NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Media Release

Grid Demonstrates Improved System Performance and Resilience in 2019

July 30, 2020

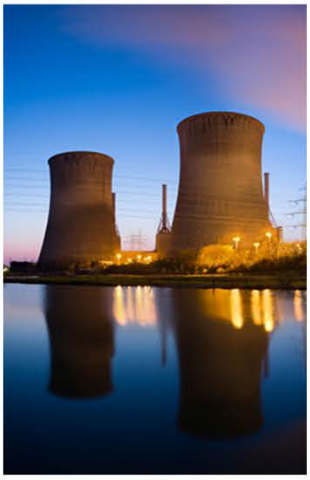
ATLANTA – In the face of rapid, significant changes to the generation resource mix, the bulk power system continued to perform at a very high level of reliability in 2019, NERC's *2020 State of Reliability* found. Performance trends for generation and transmission as well as protection and control measures are positive, and metrics showed improvement in numerous areas. With appropriate insight, careful planning and continued support, the sector will continue to navigate the challenges in a manner that maintains reliability.

The report, which looks at performance during the previous year, identifies seven key findings, chiefly that 2019 was a year of high reliability with no Category 3, 4 or 5 events and only two Energy Emergency Alert (EEA) Level 3 conditions that led to firm load shedding of 250 MW.

"We continue to see high performance across many of the key reliability indicators," said John Moura, director of Reliability Assessment and Technical Committees. "It is, however, key that the ERO Enterprise and industry continue improving our models and planning approaches in order to operate a system with a significantly different resource mix."

The report's other key findings include:

- In Texas, the projected capacity deficit remains a reliability risk in 2020; however, better than expected performance from the generation fleet helped meet 2019 summer peak demand.
- Local energy-assured generation remains necessary for reliability.
- NERC and industry stakeholders are advancing solutions to the addition of more inverter-based resources.
- Frequency response improved or remained stable in all Interconnections.



CONTACT:
Kimberly.Mielcarek@nerc.net

3353 Peachtree Road NE
Suite 600, North Tower
Atlanta, GA 30326
404-446-2560 | www.nerc.com

- Protection System Misoperations rate continues to decline.
- There were no reportable cyber or physical security incidents in 2019.

The report's high-level recommendations include:

- System planners should evaluate the need for flexibility as conventional generation retirements are considered by industry and policymakers. Retirement planning studies should consider Interconnection-level impacts and sensitivity assessments associated with the loss of critical transmission paths and the loss of local generation in larger load pockets.
- The ERO and industry should develop comparative measurements and metrics to understand the different dimensions of resilience (e.g., withstanding the direct impact, managing through the event, recovering from the events, preparing for the next event) during the most extreme events and how system performance varies with changing conditions.
- The ERO and industry should continue to work closely together to understand and share information on cyber and physical security threats and mitigate the risks posed by these threats through a variety of approaches, including resilient system design, consequence-informed planning and operation and practicing response and recovery processes.

As a core element of the ERO mission, NERC remains focused on identifying emerging risks in order to maintain a proactive posture to assure that the bulk power system remains highly reliable. To that end, the report also includes more detailed and tactical recommendations for each of the identified four high level risks from the *2019 ERO Reliability Risk Priorities Report*.

###

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.