



Indian Energy Minerals Forum 2022

May 5, 2022

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Agenda

- Overview of WECC
- Regulatory Compliance
- WREGIS
- Common Challenges

How it All Began

1965



2003



Federal Power Act of 2005

- Federal Power Act, Section 215 calls for enforceable standards
- Industry develops standards, approved by FERC
- FERC certifies an Electric Reliability Organization—the ERO (NERC)
- NERC may delegate authority to Regional Entities e.g., WECC

H. R. 6

One Hundred Ninth Congress
of the
United States of America

AT THE FIRST SESSION

*Begun and held at the City of Washington on Tuesday,
the fourth day of January, two thousand and five*

An Act

To ensure jobs for our future with secure, affordable, and reliable energy.

*Be it enacted by the Senate and House of Representatives of
the United States of America in Congress assembled,*

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the “Energy Policy Act of 2005”.

(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

Sec. 1. Short title; table of contents.

TITLE I—ENERGY EFFICIENCY

Subtitle A—Federal Programs

Sec. 101. Energy and water saving measures in congressional buildings.

Sec. 102. Energy management requirements.

Sec. 103. Energy use measurement and accountability.

Sec. 104. Procurement of energy efficient products.

Sec. 105. Energy savings performance contracts.

Sec. 106. Voluntary commitments to reduce industrial energy intensity.

Sec. 107. Advanced Building Efficiency Testbed.

Sec. 108. Increased use of recovered mineral component in federally funded projects

involving procurement of cement or concrete.

Sec. 109. Federal building performance standards.

Sec. 110. Daylight savings.

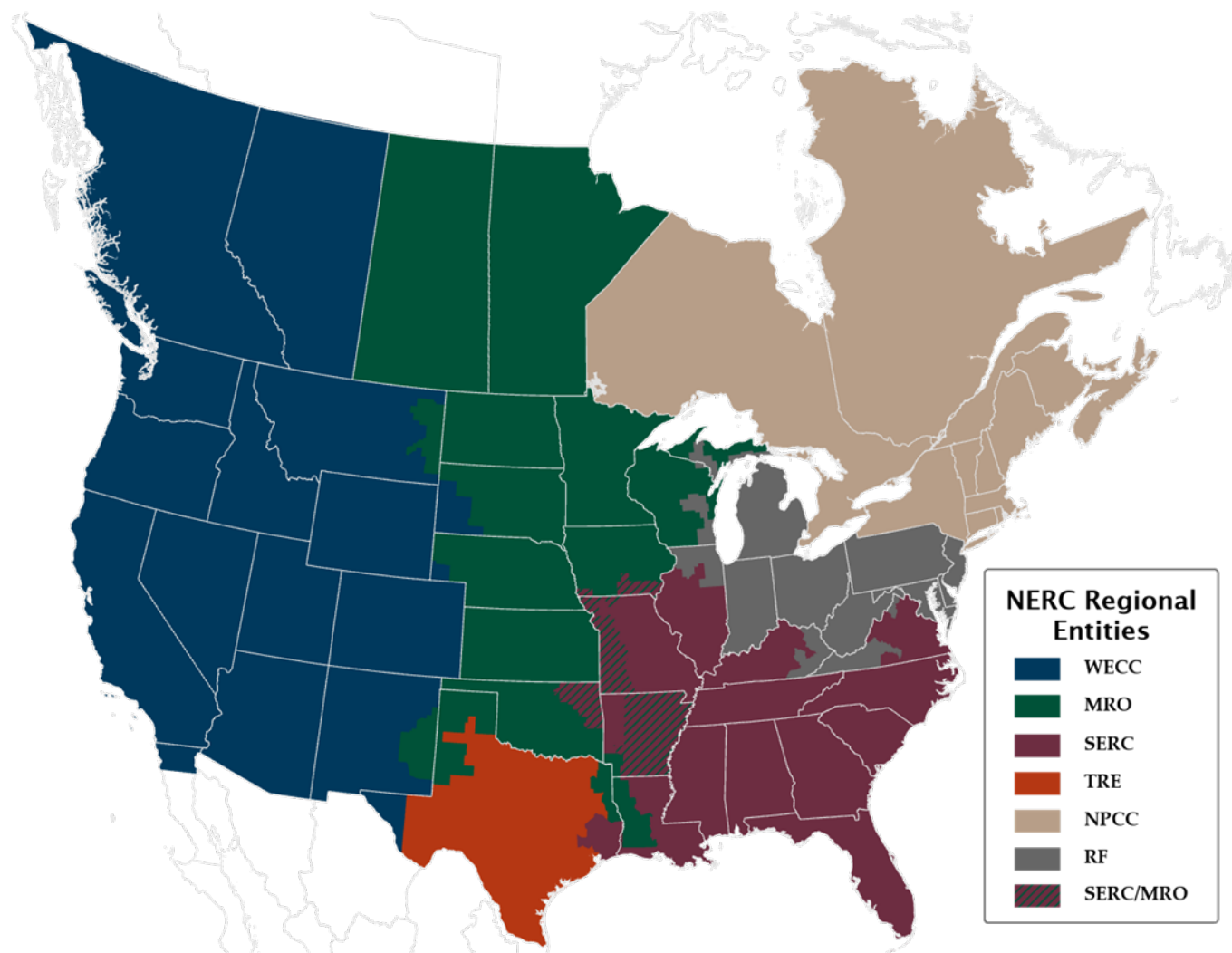
Sec. 111. Enhancing energy efficiency in management of Federal lands.

Subtitle B—Energy Assistance and State Programs

Sec. 101. Energy and water saving measures in congressional buildings.

FERC → NERC → WECC

The Western Interconnection includes all or part of 14 Western states in the United States, the Canadian provinces of British Columbia and Alberta, and a portion of Baja California Norte, Mexico



Become a Member of WECC!

- Register on our [website](#)
- Benefits include
 - Partnership with other members and stakeholders
 - Participation in WECC committees
 - Awareness of the latest trends facing the industry

Our Why

Electricity is an integral part of the
fabric of modern life

Regulatory Compliance

- Performed per the NERC [Rules of Procedure](#)
- Meet the Bulk Electric System [criteria](#)
- Registered with NERC to perform specific functions
 - Need to determine who performs the specific functions (ex., RC, BA, TOP)
 - Certification may be required before operation
 - New Entity [Information Packet](#)
- NERC [Reliability Standards](#)

WREGIS

Western
Renewable
Energy
Generation
Information
System



What Does WREGIS Do?

WREGIS issues and tracks renewable energy certificates (REC) used to verify compliance with regulatory and voluntary market programs by—

- Remaining policy-neutral;
- Using independent, verifiable, and reliable data;
- Protecting against double-counting to increase credibility and consumer confidence; and
- Facilitating voluntary market participation with commercial trading of WREGIS Certificates.

What Qualifies as Renewable Energy?

- Biomass and biogas
- Black liquor biomass
- Co-generation electricity/thermal
- Fuel cells (biogas/biomass)
- Geothermal
- Hydroelectric
- Hydroelectric efficiency upgrades
- Ocean/wave
- Offshore wind
- Solar
- Solar thermal
- Wind

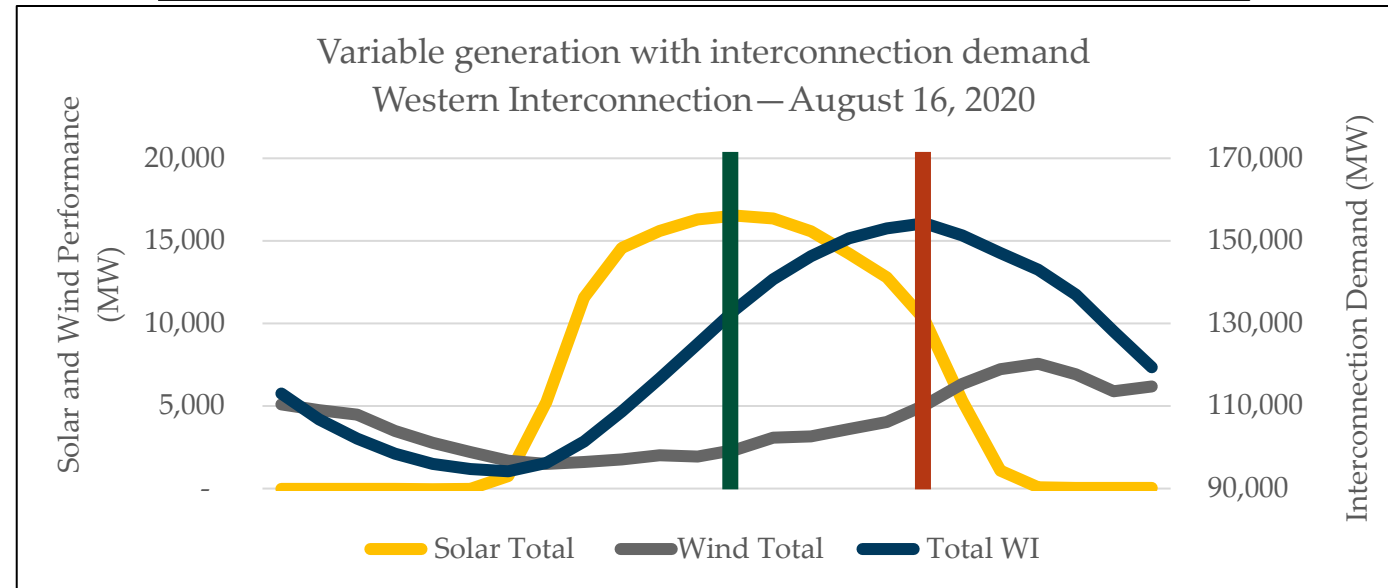
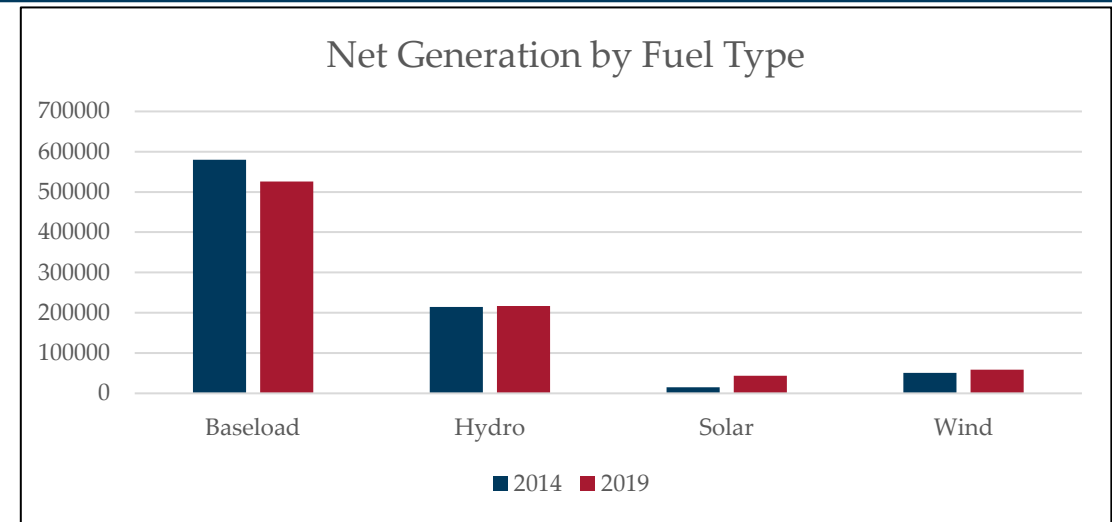
The definition of “renewable energy” varies for different regulatory and voluntary programs—always contact the program to verify fuel type eligibility.

Common Issues

- Resource adequacy
- Inverter-based resources
- Physical security and cybersecurity
- Wildfires

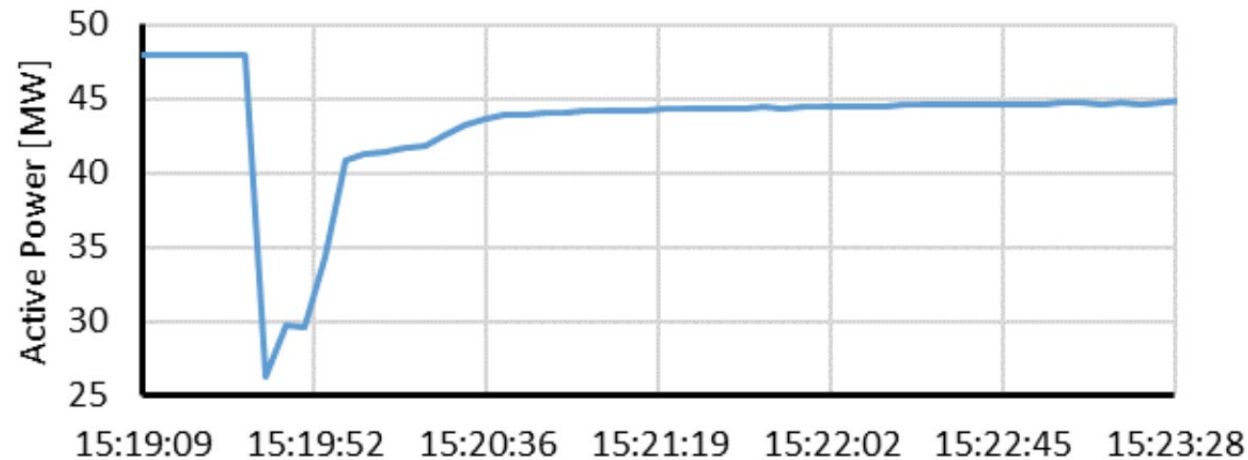
Resource Adequacy

- Retirement of fossil-based resources and replacement with renewables
- Meeting demand during peak hours requires balancing several resources



Inverter-Based Resources

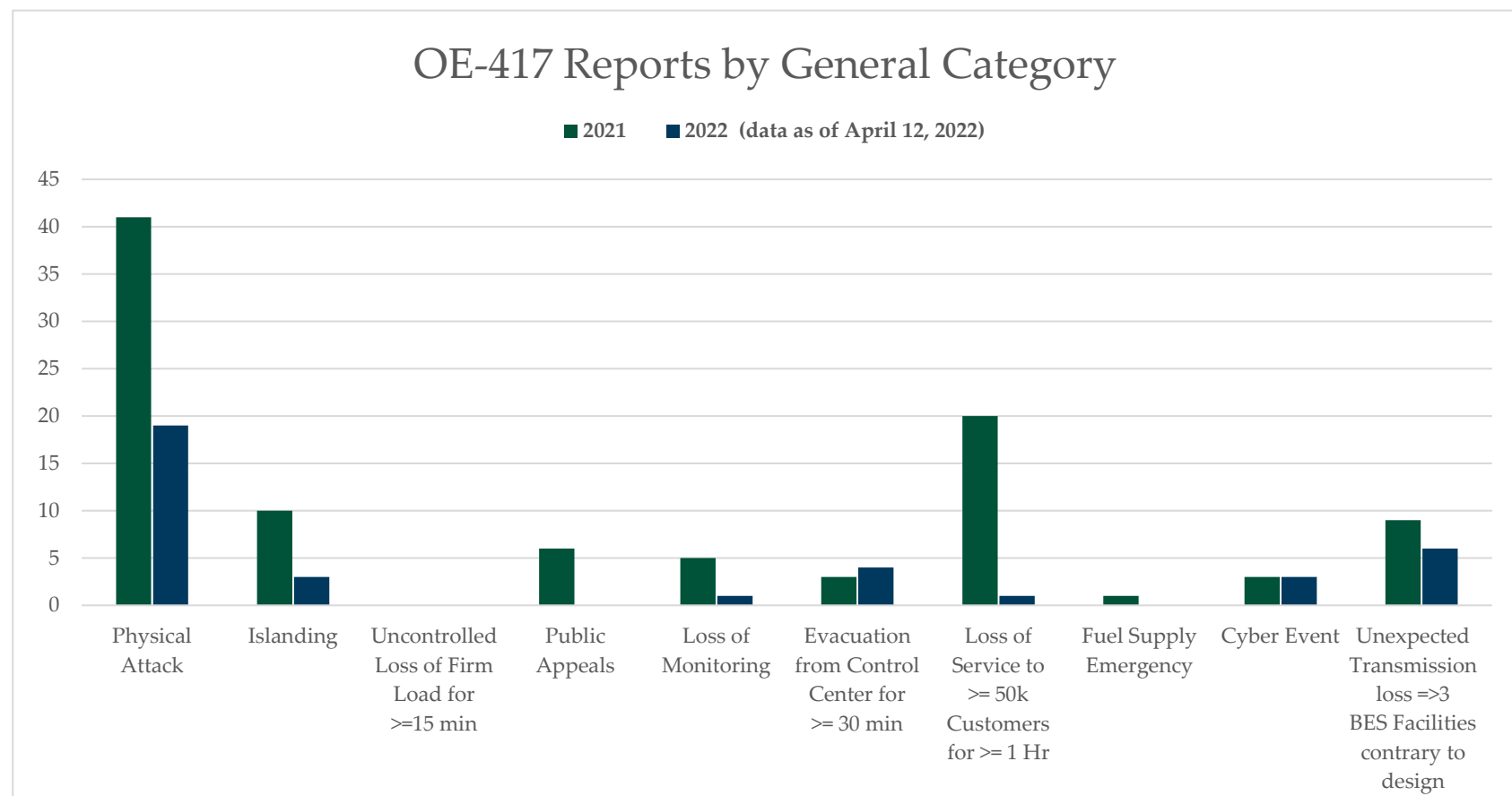
- Inverter-based resources may cease to inject power
- Several recommendations to resolve the issue from WECC and NERC
 - [Major Event Analysis Reports](#)



Physical Security and Cybersecurity

■ Threat landscape

- Ransomware
- Substation theft
- Supply chain
- Geopolitical
- Drones
- ...and more!

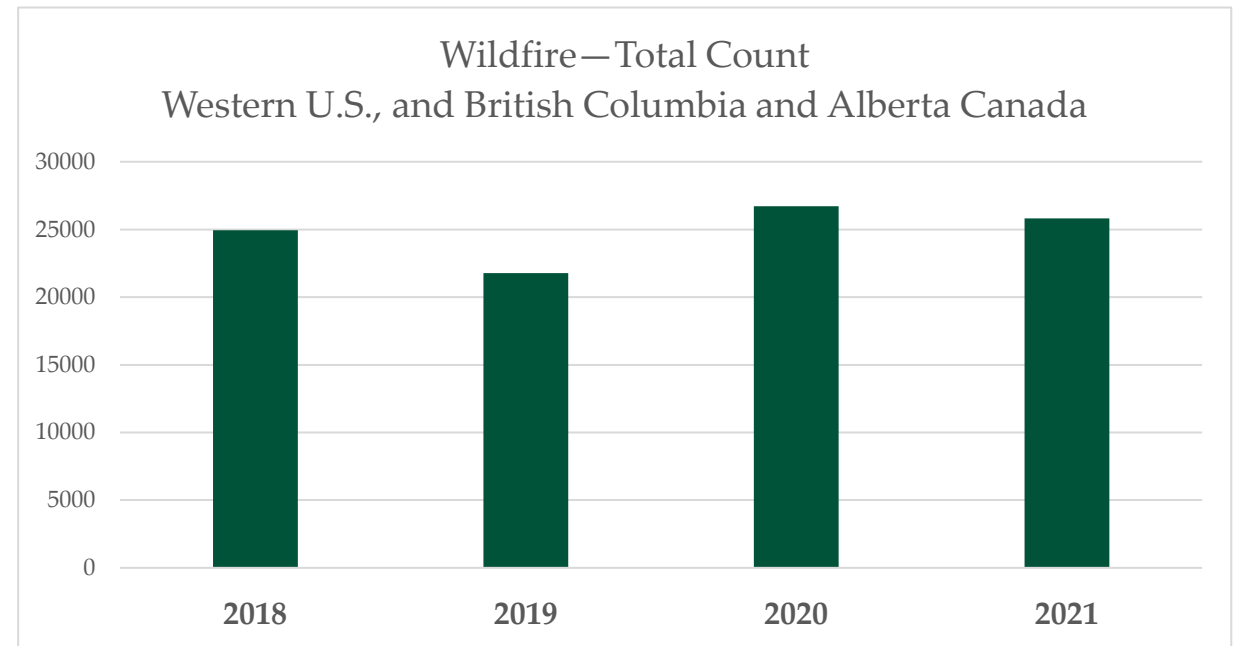


E-ISAC

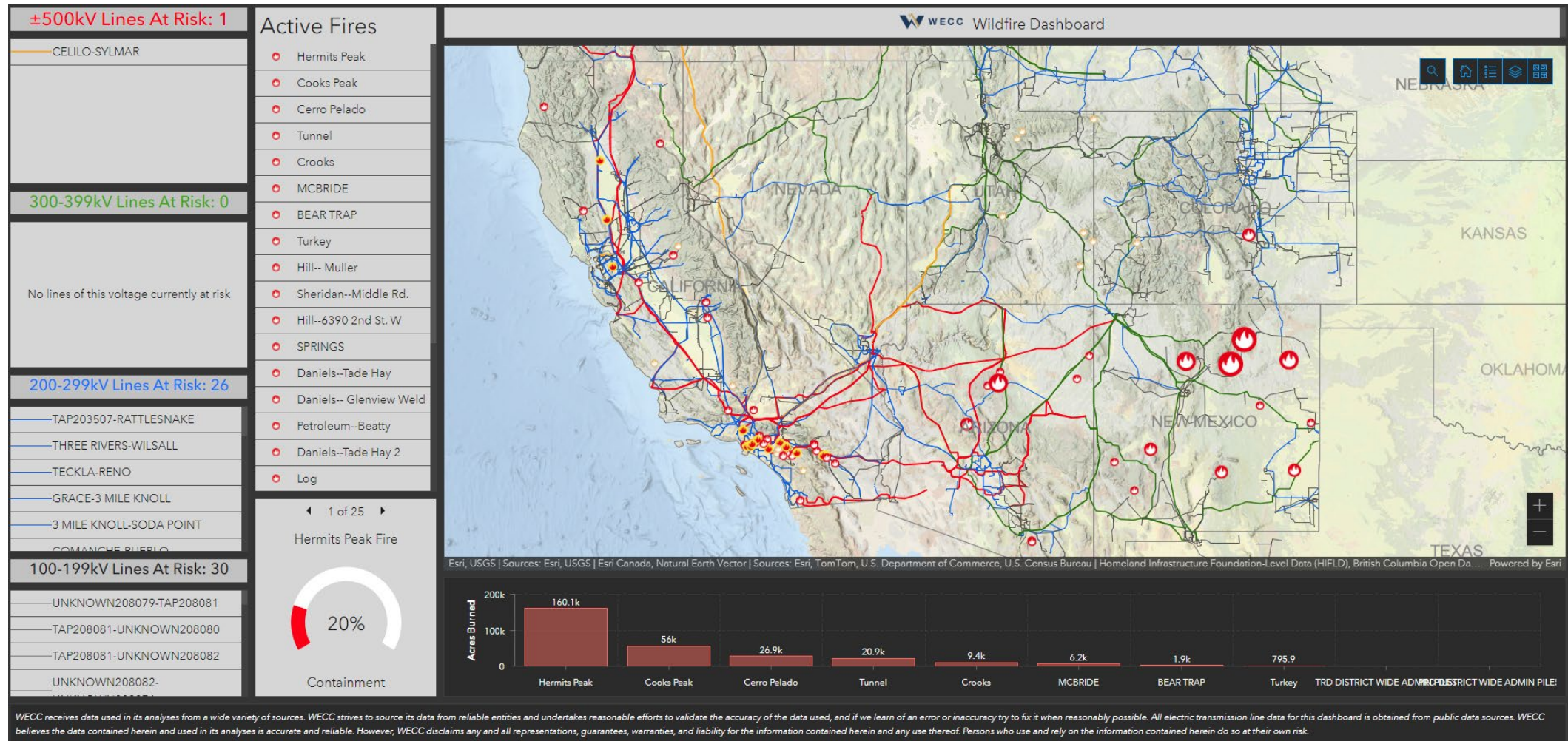
- Why you should participate in the E-ISAC
 - Trusted source of quality analyses and rapid sharing of security information for the electricity industry
- Who can participate?
 - All vetted electricity owners and operators in North America can participate in E-ISAC activities
- Membership is free
 - www.eisac.com

Wildfires

- Vegetation management
- Transmission congestion
 - Fire or smoke may cause lines to trip
- Public Safety Power Shutoff
- WECC's [wildfire series](#)



WECC's Wildfire Dashboard



Wildfire Dashboard

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