

WIRAB Monthly Meeting

June 4, 2026



Introductions



Agenda



WIRAB Activities:

WIRAB 2027 Business Plan & Budget
WIRAB Large Load Projects



WECC Activities:

Summer Reliability Assessment
State of the Interconnection
Current Activities



NERC Activities:

MSPP Implementation
Large Load Road Map
NAESB Gas-Electric Coordination



Upcoming WIRAB Meetings

2027 WIRAB Business Plan and Budget Overview



Lisa Brohaugh
Director of Finance and Administration

WIRAB's 2027 Strategic Initiatives



Gas-Electric Coordination

Initiative 1: Advise WECC on Interdependencies Between the Natural Gas and Electric Systems and the Implications for the Reliable Operation of the Western Interconnection.



Large Load Integration

Initiative 2: Advise WECC and States to Address the Reliability Risks of Resource Procurement Competition Associated with Behind-the-Meter and Co-Located Resources at Large Load Facilities.



Extreme Weather Risks

Initiative 3: Advise WECC to Incorporate Extreme Weather and Climate-Driven Scenarios into Reliability Assessments and Long-Term Planning Processes.



Large Load Flexibility

Initiative 4: Advise WECC and States to Close the Reliability Gap on Large Load Emergency Operations and Demand Response in the Western Interconnection.

2027 Budget and Assessment Overview



Budget: \$882,845

Increase of \$20,365 or 2.4%



Assessment: \$709,845

Increase of \$3,765 or 0.5%



FTEs: 3.0

No Change

2027 Budget Drivers



- Personnel expense increase of \$15,319 (5.3%) driven by staff allocation changes, annual cost of living and merit increases
- Meeting, travel, and consulting expenses remain flat
- Indirect expense increase of \$5,046 (1.8%) due to increase in personnel expense
- Indirect rate decrease from 96.8 to 93.6%

2026 to 2027 Budget Comparison

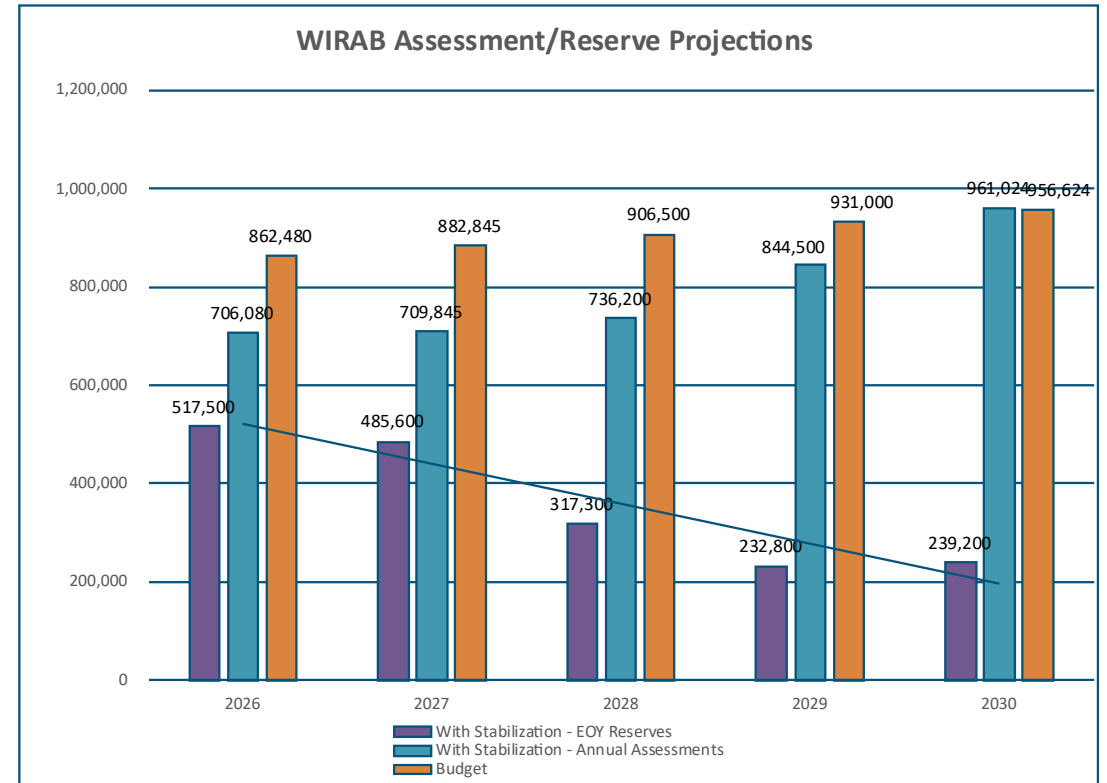


2026 to 2027 Budget Comparison				
STATUTORY				
	2026 Budget	2027 Budget	Variance \$	Variance %
Funding				
Assessments	\$ 706,080	\$ 709,845	\$ 3,765	0.5%
Interest	\$ 2,000	\$ 2,000	\$ -	0.0%
Total Funding (A)	\$ 708,080	\$ 711,845	\$ 3,765	0.5%
Expenses				
Personnel	\$ 290,386	\$ 305,705	\$ 15,319	5.3%
Staff Travel Expense	\$ 38,100	\$ 38,100	\$ -	0.0%
State Travel Expense	\$ 42,400	\$ 42,400	\$ -	0.0%
Meeting Expense	\$ 110,500	\$ 110,500	\$ -	0.0%
Consultants and Contractors	\$ 100,000	\$ 100,000	\$ -	0.0%
Total Direct Expenses	\$ 581,386	\$ 596,705	\$ 15,319	2.6%
Indirect Expenses	\$ 281,094	\$ 286,140	\$ 5,046	1.8%
TOTAL BUDGET (B)	\$ 862,480	\$ 882,845	\$ 20,365	2.4%
CHANGE IN WORKING CAPITAL (=A-B)	\$ (154,400)	\$ (171,000)	\$ (16,600)	
FTEs	3.00	3.00	-	0.0%

Assessment and Projected Reserve Balances



- 2027 assessment: **\$709,845**
- December 31, 2026, working capital reserve projection: **\$656,600**
- Projected working capital reserve December 31, 2027 (55%): **\$485,600**
- Decrease in working capital reserves: **\$171,000**
- **25%** working capital reserve target



Preliminary 2028 and 2029 Budget Projections



- 2028
 - 2.7% budget increase over 2027
 - 3.7% assessment increase over 2027
- 2029
 - 2.7% budget increase over 2028
 - 14% assessment increase over 2028
- Key assumptions
 - Annual cost of living and merit increases of 4%
 - FTEs remain flat
 - Assessments remain flat and under budget

Conclusion and Questions



Thank You!



Lisa Brohaugh

Director of Finance and Administration

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WIRAB 2027 Business Plan and Budget: Timeline



Date	WIRAB BP&B Timeline
4/2/26	Seek feedback on Strategic Initiatives and Circulate Survey
4/16/26	Circulate BP&B to WIRAB (Draft 1)
4/30/26	WIRAB BP&B Comments Due by WIRAB Members (Draft 1)
5/1/26	First BP&B due to NERC (Draft 1)
5/8/26	Draft 1 of ERO BP&B posted for comment and FAC webinar package posted
5/15/26	Conference Call & WIRAB Staff Presentation of BP&B to NERC FAC
6/4/26 Thru 6/18/26	WIRAB Monthly Meeting with Presentation of Final Version for Approval Staff Available for Questions WIRAB Approval (Final Vote Due)
6/25/26	Conference Call & WIRAB Staff Presentation of BP&B to FERC
7/1/26	Submit WIRAB Approved BP&B to NERC
8/13/26	NERC Open FAC and Board Call to Approve BP&Bs
8/31/26	Regulatory filings for NERC, RE, & WIRAB BP&Bs submitted to FERC
Oct/Nov	FERC Approval



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 Kickoff Meeting: May 28th

Next Meeting: June 25th ([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
- [WIRAB Survey: Large Load Technical Oversight Resource – Fill out form](#)



Summer Reliability Assessment & State of the Interconnection

Matt Zapotocky

Senior Reliability Assessments Engineer

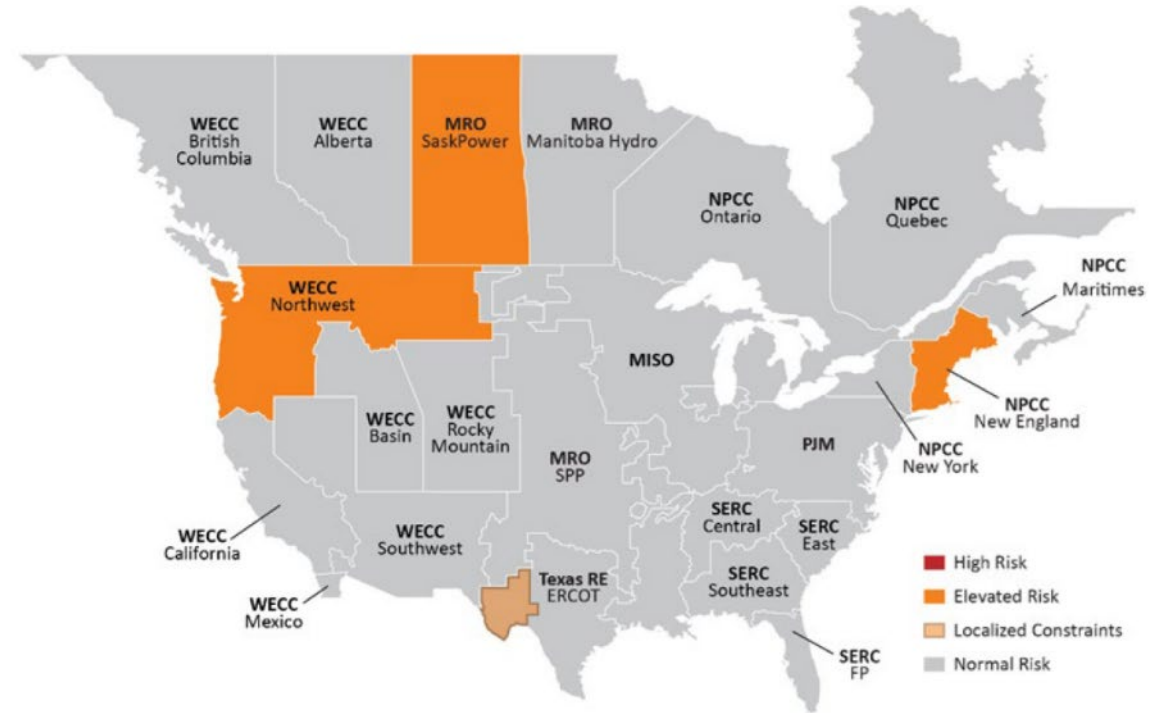
Matt Evans

Stakeholder Engagement Specialist



NERC Summer Reliability Assessment

- Evaluates the reliability of the bulk power system for the upcoming summer
- Identifies potential reliability issues and areas of concern
- Available at nerc.com



Category	Criteria ¹
High Potential for insufficient operating reserves in normal peak conditions	<ul style="list-style-type: none"> • Planning Reserve Margins do not meet Reference Margin Levels • Probabilistic indices exceed benchmarks (e.g., LOLH of 2 hours or higher across the season) • Analysis of the risk hour(s) indicates resources will not be sufficient to meet operating reserves under normal peak-day demand with normal resource scenarios²
Elevated Potential for insufficient operating reserves in above-normal conditions	<ul style="list-style-type: none"> • Probabilistic indices are low but not negligible (e.g., LOLH above 0.1 hours across the season) • Analysis of the risk hour(s) indicates resources will not be sufficient to meet operating reserves under extreme peak-day demand with normal resource scenarios² (i.e., typical or expected outage and derate scenarios for conditions) • Analysis of the risk hour(s) indicates resources will not be sufficient to meet operating reserves under normal peak-day demand with reduced resource scenarios³ (i.e., extreme outage and derate scenarios)
Normal Sufficient operating reserves expected	<ul style="list-style-type: none"> • Probabilistic indices are negligible (e.g., LOLH below 0.1 hours across the season) • Analysis of the risk hour(s) indicates resources will be sufficient to meet operating reserves under normal and extreme peak-day demand and outage scenarios⁴

High	Potential for insufficient operating reserves in normal peak conditions
Elevated	Potential for insufficient operating reserves in above-normal conditions
Normal	Sufficient operating reserves expected



SRA: Trends Across North America

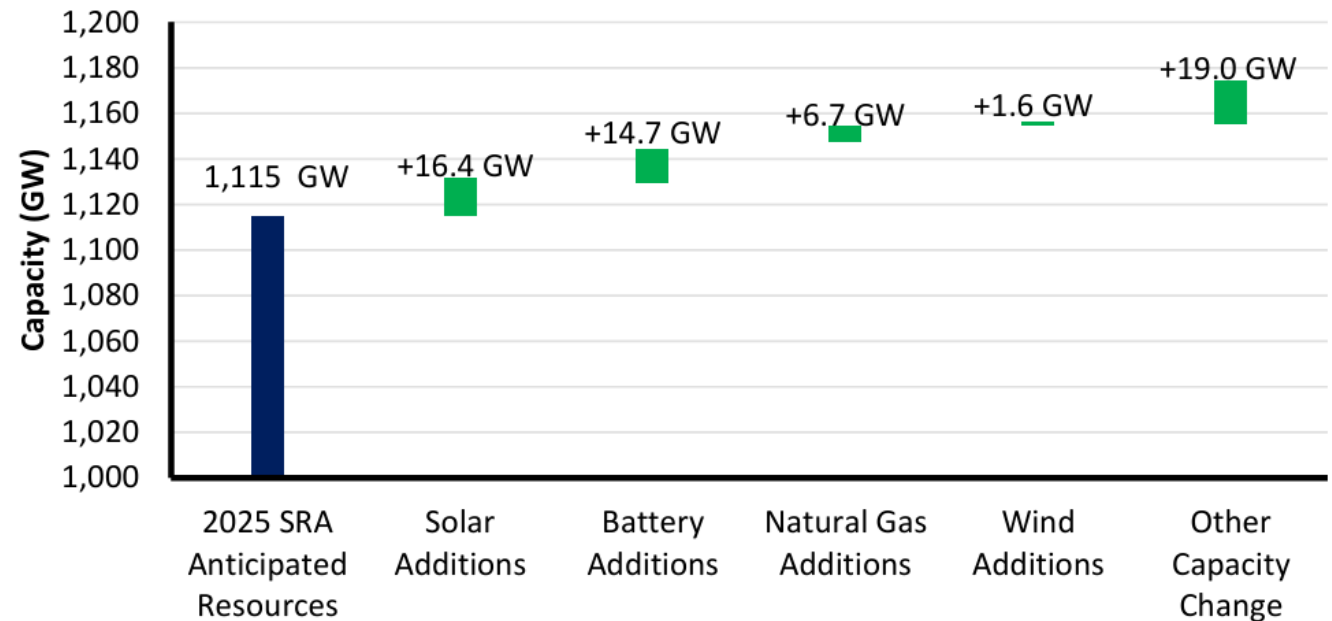
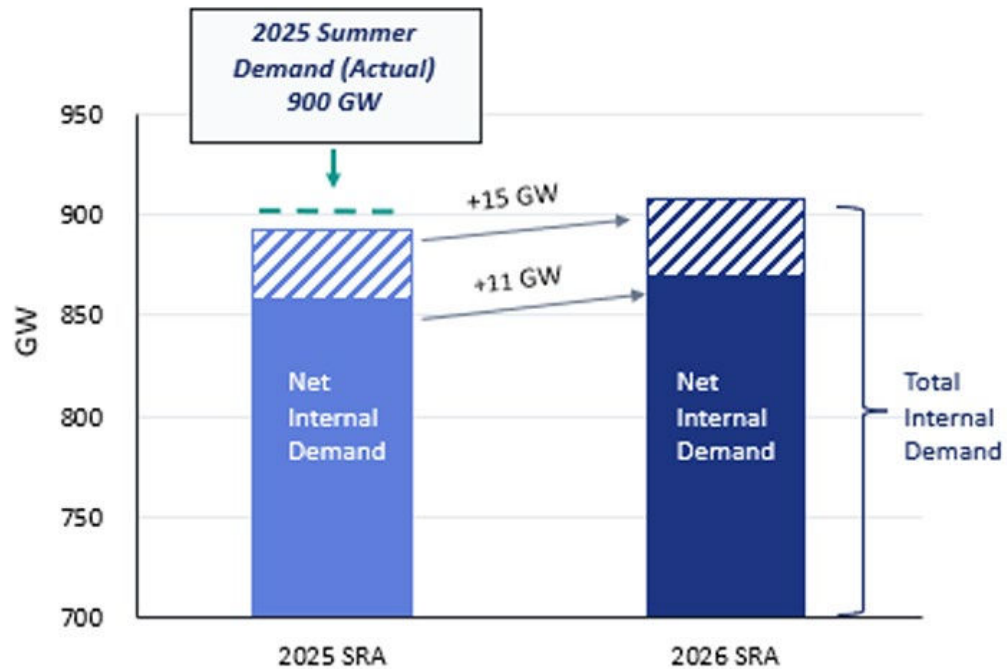


Table 1: Power Plants Impacted by Department of Energy 202(c) Orders in 2025 and 2026

Plant Name	Nameplate Capacity (MW)	Summer Capacity (MW)	DOE 202(c) Order Expiration
J.H. Campbell	782	760	5/18/2026
F.B. Culley Generating Station	104	90	6/21/2026
Schahfer Generating Station	847	722	6/21/2026
Eddystone Generating Station	782	760	5/24/2026
Centralia Generating Station	730	670	6/14/2026
Craig Station	446	427	6/28/2026



SRA: Western Overview

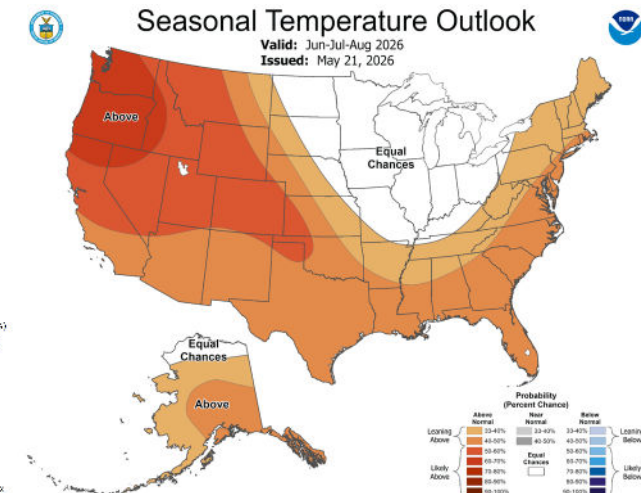
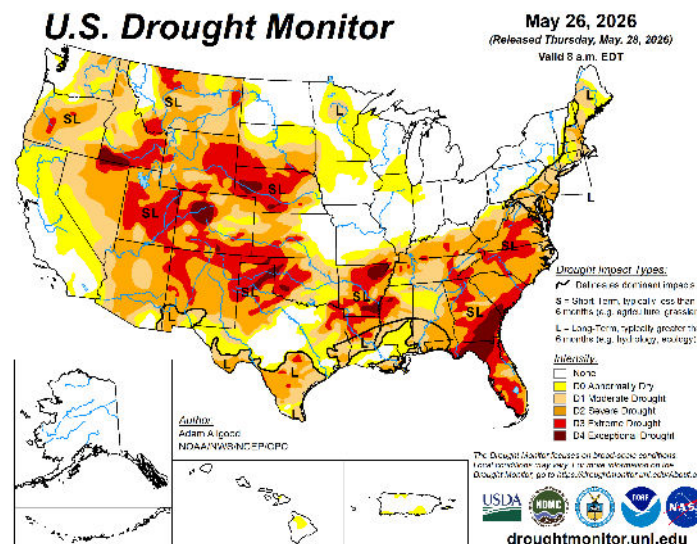
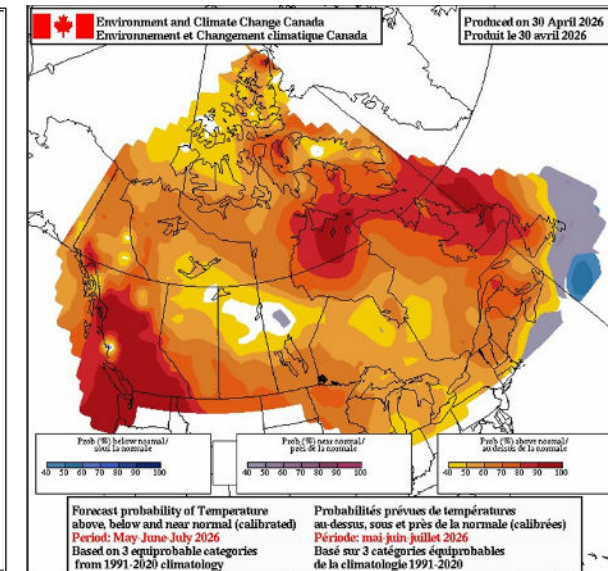
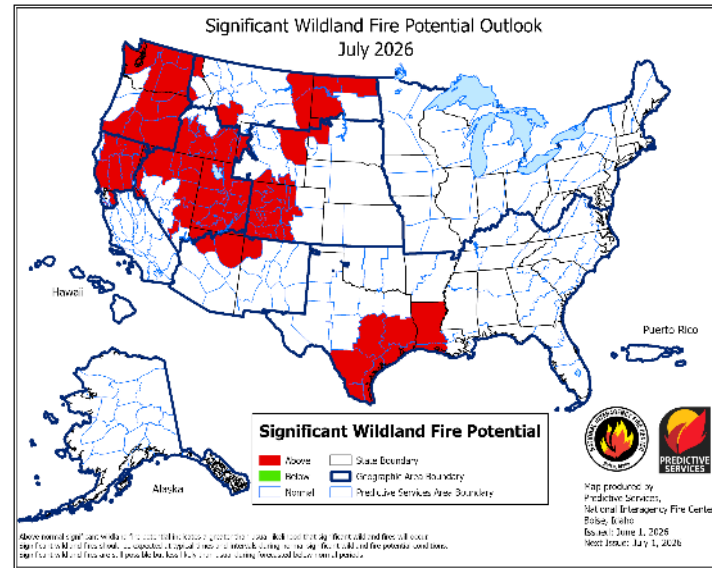
Net Internal Demand at Peak Hour (MW)			
Region (WECC)	2025 SRA	2026 SRA	Net Change (%)
Alberta	12,246	12,499	2.1%
Basin	13,594	14,116	3.8%
British Columbia	9,309	9,529	2.4%
California	54,051	54,388	0.6%
Mexico	3,770	3,750	-0.5%
Northwest	29,127	30,477	4.6%
Rocky Mountain	13,564	13,206	-2.6%
Southwest	35,122	38,451	9.5%

Anticipated Resources at Peak Hour (MW)			
Region (WECC)	2025 SRA	2026 SRA	Net Change (%)
Alberta	17,457	16,542	-5.2%
Basin	16,901	19,429	15.0%
British Columbia	11,573	13,388	15.7%
California	84,794	84,623	-0.2%
Mexico	4,303	4,969	15.5%
Northwest	38,481	38,668	0.5%
Rocky Mountain	17,416	20,063	15.2%
Southwest	42,961	56,934	32.5%

- Increased demand: Data centers, semiconductor manufacturing, industrial and commercial customer growth, population growth, and transportation electrification
- Majority of resource additions for this summer are wind, solar, and battery.
- Rolling three-year average resource completion rate is 67%.

SRA: Western Overview

- Reliability concerns across the Western Interconnection:
 - Extreme heat
 - Drought
 - Wildfire
 - Supply chain
 - Transformers (2–4 years)
 - Circuit breakers (3 years)
 - Switchgears (1–2 years)

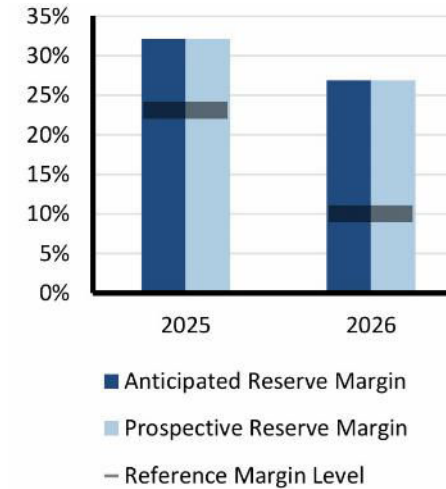




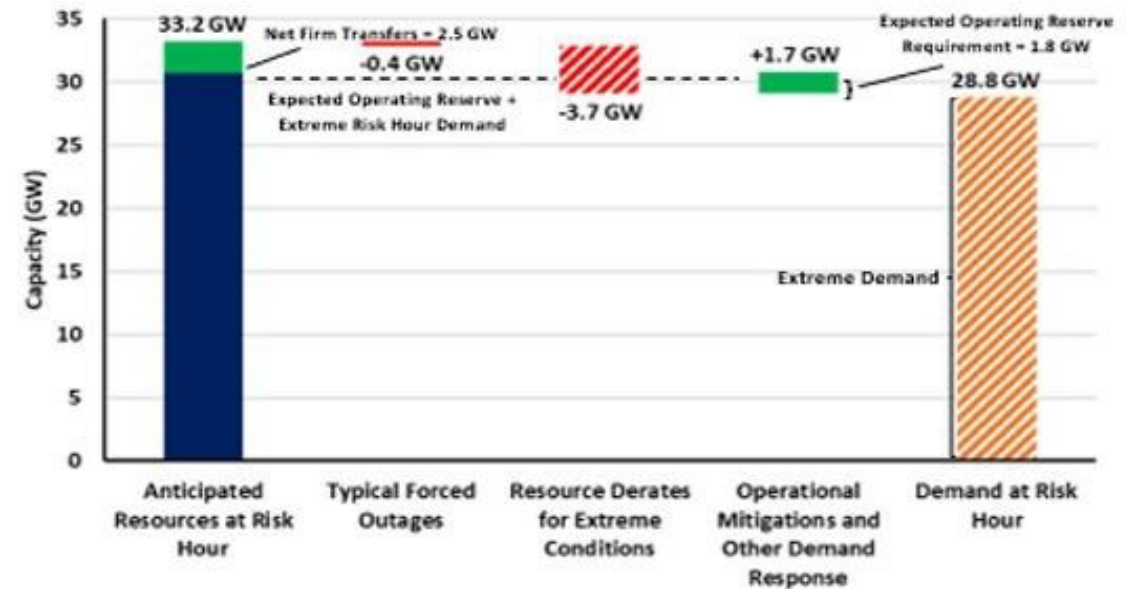
SRA: Northwest

- Anticipated reserve margins are tighter than last year.
 - Due to the increase in demand with minimal anticipated resource additions
- Expected Unserved Energy was 2.7 MWh.
- Loss of load hours was just over 0.1 hours.
- The EUE and LOLHs occur in the early evening, primarily in September.

On-Peak Reserve Margin

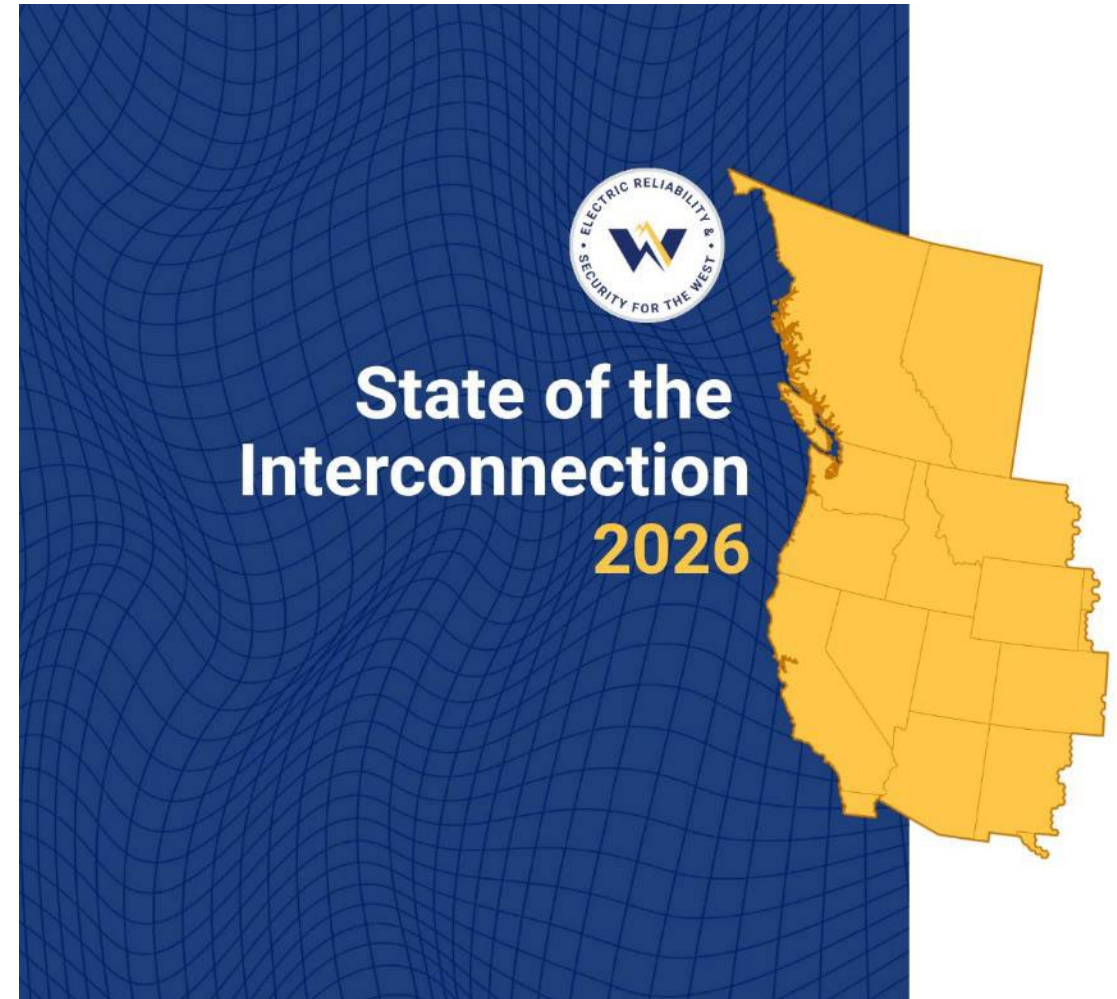


Risk Hour Scenario



State of the Interconnection

- High-level look at reliability issues across the Western Interconnection
- Reviews developments related to the western energy markets
- Does not issue findings or recommendations
- Available at [wecc.org](https://www.wecc.org)

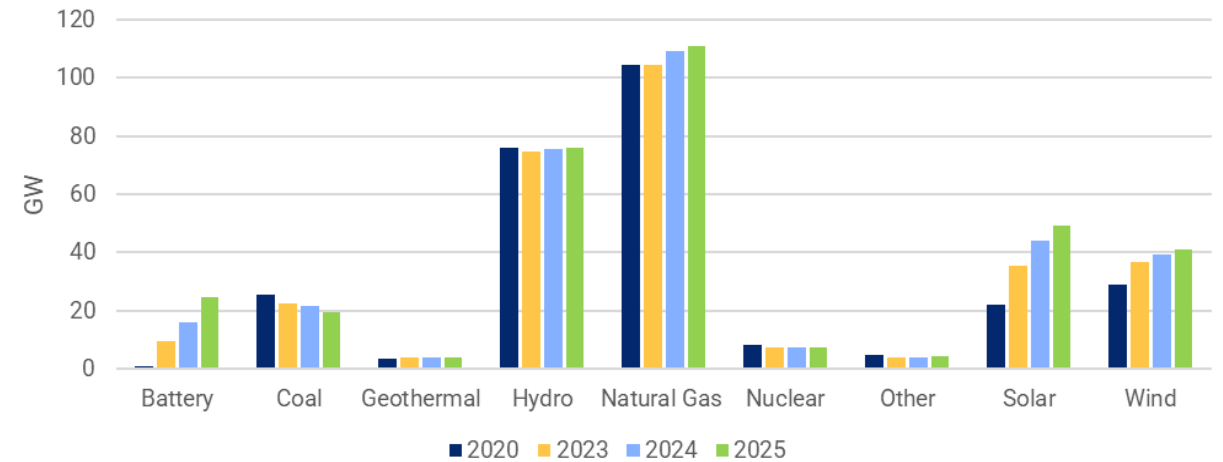




Resources

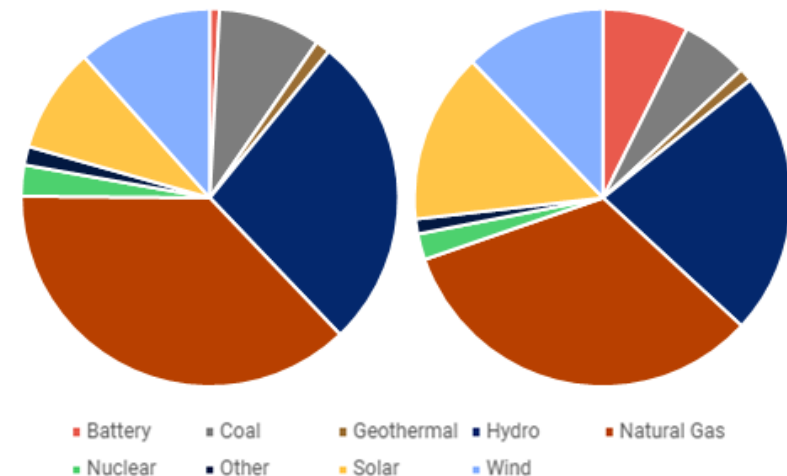
- Additions
 - 18 GW of nameplate capacity was added in 2025 in the Western Interconnection, mostly solar and battery storage
 - 24 GW added in 2024
 - 15 GW (85%) of the capacity added in 2025 were inverter-based resources (IBR)
 - 7.6 GW battery storage, bringing the 2025 interconnection-wide nameplate capacity of battery storage to 25 GW
 - 6 GW solar (49 GW capacity)
 - 1.4 GW wind (41 GW capacity)
 - 1.7 GW of natural gas-fired generation were added in 2025
 - 5.5 GW added in 2024
- Retirements
 - 2.6 GW of generation capacity were retired in 2025
 - 2.2 GW of coal-fired generation were retired, an increase from 0.9 GW retired in 2024

Capacity by Resource Type



2021 Resource Capacity

2025 Resource Capacity

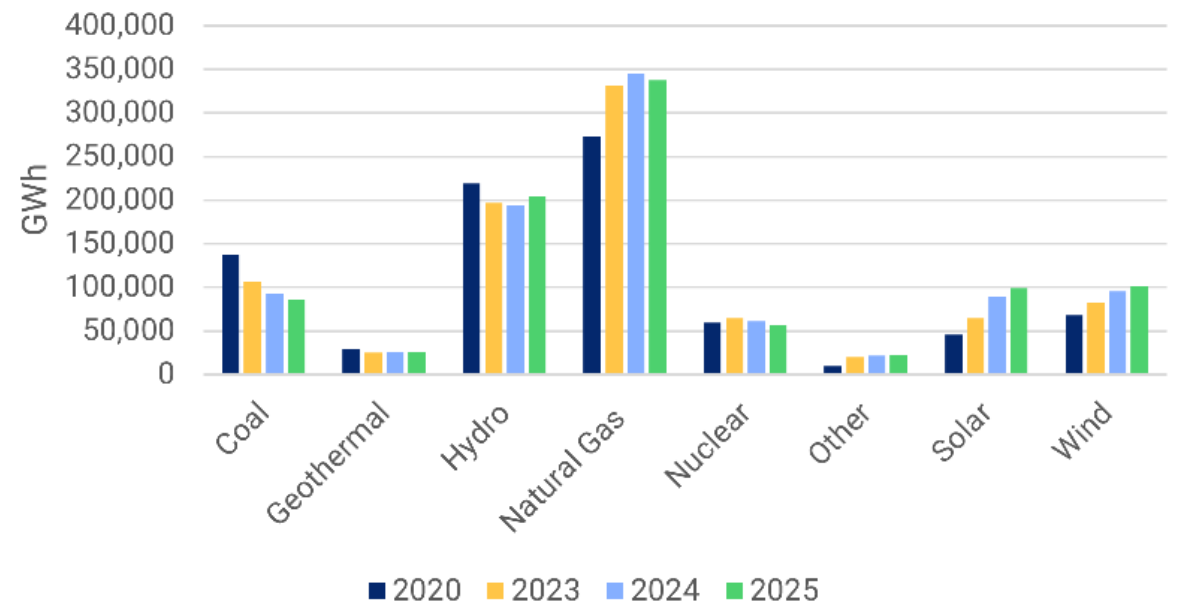




Generation

The new resources and retirements in 2025 continue the transformation of the resource mix away from baseload generation to variable generation that does not produce electricity at nameplate capacity at all times.

Generation by Resource Type

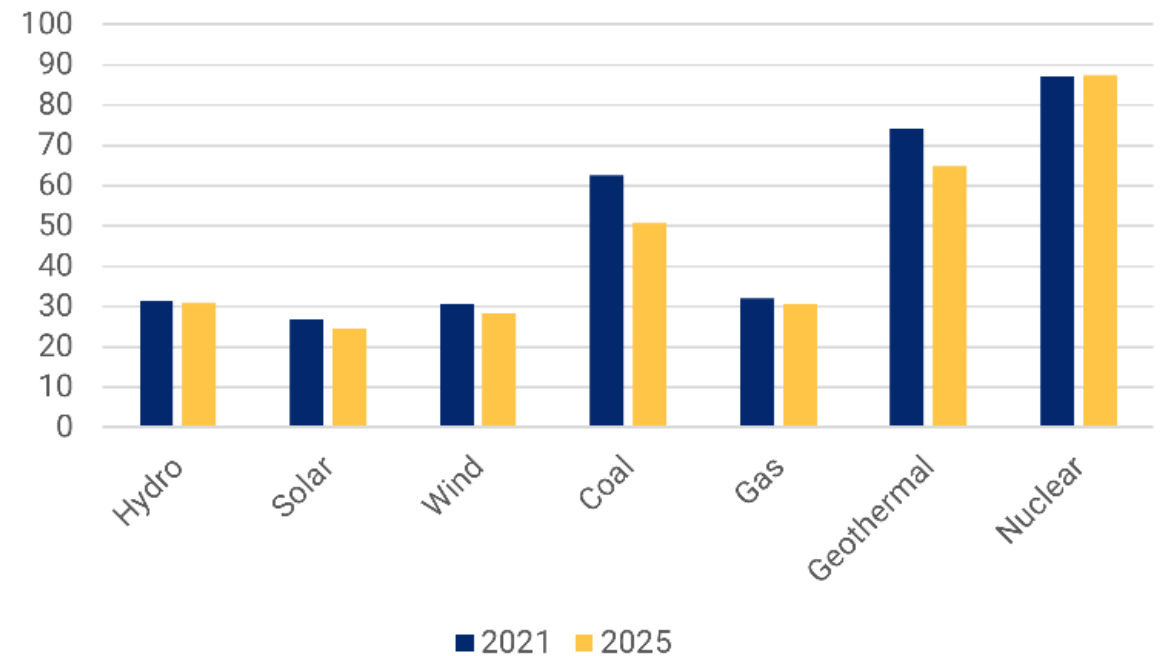




Generation: Capacity Factor

- Capacity factor is the ratio of energy produced by a generating unit over a period to the amount of energy it would have generated at nameplate capacity.
 - The capacity factor of variable resources like IBRs is lower than baseload resources like coal, natural gas, and nuclear.
 - The capacity factor for natural gas units can be misleading, since they are often used for load balancing or as peaking plants and do not generate constantly.

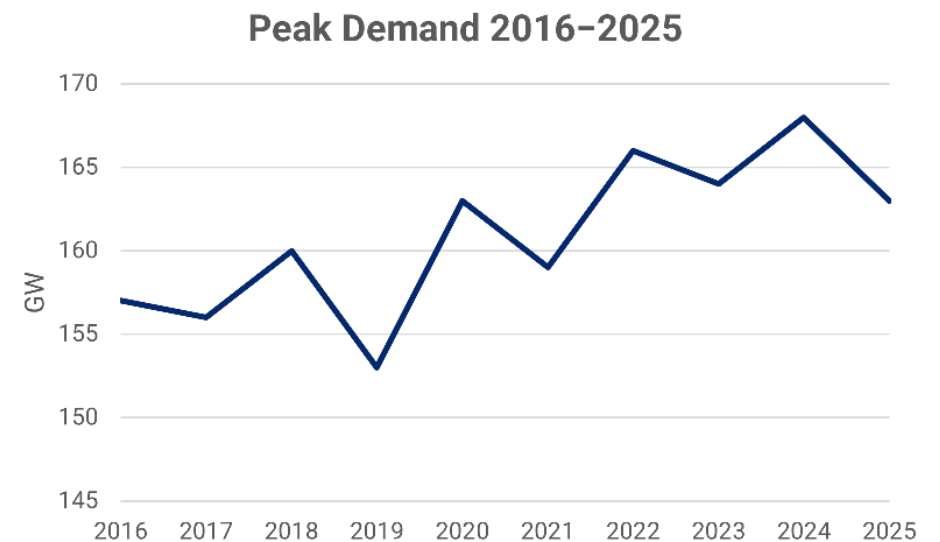
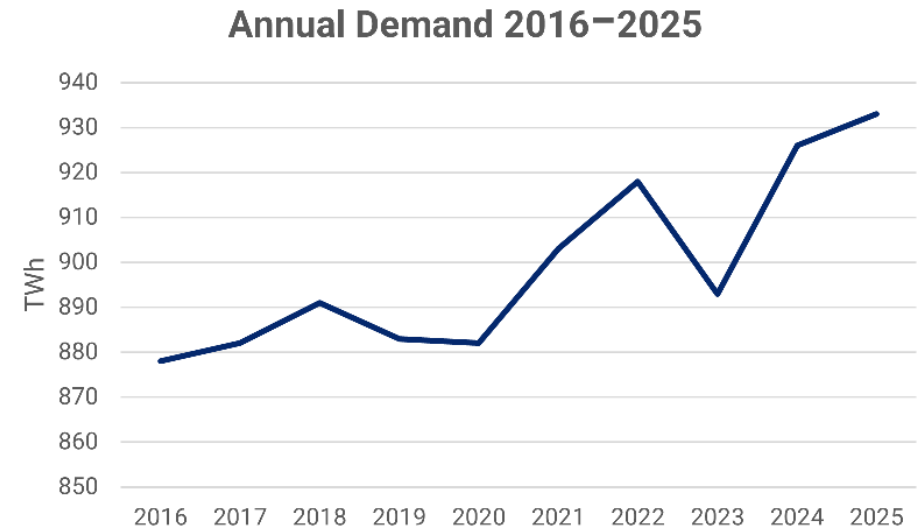
Capacity Factor by Resource Type





Load

- 2025 annual demand: 932,902 GWh
 - Previous record: 926,000 GWh, in 2024
- Peak demand: 163 GW in 2025
 - 168 GW in 2024
- 2026 load forecasts:
 - 33% increase in annual demand over the coming decade
 - 28% increase in peak demand

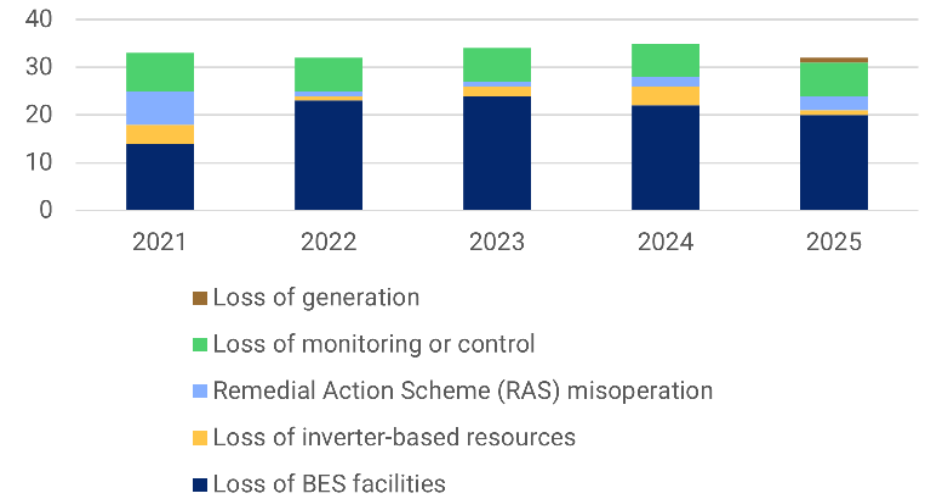




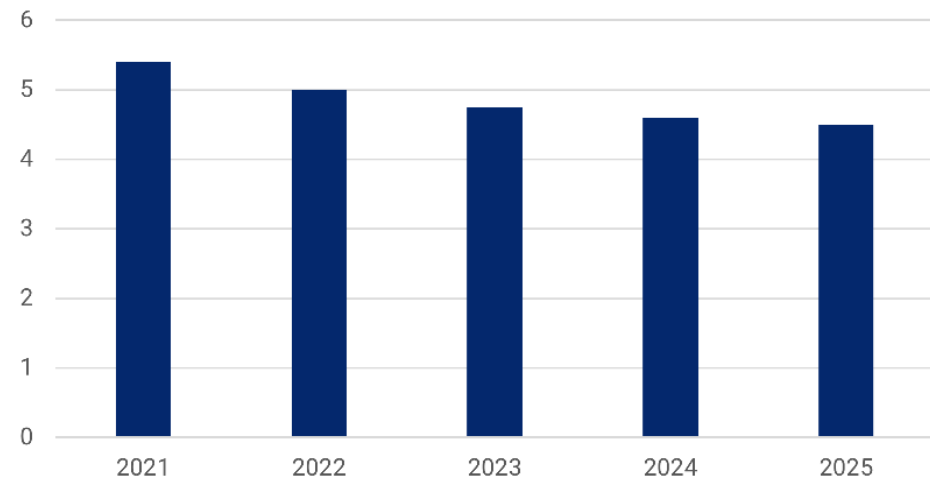
System Events

- The number of reportable events on the system decreased slightly in 2025.
 - One event had a significant impact, an outage that occurred Nov. 13, 2025, and affected more than 250,000 customers in four states.
- The misoperations rate continued a decade-long decline.

Reportable Events 2021-2025



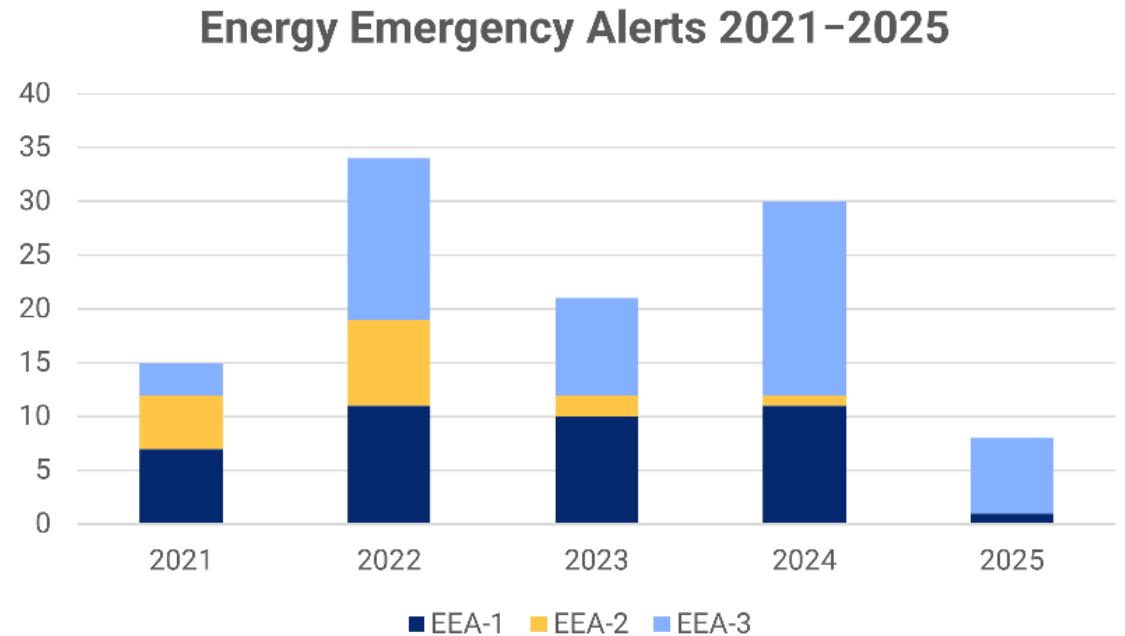
Misoperations Rate 2021-2025





Energy Emergency Alerts (EEA)

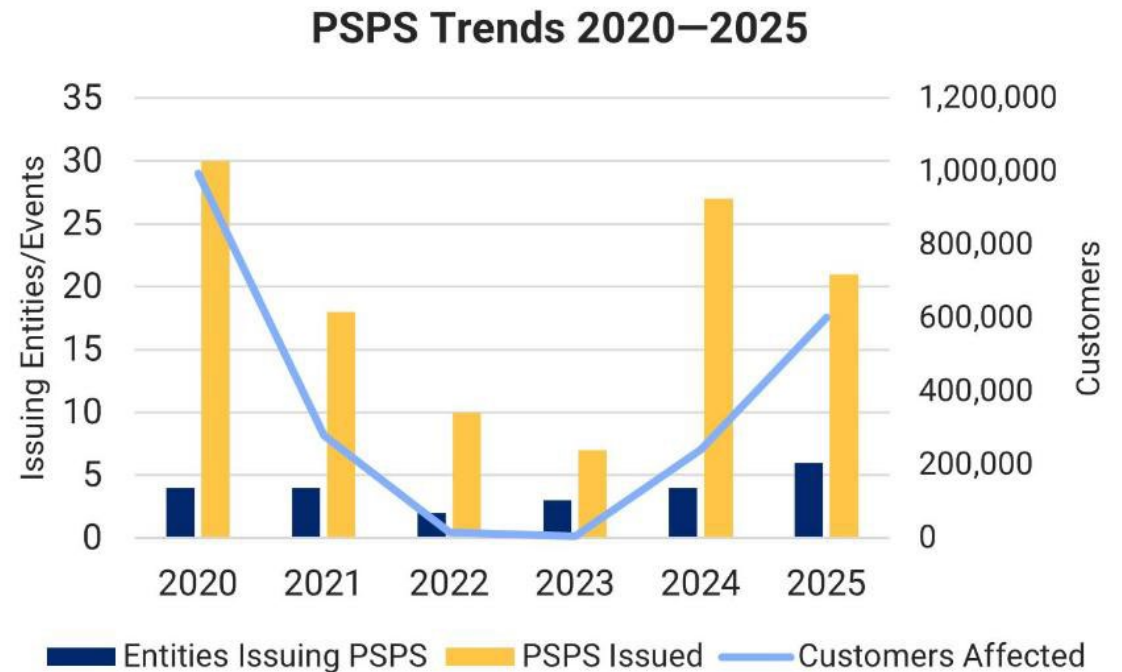
- Eight EEAs in 2025, a significant decrease over previous years
 - Seven were EEA-3s, a situation in which firm load interruption is imminent or in progress.
 - 30 EEAs in 2024
- In the past, extreme weather events have been a factor in most of the EEAs in the Western Interconnection, as they lead to increased demand and can affect generation.
- In 2025, resource adequacy issues arose more often in the shoulder months when generation resources were off-line for scheduled maintenance.





Wildfire Risk

- Public Safety Power Shutoffs (PSPS)
 - 31 entities had PSPS plans at the end of 2025, up from 16 in 2024.
 - 21 PSPS events were enacted in 2025, down from 27 in 2024.
- The [WECC Wildfire Risk Dashboard](#) provides information on current wildfires and bulk power system elements at risk.



Upcoming

- Board of Directors Meeting
 - June 9–10
 - Technical Session
 - Focus is on the disturbance that occurred in Wyoming on Nov. 13, 2025
 - June 9, 2:15–3:30 p.m. MDT
 - [Details](#)
- Webinar: November 13 Wyoming Disturbance Review
 - June 16, 11 a.m.–noon MDT
 - More [information](#)



ENGAGE WITH WECC





WECC



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NERC Standards Process Modernization



Background: After two rounds of WIRAB engagement - staff comments (Aug. 2025) and formal Advice to the Board (Feb. 2026) - the NERC Board accepted the MSPPTF's Recommendations to modernize the reliability standards development process during its Feb. 2026 Meeting. NERC posted proposed ROP revisions on May 18, 2026. The revisions restructure standards development into three phases (Initiation, Drafting, Balloting) and replace the Standards Committee with a new Reliability Standards Body under the RISC.

ROP Revisions & MSPPTF Implementation

- To support the implementation of the MSPPTF recommendations, NERC is opening an informal comment period and has posted materials on the proposed revisions to the Rules of Procedure and Standing Committee charters.
 - Materials: <https://www.nerc.com/initiatives/modernization-of-standards-processes-and-procedures-task-force>
- Industry Webinar on Informal Comment Period: June 5th
 - Register: <https://www.nerc.com/events/06-05-26-mspp-ropcharter-qa-industry-webinar>
- Informal Comment Period: May 18th – June 17th
- Virtual Stakeholder Forum: June 25th
- Formal Comment Period: Anticipated July – August 2026

NERC Standards Process Modernization



Anticipated Next Steps



NERC Draft SAR Large Load Road Map

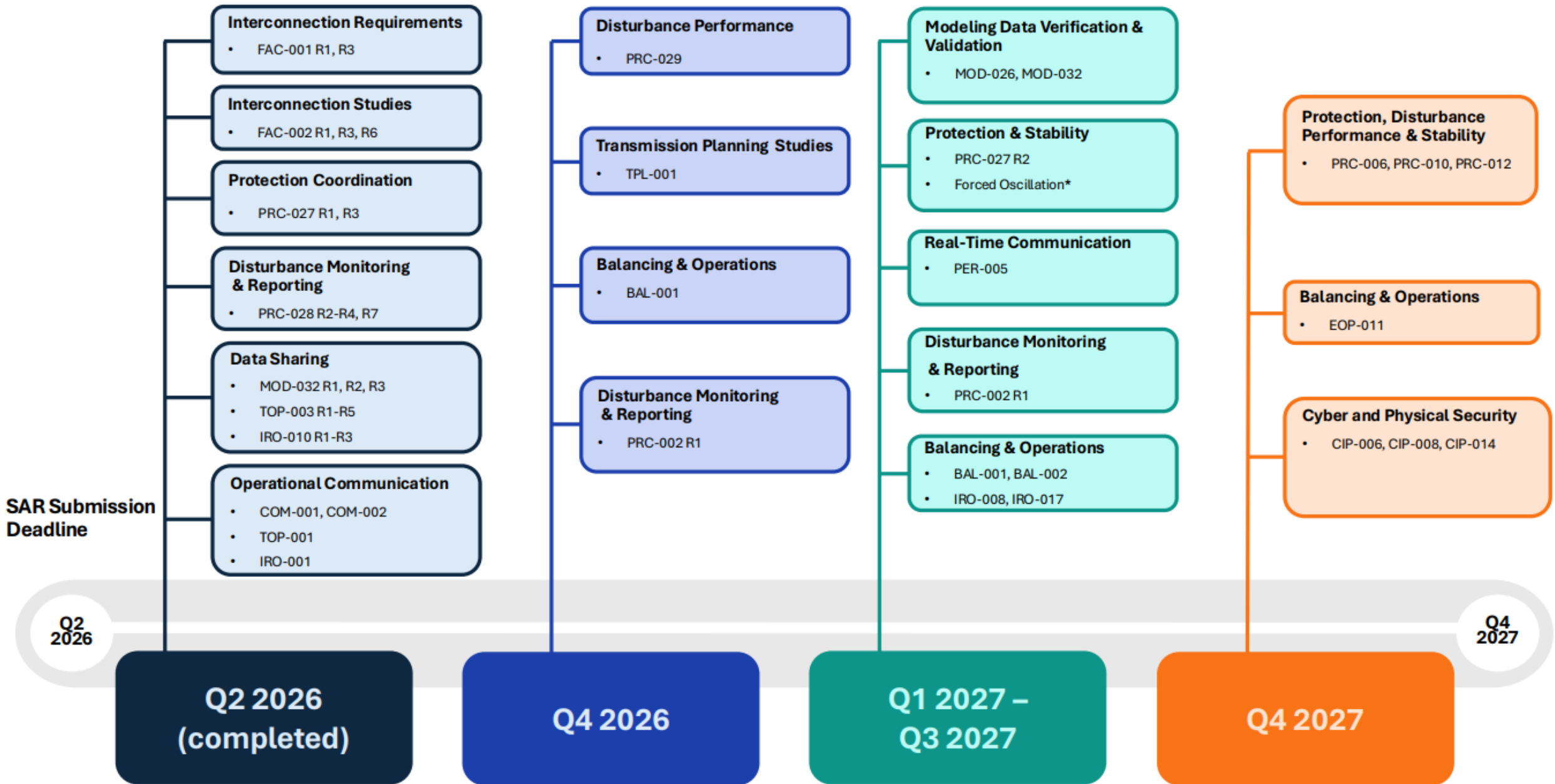


LLWG Draft SAR Roadmap – initial draft released late May

- Establishes a structured and phased approach to addressing critical reliability risks associated with the integration of computational large loads into the BPS.
- Building on the foundational work completed under Phase I (Project 2026-02), this roadmap outlines targeted SAR efforts to close remaining gaps that are technically complex, evolving, or require broader industry coordination.

LLWG Planned SAR Roadmap

**New standards to address reliability risks and gaps*



NAESB Gas-Electric Coordination



Background: After a series of major cold weather events - Winter Storm Uri (2021) and Winter Storm Elliott (2022) - FERC and NERC directed NAESB to develop improved gas-electric coordination standards.

NAESB's Gas-Electric Harmonization Forum (2022-2023) produced 20 recommendations; three are now incorporated by reference into federal regulation via FERC Final Rule issued May 21, 2026 ([Docket No. RM96-1-044](#)), applicable to ~193 interstate natural gas pipelines.

NAESB WGQ Version 4.0 —

- WGQ 4.3.23 (Revised): Creates a standardized "Gas Electric Coordination" posting category on pipeline informational websites; addressing the Elliott finding that relevant data existed but was scattered and inaccessible to grid operators.
- WGQ 0.3.30 (New): Requires pipelines to post scheduled gas quantities for directly-connected power plants by nomination cycle and location, giving electricity operators near-real-time visibility into whether gas is actually flowing to individual generators.
- WGQ 5.3.74 (New): Requires geographic data in pipeline critical notices, enabling RTOs/ISOs and generators to immediately assess whether a curtailment affects their facilities.

Upcoming Meetings



WIRAB Monthly Meeting

First Thursday of the Month at 2:00 PM MT

~~Next Meeting: July 2, 2026 at 2:00 PM MT~~

Next Meeting: August 6, 2026 at 2:00 PM MT

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

Thank You!

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