Long-Term Reliability Assessment 2023

The LTRA identifies reliability trends, emerging issues, and potential risks to the bulk power system (BPS) over a 10-year assessment period. Industry faces mounting pressure to keep pace with accelerating electricity demand, energy needs, and transmission system adequacy as the resource mix transitions.

**Demand Growth**
The BPS is currently forecast to have its highest demand and energy growth rates since 2014, mainly driven by electrification and projections for growth in electric vehicles over this assessment period.

**Generation Trends**
As fossil generation is retired, resource growth is becoming more challenging. More than 83 GW of generator retirements are planned through 2033, and more are expected. Generation plans need to consider growing energy needs and grid stability.

**Resource Adequacy Risk**
Capacity shortfalls are projected in areas where future generator retirements are expected before replacement resources can be put in service to meet rising electricity demand.

**Priority Actions**
Natural gas supply infrastructure and the BPS form an interconnected energy system. NERC endorses actions to establish reliability rules for the natural gas infrastructure that is necessary for an interconnected energy system.

- Add new resources with reliability attributes, manage retirements, and make existing resources more dependable
- Expand the transmission network to provide more transfer capability and deliver supplies from new resources and locations to serve changing loads
- Adapt BPS planning, operations, resource procurement markets, and processes to a more complex power system
- Strengthen relationships among reliability stakeholders and policy makers

**High Risk Areas**
- MISO
  - 2028: Capacity shortfall; winter generator and fuel risk
- SERC-Central
  - 2025–2027: Capacity shortfall

**Elevated Risk Areas**
- Maritimes
  - 2026: Low capacity reserves
- New England
  - 2024: Winter fuel supply risk
- New York
  - 2025: Low capacity reserves
- Ontario
  - 2028: Low capacity reserves
- SPP
  - 2024: Winter generator and fuel risk; insufficient dispatchable resources
- ERCOT
  - 2024: Winter generator and fuel risk; insufficient dispatchable resources
- WECC-BC
  - 2026–2027: Low capacity reserves
- WECC-CA/MX
  - 2026: Insufficient dispatchable resources
- WECC-NW
  - 2026: Insufficient dispatchable resources
- WECC-SW
  - 2026: Insufficient dispatchable resources