September 7, 2021

Via Electronic Filing

Public Utility Commission of Oregon
Attention: Filing Center
P.O. Box 1088
Salem, OR 97308-1088

Re: AR 648 Wildfire Mitigation Rulemaking - Draft Phase I Wildfire Mitigation Rules

Dear Commissioners,

Pano commends the Public Utility Commission of Oregon (OPUC) for releasing its updated Wildfire Mitigation Rulemaking Strategy and appreciates the opportunity to provide comments on staff's draft Phase I Wildfire Mitigation Rules ("Draft Rules") in AR 648.

Pano is a wildfire intelligence company that leverages ultra high-definition (HD) cameras, artificial intelligence (AI), and computer vision to enable utilities to monitor critical infrastructure and rapidly respond to threats, including wildfires. Pano has deployed its solution in the city of Portland with Portland General Electric (PGE), in California with Pacific Gas & Electric (PG&E) and in the city of Aspen, Colorado.

Pano's AI-optimized cameras are placed near utility assets and continuously scan the landscape to automatically detect smoke within a 15+ mile radius. Our easy-to-use digital pan and zoom functionality and advanced dissemination features, allows multiple users to simultaneously view 360-degree panoramic imagery and respond to AI-generated ignition alerts. Pano's AI smoke detection can detect 95% fires in less than 15 minutes, ensuring utility-caused fires are immediately detected with limited costly manual monitoring. Additionally, Pano can also ingest other available third-party data feeds from satellites, 911 calls, and weather sensors to provide utility operators with a single integrated platform for wildfire detection.

With full visibility of their territory, utilities can monitor their assets to minimize impact when fires start, prioritize response efforts to protect the most critical infrastructure, and provide fire authorities with valuable intelligence on the movement and behavior of evolving fires. Additionally, by leveraging AI, Pano can save utilities vital O&M dollars by automating the task of manual monitoring.

RECOMMENDATIONS:

Pano offers the following comments and recommendations on the Draft Rules:

1. **Utility Wildfire Protection Plans and Updates should contain a description of the situational awareness measures a utility plans to undertake to mitigate risk.**

Situational awareness measures, such as weather stations, HD cameras, and weather and wind data, have been found to be useful tools to understand local conditions, predict where wildfires are most likely to strike and rapidly detect ignition events. These tools provide critical information to utilities to improve their wildfire mitigation and management capabilities. In each of their presentations outlining their wildfire mitigation plans to the OPUC thus far, including PGE's most recent presentation[1], Oregon utilities have highlighted the situational awareness measures they plan to implement. It would be beneficial for these planned measures and priorities to be included in their Wildfire Protection Plan filing.

The California Public Utilities Commission (CPUC) provides such guidance in their wildfire rules and guidelines. Pursuant to SB 901 in California, the CPUC issued Decision 19-05-036 providing guidance on California utilities' 2019 Wildfire Mitigation Plans. This decision identifies situational awareness as a key section to be included in utilities' wildfire mitigation plans and requires utilities to submit detailed plans for how they will increase situational awareness measures.[2] Since the first Wildfire Mitigation Plan submissions made by California investor-owned utilities (IOUs) in 2019, situational awareness and forecasting tools has consistently remained a key component of the plan. In Decision 19-05-038, the CPUC in evaluating Southern California Edison's (SCE) 2019 Wildfire Mitigation Plan highlighted the importance of situational awareness when it said: "*Situational awareness is a high-value and fairly low-cost mitigation measure…We will require SCE – and all of the other IOUs – to capture and share consistent and useful data with the Commission….*"[3]

In their 2021 Wildfire Mitigation Plan update, PG&E identifies "enhancing wildfire risk situational awareness" as one of the three key goals of the plan.[4] The utility highlights the importance of situational awareness tools such as monitoring devices when it says, "*These… devices allow early warning of high fire risk conditions and real-time identification of emerging wildfires, which in turn enable*

[1] PGE, 2021 Wildfire Mitigation Plan, presentation dated June 3, 2021, on page 13, see https://oregonpuc.granicus.com/MetaViewer.php?view_id=2&clip_id=763&meta_id=29703.
[2] CPUC Decision 19-05-036, dated June 3, 2019, on pages 3 and B4, see https://energysafety.ca.gov/wp-content/uploads/docs/misc/docket/296577466.pdf.
[3] CPUC Decision 19-05-038, dated June 4, 2019, on page 33, see https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M298/K487/298487636.PDF.
[4] PG&E, 2021 Wildfire Mitigation Plan - Revised, submitted on June 3, 2021, on page 2, see https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/2021-Wildfire-Safety-Plan-Revised-060321.pdf.

faster action by first responders and more proactive system operations to avert fire ignition and spread."[5] To expand its situational awareness capabilities, one key project PG&E proposes to undertake as part of its 2021 Wildfire Mitigation Plan Report is "*research is aimed at identifying and incorporating Artificial Intelligence (AI) early fire detection software, and visualization techniques to display 360° imagery…allow[ing] cameras to automatically rotate and zoom to view emerging incidents quicker.*"[6] For this, PG&E is specifically pursuing a project on "*Automated Fire Detection from Wildfire Alert Cameras.*"[7]

San Diego Gas & Electric's (SDG&E) 2021 Wildfire Mitigation Plan Update similarly emphasizes the key role of situational awareness in emergency operations, including minimizing PSPS: "*Utilization of situational awareness tools such as weather stations, cameras, wireless fault indicators, and the Fire Potential Index have proven beneficial to system planning, emergency operations, and the safe implementation of PSPS. Based on these successes, SDG&E's situational awareness networks will be expanded into areas where they can be used to minimize the impacts of PSPS (both scope and duration), and make communities safer*."[8]

California IOUs are increasing their emphasis on situational awareness tools with budgetary allocation for this category across the three IOUs increasing from ~$67million in 2020 to more than $1 billion in 2021.[9]

Pano recommends that the OPUC amend the draft Rules to request that Utility Wildfire Protection Plans and Updates contain a description of the situational awareness measures a utility plans to undertake.

2. **Utility Wildfire Protection Plans and Updates should outline what leading edge technology measures a utility plans to deploy to mitigate wildfire risk**.

Numerous regulatory and expert bodies have stressed that the growing wildfire threat will require new kinds of technologies to manage effectively. The role of such leading edge technologies in

[5] PG&E, 2021 Wildfire Mitigation Plan - Revised, submitted on June 3, 2021, on page 14, see https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/2021-Wildfire-Safety-Plan-Revised-060321.pdf.
[6] PG&E, 2021 Wildfire Mitigation Plan Report, submitted on February 5, 2021, on page 414, see https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/2021-Wildfire-Safety-Plan.pdf.
[7] PG&E, 2021 Wildfire Mitigation Plan Report, submitted on February 5, 2021, on page 302, see https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/2021-Wildfire-Safety-Plan.pdf.
[8] SDG&E, 2020-2022 Wildfire Mitigation Plan Update, submitted on February 5, 2021, on page 140, see https://www.sdge.com/sites/default/files/regulatory/SDG%26E%202021%20WMP%20Update%2002-05-2021.pdf.
[9] See PG&E's 2021 Wildfire Mitigation Plan Update on page 38, SDG&E's 2021 Wildfire Mitigation Plan Update on page 8, and SCE's 2021 Wildfire Mitigation Plan Update on page 30.

wildfire risk management has been acknowledged by the Oregon Legislature in SB 762, the recent omnibus wildfire legislation, which encourages utilities to "*proactively manag[e] wildfire risk, including by monitoring emerging practices and technologies*."[10]

California's erstwhile Wildfire Safety Division (now Office of Energy Infrastructure Safety) has also recognized the role of new technologies in its 2021 WMP Guidelines Template which required utilities to: "*Outline how the utility expects new technologies and innovations to impact the utility's strategy and implementation approach over the next 3 years, including the utility's program for integrating new technologies into the utility's grid*".[11]

This year, California's Wildfire Safety Advisory Board (WSAB) in its recent Revised 2022 WMP Guideline Recommendations urged utilities to go one step further when it said: "*The WSAB encourages the utilities to continue to explore technologies that reduce the risk of ignitions, recognize faults more quickly, and reduce the intensity of arcs. The 2022 WMP Guidelines should require all utilities to increase the scope of pilots of these technologies...*"[12]

Given new technology measures' ability to reduce utility wildfire risk, Pano recommends that in addition to asking utilities to outline steps they are taking to maintain expertise in leading edge technologies, the OPUC also encourage utilities to outline their plans to test, pilot and deploy such technologies.

Thank you for your consideration of our views.

Respectfully submitted,

Arvind Satyam,
Chief Commercial Officer,
Pano

[10] Section 3(6) of the Senate Bill 762, enacted by the Oregon legislature on June 26, 2021.
[11] CPUC Wildfire Safety Division, 2021 Wildfire Mitigation Plan (WMP) Guidelines Template, on page 42, see https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/attachment-2.2-to-wsd-011-2021-wmp-guidelines-template.pdf.
[12] California Wildfire Safety Advisory Board, Revised Draft Recommendations on the 2022 Wildfire Mitigation Plan Guidelines, Performance Metrics, and Safety Culture Assessment, on page 19, see https://energysafety.ca.gov/wp-content/uploads/docs/misc/wsab/draft-recommendations-on-the-2022-wmp-guidelines-revised-for-meeting-6.25.21.pdf.