



## Technical Summit: Extreme Weather Impacts on Reliability

Dear Colleague:

On behalf of the Electric Power Research Institute (EPRI), the North American Electric Reliability Corporation (NERC), and the Power Systems Engineering Research Center (PSERC), we would like to invite you to a special technical summit to discuss emerging issues and R&D needs related to the impact of extreme weather and climate change on the transmission & distribution infrastructure and reliability. The session will be held on Wednesday, October 14, 2008 at 1:00 pm through October, 15, 2008 at 12:00 noon at:

[Portland Marriott Downtown Waterfront](#)  
1401 SW Naito Parkway  
Portland, Oregon 97201  
503-226-7600

The purpose of this forum is to discuss and document the both current and emerging needs for research, development, and decision-making activities of industry, academia, and government institutions regarding the impact of climate change, energy efficiency, and demand response on electric power system reliability.

As transmission and distribution systems become more constrained with growth in energy and demand, and increasing integration of high levels of variable/renewable resources, concerns about the impact of climate change on system performance increase. Events such as the heat storm experience throughout California in the summer of 2006 and the drought condition in the Southeast in 2007, among others, raise a number of questions.

While this subject has policy aspects related to regulation of the environment and power system, the main focus of the workshop is on the potential impact that these emerging issues have on system design and planning decisions as well as potentially operational aspects being made in the near term. For instance, will the weather in 50 years be increasingly volatile, will extremes of weather conditions increase and how should we change the way the system is designed, planned, and operated to anticipate these changes? In what ways do demand response, increasing renewables, and variable generation integration initiatives contribute toward addressing or compound the challenges in dealing with extreme weather conditions? How can we effectively forecast and account for demand response, integration of diverse resource mixes, accommodate extreme weather conditions, as well as ensure long-term reliability of the system? What R&D needs are there to better anticipate, plan, and design the long term enhancement of the bulk power system reliability?

[EPRI](#) is working with industry stakeholders to identify the development needs associated with the potential impact of climate change on transmission and distribution system operations, maintenance and planning. Implications may be associated with sustained increased temperature, more frequent and severe weather changes, rare but high-impact events and changes in electrical demand patterns. EPRI will highlight results of the surveys and this workshop which will be shared with the greater power industry community as a

public benefit as proceedings of the forum and documented in a white paper.

**NERC**, as the organization tasked with ensuring the reliability of the bulk power system in North America, has been keeping abreast of emerging issues and trends that may affect reliability and subsequently highlighting them in its summer/winter seasonal and annual long-term reliability assessments through ongoing work with the Planning Committee. This year, green house gas reductions, including deliberations on climate change initiatives, were ranked by these two groups as the number one emerging issue for consideration in our 2008 long-term reliability assessment. NERC will share a summary of responses from the recent survey Reliability Impacts of Climate Change Initiatives.

**PSERC**, a multi-university research center, previously conducted basic research in the area of climate change and issued a report titled, [\*The Electric Power Industry and Climate Change: Power Systems Research Possibilities\*](#). In response to increasing concerns over global climate change, this white paper identifies possible research needs for the industry to pursue that are related to interactions between the power industry and global climate change. PSERC will highlight conclusions of this paper during the forum.

We encourage you or other staff from your organization to attend in this summit. Please register for the forum using the [on-line registration process](#).

Should you have logistical questions, please contact either Rocio Amendola, NERC at [rocio.amendola@nerc.net](mailto:rocio.amendola@nerc.net), (609) 452-8060 or Lisa Wolfenbarger at EPRI ([lwolfenbarger@epri.com](mailto:lwolfenbarger@epri.com)), 865-218-8026. We will be organizing a dinner the evening following the first days discussion at approximately 6:30 PM. If you are interested in joining us, please let Lisa know as well.

We have a small block of rooms reserved at the Marriott so please make your reservations early.

A detailed agenda and other materials will be available in a few weeks. Please click [here](#) for more details pertaining to the forum.

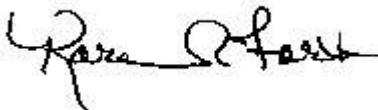
Sincerely,



*Mr. Thomas Burgess  
Director, FERC Compliance at FirstEnergy Corp,  
and NERC Planning Committee Vice Chair*



*Mark Lauby  
Manager, Reliability Assessments  
North American Electric Reliability Corporation  
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Together....Shaping the Future of Electricity

