

WIRAB Monthly Meeting

August 6, 2026



Introductions



New Members:

- WA: Austin Scharff, Senior Energy Policy Specialist, WA Commerce
- NM: Ben Shelton, Deputy Secretary, NM EMNRD

Agenda



WIRAB Activities:

WIRAB Large Load Projects
WIRAB Advice on WECC Information Sharing Policy



WECC Activities:

WECC Risk Assessment Process
November 2025 WY Outages
WECC Update



NERC and FERC Activities:

MSPP Implementation
Governance Changes
Joint Report on Grid Coordination



Upcoming WIRAB Meetings

WIRAB Large Load Projects



Harmonizing Large Load Interconnection Requirements in the West

Project Goals:

- Develop a practical framework for large load interconnection in the Western Interconnection
- Improve consistency and transparency in how large loads are evaluated and studied
- Identify key technical and operational considerations necessary to maintain reliability
- Support Western states and regulators as they evaluate rapidly growing large load requests
- Provide a forum for utilities, system operators, regulators, and industry stakeholders to share practices and lessons learned

Industry Advisory Group

IAG will:



- Regularly convene western stakeholders including utilities, states, system operators, and large load developers
- Serve as the primary forum for technical discussion and stakeholder engagement
- Help inform the development of a Large Load Interconnection Requirements Template and related recommendations

IAG Project Start May 28th

Next Meeting: August 13th ([register](#))

WIRAB Large Load Projects



State Oversight Resource for Large Load Interconnections

- Project Goal: develop a state-focused technical oversight resource to support regulators and staff in asking informed, strategic questions when evaluating large load interconnection requests.
- Resource will address, at a minimum, the following topics:
 - Large load forecasting processes, assumptions, and uncertainty
 - Interconnection processes, timelines, and system impacts
 - Resource adequacy and transmission reliability implications
 - Cost allocation, customer protections, and risk management
 - Risk mitigation solutions
- Designed to complement the interconnection harmonization effort





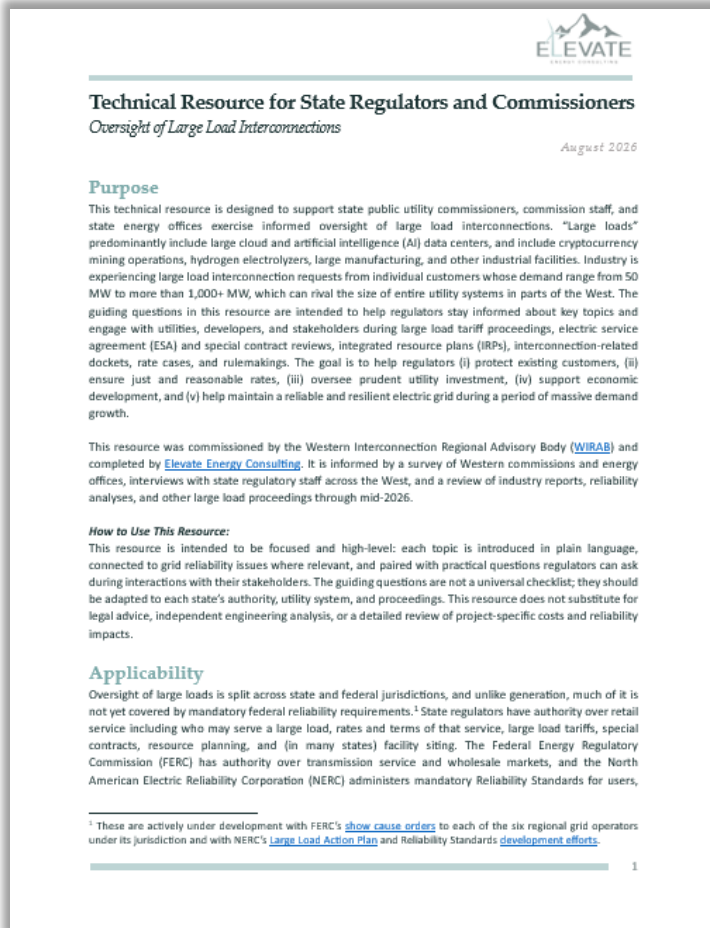
Technical Resource for State Regulators and Commissioners

Oversight of Large Load Interconnections

Kyle Thomas, PE, VP, *Engineering and Compliance Services*

Ryan D. Quint, PhD, PE, *President and CEO*

Overview of Technical Resource for States



Purpose:

- Support state public utility commissioners, commission staff, and state energy offices exercise informed oversight of large load interconnections.
 - Large cloud and artificial intelligence (AI) data centers, cryptocurrency mining operations, hydrogen electrolyzers, large manufacturing, other industrial facilities
- Help regulators stay informed and engage with utilities, developers, and stakeholders during large load tariff proceedings, electric service agreement (ESA) and special contract reviews, integrated resource plans (IRPs), interconnection-related dockets, rate cases, and rulemakings.
- Help regulators (i) protect existing customers, (ii) ensure just and reasonable rates, (iii) oversee prudent utility investment, (iv) support economic development, and (v) help maintain a reliable and resilient electric grid during a period of massive demand growth.

How to Use This Resource:

- Each topic is introduced in plain language, connected to grid reliability issues where relevant, and paired with practical questions regulators can ask during interactions with stakeholders
- Guiding questions are not universal – should be adapted to each state's authority, utility system, and proceedings.

Awareness of Federal Mandates

- Federal activity moving quickly, should be tracked by regulatory offices
 - FERC show cause orders
 - FERC mandate to NERC
 - NERC computational load efforts
 - NERC Phase 1 standards
 - NERC future standards roadmap

Aspect	State Regulators (Retail Service)	FERC / NERC (Transmission And BPS)
Regulatory Authority	Retail rates and terms of service; large load tariffs, ESAs, and special contracts; IRP and resource adequacy oversight; siting (by state)	FERC: transmission service, wholesale rates, and interconnection policy NERC: mandatory Reliability Standards for applicable registered entities
Interconnection Process	Distribution-level connections and retail service arrangements; state- or utility-defined large load processes	Transmission service requests under the OATT; RTO/ISO processes, where applicable; FERC show cause orders regarding RTO large load rules
Technical Requirements	Conditions in tariffs, ESAs, and utility service rules; state adoption of utility facility connection requirements	NERC FAC-001/FAC-002 facility interconnection requirements and studies apply to utilities; no large load-specific requirements exist yet
Cost Allocation	Retail cost allocation, rate design, and protection of existing customer classes	Allocation and recovery of transmission network upgrade costs under FERC policy
Possible Gap	Reliability obligations largely depend on what states and utilities require by contract and tariff	NERC standards development for large loads is underway but not yet in effect, multi-year implementation expected

State & Regional Action is Paramount

Full implementation of the upcoming NERC Reliability Standards development efforts for computational loads is expected to be years away. Until then, requirements that Western states and utilities put into interconnection requirements, processes, tariffs, and contracts are the primary line of defense from a reliability perspective.

Key Recommendations for State Regulators

- Establish a large load framework before applications force one.
- Ensure growth pays for growth.
- Scale financial assurances to the risk.
- Demand forecast discipline and transparency.
- Bring reliability into the tariff or other mandatory requirements document, not just the interconnection agreement.
- Encourage utilities to adopt rigorous technical interconnection requirements for large loads.
- Encourage study rigor proportional to size and system strength.
- Integrate large loads into resource adequacy and IRP processes.
- Set clear rules for co-location and bring-your-own-generation.
- Reward verified flexibility.
- Coordinate regionally and stay aligned with federal developments.

Ten Priority Issues and Guiding Questions

1. Phantom Demand and Load Forecast Uncertainty
2. Speculative Requests, Queue Management, and Developer Readiness
3. Cost Allocation and Protecting Existing Customers
4. Financial Assurances and Stranded Asset Risk
5. Tariff Design, Special Contracts, and Commission Review
6. Resource Adequacy and Alignment with Resource Planning
7. Interconnection Process Transparency, Timelines, and Study Rigor
8. Reliability and Technical Performance of Large Loads
9. Co-Location and Bring-Your-Own-Generation (BYOG)
10. Flexibility, Curtailment, and Demand Response

Update on Template Interconnection Requirements

July 2026 Registration Snapshot: Registered Participants: 141; Organizations Represented: 114

Category	Registrants
Utilities & Power Providers	63
Government & Regulators	14
Reliability & Market Organizations	9
Developers, Large Loads & Technology	12
Engineering, Consulting & Legal	12
Research & Trade Associations	12
Other / Unclassified	19

Participant Engagement

45 Active Participants

- Interested in contributing directly to development of the Large Load Interconnection Requirements Template

96 Monitoring Participants

- Interested in receiving updates and reviewing project outputs

Update on Template Interconnection Requirements

Date	Topics
✓ May 28, 2026 (11:00 a.m.–12:00 p.m. MT)	Kickoff: Background, Goals, and Timeline
✓ June 25, 2026 (11:00 a.m.–12:00 p.m. MT)	Large Load Interconnection Requirements Review
✓ July 16, 2026 (11:00 a.m.–12:00 p.m. MT)	Large Load Interconnection Requirements Template Section #1
August 13, 2026 (11:00 a.m.–12:00 p.m. MT)	Large Load Interconnection Requirements Template Section #2
September 24, 2026 (11:00 a.m.–12:00 p.m. MT)	Large Load Interconnection Requirements Template Section #3
October 22, 2026 (11:00 a.m.–12:00 p.m. MT)	Template Review and Finalizing
November 12, 2026 (11:00 a.m.–12:00 p.m. MT)	Template Finalizing and Next Steps
December 3, 2026 (11:00 a.m.–12:00 p.m. MT)	Industry and Public Webinar

Next Steps

- **Technical Resource for States**

- Future meeting (date TBD) to provide a deeper presentation on the connect in the technical resource document

- **Template Facility Interconnection Requirements**

- Industry Advisory Group meetings and engagement to finalize template requirements document
- Updates in Oct/Nov to WIRAB team members
- Industry webinar planned for early December to share more broadly



info@elevate.energy

WIRAB Advice: WECC Information Sharing Policy Proposed Changes



WECC proposes to reclassify the following Loads and Resources data for years 1–3 from “Market Sensitive” to “Public”:

- Projected peak demand
- Projected energy forecasts
- Scheduled peak-hour generation outages

WECC’s rationale:

- Forecast uncertainty poses little or no market risk
- Similar information is increasingly available elsewhere
- Public data would improve WECC’s reliability assessments

WIRAB Advice - Draft



WIRAB draft Advice supports the proposed reclassification.

- Consistent with past WIRAB recommendations
- Improves the transparency and usefulness of WECC assessments
- Supports regulators, policymakers, researchers, and other stakeholders
- Maintains protections for legitimate reliability, security, and market concerns
- Encourages WECC to use clear criteria and review whether additional datasets can be made public

WIRAB Advice: Share Western Interconnection data as broadly as possible while appropriately protecting sensitive information.

WIRAB Advice: Review Timeline



Review Timeline:

- August 4–7: Leadership review and endorsement
- August 6: Discussion at WIRAB Monthly Meeting
- August 19: Final WIRAB approval
- August 20: Submit comments to WECC

Action Requested: Provide comments, concerns, objections, or approval by COB Wednesday, August 19.

- WECC's proposed effective date: August 20, 2026

WECC Update

Branden Sudduth

Vice President, Reliability Planning and Performance Analysis

**Electric Reliability
& Security for the West**

August 6, 2026

Risk Management Program—Background

- **Collaborative initiative to address emerging and established risks to reliability and security**
 - Prioritization and treatment reported at each Board meeting
 - Town hall held annually to discuss existing risks and new or emerging risks
 - Opportunity for WECC advisory bodies to provide feedback
- **Engagement with stakeholders is critical**
 - Wecc.org
 - Risk Register and Risk Dashboard are available at wecc.org.
 - Risks can be submitted to risk@wecc.org.
 - Committees
 - Town halls
- **Replaces Reliability Risk Priorities process**
 - Assessed risks every other year
 - New approach is nimbler, offers more engagement opportunities

Risk Management Program—Key Components

Identification

- Stakeholders, interested parties, WECC identify risks to reliability

Ranking & Prioritization

- WECC and stakeholders analyze, rank, and sort risks, and then prioritize them based on multiple factors

Strategy & Planning

- WECC develops strategies and plans work to address the risk

Treatment

- WECC works with stakeholders to mitigate the risk

Risk Management Program—Ranking vs. Prioritization

Ranking

- Where risks fall relative to one another based on analytical criteria
- Objective, transparent, data-driven, repeatable process
 - Based on pre-determined criteria and analytical methods
 - Focused on analysis and risk assessment
 - Conducted by subject matter experts

Prioritization

- Identifies risks most effectively and efficiently mitigated by WECC, considering factors such as:
 - Potential impact of mitigation efforts
- Prominence/uniqueness in Western Interconnection
 - Existing efforts to address the risk
 - Business needs/goals
 - Public policy
- Incorporates risk tolerance, regional priorities
- Involves stakeholders

Risk Management Program—Risk Dashboard

38

Total Risks

12

Low

15

Medium-Low

6

Medium

4

High

1

Extreme

Category

All

Select a Risk

Level	Risk Title
Extreme	Wildfire
High	Earthquake
High	Modeling, Performance, Interconnection Requirements, Data Availability, and Validation
High	Resource and Load Balance
High	Volcanic Eruption
Medium	Extreme Winds
Medium	Grid Transformation - IBRs and Inertia
Medium	Infrastructure Sabotage
Medium	Large Loads - Dynamic Modeling
Medium	Planning Case Accuracy
Medium	Time of Use / EV Charging Impacts to Grid
Medium-Low	Applicability of GO Registration and NERC Reliability Standards
Medium-Low	Artificial Intelligence
Medium-Low	Compromised Hardware/Software Supply Chain
Medium-Low	Drones and Unmanned Aircraft
Medium-Low	Drought (Aridification)
Medium-Low	Facility Rating - Ambient Temperature Impacts on Transmission Capacity
Medium-Low	Heat Wave/Dome
Medium-Low	Increasing number of long-term frequency deviations
Medium-Low	Insider Threat
Medium-Low	Malware

Risk Name:

Wildfire

About The Risk:

Condition: Major infrastructure (>230 kV) within close proximity and common corridors within one mile of large areas of dense, dry vegetation that have ignited, regardless of cause. (High-heat-level impact conditions, smoke density impact conditions, and facility designs vary by operating entity and should be considered.)(Entities' liability concerns may go beyond the NERC Reliability Standards and may employ more stringent wildfire management practices.)

Consequence: Implementation of Energy Emergency Alerts, up to and including load shedding of greater than 5,000 MW. Damage caused by unusual fire & wind conditions (firenado) and operational impact (possibly several days) from fire suppression/retardant methods.

Cause: Any ignition source.

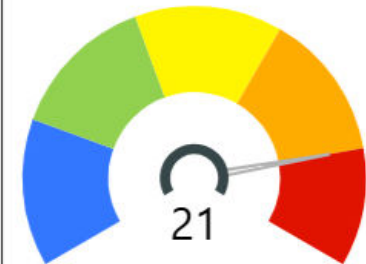
Additional Information:

Document/Link

[Wildfire Dashboard](#)
[Wildfire Weekly Report](#)

Risk Scale

Extreme



Likelihood

Unlikely

Impact

Severe

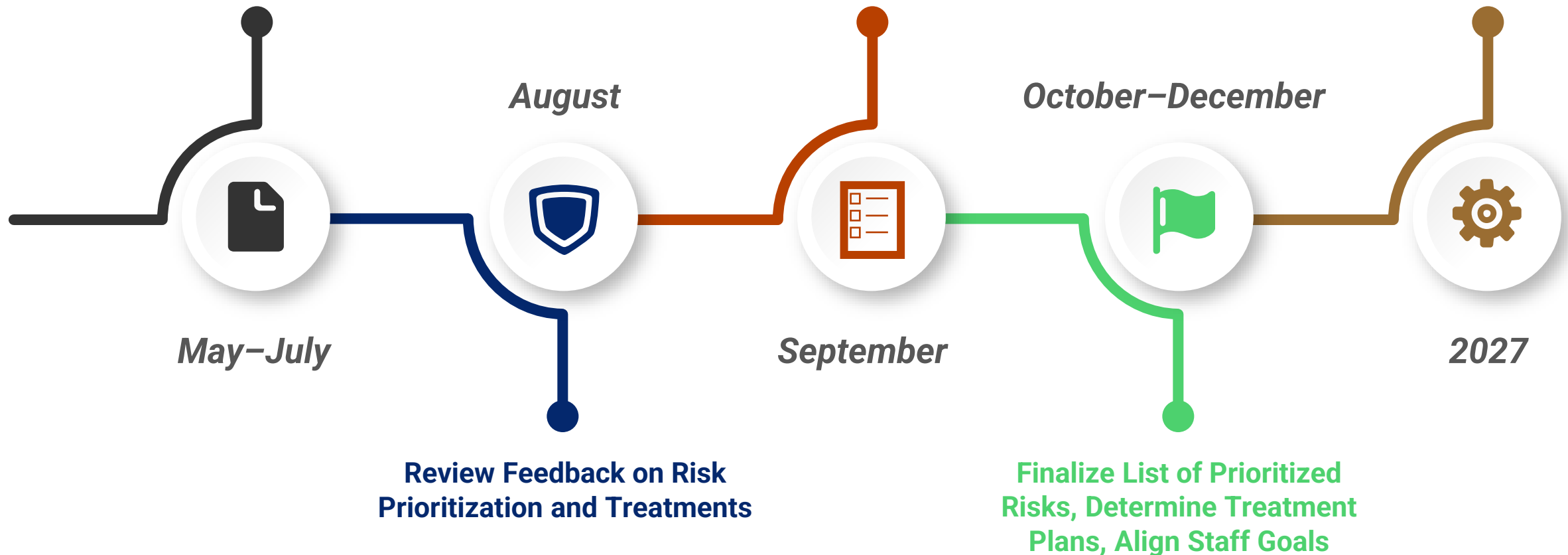
Risk Management Program—Timeline

Tolerance Outreach/Feedback

- Updated website
- Reliability in the West
- WECC Town Hall (July 8)

List of Prioritized Risks Presented to WECC BOD

Focus on Prioritized Risks and Treatments



Risk Management Program—Get Involved

- Risk@wecc.org
 - Submit new risks
 - Provide feedback



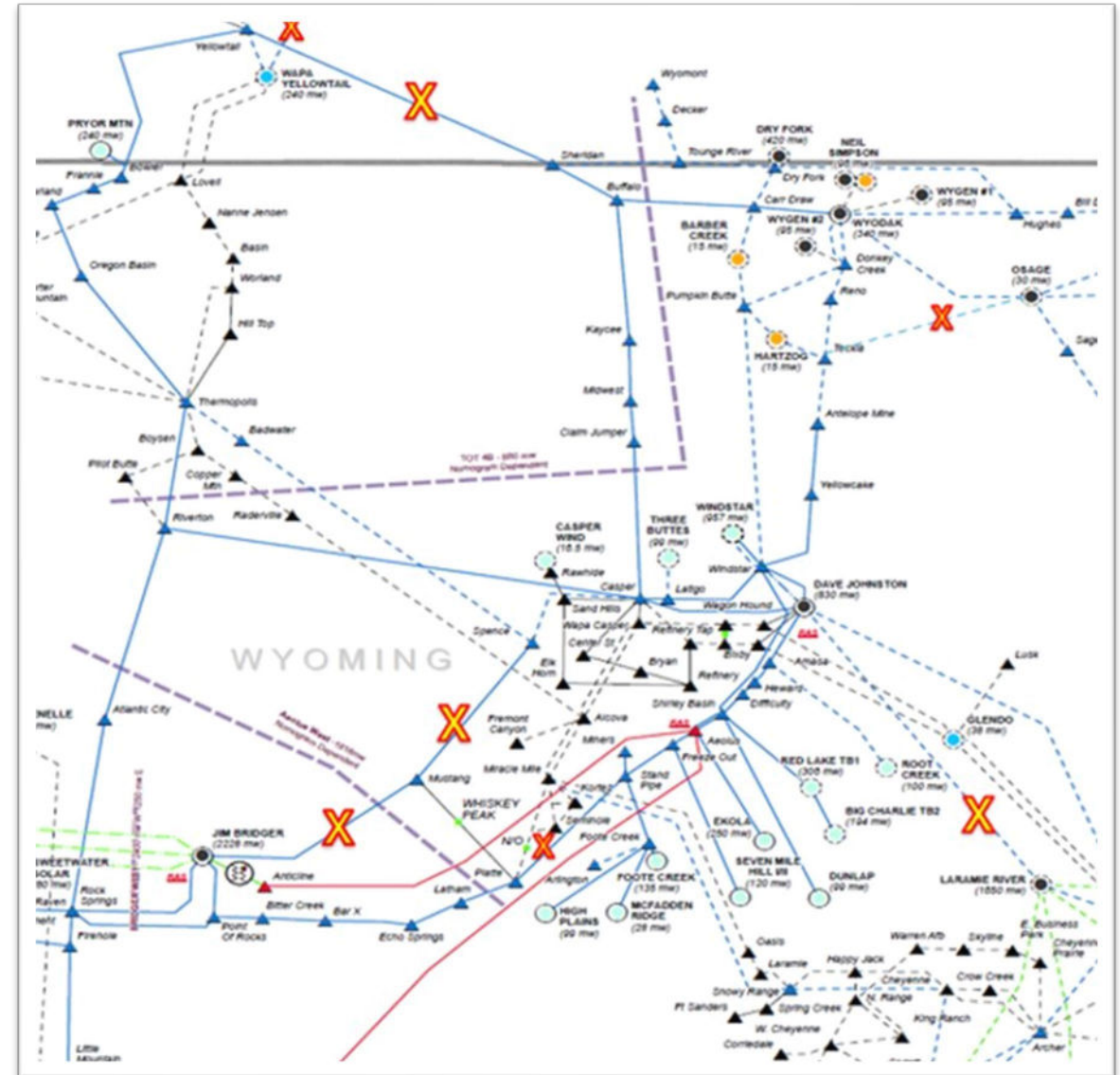
2025 Wyoming Disturbance—Background

- November 13, 2025, at 12:43 p.m.
 - Scheduled outage on a 500-kV line led to a disturbance that affected 250,000 customers in four states.
 - Voltage plummeted. Within six seconds:
 - 33 transmission lines were out.
 - Almost 5 GW of generation and service to over 250,000 customers was lost.
 - Frequency in the Western Interconnection fell to 59.78 Hz.
- Seams area for reliability coordinators, transmission operators
- Shoulder month: Frequent maintenance
 - Seven 230-kV lines and the Rapid City DC Tie were out of service.
 - PacifiCorp's Aeolus-Clover 500-kV line, scheduled outage 8 a.m. to 9 a.m.
 - WACM's 115-kV Alcova-Miracle Mile, line scheduled outage 9 a.m. to 5 p.m.



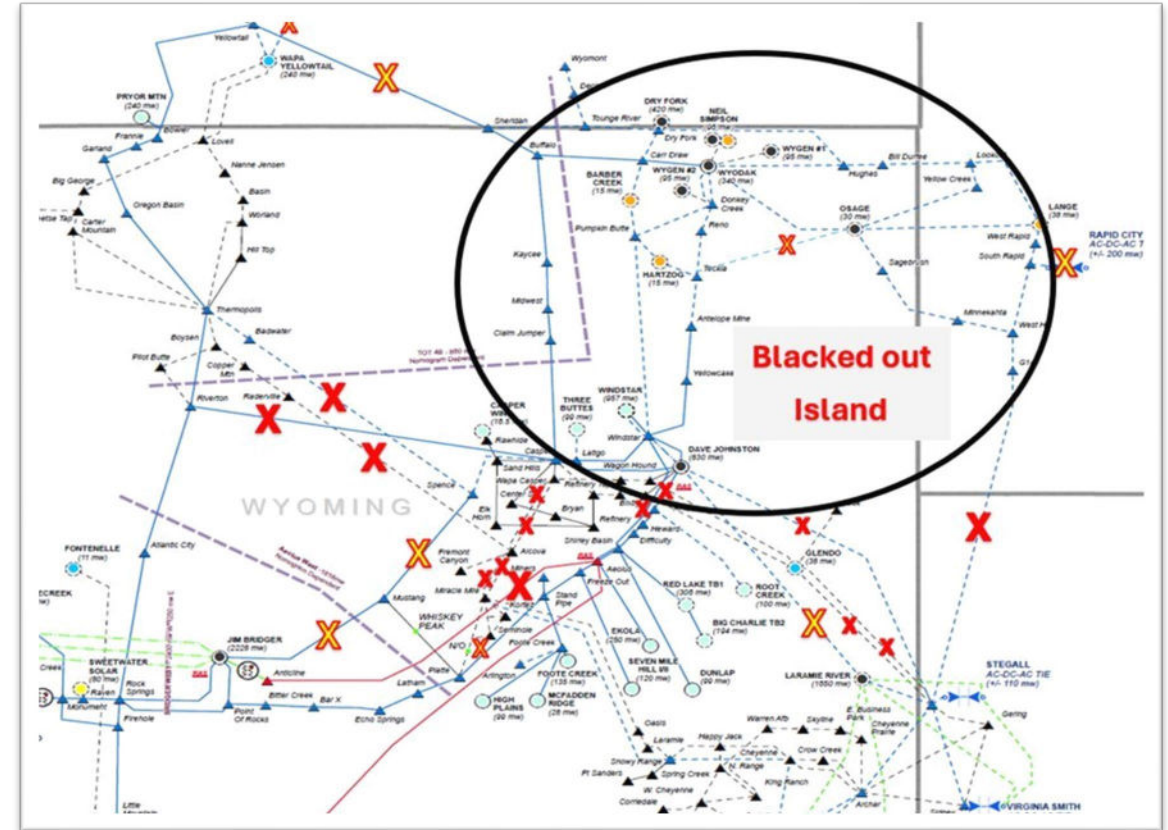
2025 Wyoming Disturbance—Key Points

- Initial analysis did not identify any issues with outages scheduled for that day.
- Early-morning studies showed loading issues if scheduled outages were to occur concurrently.
 - Plan was for the Alcova-Miracle Mile outage to begin when Aeolus-Clover line outage ended.
- PacifiCorp personnel were delayed, postponing the scheduled start time to noon.
- Wind generation increased on PacifiCorp's system throughout the morning, up to 150% of what was included in the early morning analysis.



2025 Wyoming Disturbance—Key Points

- As PacifiCorp was preparing for the outage, it modified the Remedial Action Scheme (RAS) for the Aeolus line so it would not trip wind generation in the area
- Issues with PacifiCorp's real-time analysis:
 - Low-voltage alarms disabled
 - Inaccurate generator data
- Post-incident, the NWPP Reserve Sharing Group was called on for assistance.
 - Program was very effective, returned interconnection frequency to 60 Hz in roughly six minutes.
 - Large battery storage fleet is believed to have helped arrest frequency and accelerate grid recovery.



2025 Wyoming Disturbance—Contributing Factors

- **Personnel**
 - Lack of understanding between the reliability coordinators (RC) and transmission operators (TOP)
 - TOP communication was not coordinated with neighboring TOPs and RCs during restoration.
 - Restoration training across RC seams is insufficient.
- **Processes**
 - Processes were insufficient to manage seams.
 - Failure to resolve persistent issues with Real-Time Contingency Analysis (RTCA)
 - Entities initially failed to follow their restoration procedures.
- **Tools**
 - RCs and TOPs made different assumptions when modeling in RTCA.
 - RTCA was operating with inaccurate modeling parameters.
 - TOPs generally rely on one analysis tool and a corresponding model without the ability to validate results between tools.



NERC Wildfire Action Plan

- Filed with FERC in July
- Calls for:
 - Collaboration, engagement, and outreach across industry
 - Development of a Reliability Guideline
 - Development or revision of Reliability Standards beginning in 2028
- The action plan is a response to recommendations made in a report NERC released in May: [Reducing the Risk of Wildfire Ignition by the Bulk Power System](#).
- FERC held a technical conference in October 2025 on wildfire mitigation.
- WECC co-hosted a wildfire workshop in January and participated in a similar event in Calgary this spring.



ENGAGE WITH WECC



Federal Updates



Standards Process Modernization



ROP Revisions & MSPPTF Implementation

- Informal Comment Period: May 18th – June 17th
 - NERC is reviewing [industry comments](#)
 - Themes: RSB composition, appeals, and elections; transparency and notice requirements; records retention; undefined “consensus”; term limits; board waiver authority (5 day notice); comment period floors missing; periodic review retirement; committee role overlap
- Formal Comment Period: August 2026
 - Potential WIRAB Advice:
 - Regional expertise
 - Reporting mechanism
 - Limit Board waiver authority

Standing Committee Governance Initiative



NERC's Corporate Governance and Human Resources Committee (CGHRC) has posted [draft Governance Guidelines and sample charters](#) for all NERC Standing Committees, open for stakeholder comment through September 4, 2026.

- The initiative follows a 2024 self-assessment that identified a need for greater consistency in governance practices and clearer roles across NERC's Standing Committees.
 - The draft Guidelines standardize membership composition, officer terms, meeting procedures, and voting thresholds across all NERC Standing Committees.
 - NERC intends to combine three streams of change - (1) Governance Guidelines updates, (2) MSPP-driven revisions, and (3) each committee's own annual charter review - into a single final charter per Standing Committee.
- Potential WIRAB Advice:
 - Regional expertise as added membership criterion
 - Monitor membership turnover and representation

1. Standards Committee (SC) 2. Reliability and Security Technical Committee (RSTC) 3. Reliability Issues Steering Committee (RISC)
4. Compliance and Certification Committee (CCC) 5. Personnel Certification Governance Committee (PCGC)

Western Grid Seams Coordination



FERC directed CAISO and SPP to jointly file a report on coordinating market operations along their shared Western seams ([AD26-10-000](#))

- Filing due September 30, 2026
- Report must address:
 - Coordination efforts and entities engaged to date
 - Specific issues: overlapping transmission scheduling, cross-market congestion management, loop flow
 - A prioritized plan and schedule, including where protocols will live
 - Any areas where CAISO and SPP are not yet aligned
- 30-day public comment period opens once the joint report is filed (likely late October 2026)

Upcoming Meetings



WIRAB Monthly Meeting

First Thursday of the Month at 2:00 PM MT

Next Meeting: September 3, 2026 at 2:00 PM MT

Fall 2026 Joint CREPC-WIRAB Meeting

October 13-15, 2026 in Missoula, MT

<https://www.westernenergyboard.org/meeting-calendar/>

Thank You!

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