



**Federal Energy Regulatory Commission**  
**June 21, 2012**  
**Open Commission Meeting**  
**Staff Presentation**  
**Item A-3**

"Mr. Chairman, Commissioners: I am pleased to present a summary of the FERC/NERC Staff Report on the October 2011 Northeast Snowstorm Outages.

As you know, this was a joint inquiry with the North American Electric Reliability Corporation. The team also included a Northeast Power Coordinating Council representative. We thank NERC and NPCC for their contributions to the inquiry. I would also like to recognize the team members from the Office of Electric Reliability who are not present: Justin Cunningham, Andrea Scott, and Norris Henderson.

The report is based on conclusions of staff and does not represent the views of the Commission, the Chairman, or any Commissioner.

During the course of the inquiry, the team issued detailed data requests to many utilities and other entities throughout the Northeast, made site visits to transmission facilities in New England, and interviewed representatives of a number of affected entities. The team also conducted numerous outreach meetings and calls with agencies in affected states and with electric industry trade associations.

The purpose of the inquiry was to look into whether any FERC-jurisdictional facilities or NERC Reliability Standards were implicated in the power outages caused by the October 2011 snowstorm. Therefore, the inquiry focused on the storm's impacts to the transmission system. We did not examine the storm's impact on distribution systems, or make any recommendations relating to distribution facilities.

The snowstorm that hit the Northeastern United States on October 29-30, 2011 was an unprecedented Fall weather event, breaking records across the New England and Mid-Atlantic states. Up to two-and-a-half feet of heavy, wet snow fell on trees that had not yet lost their leaves and that were rooted in ground that had been saturated by an unusually warm, rainy summer. The weight of the snow, in combination with the soft ground, caused many healthy trees to become uprooted and fall on power lines. More than three million homes and businesses from Pennsylvania to Maine were without power as a result of the storm.

The majority of these outages were the result of damage to the distribution system. Only about 130,000 of the customer outages - less than 5% - were the result of transmission facility outages.

Inquiry staff identified 74 transmission line and 44 transmission substation outages that lasted 10 or more minutes. These outages occurred in six states: Connecticut, Massachusetts, Maine, New Hampshire, New York, and Rhode Island. These were mostly 115 kV lines, but there were one 138 kV and three 345 kV line outages.

Although this number of transmission facility outages constitutes a significant transmission event, the outages did not threaten the stability of the bulk power system.

These transmission outages were overwhelmingly caused by tree contact. Fifty-five of the 74 transmission line outages -- that is about 75% -- occurred when snow-laden trees or branches fell onto transmission lines. Most of these trees fell onto lines from outside the utilities' rights-of-way. But 13 transmission line outages resulted from trees falling from within a utility's right-of-way -- that is, the area the utility has the right to maintain, although in some cases those rights may be limited.

Because the vast majority of transmission outages were caused by tree contact, we evaluated the applicability of the Commission-approved transmission vegetation management reliability standard, FAC-003-1, to the event. We found that the standard had limited applicability here, mainly because the vast majority of impacted transmission lines were operated at 115 kV, and FAC-003-1 does not apply to any lines under 200 kV unless designated as critical to reliability by the owner or Regional Entity. In fact, FAC-003-1 applied to only one line damaged by tree contact during the storm, a 345 kV line in Connecticut.

As to recommendations, staff did see areas where utilities could take steps to improve transmission system reliability in future snowstorms or similar weather events. Therefore, the report makes several recommendations regarding utility best practices. The report's two key recommendations relate to vegetation management.

First, where appropriate, the report recommends that utilities take targeted steps to address off-right-of-way danger trees (that is, trees so tall and so close to facilities that, if they fell, would contact a transmission line). We recommend that utilities focus on identifying danger trees outside the rights-of-way of lines over 200 kV and other critical transmission lines and work with stakeholders to develop a strategy for addressing the danger trees that pose the greatest threat to bulk-power system reliability.

Second, where feasible, the report recommends that utilities employ the industry best practice of ensuring danger trees are not present inside their rights-of-way. We also recommend a targeted approach here: utilities should identify areas where elimination of danger trees inside the right-of-way is feasible and would increase reliability, and then prioritize their efforts on rights-of-way where critical facilities are located.

The report recognizes that vegetation management is often a sensitive issue and utilities should work cooperatively with landowners in implementing these recommendations.

We thank you for the opportunity to present this brief summary of the inquiry report."