

Announcement

Two-thirds of North America Faces Reliability Challenges in the Event of Widespread Heatwaves

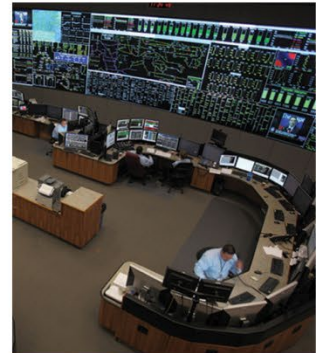
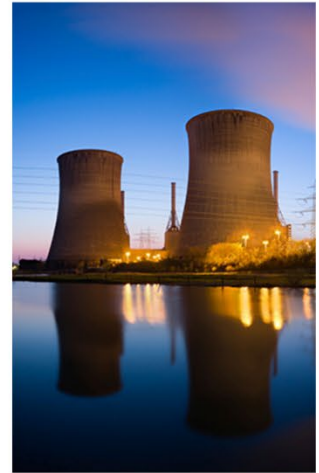
May 17, 2023

ATLANTA – NERC’s [2023 Summer Reliability Assessment](#) warns that two-thirds of North America is at risk of energy shortfalls this summer during periods of extreme demand. While there are no high-risk areas in this year’s assessment, the number of areas identified as being at elevated risk has increased. The assessment finds that, while resources are adequate for normal summer peak demand, if summer temperatures spike, seven areas — the U.S. West, SPP and MISO, ERCOT, SERC Central, New England and Ontario — may face supply shortages during higher demand levels.

“Increased, rapid deployment of wind, solar and batteries have made a positive impact,” said Mark Olson, NERC’s manager of Reliability Assessments. “However, generator retirements continue to increase the risks associated with extreme summer temperatures, which factors into potential supply shortages in the western two-thirds of North America if summer temperatures spike.”

This year’s assessment, which is summarized in a [2023 Summer Reliability Assessment Video](#), finds that:

- Areas in the U.S. West are at elevated risk due to wide-area heat events that can drive above-normal demand and strain resources and the transmission network.
- In SPP and MISO, wind energy output will be key to meeting normal summer peak and extreme demand levels due to little excess firm capacity.
- The risk of drought and high temperatures in ERCOT may challenge system resources and may result in emergency procedures, including the need for operator-controlled load shedding during periods of low wind and high generator outages.
- The SERC Central region is forecasting higher peak demand and less supply capacity, creating challenges for operators to maintain reserves in extreme scenarios.
- New England has lower available capacity than last year, resulting in a higher likelihood of system operators using emergency procedures to manage extreme demand conditions.
- In Ontario, extended nuclear refurbishment has reduced available capacity, limiting system reserves needed to manage peak demand.



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In addition to weather-related risks, the assessment identifies a number of reliability issues that should be taken into consideration prior to summer. Owners and operators of grid-connected wind and solar photovoltaic (PV) resources should take steps to ensure these resources can operate reliably during grid disturbances. Additionally, supply chain issues continue to present maintenance and summer preparedness challenges and are delaying some new resources additions. The assessment also makes several recommendations that industry and state policymakers should consider implementing prior to the start of the season:

- Reliability Coordinators, Balancing Authorities, and Transmission Operators in elevated risk areas should review operating plans and protocols for resolving supply shortfalls and:
 - Employ conservative outage coordination procedures.
 - Engage state or provincial regulators and policymakers to prepare for efficient implementation of demand side management mechanisms.
- Generator Owners with solar PV resources should implement recommendations in NERC's [Inverter-Based Resource Performance Issues Alert \(Level 2\)](#).
- Reliability Coordinators, Balancing Authorities and Generator Owners in states affected by the U.S. Environmental Protection Agency's [Good Neighbor Plan](#) should be familiar with its provisions for ensuring reliability.
- State regulators and industry should have protocols in place at the start of summer for managing emergent requests to preserve generation needed for periods of high demand.

NERC develops its independent assessments to identify potential bulk power system reliability risks. NERC's annual Summer Reliability Assessment provides an evaluation of resource and transmission system adequacy necessary to meet projected summer peak demands. In addition to assessing resource adequacy, the assessment monitors and identifies potential reliability issues of interest and regional topics of concern. The reliability assessment process is a coordinated reliability evaluation between the Reliability Assessment Subcommittee, the Reliability and Security Technical Committee, the Regional Entities and NERC staff.

The *2023 Summer Reliability Assessment* reflects NERC's independent assessment and is intended to inform industry leaders, planners, operators and regulatory bodies so they are better prepared to take necessary actions to ensure bulk power system reliability.

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Electricity is a key component of the fabric of modern society and the Electric Reliability Organization Enterprise serves to strengthen that fabric. The vision for the ERO 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.