

## Press Release

FOR RELEASE: July 27, 2010

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### Reliability Key Component in Climate Change Discussions

PRINCETON, N.J. – Climate change initiatives will require substantial changes to the bulk power system, the North American Electric Reliability Corporation (NERC) announced today in its *Reliability Impacts of Climate Change Initiatives (RICCI) Report*.

This assessment included developing a framework for scenario analysis and evaluating the possible reliability effects of integrating projected new technologies needed to meet emissions goals in various climate change initiatives – ranging from large-scale integration of smart grid systems to integration of renewable, nuclear and energy storage resources.

“The reliability of the bulk power system must be part of the ongoing discussion on climate change,” said Gerry Cauley, president and CEO of NERC. “Meeting emissions goals suggests unprecedented changes in the fuel mix and the composition of our nearly one million megawatt electricity supply system. Sufficient time will be needed to ensure reliable integration of the new technologies and resources needed to meet the emissions goals of proposed climate change initiatives.”

Throughout North America, climate change initiatives aimed at reducing greenhouse gas emissions of electric power plants are in place or under consideration. Some changes to the bulk power system include new or upgraded low-carbon generation and transmission, expanded demand resources, changes to system planning and operations approaches, and enhancement of reliability standards.

“In NERC’s annual Long Term Reliability Assessments, greenhouse gas reductions appear to be an issue with high likelihood and high potential reliability impacts,” said Mark Lauby, director of Reliability Assessment and Performance Analysis. “This report reviews potential reliability considerations that must be weighed for the integration of technologies to meet carbon emission goals.”

NERC’s Planning and Operating Committees created the Reliability Impacts of Climate Change Initiatives Task Force to assess the reliability considerations of climate change initiatives. The resulting RICCI Report reviews these ongoing climate change initiatives broken into three horizons, between the years 2010 through 2050 – Horizon I, 1-10 years; Horizon II, 10-20 years;

and Horizon III, 20 plus years. Of course, given current state of the technology development, not all reliability impacts are known.

Key reliability observations identified are:

- Timing of climate change initiative carbon reduction targets will require an unprecedented shift in North America's resource mix.
- Regional solutions are needed to respond to climate change initiatives, driven by unique system characteristics and existing infrastructure.
- Addition of new resources increases the need for transmission and energy storage/balancing resources.
- Carbon reduction from increasing demand-side management must be balanced against potential reliability impacts.
- Climate change efforts that increasingly depend on distribution system options and applications can, in aggregate, impact the bulk power system reliability.

The report - *Reliability Impacts of Climate Change Initiatives: Technology Assessment and Scenario Development* – is available at: [http://www.nerc.com/files/RICCI\\_2010.pdf](http://www.nerc.com/files/RICCI_2010.pdf)

*The North American Electric Reliability Corporation's mission is to ensure the reliability of the North American bulk power system. NERC is the electric reliability organization (ERO) certified by the Federal Energy Regulatory Commission to establish and enforce reliability standards for the bulk-power system. NERC develops and enforces reliability standards; assesses adequacy annually via a 10-year forecast, and summer and winter forecasts; monitors the bulk power system; and educates, trains and certifies industry personnel. Learn more at [www.nerc.com](http://www.nerc.com).*

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