



NPCC 2006 Year In Review

NPCC Restructuring

Special points of interest:

- NPCC Inc. coordinates system planning, design and operations, assesses reliability, and monitors and enforces compliance with regional reliability criteria
- NPCC CBRE develops regional reliability standards, and assesses and enforces compliance with continent-wide and regional reliability standards

The Northeast Power Coordinating Council (NPCC) was originally formed as a voluntary, non-profit regional electric reliability organization in January 1966, shortly following the Northeast Blackout of November 9, 1965.

In response to U.S. energy legislation and in preparation for the certification of the North American Electric Reliability Corporation as an Electric Reliability Organization (ERO), NPCC began restructuring in 2006.

The Membership interests in NPCC were transferred to a regional reliability assurance not-for-profit corporation, the Northeast Power Coordinating Council, Inc. (NPCC Inc.), and a separate and

independent, affiliated, not-for-profit corporation was created, the Northeast Power Coordinating Council: Cross-Border Regional Entity, Inc. (NPCC CBRE).



NPCC, Inc.

NPCC Inc. provides its members with regional reliability assurance services and acts as the vehicle through which States and Provinces can fulfill their political mandates with respect to resource adequacy, as well as overseeing the Northeastern North American electric infrastructure through development, assessment and enforcement of regionally-specific reliability criteria, the coordination of system

planning, design and operations, and assessment of reliability.



NPCC CBRE

NPCC CBRE's purpose is to enhance the reliability of the international, interconnected Bulk Power System in Northeastern North America through the development of regional reliability standards and compliance assessment and enforcement of continent-wide and regional reliability standards pursuant to the execution and implementation of an Regional Delegation Agreement with the ERO and Canadian Provincial Memoranda of Understanding (MOU) that are backstopped through the ERO by the FERC and through Canadian Provincial authorities.

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2007 Business Plans Released

NPCC's Mission and Vision for a reliable Northeast remain focused.

The 2007 Business Plans outline a comprehensive and flexible strategy for NPCC Inc. and NPCC CBRE to be able to respond to emerging reliability and organizational issues.

During 2007, the electric reliability assurance structure will continue to be redefined and will continue to transition as FERC compliance orders and Canadian Memoranda of Understanding are implemented.

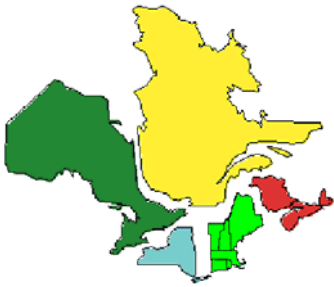
Regional Reliability Standards activities planned for 2007 include the following:

- Developing a Regional Reliability Standard Development Process that conforms to statutory requirements and takes a design-basis approach to the establishment of reliability requirements.
- Promoting and facilitating open process review and balloting of Regional Reliability Standards.

Entity registration and compliance enforcement activities planned for

2007 include the following:

- Registration of all users, owners and operators of elements of the Bulk Power System within Northeastern North America, as determined utilizing NPCC's reliability impact based methodology.
- Implementation of the NERC Compliance Monitoring and Enforcement Program within the U.S. and compliance programs within Canada that are consistent with Memoranda of Understanding with Provincial regulatory and governmental authorities.



Historically, the summer peak loads and temperatures between New England and New York can have a high degree of correlation; in four of the last five years, Ontario's annual peak demand has also occurred during the summer.

The Canadian Provinces of Québec and the Maritimes experience their highest electricity demand in the winter.

Seasonal Reliability Preparedness

NPCC conducted comprehensive pre-seasonal operational security assessments and multi-Area probabilistic studies to determine Region-wide reliability and Area resource and transmission adequacy.

The 2006 Summer and 2006/07 Winter NPCC Reliability Assessments were completed in April and November, respectively. These assessments provided a comprehensive review of anticipated operating conditions and possible concerns for the coming peak seasons.

A 2006 Summer Post-seasonal report was prepared to provide a review of system conditions experienced during the heat wave of late July and early August of 2006, focusing on conditions during the hour 16:00 EDT on August 1st, the time of the NPCC coincident peak.

System conditions were analyzed to assess available resource and transmission margins at that time on an NPCC wide basis.

NPCC coordinated interregional

pre-emergency actions at times of impending or actual reserve shortages to enhance system reliability.

During the calendar year 2006, these inter-Area communications were conducted by NPCC Staff on seventeen occasions in anticipation of reserve shortfalls.

In particular, ten of these conference calls occurred in advance of, and during, the extreme heat experienced by three of the NPCC Areas at the end of July and into early August.

“The Workshop provided details regarding the transition to the new NPCC CBRE 2007 Compliance Enforcement Program.”

NPCC Compliance Workshop

NPCC held a Compliance Workshop on October 25, 2006 in Boston, MA.

The Workshop provided details regarding the transition to the new NPCC CBRE 2007 Compliance Enforcement Program, as well as the necessary information needed for compliance with the 2007 NPCC Inc. and NPCC CBRE programs.

Presentations were given Cherie Broadrick, NERC Manager of Regional Compliance Oversight and Carol Sedewitz, Chair of the NPCC Compliance Monitoring and Assessment Subcommittee.

A demonstration of the Compliance Data Management System developed by the Mid-West Reliability Organization (MRO) was provided by Larry Brusseau &

Riaz Islam from the MRO.

Tim Kucey, Manager of Enforcement and Mitigation at NERC described the penalties and sanctions under consideration.

The Workshop concluded with a discussion of registration criteria and its compliance implications.

More Stringent NPCC Criteria Identified

Document available at:
<http://www.npcc.org/mapping.cfm>

NPCC's Reliability Coordinating Committee approved the Version 0 mapping of more stringent, regionally-specific NPCC Criteria at its May 2006 meeting.

This document clearly indicates where NPCC

has more stringent requirements than the NERC Reliability Standards or, as in the case of Resource Adequacy, for example, where criteria that exists with no related NERC Reliability Standards requirements.

This document serves as the foundation on which NPCC Inc. future compliance will rest and

also will be a critical source of information in determining the need to revise NPCC documents to be consistent with the standards.

In 2006, NPCC provided technical expertise and leadership in the NERC standards development process and the identification of interregional issues that may impact reliability.

Blackout 2003 Follow-up Activities

The NPCC blackout recommendations tracking mechanism was utilized to assure timely completion of the remaining specified regional follow-up activities.

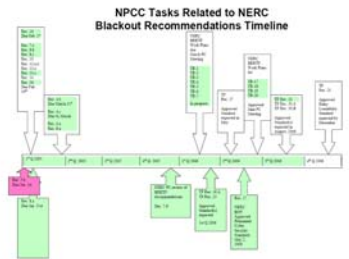
Status reports were posted on the NPCC web site through-out 2006. These reports included NPCC Blackout recommendations, as well as NERC BOT and US/Canadian Task Force recommendations.

Follow-up actions completed in 2006 by NPCC that implement the recommendations developed

from the conclusions in the final NPCC August 14, 2003 Blackout Study Report, include:

- ⇒ Development of criteria requirements essential to the restoration plans of each NPCC Area
- ⇒ Mitigation actions related to NERC Recommendation 8a – Zone 3 Loadability Compliance
- ⇒ NPCC Report on beyond Zone-3 protection system analyses approved in September 2006

- ⇒ Recommendations related to under-voltage load shedding
- ⇒ Evaluation of existing generator governor response to improve the modeling of system frequency response during islanding conditions
- ⇒ Approval of guidelines for time synchronization of substation equipment
- ⇒ Implementation of criteria related to underfrequency load shedding



Document available at:
[http://www.npcc.org/blackout.asp?](http://www.npcc.org/blackout.asp?Folder=CurrentYear)
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Interregional Long Range Adequacy Overview

The Overview illustrated, on a consistent basis, the long range adequacy of NPCC and neighboring Regions' plans to meet their respective resource adequacy planning design criteria through a multi-area probabilistic assessment.

The Overview included the potential for proposed market mechanisms in NPCC and neighboring Regions to provide for future adequacy.

PJM and ReliabilityFirst Corp. representatives participated in the NPCC study.

The assumptions used for the Overview were consistent with the assumptions of the most recently completed, or currently finalized NPCC and Regional studies.

The Overview illustrated that over the past five years, the NPCC Areas have demonstrated, on average, an annual Area Loss

of Load Expectation (LOLE) significantly less than the NPCC resource adequacy design criteria (0.1days/year).

While still meeting the resource adequacy design criteria for the next five years, the results of the Overview illustrate that New York, New England, and PJM annual LOLE estimates trend higher as compared to their respective annual LOLE estimates for the last five years.

For the PJM-RTO, the LOLE levels shown are primarily influenced by the Eastern Mid-Atlantic area.

The Overview was presented and approved at the November 2006 meeting of the NPCC Reliability Coordinating Committee.

NPCC Cyber Security Workshop

NPCC's Task Force on Infrastructure & Technology held a Cyber Security Workshop on June 7-8, 2006 in Toronto, Ontario.

The Cyber Security Workshop focused on determining the Critical Assets that need protection, and compliance with the perma-

nent NERC Cyber Security Standards (CIP-002—CIP-009).

The Cyber Security Workshop reviewed changes in the standards, identified which assets are covered by the standards, and identified actions needed to implement the standards.

Risk-based methods for selecting

Critical Assets were presented at the Workshop.

Following the Workshop, a guideline that provides NPCC Members the ability to consistently determine cyber security protection needs for their Critical Assets was created.



Pictured: Ben Church, Burns & McDonnell, Northeast Utilities consultant

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Visit our web site:
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Vision: NPCC Inc. and NPCC CBRE

- ◆ *An electric industry in the Northeast that has the trust and confidence of the public*
- ◆ *A bulk power system that is designed, operated, and maintained in accordance with continent-wide reliability standards, regional reliability standards and regional reliability criteria that demonstrably meets the specific needs of Northeastern North America*
- ◆ *Compliance enforcement that is open, fair, utilizes market mechanism, as appropriate and is backstopped by applicable regulatory authorities in the United States and Canada*

NPCC 2006 General Meeting

The 2006 NPCC General Meeting was held at the Delta Fredericton Hotel in Fredericton, New Brunswick on September 27-28, 2006.

NPCC's Chairman, Charles J. Durkin, Jr., the Honorable Jean-Paul Théorêt, Chairman of the Québec Régie de l'énergie, Mark Hegerle, Deputy Director—Division of Reliability, the Federal Energy Regulatory Commission, Dr. Frederick Gorbet, North American Electric Reliability Council Board of Trustees, Edward Schwerdt, NPCC's Executive Director, and Bruce Ellsworth, Chairman of the New York State Reliability Council outlined their views concerning the electric reliability aspects of the U.S. Energy Policy Act of 2005, FERC reliability policy and requirements, U.S. and Canadian reliability agreements, and NERC and NPCC's organiza-

tional transition plans, including the role of the New York State Reliability Council.

The Honorable Sharon Reishus, Maine Commissioner and President of NECPUC addressed the Membership at dinner that evening.

The next day, David Meyer, U.S. Department of Energy (DOE) Office of Electricity Delivery and Energy Reliability was featured; he presented the results of the recently completed DOE Congestion study and outlined DOE's next steps.

Sessions regarding an update on the Natural Gas outlook, Cyber Security, Northeast Coordinated Planning, and NPCC's Cross-Border Regional Entity reliability standards development and compliance programs concluded the meeting.



Pictured (left to right): Dr. Frederick Gorbet, (NERC Board of Trustees) Mark Hegerle, (FERC) the Honorable Jean-Paul Théorêt, (Chairman, Québec Régie de l'énergie) and Charles Durkin, Jr. (NPCC Chairman)