



Wildfire Risk

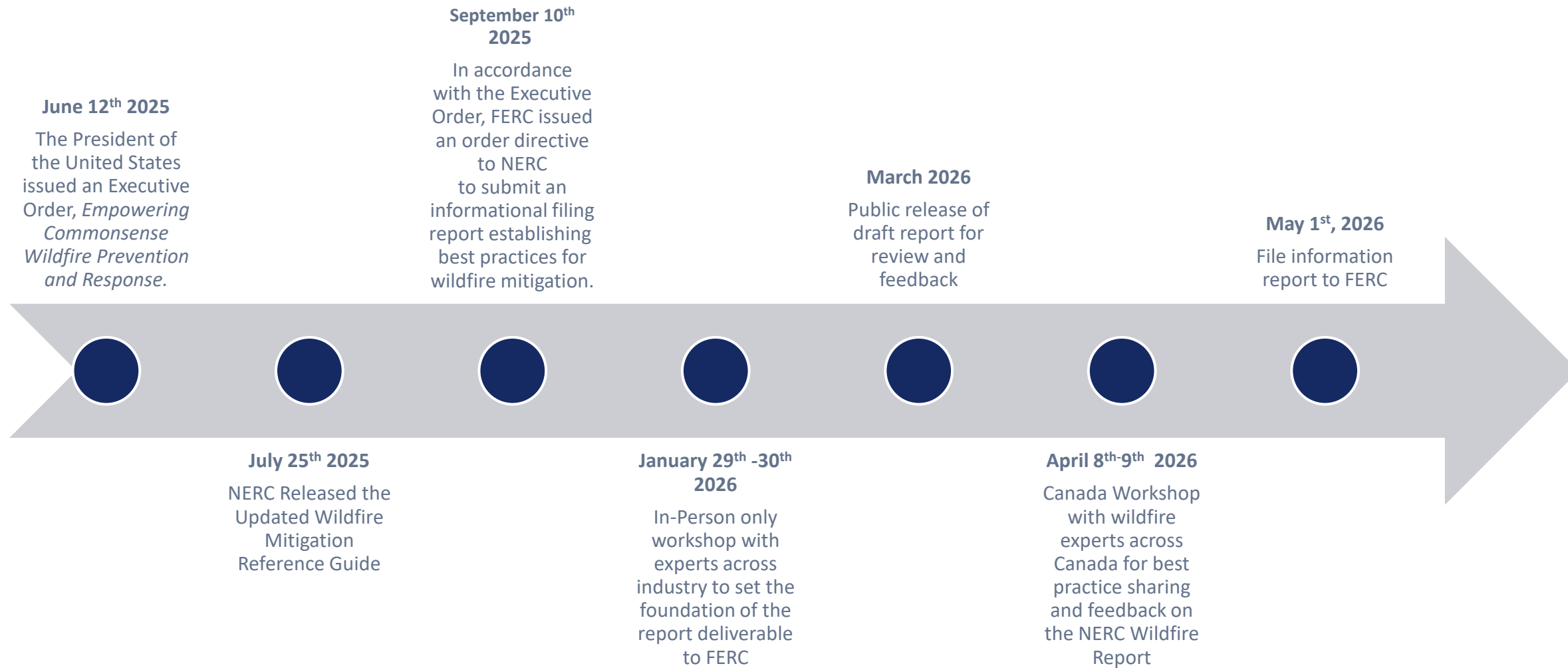
WPP Meeting

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Steve Ashbaker – Reliability Initiative Director - WECC

May 6, 2026

Timeline



Two Wildfire Workshops: SLC and Calgary

- Coordination with National Academy of Engineers and Electricity Canada
- Over **40** organizations in Salt Lake City (SLC)
- More than **40** organizations and 20 virtual in Calgary
- Discussed best practices to reduce risk of wildfire ignition from BPS equipment
- The workshops focused on 4 key topic areas:
 - Operations
 - Vegetation Management
 - Equipment Maintenance
 - Protection



Risk Fast Facts



2013 to 2022: There were an average of **61,410** wildfires annually and an average of **7.2** million acres impacted annually.



Wildfire Economic Impact: annual estimate between **\$87** to **\$424** billion for 2022 –Department of Interior brief.



2016–2020: Equipment from the electric grid accounts for **10%** of fires burned in California.



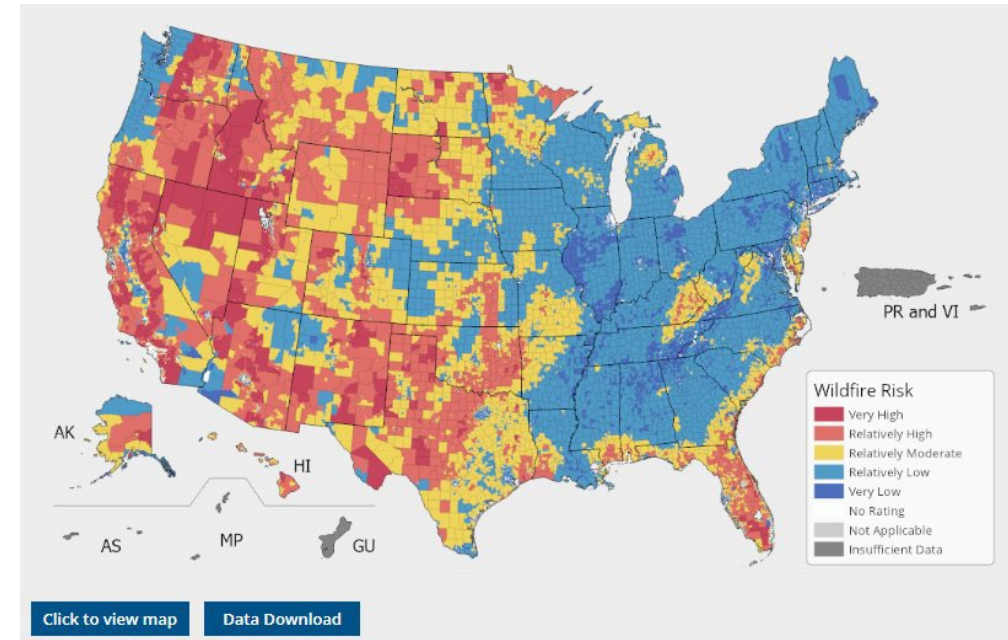
1992–2024: Equipment from the electric grid accounts for **3%** of fires nationally.



Transmission Lines: Approximately **97%** above ground

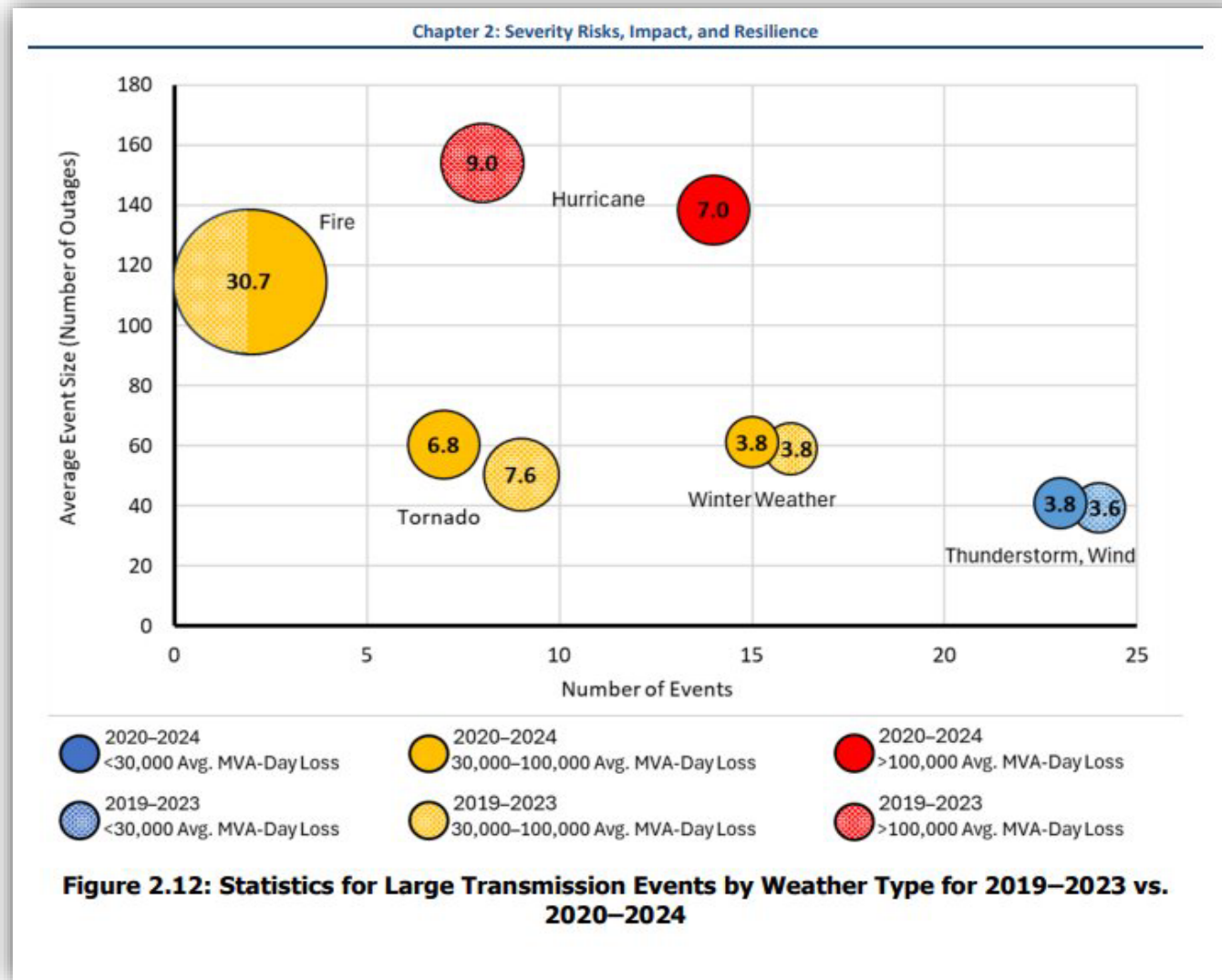


Distribution Lines: Approximately **80%** above ground

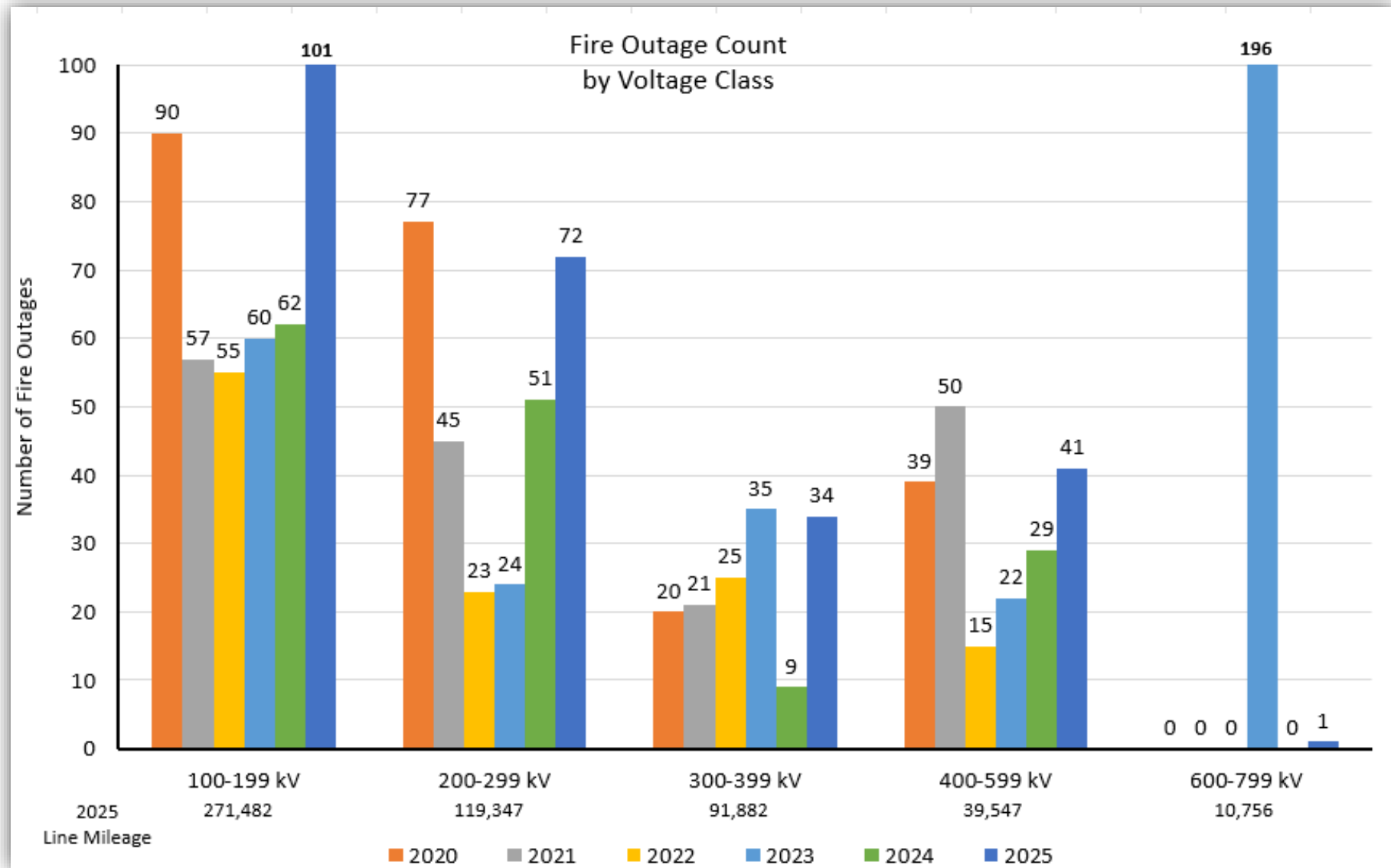


[FEMA Wildfire | National Risk Index](#)

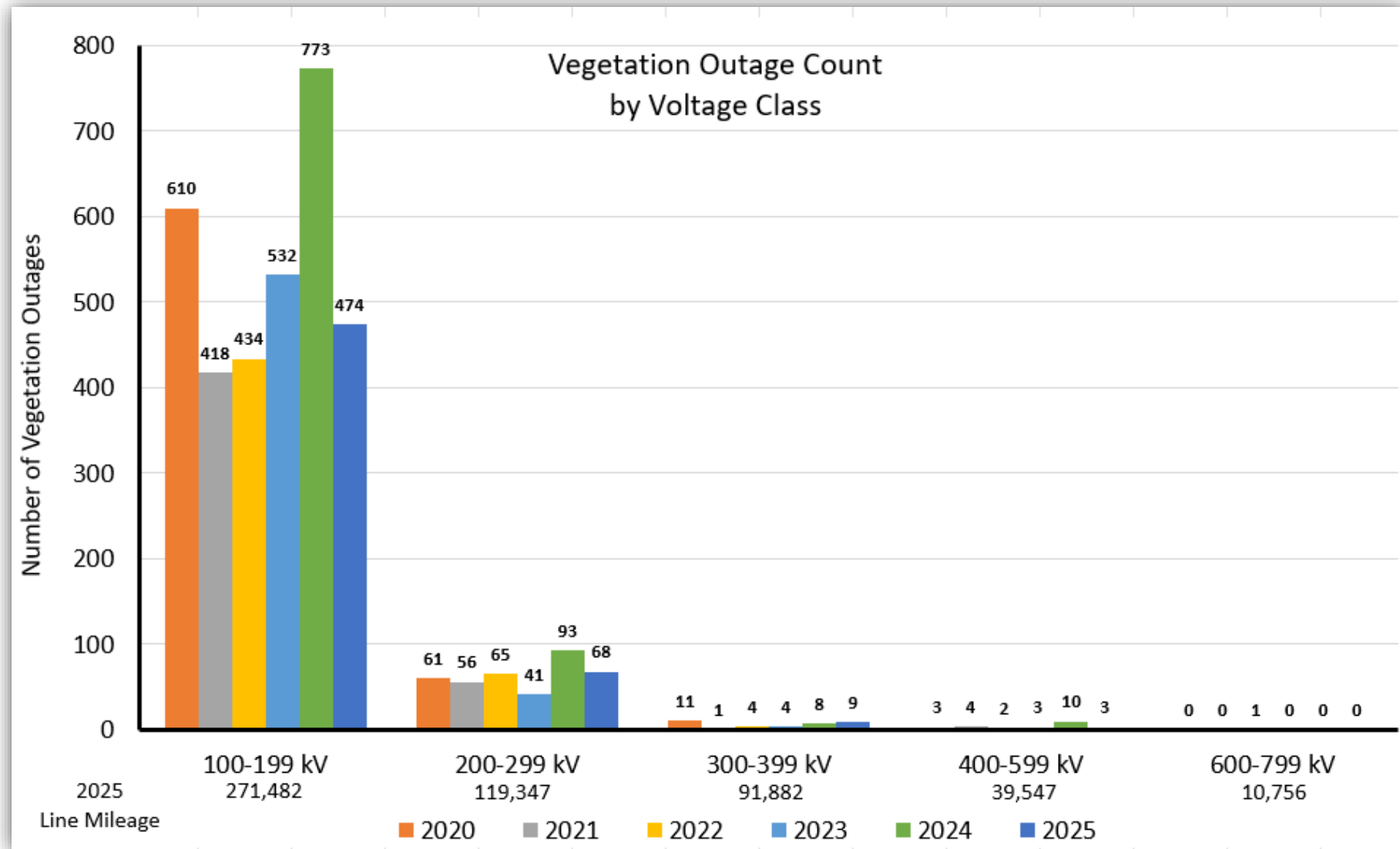
2025 State of Reliability Report



TADS – Fire and Smoke



TADS – Vegetation



Practices to Reduce Risk of Wildfire - Operations

Transmission lines located in High Fire Risk Areas (HFRAs) should incorporate factors including current climate and fire conditions for operating with reclosing disabled, during periods of high fire risk. The use of automation for reclosing enablement and disablement is encouraged.

Operating procedures should be established for line trips within the HFRAs and should not be re-energized during periods of high fire risk for any reason until line patrols are completed and authorization is received.

Utilities should enhance meteorological capabilities and cross-organizational coordination to support Public Safety Power Shut offs (PSPS) risk-informed decision making with onsite meteorologists and Transmission Operator (TOP) personnel, conducting assessments at least 72 hours in advance using data milestones such as wind speed and Fire Potential Index (FPI).

Utilities should develop or share a centralized hazard awareness and warning center (HAWC) providing 24/7 monitoring of wildfire conditions and events, as well as networks of weather stations and high-definition cameras, with the results or data available to all potentially available public safety and fire entities.

RCs and TOPs should continuously coordinate with utilities and public safety and fire agencies or entities. Actions should be reinforced through drills, simulations, and tabletop exercises that emphasize wide-area impacts and interdependencies on preparing, identifying, and recovering from wildfires.

Practices to Reduce Risk of Wildfire – Vegetation Management

Defined HFRAs, tree removal should be conducted using a risk-based approach and fuel control implemented in areas around substations. In addition, utilities should clear trees/underbrush within a defined minimum risk area around towers and substations

Enhanced risk modeling and geospatial tools (using advanced tools such as AI) should be used for identifying vegetation proximity to utility assets, tree growth, vegetation fire resistance ratings, trend risks over time, and support more proactive mitigation strategies that address forecasted risk under extreme fire conditions.

NERC should pursue modifications to Reliability Standard FAC-003 to reflect applicability to transmission facilities 100 kV and above to reduce the likelihood of wildfire ignition from BPS facilities and improve BPS reliability.

Utilities and land managers should use vegetation management strategies, community education and partnered collaboration to help mitigate wildfire risk beyond the right of way.

Practices to Reduce Risk of Wildfire – Equipment Maintenance

Asset management systems should be established for the BPS system capable of tracking equipment to individual components. This should include their location, installation date, type, manufacturer, last inspection date, last maintenance date, and any open/pending work orders.

Risk-based asset management programs should be used that target equipment within the HFRA. Considering factors such as failure-mode history and age-based performance curves. At-risk equipment should be prioritized within inspection and maintenance regimes.

Equipment inspections should be conducted using infrared technology to pinpoint ignition sources, increasing the effectiveness of an overall inspection program and using complementary technologies or techniques (e.g., LiDAR, X-ray, structure climbing, drones, and drone-based inspections).

Practices to Reduce Risk of Wildfire – Protection

Protection staff should be incorporated into PSPS planning for Bulk Electric System (BES) transmission lines and study the coordination impacts on neighboring transmission systems.

Relay fault detection should be used to determine the location and assist in the analysis of every fault on the transmission system within HFRAs.

PRC-compliant fast operating protection settings should be developed that can be set according to changing fire risk conditions.

Recommendations for NERC Action

NERC should pursue modifications to Reliability Standard **FAC-003** to reflect applicability to certain transmission facilities 100 kV and above to reduce the likelihood of wildfire ignition from BPS facilities and improve reliability of the BPS.

Review Reliability **Standards for gaps**: **Prevention** (FAC-003, FAC-501, PRC-027, PRC-004), **Planning** (TPL-001, TPL-008-1), and **Detection and Response** (IRO-010, EOP-011)

Explore **Compliance guidance** on PRC-027-1 for TOPs and distribution providers (DP) using fast clearing times, or short-term relay settings in high fire risk conditions. Ensure the implementation of PSPS will not degrade clearing times on neighboring protection systems

Provide **outreach/engagement** on the outcomes of this report, educating stakeholders on wildfire mitigation and improvement recommendations

Recommendations for Utility Action

Industry should consider **forming an organization** such as INPO promoting excellence in wildfire risk reduction, collection of data for near misses, and practice development for electric grid infrastructure, providing incentives through insurance rates based on practice adoption.

NERC recommends that industry pursue **collaborative** initiatives with the National Oceanic and Atmospheric Administration (NOAA), the National Aeronautics and Space Administration (NASA), and other organizations to provide data and technology tools, such as AI engines, to improve forecast accuracy, modeling, and risk insights.

NERC recommends that industry **communicate** its wildfire mitigation strategy through outreach to customers, stakeholders, neighboring organizations, emergency responders, regulators, and policymakers to enhance understanding of wildfire risks, operational practices, and shared responsibilities.

To improve wildfire prevention, **equipment inspection practices** should be enhanced by implementing scalable technologies and programs that are sustainable and manageable across the organization.

A light blue map of the United States serves as the background. A thin vertical line runs through the center of the map, passing between the text 'NERC' and 'Discussion'.

NERC

Discussion