

Announcement

Assessment Calls for Focus on Electric Assurance and Greater Coordination with Natural Gas Industry

December 17, 2021

ATLANTA – NERC’s [2021 Long-Term Reliability Assessment](#) (*LTRA*) concludes that managing the transformation of the grid and the associated rapid change to the resource mix is the greatest challenge to reliability over the next 10 years. The *LTRA* calls for a collective focus on energy assurance as well as greater coordination between the natural gas and electricity industries as stakeholders and policymakers work together to ensure reliability during this time of grid transition.

“When we look at events over the last several years, it is clear that the bulk power system is impacted by extreme weather, and that it is happening more often,” said John Moura, director of Reliability Assessment and Performance Analysis. “Prioritizing reliability as climate change policies are developed will support a transition that assures electric reliability in an efficient, effective and environmentally sensitive manner.”

The findings indicate there is a high probability of insufficient resources and energy to serve electricity demand, as early as Summer 2022, in many parts of the Western Interconnection. Extreme weather-related events and performance issues associated with some inverter-based resources, such as solar, wind and new battery or hybrid generation, may also have a potential negative impact on reliability. The *LTRA* identifies a significant projected increase in variable generation and emphasizes the criticality of the role of natural gas as a balancing resource. More transmission is also needed to deliver renewable energy from remote locations to load centers, but the *LTRA* acknowledges that build-time and siting are additional constraints that need to be considered in planning and policy setting.

While the *LTRA* finds that all interconnections will face increasing reliability issues over the next 10 years, California, parts of the northwestern and southwestern United States and the Midcontinent Independent System Operator (MISO) areas, in particular, are projecting capacity shortfalls and periods of insufficient energy due to declining reserve margins and generator retirements. Texas, California and the



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Northwest United States project that peak demand cannot be met without some combination of variable generation and imports. In addition, natural gas infrastructure that supports electricity generation in New England, California, and the southwestern United States is susceptible to disruptions that can affect winter reliability. Regional coordination and resource adequacy planning among entities in these at-risk regions is strongly encouraged.

“As our system’s resource mix changes, so does the need to use different assessment approaches to identify reliability risk,” said Mark Olson, manager of Reliability Assessments. “Focusing only on the resource needs for expected peak electricity demand in summer or winter could neglect other risk periods, such as when variable generation is not producing as much energy as expected. Resource planning needs to ensure that system operators have at their disposal sufficient generation that can be dispatched to deliver needed energy at all hours of the day and in all seasons.”

NERC provides specific areas of focus for the Electric Reliability Organization (ERO) Enterprise, stakeholders and policymakers in the assessment.

- Developing sufficient flexible resources to support increasing levels of variable generation uncertainty.
- Improving coordination between the natural gas and electricity industries.
- Rethinking the regulatory structure and oversight of natural gas supply for electric generation and its role in supporting the reliable operation of the bulk power system.
- Focusing attention on energy sufficiency with the understanding that capacity alone does not provide for reliability unless the fuel behind it is assured, even in extreme weather.
- Ensuring distributed energy resources are sufficiently incorporated into bulk power system planning and operations.
- Ensuring planning studies and operating models accurately account for new inverter-based resources.

The *2021 LTRA* is the ERO Enterprise’s independent assessment and comprehensive report on the adequacy of planned bulk power system resources to meet electricity demand across North America over the coming decade. It also identifies area trends and emerging issues that affect the long-term reliability and security of the grid.

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Electricity is a key component of the fabric of modern society and NERC, as the Electric Reliability Organization, 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.