Announcement

Frequency Support, Ramping Capability and Voltage Support Essential to Reliability

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ATLANTA – New generation resources must provide adequate levels of frequency support, ramping capability and voltage control to maintain the reliability of the bulk power system during its ongoing transformation, a new report from the North American Electric Reliability Corporation finds. The <u>Essential Reliability Services Task</u> <u>Force Measures Framework Report</u> helps industry understand and prepare for the change in resource mix, which includes the increased use of variable energy resources, the retirement of conventional generating units, advances in distributed energy resources and other changes to traditional generation resources.

"This report represents a shift in NERC's focus on reliability assessments and how we assess future reliability," said John Moura, NERC's director of Reliability Assessments and System Analysis. "Going forward, industry will need to measure and identify trends, and benchmark the essential reliability services needed to ensure the reliability of the bulk power system in North America."

The report's recommendations include:

- All resources should support frequency and voltage.
- Industry should monitor essential reliability services and investigate trends in frequency support, ramping capability and voltage support.
- NERC should evaluate the impact of distributed energy resources on the bulk power system and how those resources affect essential services.
- Industry practices should enhance the reliability of the bulk power system with adequate levels of essential reliability services as the resource mix evolves.

As the North American bulk power system's resource mix evolves to rely less on coal and nuclear and more on renewables and natural gas, generators must be to provide frequency support, ramping capability and voltage control to maintain reliability.

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NERC also developed an <u>abstract</u> that provides a condensed version of the reliability considerations and information for policy makers, regulators and industry. The abstract contains links to <u>three videos</u> describing the basics of essential reliability services for the non-engineer.

"The task force identified and developed a framework for measures related to the essential services needed to maintain bulk power system reliability in the face of changing resource mix," Moura said. "Going forward, NERC's focus will be on determining their sufficiency and ensuring the system has enough of essential reliability services regardless of the resource mix."

One of NERC's roles is to identify emerging issues and trends that will influence future bulk power system planning, development and system analysis. NERC assessments provide risk-informed recommendations and support a learning environment for industry to pursue improved reliability performance. These recommendations and the associated technical analysis provide the basis for resource planning enhancements, planning and operating guidelines and NERC Reliability Standards.

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The North American Electric Reliability Corporation (NERC) is a not-for-profit international regulatory authority whose mission is to ensure the reliability of the bulk power system in North America. NERC develops and enforces Reliability Standards; annually assesses seasonal and long-term reliability; monitors the bulk power system through system awareness; and educates, trains, and certifies industry personnel. NERC's area of responsibility spans the continental United States, Canada, and the northern portion of Baja California, Mexico. NERC is the electric reliability organization for North America, subject to oversight by the Federal Energy Regulatory Commission and governmental authorities in Canada. NERC's jurisdiction includes users, owners, and operators of the bulk power system, which serves more than 334 million people.