July 30, 2025

Nancy Dippell, Secretary
Missouri Public Service Commission
200 Madison Street, PO Box 360
Jefferson City, MO 65102

RE: In the Matter of the Establishment of a Working Case for the Development of Best Practices for Wildfire Mitigation in Missouri, Docket OW-2025-0314

To whom it may concern:

Gridware, Pano AI, and Technosylva (herein the “Wildfire Technology Companies”) respectfully submit the following comments regarding the above referenced working case docket pursuant to the Missouri Public Service Commission’s (“PSC”) request to gather information from stakeholders regarding wildfire mitigation preparedness.

Each of the Wildfire Technology Companies develop and implement a technology that supports utility wildfire risk mitigation. Gridware develops shoe-box sized, pole-mounted "Gridscope" fault detection sensors that enable real-time monitoring of overhead transmission and distribution infrastructure to prevent wildfire ignitions and improve grid reliability. Pano AI is the leader in early wildfire detection, providing 360-degree situational awareness to utilities and first responders through its ultra high definition cameras coupled with its 24/7 intelligence center, satellite data, and AI. Technosylva’s advanced wildfire modeling and risk analytics platform is the standard for utilities to assess fire spread, consequence, and threat under current and forecasted weather conditions. More information about each company can be found in the appendix.

Collectively, the Wildfire Technology Companies are deployed with 20+ utilities across 25+ states in the United States, including several large, multi-year deployments. Given our rich experience supporting our utility partners to address varying levels of wildfire risk, we have a unique perspective on the role technology solutions play to support utility wildfire mitigation.

We applaud the PSC’s leadership in proactively setting up this working group docket to examine wildfire mitigation preparedness of the Commission-regulated utilities in Missouri. We recommend that the PSC and the utilities in Missouri establish the following best practices:

1. Take a proactive approach to mitigating wildfire risk by developing wildfire mitigation plans,
2. Evaluate and deploy best-in-class technology solutions that can help cost-effectively mitigate wildfire risk, and
3. Establish a regulatory process that facilitates and expedites the deployment of essential wildfire mitigation technology solutions.

Please see our detailed comments below.

1. It is essential to take a proactive approach to managing wildfire risk, even if risk levels are relatively low. The development of utility wildfire mitigation plans is a critical component of a proactive approach.

   Wildfires are a growing challenge, affecting more electric companies and the customers and communities they serve each year. In the past several years, we have seen wildfire risk spread to new, historically low-risk geographies, often with devastating consequences. To ensure public safety and grid reliability, it is imperative that utilities take proactive steps to mitigate wildfire risk and limit potential wildfire ignitions related to their infrastructure. One key step to successfully do this is to develop a wildfire mitigation plan, which provides transparency into how utilities plan to address wildfire risk and help ensure that investments are prudent and cost-effective through the inclusion of a cost-benefit analysis. A holistic cost-benefit analysis framework that includes all benefits of the technologies, ignition reduction or otherwise, is especially important to include in a jurisdiction such as Missouri where wildfire risk is moderate for the majority of the state. This framework can highlight the other benefits these technologies can provide to the grid such as increased reliability, storm preparedness and response, and increased reliability. Wildfire mitigation plans also help identify gaps and prioritize actions across utility operations, ensuring that limited resources are deployed to the highest risk areas first. In addition, these plans facilitate coordination with emergency response agencies and regulators to enable a more integrated and effective mitigation strategy. One resource that may be helpful to the PSC to inform Missouri's approach to wildfire mitigation planning is a 2025 Lawrence Berkeley National Lab ("LBNL") report, "Bridging the Gap on Data, Metrics, and Analyses for Grid Resilience to Weather Events: Information that utilities can provide regulators, state energy offices, and other stakeholders."

2. Utilities and the PSC should evaluate and deploy best-in-class technology solutions that can cost-effectively address wildfire risk.

   With growing risk, it is clear that the status quo cannot continue and utilities need to deploy new strategies and solutions to manage wildfire risk. Utilities are increasingly finding that new technology solutions, such as real-time hazard detection, enhanced situational awareness, AI-driven risk modeling, or fire spread analyses, are crucial to managing this risk. These solutions are being deployed because they are fast to implement, significantly reduce the risk of wildfire ignition and spread, provide situational awareness that can be used to prioritize follow-on and more capital intensive mitigations, and provide co-benefits outside wildfires.

   These solutions are widely deployed across utilities serving diverse geographies and customer densities, and provide benefits that complement traditional utility wildfire programs such as vegetation management and system inspections. The benefits these solutions provide are tangible. For example, over the 2024 wildfire season, Gridware's

Gridscope sensors prevented more than 10 wildfire ignitions in PG&E's service territory and increased customer reliability.[1] These ignitions, if not prevented, could have caused wildfires with serious consequences. Similarly, in 2024, Pano cameras deployed in the Public Service Company of Colorado (Xcel Energy) and CORE Electric's service territories detected a fire start on remote USFS lands with no vehicle access on a red flag warning day. By detecting this fire when it was still very small, Pano cameras enabled Douglas County to rapidly deploy helicopters and ground crews to suppress the fire with only 3 acres burned. PG&E also uses Technosylva, and in 2024[2] used Technosylva's technology to plan for and execute a PSPS event. After the storm PG&E identified two instances of storm-caused asset damages and one hazard caused by weather. Luckily these circuits had been selected for de-energization. Had fires been ignited on these circuits, Technosylva modeling shows they would have impacted 20,994 acres, 980 structures, and 1,464 residents. Not only was Technosylva leveraged to prevent potential ignitions, but it enabled PG&E to limit disruption to customers by reducing the extent and duration of the shutoff.

The PSC can explore these and other technologies that could support this proceeding's goals, including through a formal technical conference and/or workshop series. For example, the New Mexico Public Regulation Commission recently launched a four-part workshop series related to wildfire mitigation and preparedness strategies to help initiate robust dialogue and proactive planning among utilities, state agencies, emergency management responders, and other stakeholders. These workshops have included a technology spotlight to raise awareness about technology solutions that can help mitigate wildfire risk.

3. Establish a regulatory process that facilitates and expedites the deployment of wildfire mitigation technology solutions.

Traditional regulatory frameworks can limit utility pathways to innovation, which can slow down adoption of wildfire mitigation technologies needed to reduce risk. According to another 2025 LBNL report, "Regulatory Sandboxes and Other Processes to Expedite Utility Adoption of Advanced Grid Technologies," such limitations include incentivization of capital-intensive investments rather than new and innovative non-capital grid technologies that may cost less, uncertainty around whether costs will be recovered due to regulatory lag, and lengthy regulatory processes. Regulatory sandboxes, mechanisms that provide a structured environment for testing new technologies and business approaches under modified rules to increase the speed of adoption, are one way to

[1] Filsinger Energy Partners, PG&E Independent Safety Monitor Status Update Report, May 15, 2025. https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/safety-policy-division/reports/ism-status-update-report-6_051525.pdf

[2] Pacific Gas and Electric Company Public Safety Power Shutoff (PSPS) Report to the CPUC October 17 – 20, 2024 De-energization, https://www.pge.com/assets/pge/docs/outages-and-safety/outage-preparedness-and-support/10-17-2024-psps-post-event-report-amended.pdf

overcome this challenge. Fifteen jurisdictions have explored sandbox-type mechanisms for electric utilities and twelve have adopted such mechanisms (see map below).

There are four categories of regulatory sandboxes that can be considered:

1. Funding Opportunity: funding carveout for innovative grid transformation projects.
2. Pilot Process: activities to improve how pilot projects are approved and managed
3. Rate Case or Rulemaking: vehicles for broader innovation efforts that may include reforms including sandbox-like initiatives
4. Regulatory Sandbox: mechanism that provides a structured environment for testing new technologies and business approaches under modified rules to increase speed of adoption

The PSC's consideration of such regulatory sandbox mechanisms can significantly support utilities in their journey to mitigate wildfire risk.

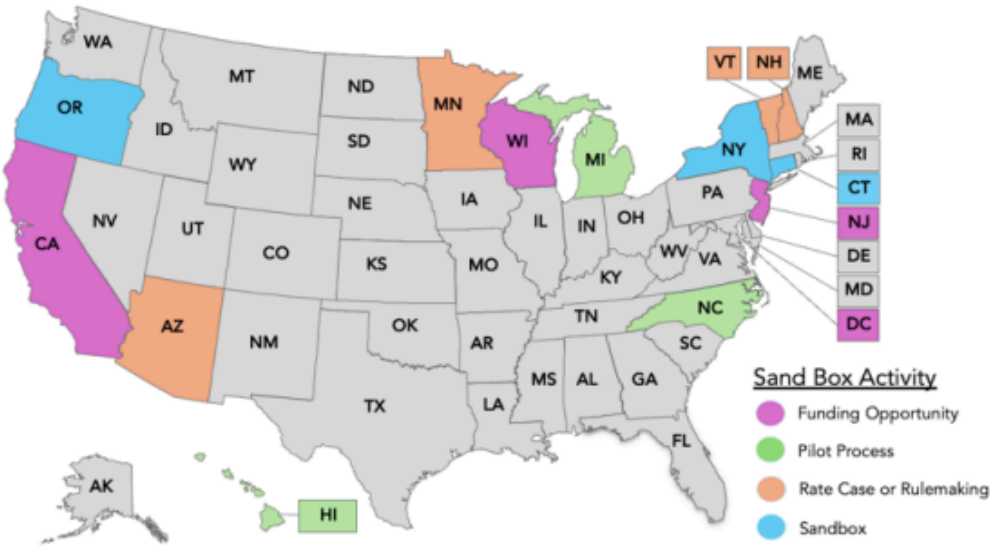

Figure ES 1. Landscape of U.S. States Exploring and Implementing Sandbox-Type Mechanisms

In conclusion, we support the PSC's efforts in Docket OW-2025-0314 and want to offer any support we can provide to share more about our experience working with utilities on wildfire mitigation.

Sincerely,

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Head of Policy and Regulatory Affairs, Gridware

Peter Ambler
VP, Global Government Affairs, Pano

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Chief Growth Officer, Technosylva

Appendix

Gridware: Gridware was founded in 2020 by Timothy Barat, who began his career as a lineman in Australia and saw firsthand the urgent need for improved grid monitoring solutions. Gridware's product, Gridscopes, underwent rigorous early validation and testing, both with utility pilots and at its own Applied Research Complex testing facility. Early pilots with PG&E demonstrated real-time detection of grid hazards, while independent validation by the Electric Power Research Institute (EPRI) confirmed the technology's efficacy, achieving 100% accuracy in event detection and classification and no false positives or negatives.

Gridscope devices, manufactured by Gridware, are shoe-box sized pole-mounted sensors that enable real-time monitoring of overhead transmission and distribution infrastructure to mitigate utility wildfire risk and improve grid reliability. Gridscopes are an established grid asset, currently deployed across 11 states in the US, including with Pacific Gas & Electric (PG&E), Puget Sound Energy, Xcel Energy, and more, while providing these utilities with more than 100 million field hours of grid intelligence.

With a 10-minute installation time, Gridscopes can be rapidly deployed to create a distributed network of devices that continuously monitor physical, environmental, and electrical factors. Benefits of Gridscopes include:

- **Precise Fault Localization and Identification** – Allowing for faster response times during a hazard and faster times to reenergization after a hazard. This information will also allow for more targeted utilization of servicemen and linemen, alleviating resource constraints during critical outages.
- **Identification of High Impedance Faults (HIFs) and Ignition Avoidance** – HIFs are particularly difficult for existing protection technology to detect but also present the highest risk for public safety as they typically involve wires down and extended vegetation contact with lines leading to fire ignition. Gridscopes are specifically designed to catch HIFs.
- **Prioritization of Preventative Mitigations and Maintenance** – The asset-level data collected by these Gridscopes inform the prioritization of mitigations and allow them to be more targeted for the specifics of the asset and environment, enabling remediation of

imminent outages in advance. Understanding fault-types also closes the gap on "unknown" outages and allows for targeted mitigations.

- **Storm Preparedness** – The sub-second and hyper-local environmental data on temperature, relative humidity, wind speed, wind direction, gust speed, atmospheric pressure, and volatile organic compounds (VOCs) can be used to inform detailed equipment degradation/asset health, pre-storm crew placements, real-time storm tracking and decision-making (e.g., retaining or releasing mutual aid crews), outage prediction modeling based on wind speed and location, and post-event infrastructure hardening guided by storm impact histories.
- **Situational Awareness during Storm Response** – Monitoring feeders while de-energized during storms enables real-time damage assessment remotely, allowing for triage and pre-staging crews to most effectively prioritize repairs and for informed and expedited estimated time to restoration and customer communications.

Pano: Pano provides an AI-powered, camera-based wildfire detection system that delivers real-time, 360-degree situational awareness across large and often remote landscapes. Using advanced smoke detection algorithms and live panoramic imagery, Pano enables utilities and emergency responders to identify and validate ignitions within minutes—far earlier than traditional reporting methods.

This early detection window is critical for rapid, targeted response. By confirming threats in real time, teams can act quickly to suppress fires before they spread—reducing risk to infrastructure, communities, and first responders.

Pano's system integrates directly into existing utility and emergency workflows, offering map-based interfaces, automated alerts, and tools for cross-agency coordination. It is actively deployed in both high-risk regions and areas where wildfire is an emerging threat.

By accelerating detection and response, Pano helps organizations move from reactive to proactive wildfire management—improving safety, reducing losses, and supporting long-term resilience.

Technosylva: Technosylva is the leading provider of wildfire and extreme weather modeling, risk mitigation, and operational response software. Technosylva's market-leading solutions, enhanced by AI and machine learning capabilities, provide real-time and predictive insights into developing wildfire and extreme weather risks to support electric utility, insurance, and government agency customers. The company, founded in 1997, pioneered the application of wildfire risk analysis for electric utilities, enabling them to understand not just ignition likelihood but also the potential consequences of ignitions across their systems. Technosylva's wildfire modeling and risk analytics platform equips utilities with advanced tools to assess fire spread, impacts, and threats under both current and forecasted weather conditions.

These capabilities support daily situational awareness, proactive operational decision-making such as Public Safety Power Shutoff (PSPS) implementation, and long-term wildfire mitigation

planning. Utilities use Technosylva's solutions to prioritize vegetation management, guide asset inspections and hardening investments, and improve risk spend efficiency by quantifying where mitigation actions will most effectively reduce wildfire risk. By combining validated wildfire science, real-time weather and fire data, and scalable cloud-based technology, Technosylva empowers utilities to enhance safety, resilience, and reliability in the face of growing wildfire threats.