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July 2, 2021

Filed Via Web Portal

Amanda Maxwell, Director, Consumer Protection and Communications
Washington Utilities and Transportation Commission
P.O. Box 47250
Olympia, WA 98504-7250

Re: U-210254 - PSE's 2021 Wildfire Mitigation and Response Plan

Dear Ms. Maxwell,

Puget Sound Energy ("PSE") appreciates the opportunity to share with the Washington Utilities and Transportation Commission ("Commission") its 2021 Wildfire Mitigation and Response Plan and respond to Commission staff's questions. As the western United States prepares for what is expected to be a high-risk wildfire season in 2021, PSE remains committed to meeting its customers' needs for safe, reliable and affordable clean energy. PSE hopes this Wildfire Mitigation and Response Plan can serve as a solid foundation for current and future wildfire preparedness efforts as PSE continues to partner with the Commission and other public sector and community stakeholders to develop plans and actions that enhance resilience and mitigate the impact of this emerging risk.

PSE's 2021 Wildfire Mitigation and Response Plan ("Plan") is provided as Attachment A. The Plan addresses the questions contained in Staff's request to the utilities dated June 14, 2021. In order to facilitate easier review of PSE's responses to Commission staff's questions, PSE's responses to each of the questions are summarized below, with cross-references to the relevant sections of the Plan for additional information.

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

PSE conducts pre-wildfire season vegetation inspections and follow up mitigation work prior to July 1st each year. These inspections are conducted on the distribution circuits and transmission lines subject to highest wildfire risk as identified by PSE's most recent risk assessment for wildfire. This risk assessment is further described in response to Question 1 (b) below and in section 3.2 of the Plan.

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Any trees in the right of way that could encroach on live conductors during the summer growing season are trimmed back to ensure clearance from conductors for the entire growing/wildfire season beginning July 1. In early 2021, PSE included hazard tree removal in the scope of its pre-wildfire season vegetation inspection and mitigation efforts. PSE targeted removing 250 hazard trees on the distribution circuits and transmission lines in the scope of PSE's 2021 pre-wildfire season vegetation management inspection. As of July 1, 2021, these 250 hazard trees have been removed.

For more discussion of PSE's vegetation management strategies to address wildfire risk, please see section 4.2.2 of the Plan.

a. How do these actions differ, if at all, from business-as-usual vegetation management practices?

Distribution circuits generally are inspected every 4 or 6 years (4 years for urban areas, 6 for rural areas). Conducting annual inspections in high wildfire risk areas exceeds PSE's standard practice.

Additionally, prioritizing the removal of hazard trees in higher wildfire risk areas is approached differently than PSE's historical practices for hazard tree removal. For reliability, this activity is typically targeted at the areas of PSE's service territory that have the most tree-related outages, which would be on the West side of the Cascade mountains, where areas of higher wildfire risk and areas where tree related outages could occur are similar. PSE's assets in Eastern Washington typically perform well from a tree related outage standpoint. Therefore, targeting hazard tree removal in Eastern Washington on a regular basis to reduce wildfire risk differs from PSE's historical practices and is above and beyond previous and proposed tree watch programs focused on reliability.

For more discussion of PSE's vegetation management strategies to address wildfire risk and how those differ from business-as-usual vegetation management practices, please see section 4.2.2 of the Plan.

b. Has the utility identified areas of concern within its service territory? Where are they? What are the risks and how has the utility determined those risks? What strategies will the utility use to mitigate risks in these areas?

To identify potential areas of concern within its service territory, PSE uses a wildfire risk assessment model that uses data from the United States Forest Service (USFS) and the Washington State Department of Natural Resources (DNR). Although historical data on large wildfires in the state can be utilized to determine the potential benefit of hardening PSE's electrical

system against wildfire threats, information in addition to this historical data is useful to estimate the likelihood or consequence of electrical assets being involved in an ignition. Accordingly, PSE uses a GIS mapping layer of the DNR's Wildland Urban Interface (WUI) as well as USFS wildfire burn potential data to assess which PSE overhead electrical assets have the greatest potential of being involved in igniting a wildfire. In the absence of wildfire ignition historical data, PSE uses outage data as a proxy for ignition data to determine where the potential is highest for assets being involved in wildfire events.

To assess this evolving risk, outages are combined with burn potential and WUI data to develop the baseline risk assessment model. Weather forecasts and issued warnings are then used to assess the real-time wildfire risk. PSE has identified three areas in its service territory with the highest wildfire risk. These areas are shown on page 11 of the Plan and make up less than one percent of PSE's transmission and distribution system.

Mitigation of the risk is accomplished through a combination of visual inspection of equipment and vegetation characteristics that could lead to a potential ignition. These areas are remedied along with targeted identification and removal of hazard trees in higher wildfire risk areas.

For further discussion of this topic, please see sections 3.2 and 4 of the Plan.

2. How is the utility considering infrastructure hardening in its plans?

a. What cost-benefit and risk analyses have been conducted in relation to any proposed infrastructure improvements?

All electric transmission and distribution system capital improvement projects and programs are evaluated in a benefit-cost analysis, which may include a risk assessment depending on the nature of the project or program. PSE uses its Investment Decision Optimization Tool (iDOT) to quantify benefit-cost ratios, compare investment options and optimize project portfolios with respect to budget constraints. The benefit-cost ratios consider multiple dimensions, such as reliability improvement, safety and risk, all of which are quantified and converted into a net present value for each project.

As storms and other weather events are the primary cause of damage to PSE's systems, programs that improve resilience to weather events historically have been the main focus of hardening improvements, though some of those improvements also provide benefits for wildfire resilience as well by reducing the risk of faults. The cost and benefits for projects that

prevent or enhance resiliency against wildfires are difficult to quantify because so few wildfire events have occurred in PSE's service territory. This is an area of development.

For more information regarding how PSE applies benefit-cost ratios in evaluating proposed infrastructure improvements for resilience, please see section 4.2.5 of the Plan.

b. What infrastructure hardening strategies have been identified for the utility's system, including areas at higher risk, and how is the utility considering investment in these strategies, as well maintenance of its infrastructure?

PSE has ongoing pole inspection, small copper conductor replacement, and aging infrastructure replacement programs, which consider fire risk as part of the prioritization methodology. In addition, PSE is piloting new materials specifically for fire prevention to determine their effectiveness and impacts on constructability with the intent that alternative standards for higher wildfire risk areas may be considered and used at end-of-life replacement.

For further discussion of infrastructure hardening strategies and maintenance activities for its infrastructure as it relates to wildfire preparedness, please see section 4.3 of the Plan.

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

a. What information, datasets, or programs does the utility have at its disposal?

PSE is leveraging both real time weather condition datasets from National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS), and Predictive services from the Northwest Interagency Coordination Center, as well as datasets for WUI, burn potential, and burn probability, to provide a baseline and real time risk level for each circuit.

For further information, please see section 4.1 of the Plan.

b. Are there specific deficiencies in information that the utility plans to address to prepare for this wildfire season?

PSE uses publicly available data to assess and prioritize wildfire risk for its electrical assets. This data is largely static and lacks granularity that may be more useful in determining real-time situational awareness. PSE has been

working with other stakeholders in the Electric Utility Wildland Fire Prevention Task Force, organized in 2019 at the direction of the Washington State Legislature, to improve information available to utilities and agencies to prevent and respond to wildfires and to provide opportunities for communications and education channels. PSE will continue to work with DNR and others to reduce wildfire risk and develop consistent approaches and shared data regarding fire prevention, safety, vegetation management and energy distribution systems. While better protocols for information sharing have been developed, no funding source has been proposed to create the kind of granular and dynamic risk models and tools that can enable utilities to understand ignition potential and fire propagation based on real-time conditions and forecasted weather and be able to make targeted operating decisions proactively. By comparison, California has spent millions of dollars over a decade or more to create such granular and dynamic risk models and tools for utilities and agencies.

Nevertheless, PSE is using its risk assessment model and National Weather Service Forecasts to tune and configure its system and to increase operational readiness should the combined conditions on the ground and forecasted wind warrant these operational decisions be made. The lack of robust tools and data available to PSE compared to the dynamic risk model tools used in California is not something that can be addressed prior to the 2021 Fire Season and not likely to be addressed for several years or longer. PSE will be exploring the value of these tools in future fire seasons in proportion to the risk.

For further discussion of the tools and data currently available to PSE as it prepares for this wildfire season, please see section 4.1 of the Plan.

- c. What partnerships has the utility cultivated with first responders, land managers, and emergency operations personnel in preparing for this wildfire season?**
- i. PSE's Business Continuity and Emergency Management department has long-standing, established relationships with emergency management agencies throughout its system, including agencies at the city, county and state level. These relationships extend to fire departments and regional authorities as well. As a result, PSE participates in the following types of activities:
 - Seasonal weather outlook presentations offered by the NWS, which this year included a wildfire outlook;
 - Emergency planning activities with other emergency operations personnel. For example, PSE recently participated

in a wildfire interview session for King County Emergency Management as part of their Wildfire planning effort. PSE's Emergency Planning Manager has also been invited to participate on the County's wildfire planning process;

- Quarterly meetings with the State Department of Commerce, Energy Emergency Management Office, in which a wide variety of emergency-related topics are discussed. During real-time emergencies that impact power distribution, PSE typically is asked to participate in State Energy situation calls; and
 - After action debriefs, as requested.
- ii. During emergencies in which PSE's emergency coordination center is activated, these agencies receive situation reports.
 - iii. Emergency management partners, as well as fire departments and regional authorities, have PSE's emergency contact information as well as contact information for PSE's Business Continuity/Emergency Management department.

For further discussion regarding coordination during an active event, please see section 5 of the Plan.

d. What communication channels and procedures are in place to coordinate planning and response efforts with these entities?

In planning for any emergency, PSE primarily interfaces with county and state emergency management partners. PSE's long-standing relationships have enabled PSE to effectively coordinate during real-time emergencies. One example relates to a snow and ice incident in February of 2020, in which the City of Skykomish was left isolated due to road closures on State Route 2. PSE arranged a coordination conference call and subsequently provided much needed generators for primary services until power could be restored. Following that event, PSE also participated in an after action debrief.

Another example would be the Sumner Grade fire, in which PSE established a command post in the Sumner area and was in contact with fire command personnel to coordinate PSE access once the area was deemed safe. If fire command personnel had needed assistance from PSE, PSE was ready to respond as needed. These examples illustrate the positive outcomes that are possible through our established relationships with our state, county and local partners.

During active events, PSE shares situation reports with these agencies and participates in conference calls as appropriate.

For further discussion regarding the communication channels and procedures in place to coordinate planning and response efforts, please see section 5 of the Plan.

e. What plans does the utility have in place to communicate with customers about wildfire risk for this season, as well as specific wildfire risks or events?

PSE will be sharing the 2021 Wildfire Mitigation and Response Plan with customers prior to any specific wildfire threat. As part of this communication, we will also share information from the Department of Natural Resources about what customers can do to prevent and prepare for wildfires.

In the event of a wildfire-related electric or natural gas disruption, PSE will work to provide customers and the community, as well state, county and local agencies and other key stakeholders, with accurate and timely information. Communication will take place through channels and platforms commonly used in storms and other emergencies (e.g. news media, social media, and direct customer communications) so as to leverage best practices and existing customer knowledge and preferences for how to access information from the utility. The objective will be to provide, if known, the cause of the service disruption, the nature of the disruption, such as whether the disruption is due to system damage or is precautionary, and an estimated time of service restoration. The goal will be to enable customers to take necessary preparedness actions and to minimize the inconvenience and hazards of a loss of energy service.

Please see section 6 of the Plan for more information on PSE's communication and outreach efforts.

4. What operational tools are in the utility's toolkit for responding to wildfire events or potential triggers of wildfire events this season?

a. Do these tools include public safety power shutoffs (PSPS)?

No. Although PSE does not currently have the data and information, nor the necessary tools to effectively implement PSPS at this time, PSE will be evaluating what would be necessary to be able to implement an effective PSPS and where a PSPS might be used to reduce the overall risk of a wildfire in its service area based on the specifics of the system topography,

geographic area, and communities at risk. This would also require broader community, stakeholder and customer engagement prior to finalizing or implementing any plan. At this time, PSE is not intending to use PSPS as a wildfire mitigation tool.

For further discussion regarding the considerations and requirements in developing an effective PSPS plan, please see section 4.2.6 of the Plan.

i. If yes, what are the criteria, triggering events, provisions, or thresholds that would result in a utility implementing a PSPS?

N/A

ii. 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?

N/A

iii. If PSPS 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?

In the event of increased wildfire risk, including Red Flag Warnings issued by the National Weather Service, and combinations of high winds and low humidity, PSE tunes and configures its system and increases operational readiness proactively in those regions with higher wildfire risk. Actions that PSE takes include adjusting or ceasing operational practices that increase the risk of an ignition, including planned work, altering protection settings and automation to reduce the likelihood of secondary faults (recloser blocking and instantaneous trip settings on relays), and selective de-energizing of lines where the ability to serve customer load is not affected. These prudent actions do not impact customer service, and PSE does not intend to communicate these types of specific actions publicly.

In the event of an unplanned electric or natural gas disruption due to wildfire, PSE will work to provide customers and the community, as well as state, county and local agencies and other key stakeholders, with accurate and timely information. To do so, PSE will work closely with its stakeholder and community partners, including state, county, and local government agencies and officials, as well as its non-profit, service, and community-based organizations. A variety of traditional and digital media as well as direct customer communication through PSE service channels will be used to notify customers within an impacted area. Partnerships and close coordination with PSE's agency partners, community leaders and trusted voices will extend the reach of vital information to the greatest number of residents and customers.

Additionally, PSE is committed to exploring other ways to more effectively communicate with customers that may be more difficult to reach through traditional communication channels, including medical and life support customers, vulnerable and low-income customers, and customers with limited English proficiency or other language or accessibility needs.

Please see section 6 of the Plan for more information on PSE's communication and outreach plans.

Please contact Kara Durbin at (425) 456-2377 or kara.durbin@pse.com 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

Attachment:
Attachment A - PSE's 2021 Wildfire Mitigation and Response Plan