

Announcement

Extreme Weather Heightens Reliability Risks this Summer

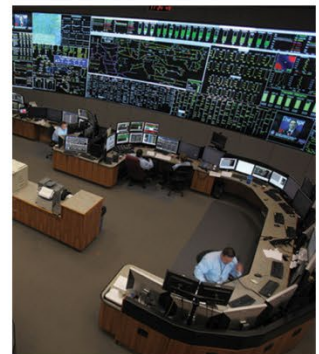
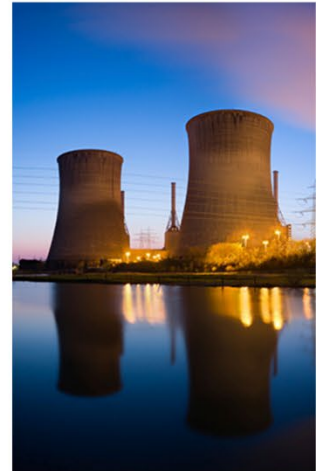
May 18, 2022

ATLANTA – NERC’s [2022 Summer Reliability Assessment](#) warns that several parts of North America are at elevated or high risk of energy shortfalls this summer due to predicted above-normal temperatures and drought conditions over the western half of the United States and Canada. These above-average seasonal temperatures contribute to high peak demands as well as potential increases in forced outages for generation and some bulk power system equipment.

While NERC’s risk scenario analysis shows adequate resources and energy for much of North America, the Western Interconnection, Texas, Southwest Power Pool (SPP), and Saskatchewan are at “elevated risk” of energy emergencies during extreme conditions. Midcontinent ISO (MISO) is in the “high risk” category, facing capacity shortfalls in its north and central areas during both normal and extreme conditions due to generator retirements and increased demand. Additionally, at the start of the summer, MISO will be without a key transmission line connecting its northern and southern areas as restoration continues on a four-mile section of a 500 kV transmission line that was damaged by a tornado in December 2021.

Extended drought conditions present varied threats to capacity and energy across the country. In the Western Interconnection, the widespread drought and below-normal snowpack has the potential to lead to lower than average output from hydro generators, threatening the availability of electricity for transfers throughout the Interconnection. In Texas, wide-area heat events coupled with drought can lead to higher than expected peak electricity demand and tighter reserve conditions. Meanwhile, as drought conditions continue over the Missouri River Basin, output from thermal generators that use the Missouri River for cooling in SPP may be affected in summer months. Low water levels in the river can impact generators that use once-through cooling and lead to reduced output capacity.

“Industry prepares its equipment and operators for challenging summer conditions. Persistent, extreme drought and its accompanying weather patterns, however, are out-of-the-ordinary and tend to create extra stresses on electricity supply and demand,” said Mark Olson, NERC’s manager of Reliability Assessments. “Grid operators in affected areas will need all available tools to keep the system in balance this summer. Over the longer term, system



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planners and resource adequacy stakeholders need to keep potentially abnormal weather conditions like these in mind so that we continue to have a reliable and resilient bulk power system.”

The assessment’s other key findings include:

- Supply chain issues and commissioning challenges on new resource and transmission projects are a concern in areas where completion is needed for reliability during summer peak periods.
- The electricity and other critical infrastructure sectors face cyber security threats from Russia, in addition to ongoing cyber risks.
- Some coal-fired generator owners are facing challenges obtaining fuels as supply chains are stressed.
- Unexpected tripping of solar photovoltaic resources during grid disturbances continues to be a reliability concern.
- Active late-summer wildfire season in Western United States and Canada is anticipated, posing some risk to bulk power system reliability.

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 *2022 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.