an effective PSPS plan. PSPS can cause significant disruption to healthcare and long-term care facilities, communications, internet service, wastewater treatment, drinking water supply, irrigation and firefighting resources, traffic control (which can affect egress during a fire), and other critical public safety needs. As PSE develops a PSPS plan for use in select parts of the service territory, PSE is committed to first hearing from potentially impacted communities to inform the development process.

As part of this process, PSE intends to review well-established communication protocols and channels in place for storms and other emergencies, which PSE utilizes to provide customers with information and updates. These protocols are detailed in section 6 of the 2022 Plan and summarized above. One of the primary objectives of the June 8 meeting in Kittitas County will be to obtain community feedback on communications preferences that will subsequently inform how PSE revises its approach to communications in the specific context of potential future PSPS events.

Conclusion

PSE thanks the Commission and Commission staff for their attention to this important matter of public safety. Please contact Cathy Koch at (425) 462-3877 for additional information about this filing. If you have any other questions, please contact me at (425) 456-2142.

Sincerely,

/s/ Jon Piliaris

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cc: Lisa Gafken, Public Counsel
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Attachment: 2022 Wildfire Mitigation and Response Plan