2024 Summer Reliability Assessment

NERC's <u>2024 Summer Reliability Assessment (SRA)</u> finds that a large part of North America remains at risk of supply shortfalls, while other areas show reduced risk due to resource additions. Expected wide-area heat events that affect generation, wind output, or transmission systems coupled with demand growth in some areas are contributing to adequacy risks for resources and transmission. All areas are assessed to have adequate supply for normal peak load due, in large part, to a record 25 GW of additional solar capacity added since last year. However, energy risks are growing in several areas when solar, wind, and hydro output are low.



Wide-Area Heat: Expected wide-area heat events may drive above-normal demand, straining resources and the transmission network.

Surging Load Growth: In many areas, demand is growing at a rapid pace, further straining parts of the system.

Energy Risks: While all areas have adequate resources, energy risks are growing in several areas when solar, wind, and hydro output are low.

MISO: Wind generator performance is a key factor in meeting reserves during high-demand periods.

MRO-SaskPower: High generator outages can cause reserve shortages at peak demand.

NPCC-New England: Generator retirements have reduced available capacity making the area more reliant on external transfers.

Texas RE-ERCOT: Load growth is straining parts of the transmission network; new solar resources help serve peak demand but shift energy risks to early evening.

WECC-British Columbia: Demand growth and the effects of long-term drought on hydro generation threaten area reserves.

WECC-California/Mexico: Wide-area heat events that threaten imports continue to pose energy risks; however, new and planned resources are improving the outlook.

WECC-Southwest: Demand growth and drought conditions can strain electricity supplies in extreme heat.

Ongoing Reliability Concerns

Inverter-Based Resources (IBR)

The response by inverter-based resources (IBR) to system disturbances, which affect solar facilities, battery storage and traditional generation, is an ongoing concern. NERC's IBR Stategy and FERC Order No. 901 describe steps that NERC and industry can take to ensure that IBRs operate reliably, and that system planning takes their characteristics into account.

Interconnected Energy Systems

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Natural gas supply and infrastructure are vitally important to bulk power system reliability, particularly as variable energy resources satisfy more of our energy needs. While no bulk power system reliability impacts are foreseen for the upcoming summer, gas and electric coordination is increasingly important.

RELIABILITY | RESILIENCE | SECURITY

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