WECC

Understanding the Shared Energy Challenge

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NWGA Annual Energy Conference

Electric Reliability & Security for the West

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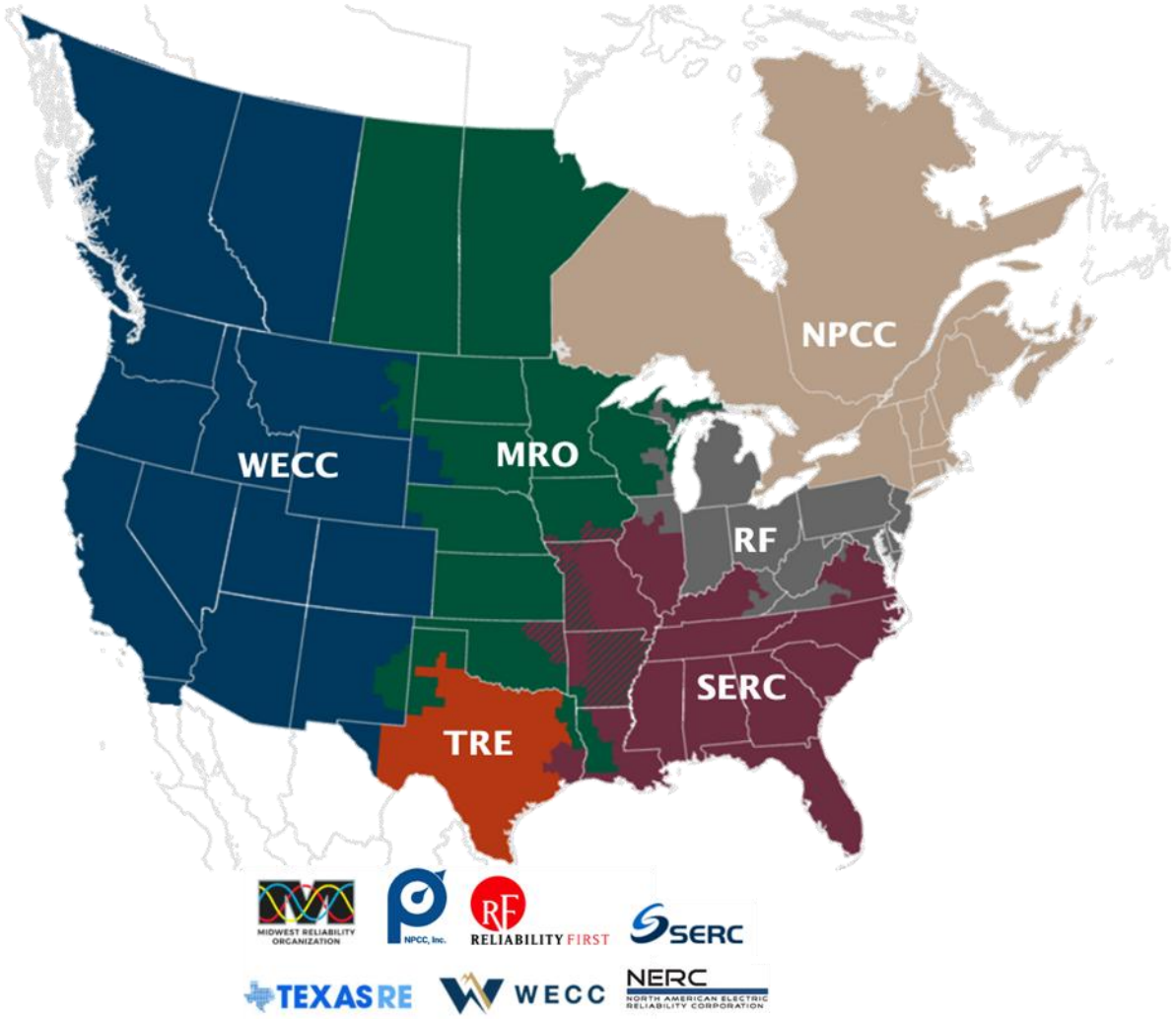
WECC and the ERO Enterprise

"The vision for the Electric Reliability Organization Enterprise, which is comprised of NERC and the six Regional Entities, is a highly reliable and secure North American bulk power system. Our mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid.



WECC - Independence, Perspective, and Partnership

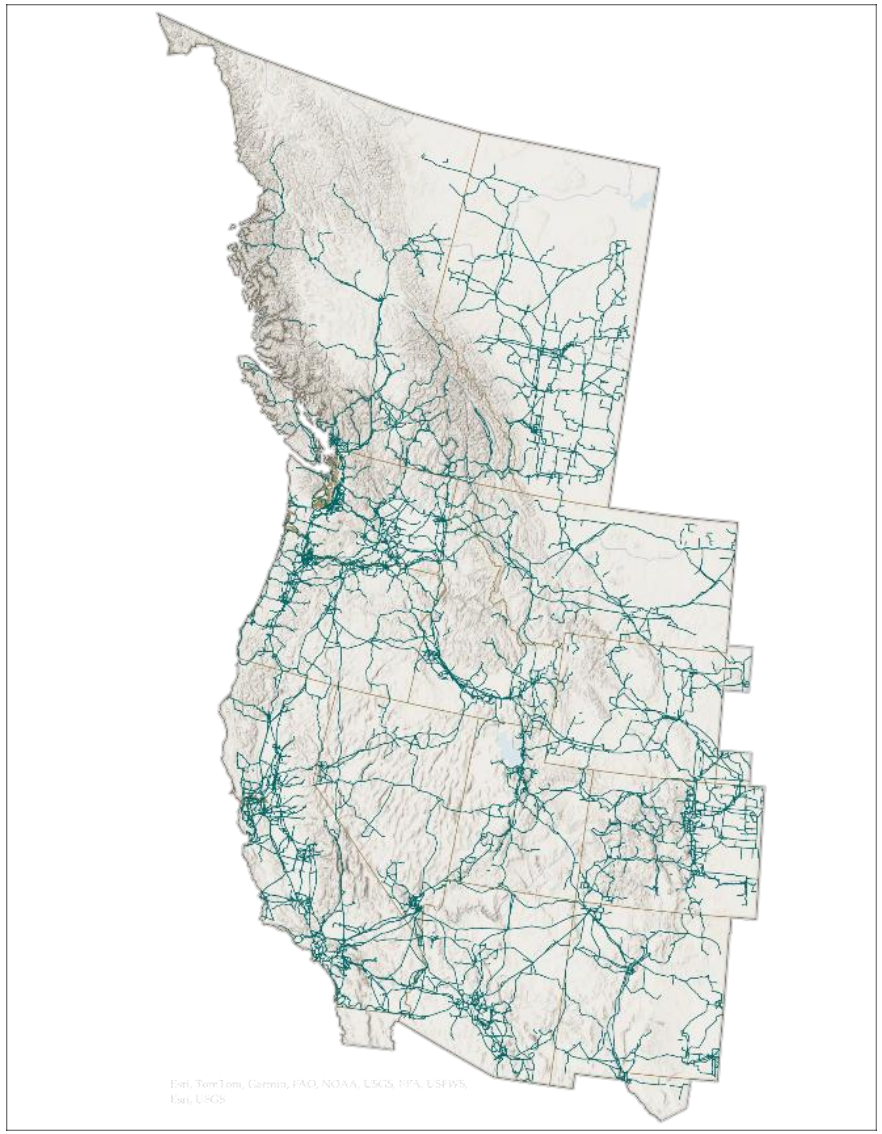
- WECC is a 501(c)(4) social welfare, non-profit corporation that exists to ensure a reliable Bulk Power System in the Western Interconnection
- Delegated authority by NERC and FERC under Section 215 of the Federal Power Act

Independence

Perspective

Partnership

The Western Interconnected Bulk Power System

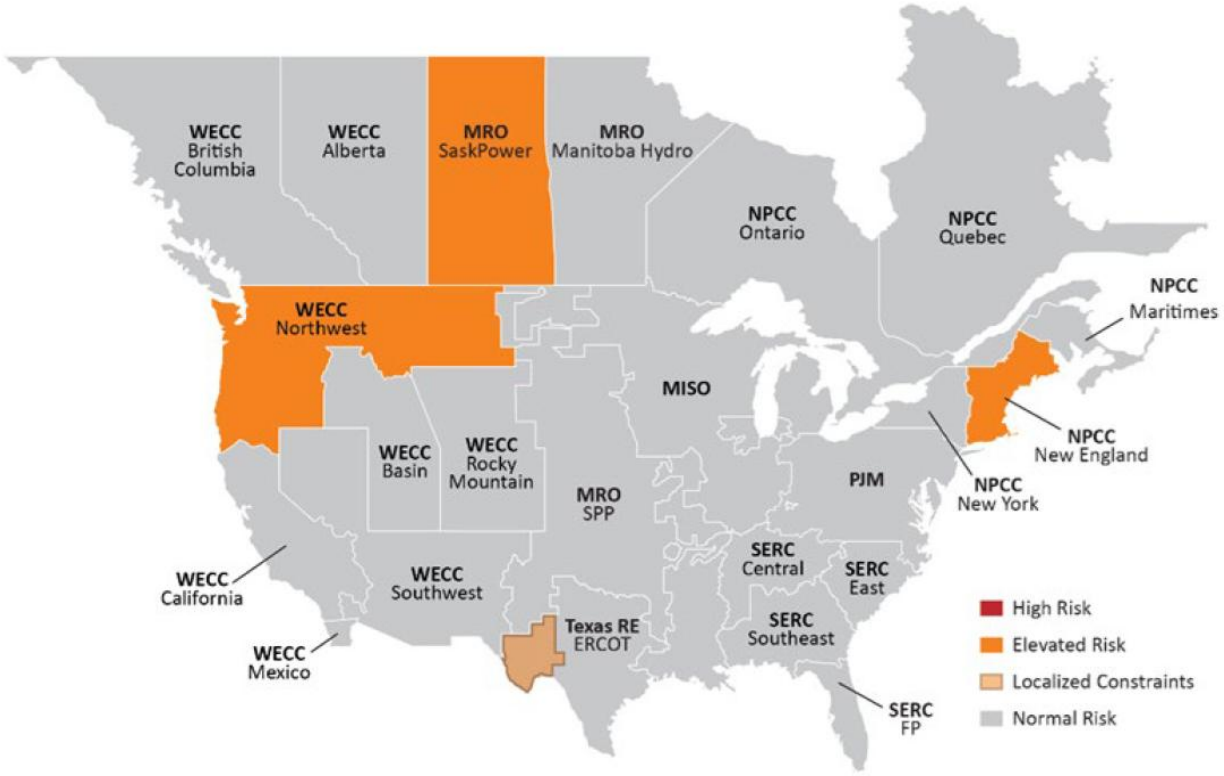


- Built to leverage geographic diversity
  - Climate
  - Resource
  - Load
- Future reliability considerations for transmission expansion
  - Resource additions and retirements
  - Extreme natural events
  - Unprecedented load growth

NERC 2026 Summer Reliability Assessment: Key Takeaways

- All areas have adequate anticipated resources for normal summer peak load conditions.
- The Northwest subregion in the Western Interconnection face elevated risk of supply shortfalls during periods of more extreme summer conditions.
- Along with challenging hydro conditions, the Northwest's elevated designation is rooted in a nearly 5% increase in demand projected for this summer, and a nearly 2% decrease in existing resources.
- The Mexico subregion added 1 GW of gas-fired generation since last summer, significantly improving the Mexico region outlook.
- Overlap of early summer heat and spring maintenance outages can lead to reliability risks.

2026 SRA



Seasonal Risk Assessment Summary	
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

Hydro Outlook

- Colorado River System
  - Bureau of Reclamation
    - Release 660,000–1 million acre-feet from Flaming Gorge Reservoir from April 2026 to April 2027
    - Lower release volume from Lake Powell to Lake Mead by 20% through September 2026

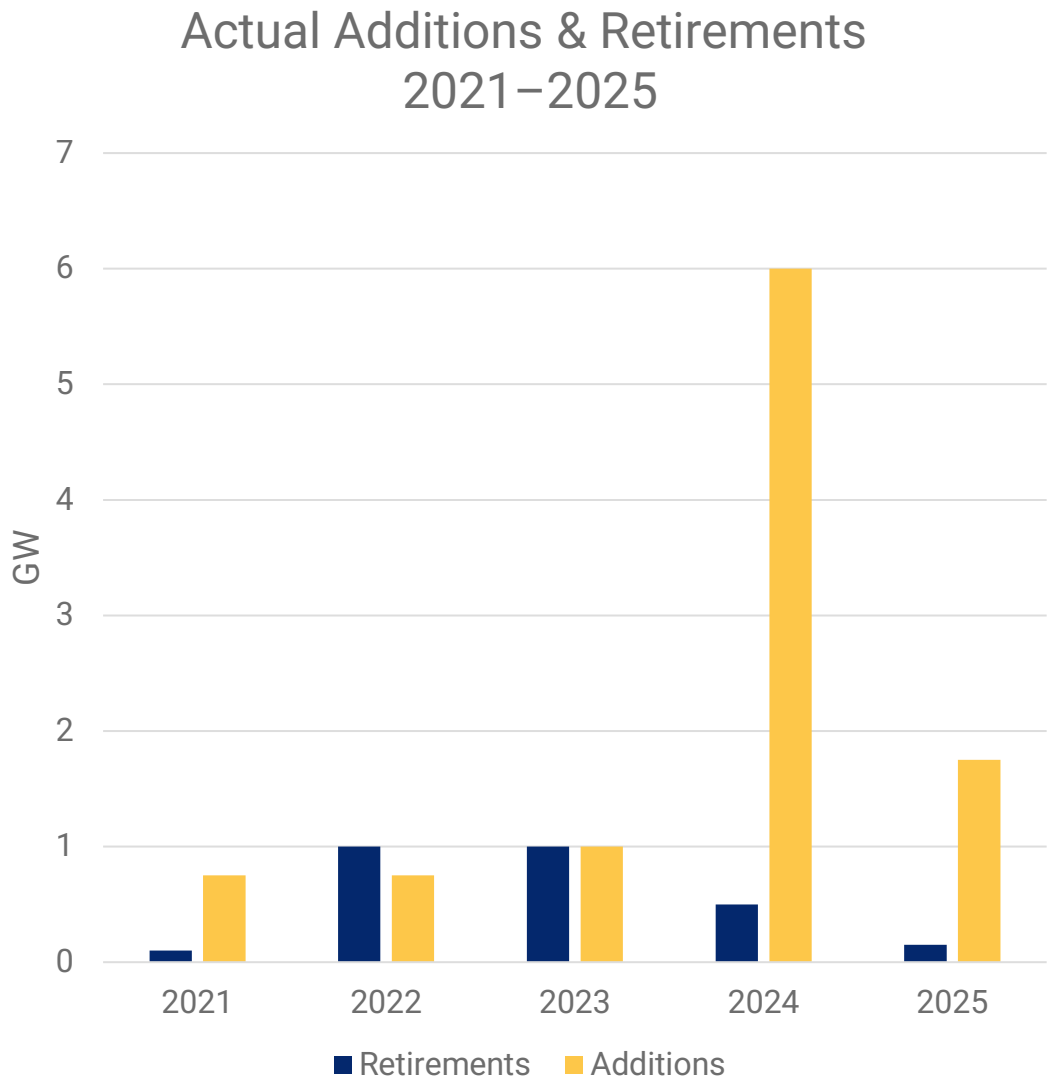
Glen Canyon Dam (Lake Powell)

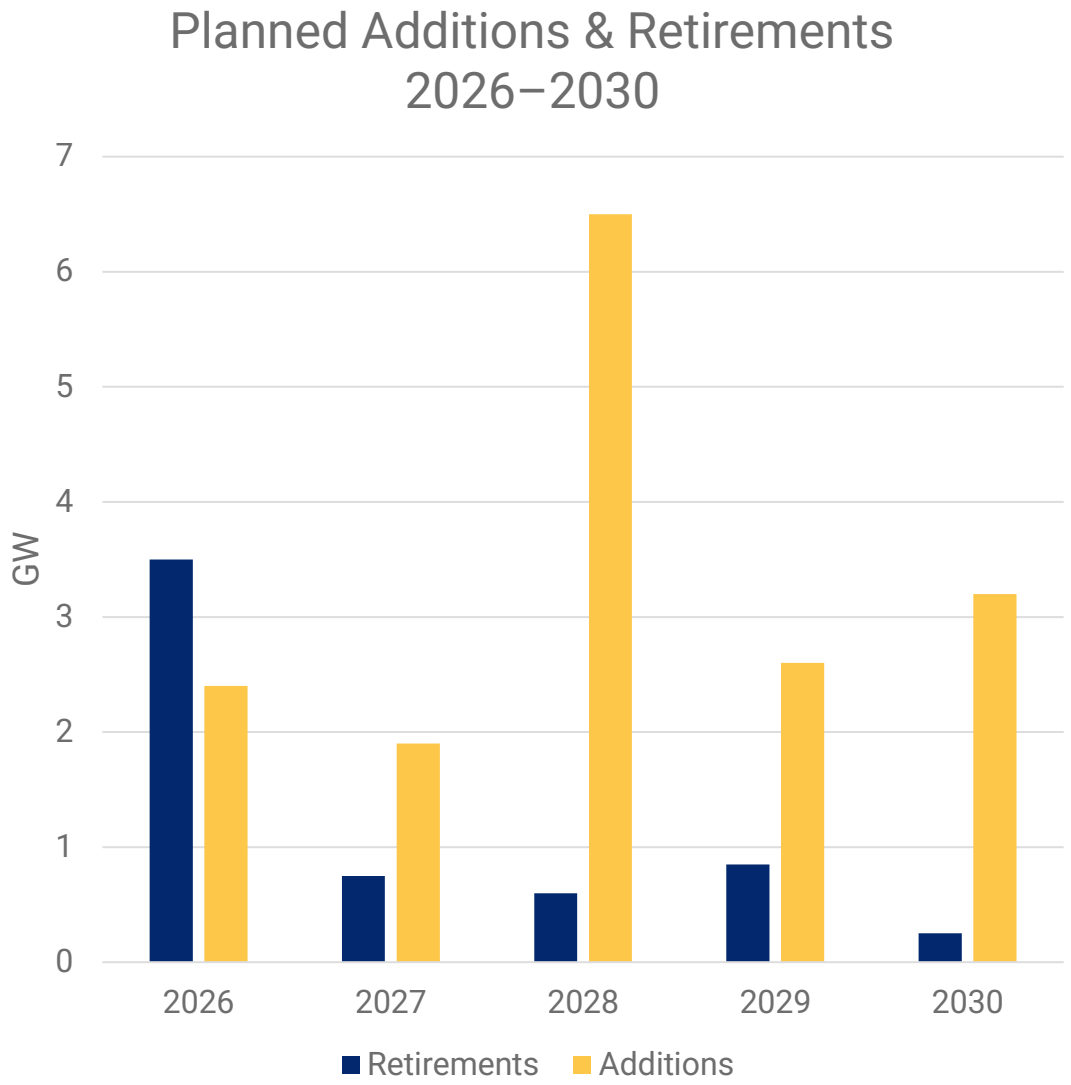
Full pool level: **3,700 ft**
Min. power pool elevation: **3,490 ft**
Current level: **3,526 ft**
Nameplate capacity: **1,021 MW**

Hoover Dam (Lake Mead)

Full pool level: **1,229 ft**
Min. power pool elevation: **950 ft**
Current level: **1,054 ft**
Nameplate capacity: **2,080 MW**

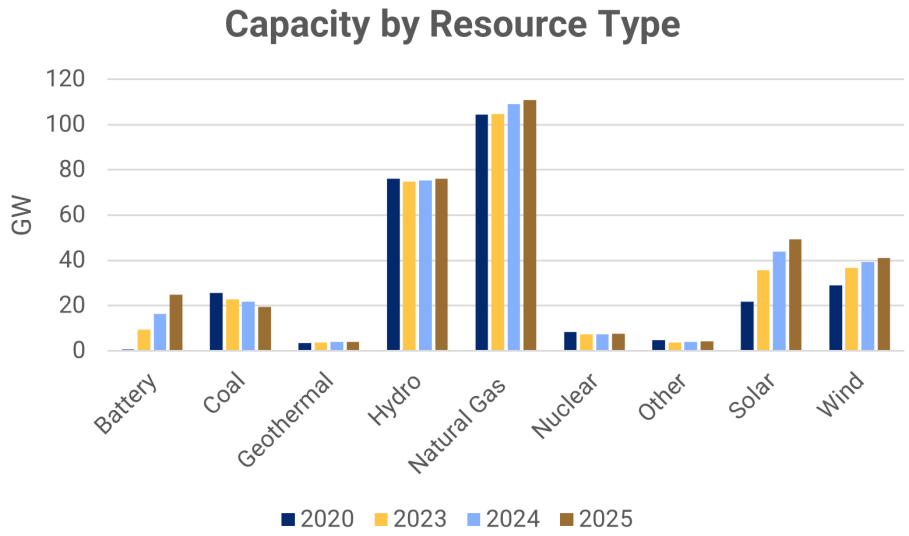
Western Interconnection Natural Gas Additions and Retirements

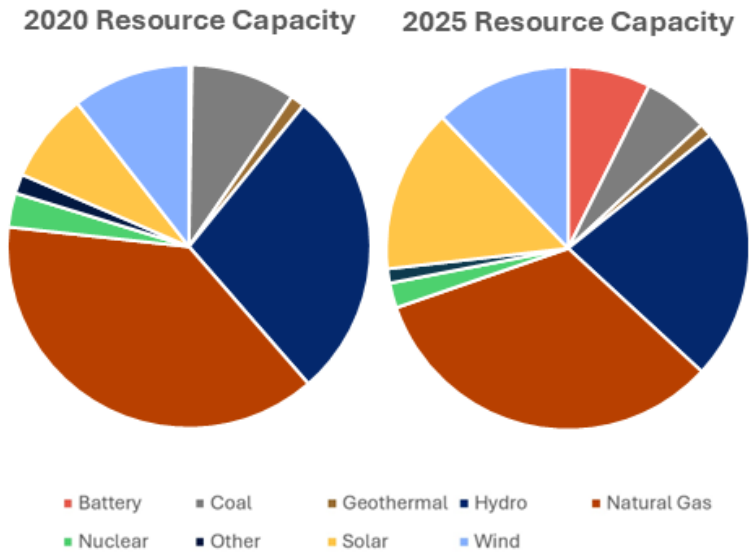




Resources

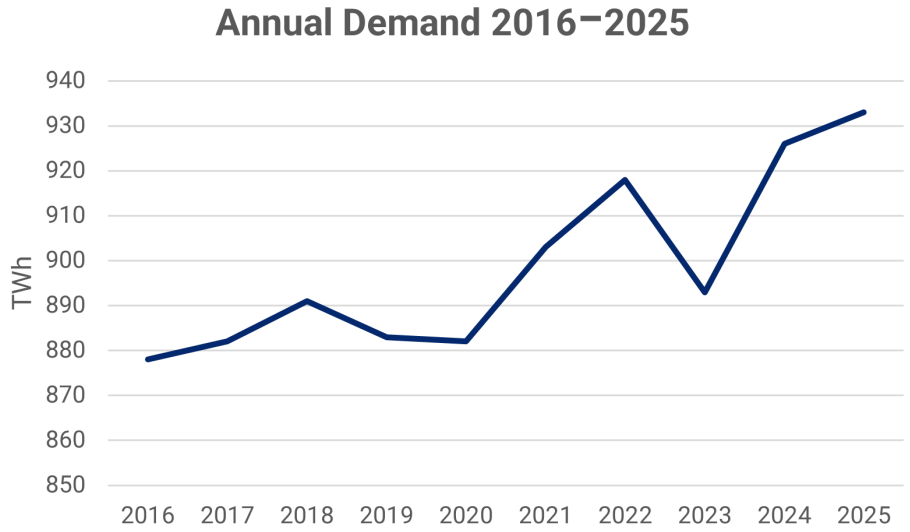
- Approximately 18 GW of capacity were added in 2025 in the Western Interconnection.
  - 24 GW added in 2024
  - Nearly 15 GW (85%) of capacity added in 2025 was inverter-based resources (IBR).
- 1.7 GW of natural gas-fired generation were added in 2025, down from 6 GW added in 2024.
- 2.6 GW of generation capacity retired in 2026.
  - 2.2 GW of coal-fired generation retired, an increase from 0.9 GW retired in 2024.
- 1.2 MW in coal retirements were delayed after the Department of Energy issued emergency orders.
  - Nameplate capacity of coal-fired generation in the Western Interconnection fell to roughly 19 GW, less than battery storage capacity for the first time.

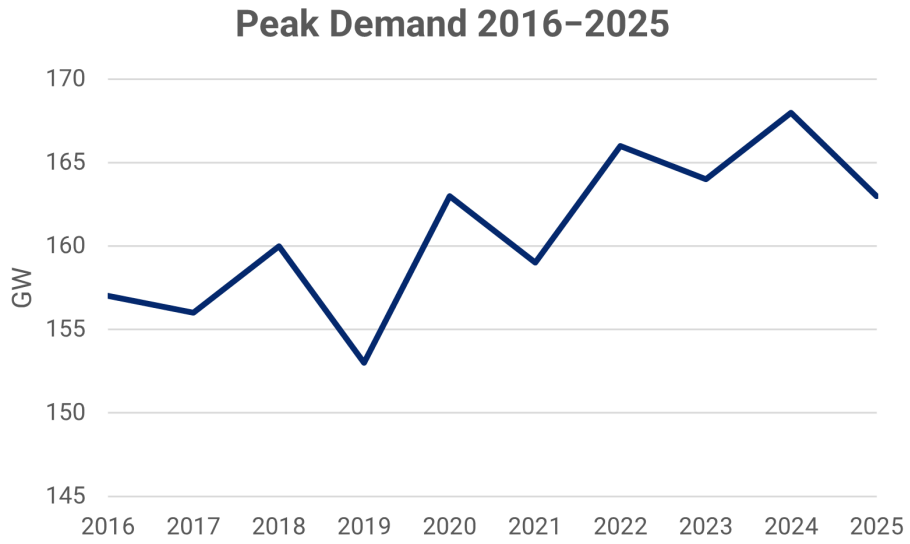




Load

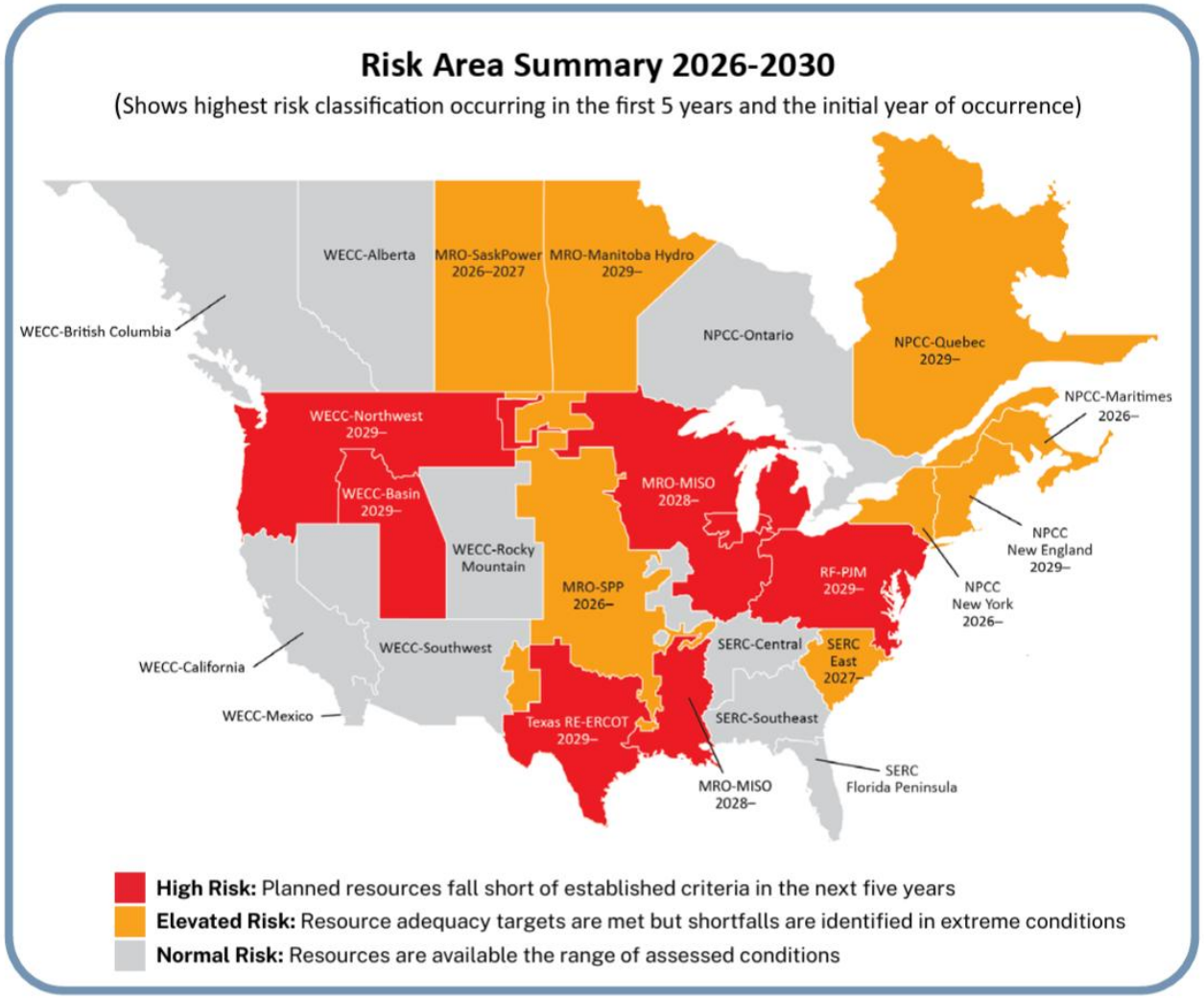
- 2025 annual demand was 932,902 GWh, surpassing the record of 926,000 GWh set in 2024.
- Peak demand was 163 GW in 2025, down from 168 GW in 2024.
- Load forecasts submitted by the balancing authorities this year project a 33% increase in annual demand over the coming decade, and a 28% increase in peak demand.





Resource Adequacy Outlook

- 2025 NERC Long-Term Reliability Assessment (LTRA) and WECC Western Assessment of Resource Adequacy (WARA)
- Escalating demand growth and uncertainty/lag of resource additions creating reliability challenges



Source: 2025 LTRA (www.nerc.net)

WECC's Western Assessment of Resource Adequacy

High-level Assessment that Identifies and Characterizes Resource Adequacy Risks

- Probabilistic analysis of resource adequacy across the interconnection at an hourly level for the next decade
- Examines several scenarios to identify risks to resource adequacy
- Published annually since 2020

Assessment Footprint

- Western Interconnection
- Eight subregions

Data Comes from WECC Balancing Authorities

- Includes expected demand and resource information
- Data in this year's report is from early 2025

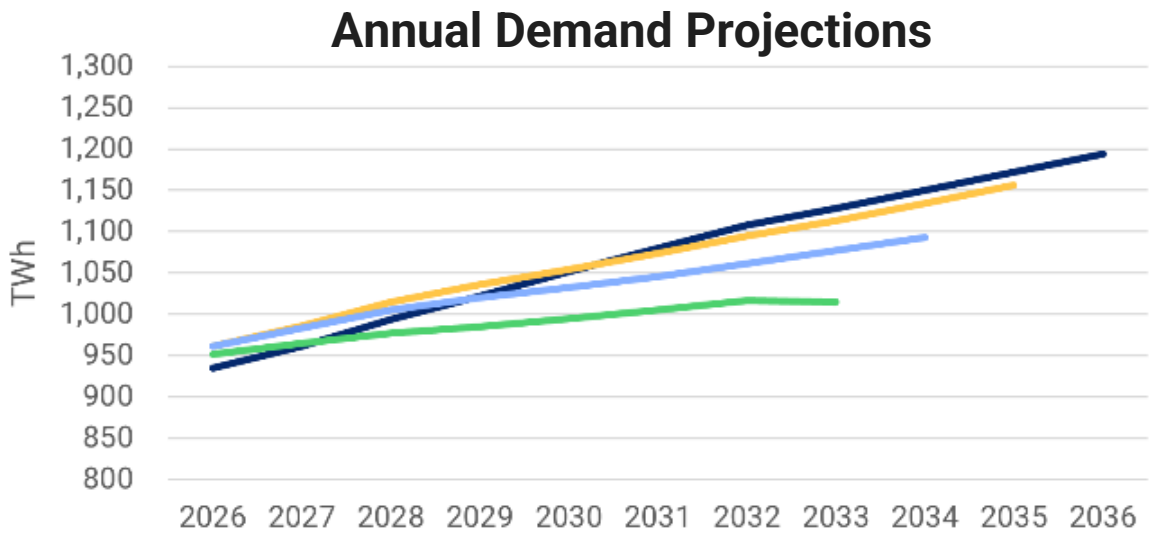
Forecasted Load Growth

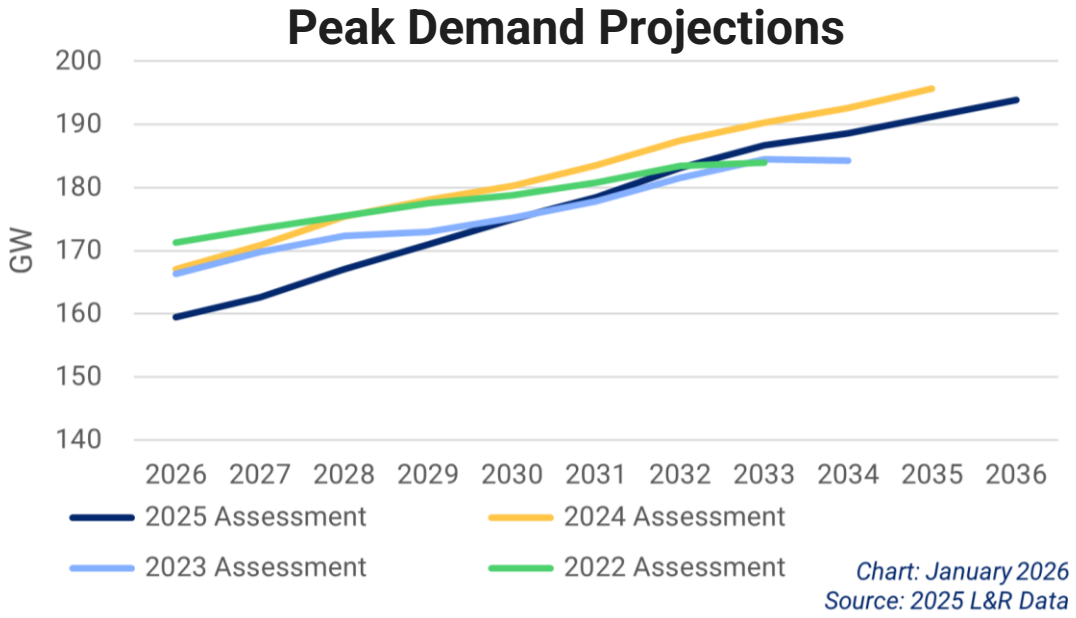
Annual Demand

- Demand is expected to grow 25% over the next 10 years.
- The 2024 load forecasts indicated a 20% increase in demand over the decade.

Peak Demand

- Peak demand is forecast to grow 20% over the next decade, from 160 GW in 2026 to 191 GW in 2035.
- Peak demand values, while projected to increase over the next 10 years, are not as high as projected in 2024.





Forecasted Resource Additions

- 177 GW planned between 2026 and 2035
  - 90% is inverter-based resources (battery, solar, wind).
  - 70 GW are planned in Southwest; 49 GW are planned in California.
  - Basin, Northwest, and Rocky Mountain subregions each have about 15 GW in planned additions over the coming decade.
  - Mexico subregion has 600 MW of solar planned.

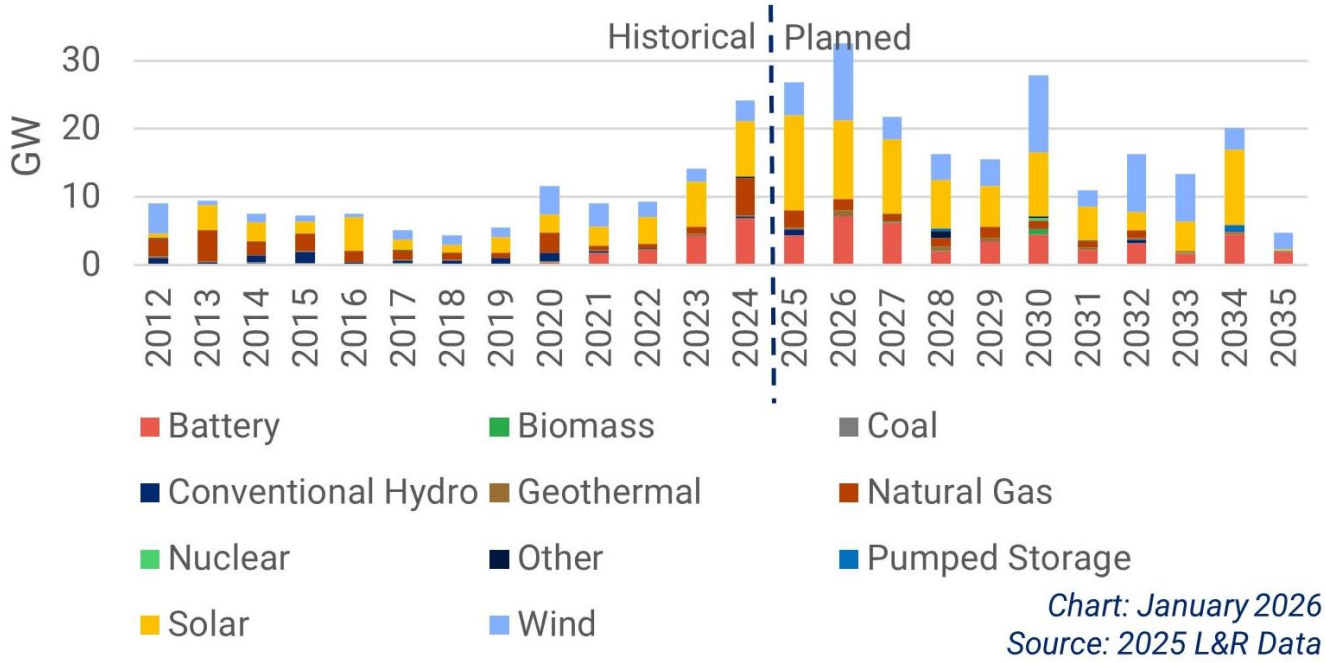


Chart: January 2026
Source: 2025 L&R Data

Forecasted Planned Retirements

- 22 GW across the interconnection over the coming decade
- 80% dispatchable generation
  - 8 GW natural gas
  - 7 GW coal
  - 2.3 GW nuclear

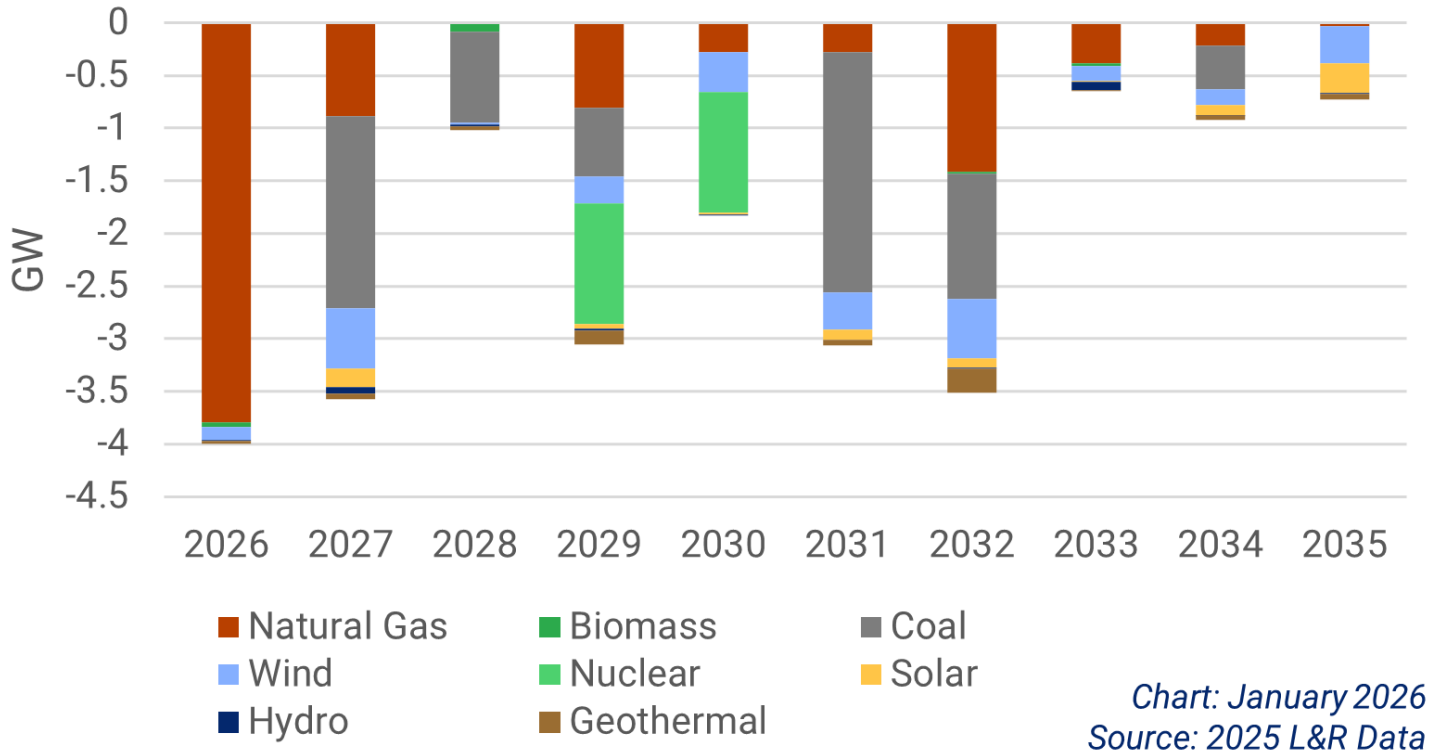


Chart: January 2026
Source: 2025 L&R Data

Western Assessment — Resource Scenarios

- Analyzed four resource scenarios to test different resource buildout possibilities
  - 100%, 95%, 85%, and 67%
  - Takeaway: Even the most optimistic resource buildout does not keep pace with the forecast load growth beginning 2029.

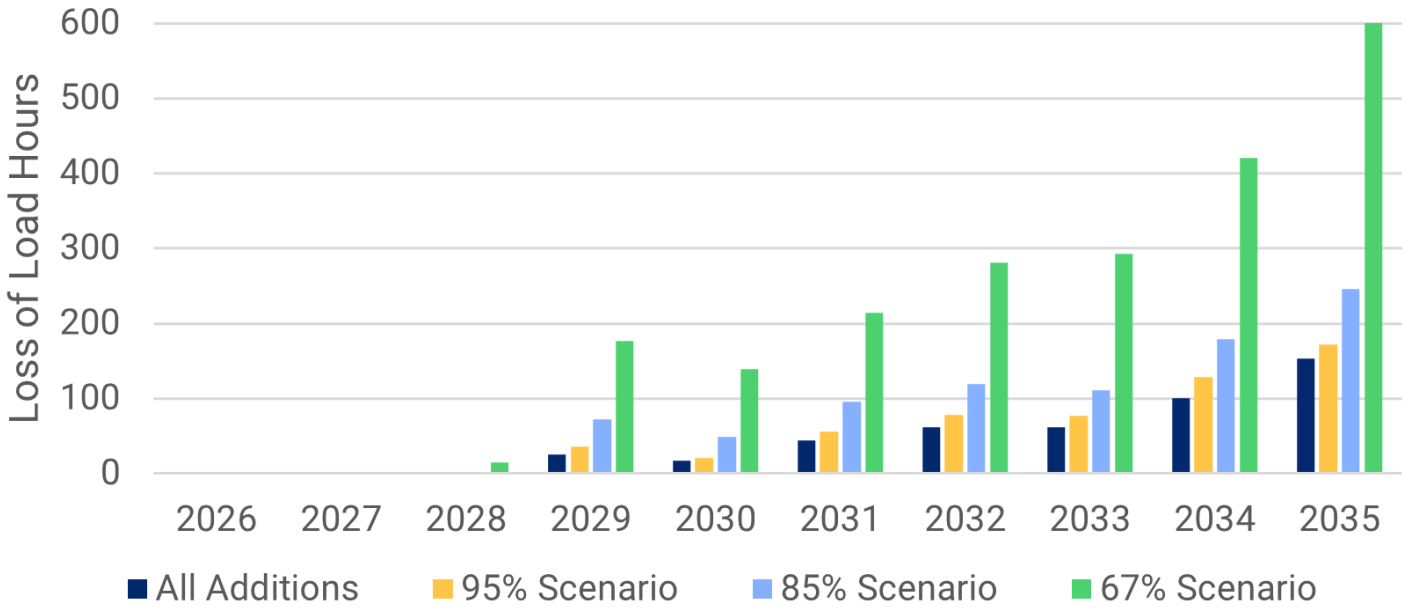


Chart: January 2026
Source: 2025 L&R Data

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