



**RCC Meeting  
June 9, 2010  
Agenda Item 6.7**

**Reliability Assessment Program  
(NRAP)  
HIGHLIGHT REPORT**  
*Prepared for the  
Reliability Coordinating Committee  
June 9, 2010*

Distributed to:

Members, Reliability Coordinating Committee  
Members, Compliance Committee  
Members, Regional Standards Committee  
Members, Task Force on System Studies  
Members, Task Force on System Protection  
Members, Task Force on Coordination of Planning  
Members, Task Force on Coordination of Operation  
Members, Task Force on Infrastructure Security and Technology  
Chairmen, Working Groups  
and  
NPCC Staff



# Reliability Assessment Program

## HIGHLIGHT REPORT

### Contents

<b><u>Reliability Standards</u></b>	<b>1</b>
Regional Standards Committee	1
Directories	2
Regional Standards	7
Regional Standards Development Procedure	8
<b><u>Compliance Enforcement and Organization Registration and Certification</u></b>	<b>9</b>
Compliance Committee	9
Documents	10
<b><u>Training, Education, and Operator Certification</u></b>	<b>11</b>
Task Force on Coordination of Operation	11
<b><u>Reliability Assessment and Performance Analysis</u></b>	<b>12</b>
Blackout 2003 Follow-up	12
Task Force on Coordination of Operation	13
Task Force on Coordination of Planning	16
Task Force on System Studies	19
Eastern Interconnection Reliability Assessment Group	20
RFC-NPCC Working Group	21
NERC	22
Other	24
<b><u>Situation Awareness and Infrastructure Security</u></b>	<b>25</b>
Task Force on Coordination of Operation	25
Task Force on Infrastructure Security and Technology	26
<b><u>Administrative Services</u></b>	<b>28</b>
Member Forums	28



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Reliability Standards Program

### Regional Standards Committee

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
RSC	Regional Standards Committee	The NPCC Regional Standards Committee (RSC), a committee of the NPCC Board, is charged with management and maintenance of the NPCC Regional Standards Development Procedure under a sector based voting structure as described in the NPCC, Inc. Bylaws. The NPCC RSC will consider requests for new or revised standards and be available for advisement to the NPCC Board on the standards. The NPCC RSC will work in coordination with the Regional Standards Process Manager (RSPM) who will be the administrator for the NPCC Regional Standards Development Procedure. In addition, the NPCC RSC will review, comment on and develop ballot recommendations for the NERC Reliability Standards under development.

**Status/ Comments:**

The Regional Standards Committee is focusing on the review of each of the NERC Reliability Standards (as they are developed or revised). RSC is currently reviewing the FERC Orders and NOPRs that pertain to Reliability Standards. The RSC develops recommendations for the membership on ballots when posted. RSC has also commented on the Adequate Level of Reliability Definition, participates in the NERC Functional Model Working Group, NERC Standards Committee, and the NERC Regional Reliability Standards Working Group. RSC is participating in the NERC Reliability Standards Manual revisions and the Results Based Standards Initiative through the Standards Committee Process Subcommittee and also soliciting members for the NERC drafting teams as necessary to ensure NPCC is represented. RSC also developed a process to coordinate commenting on adjacent Regions' criteria and their standards development, as well as promoting NPCC criteria in adjacent regions, and encouraging NPCC member involvement on their drafting teams. RSC is actively supporting the Cyber Security Standards development. RSC has developed and is maintaining a Regional Reliability Standards Development Process which has been approved by the NPCC BOD and filed with the FERC as part of the Regional Delegation Agreement. The RSC is overseeing the development of Regional Reliability Standards Underfrequency Load Shedding, and Special Protection Systems. The Disturbance Monitoring Standard has been approved by the NPCC General Membership, and approved by the NPCC Board of Directors and has been submitted to the NERC staff for review and submission to the BOT for their consideration and approval. The RSC is compiling the necessary information to transmit the DM standard to NERC for Board of Trustee approval, after which it will be sent to FERC and the Canadian authorities for their approvals. The RSC is also overseeing the completion of the NPCC Regional Reliability Directories Phase I project and has initiated Phase II of the project to convert the criteria in the Directories to specific "requirements" on which compliance may be assessed. RSC is developing and will maintain a work plan for completion of this project.



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Reliability Standards Program

### Directories

<b>Item</b>	<b>Name</b>	<b>Assignment</b>	<b>Latest Version:</b>	<b>New</b>
<b>DIR-1</b>	Basic Criteria for the Design and Operation of the Bulk Power System	This Directory presents the objectives, principles and requirements that govern the Areas in formulating plans and procedures to be followed for the design and operation of interconnected power systems.	<b>Frequency of Reviews:</b>	<b>3 years</b>
	<b>Status/ Comments:</b>	<p>Directory No. 1 received Full Member approval on December 1, 2009 and NPCC Document A-2 was retired on the same date. Additionally, NPCC documents B4, B8, B10, C4, C13, C18, and C40 were incorporated within Directory #1 and retired.. TFCP has assigned CP11 to begin the triennial review of Directory No. 1 during 2010. CP-11 will be presented with a draft of Directory #1 reformatted to resemble the Results Based format employed by NERC in order to facilitate compliance assessment. The reformatting of Directory #1 is consistent with the goals of Phase 2 of the NPCC Directory development project and will also allow CP11 to coordinate its review along with the progress of the NERC DT, which is working to revise the TPL standards.</p>		

<b>Item</b>	<b>Name</b>	<b>Assignment</b>	<b>Latest Version:</b>	<b>Oct. 21, 2008</b>
<b>DIR-2</b>	Emergency Operation Criteria	This Directory presents the objectives, principles and requirements that govern the Areas in formulating plans and procedures to be followed in an emergency or during conditions which could lead to an emergency.	<b>Frequency of Reviews:</b>	<b>3 years</b>
	<b>Status/ Comments:</b>	<p>Directory No. 2 was approved by the Full Members on October 21, 2008 and NPCC Document A-3 was retired on the same date. The Automatic UFLS language formerly contained within Directory No. 2 was transferred into Directory#12 (UFLS Program Requirements) effective with the Full Member approval of Directory No. 12 on June 26, 2009.</p>		



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Directories

<u>Item</u>	<u>Name</u>	<u>Assignment</u>		
<b>DIR-3</b>	Maintenance Criteria for Bulk Power System Protection	This Directory establishes the maintenance interval and practices which should result in dependable and secure protection system operation.	<b>Latest Version:</b>	<b>July 14, 2009</b>
			<b>Frequency of Reviews:</b>	<b>3 years</b>
			<b>Next Review Date:</b>	<b>Dec. 2012</b>
	<b>Status/ Comments:</b>	<p>Directory No. 3 was approved by the NPCC Full Membership on July 11, 2008 and NPCC Documents A-4 and B-23 were retired on the same date.</p> <p>During 2009 the Task Force on System Protection (TFSP) conducted a review of this document to better clarify specific intent on a number of requirements. The document was posted for two rounds of Open Process review which also resulted in a number of clarifying and editorial changes in response to the comments received.</p> <p>Additional language was also incorporated into Appendix B of the document to provide guidance that credit can be obtained for normal breaker operations if the equipment design permits verification and documentation of breaker tripping by each individual trip coil.</p> <p>The above changes to Directory No. 3 were approved by the Full Members on July 14, 2009.</p>		

<u>Item</u>	<u>Name</u>	<u>Assignment</u>		
<b>DIR-4</b>	BPS Protection Criteria	This Directory establishes the criteria and practices which result in dependable and secure protection system operation for the bulk power system	<b>Latest Version:</b>	<b>Dec. 1, 2009</b>
			<b>Frequency of Reviews:</b>	<b>3 years</b>
			<b>Next Review Date:</b>	<b>2012</b>
	<b>Status/ Comments:</b>	<p>Directory No. 4 received Full Member approval on December 1, 2009. The approval of Directory No. 4 also allowed the retirement of NPCC documents A5, B5, B7, B24, and C22.</p>		



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Directories

<u>Item</u>	<u>Name</u>	<u>Assignment</u>	<u>Latest Version:</u>	<u>New</u>
DIR-5	Reserve	This Directory establishes the criteria and practices which result in dependable and secure operating reserve.		
			<b>Frequency of Reviews:</b>	<b>3 years</b>
			<b>Next Review Date:</b>	
	<b>Status/ Comments:</b>	The Task Force on Coordination of Operation, having further revised the draft to fully consider NPCC Synchronous Reserve requirements, Shared Activation of Reserve, Regional Reserve Sharing and ACE Diversity Interchange, has posted the document for a second posting for public comment through the NPCC Open Process until June 13 <sup>th</sup> . The TFCO will review the posted comments at its meeting of June 24 and 25, 2010.		

<u>Item</u>	<u>Name</u>	<u>Assignment</u>	<u>Latest Version:</u>	<u>Dec. 27, 2007</u>
DIR-7	Special Protection System Criteria	This Directory establishes the protection criteria, and recommends minimum design objectives and practices for Special Protection Systems (SPSs). The SPS is categorized according to the Criteria fault for which it is designed and the impact its failure would have on the network.		
			<b>Frequency of Reviews:</b>	<b>3 years</b>
			<b>Next Review Date:</b>	<b>Dec. 2010</b>
	<b>Status/ Comments:</b>	Directory No. 7 was approved by the NPCC Full Members on December 27, 2007. The Task Force on System Protection has initiated a review of Directory No.7 which includes coordinating comments from among TFSP, TFSS, and TFCP to finalize revised language detailing the process to be used for retiring a SPS.		



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Directories

<u>Item</u>	<u>Name</u>	<u>Assignment</u>		
<b>DIR-8</b>	Black Start System Restoration Criteria	This Directory establishes the criteria and practices which result in dependable and secure black start and restoration for the bulk power system	<b>Latest Version:</b>	<b>Oct. 21, 2008</b>
			<b>Frequency of Reviews:</b>	<b>3 years</b>
			<b>Next Review Date:</b>	<b>Oct. 2011</b>
	<b>Status/ Comments:</b>	<p>Directory No. 8 was approved by the NPCC Full Membership on Oct. 21, 2008.</p> <p>Directory No. 8 was posted again for public comment through the NPCC Open Process to consider revisions to language describing discharge testing of station batteries. The Working Group CO-11 reviewed these comments at its meeting of May 12 and 13, 2010, and the TFCO will consider them at its meeting of June 24 and 25, 2010.</p>		

<u>Item</u>	<u>Name</u>	<u>Assignment</u>		
<b>DIR-9</b>	NPCC Verification of Generator Gross and Net Real Power Capability	This Directory establishes the criteria and practices which result in the verification of generator gross and net real power capability	<b>Latest Version:</b>	<b>Dec. 22, 2008</b>
			<b>Frequency of Reviews:</b>	<b>3 years</b>
			<b>Next Review Date:</b>	<b>Dec. 2011</b>
	<b>Status/ Comments:</b>	<p>Directory No. 9 was approved by the NPCC Full Membership on December 22, 2008.</p>		



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Directories

<u>Item</u>	<u>Name</u>	<u>Assignment</u>		
DIR-10	NPCC Verification of Generator Gross and Net Reactive Power Capability	This Directory establishes the criteria and practices which result in the verification of generator gross and net reactive power capability	<b>Latest Version:</b>	<b>Dec. 22, 2008</b>
			<b>Frequency of Reviews:</b>	<b>3 years</b>
			<b>Next Review Date:</b>	<b>Dec. 2011</b>
	<b>Status/ Comments:</b>	Directory No. 10 was approved by the NPCC Full Membership on December 22, 2008.		

<u>Item</u>	<u>Name</u>	<u>Assignment</u>		
DIR-12	UFLS Load Shedding Program Requirements	This Directory presents the basic criteria for the design and implementation of the UFLS program in order to arrest frequency decline and prevent system collapse under islanded conditions.	<b>Latest Version</b>	<b>March 3, 2010</b>
			<b>Frequency of Reviews:</b>	<b>3 years</b>
			<b>Next Review Date:</b>	
	<b>Status/ Comments:</b>	<p>Directory No. 12 was developed from the Automatic Under frequency Load Shedding requirements contained within existing NPCC Directory No. 2 <i>Emergency Operations</i> and also from the recommendations and implementation plans provided in the 2006 Assessment of Under frequency Load Shedding Adequacy; and the 2008 Assessment of Under frequency Load Shedding Adequacy – Québec Area, both of which were approved by the Reliability Coordinating Committee on November 19, 2008.</p> <p>Directory No. 12 was approved by ballot of the NPCC Full Members on June 26, 2009. A revision to Directory No. 12 and the NPCC UFLS Implementation Plan which will provide UFLS requirements for certain small entities was approved by Full Member ballot on March 3, 2010.</p>		





# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Regional Standards

<b>Item</b>	<b>Name</b>	<b>Assignment</b>	<b>Latest Version:</b>	<b>New</b>
<b>PRC-002 NPCC-001</b>	Disturbance Monitoring	This Standard will establish the technical and reporting requirements for disturbance monitoring equipment. This will lead to improved system reliability by providing the resources to do post event analyses.	<b>Frequency of Reviews:</b> <b>Next Review Date:</b>	<b>3 years</b>
<b>Status/ Comments:</b>		The DME Regional Standard and its Implementation Plan were posted for ballot December 17, 2009, and approved by the NPCC Full Members on January 16, 2010. The NPCC BOD approved the Standard on February 9 <sup>th</sup> , 2010. The Standard has been submitted to NERC for review and NERC BOT consideration.		

<b>Item</b>	<b>Name</b>	<b>Assignment</b>	<b>Latest Version:</b>	<b>New</b>
<b>PRC-006</b>	Under Frequency Load shedding	This Standard will provide the measures for implementing an automatic under frequency load shedding program in order to effectively respond to system under frequency events.	<b>Frequency of Reviews:</b> <b>Next Review Date:</b>	<b>3 years</b>
<b>Status/ Comments:</b>		The NPCC UFLS Regional Standard Drafting Team (RSDT) recently posted the draft standard to the Open Process for a second posting. The UFLS RSDT has worked closely with SS38 in order to develop certain technical aspects of the requirements and to insure that the draft is consistent with the NPCC UFLS Program Assessment.		



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Regional Standards Development Procedure

<b>Item</b>	<b>Name</b>	<b>Assignment</b>	
RRSDP	Regional Reliability Standards Development Procedure	The NPCC Regional Reliability Standards Procedure describes the procedures, policies, and practices implemented to ensure an “open, fair, and inclusive” process for the transparent initiation, development, implementation and revision of the NPCC Regional Standards necessary for the reliable operation of the Interconnected bulk power system in Northeast North America.	<p><b>Latest Version: Sept. 19, 2007</b></p> <p><b>Frequency of Reviews: 3 years</b></p> <p><b>Next Review Date: Sept. 19, 2010</b></p>
	<b>Status/ Comments:</b>	The Regional Reliability Standards Development Procedure is posted on the NPCC Website. Currently some changes are in process with the NERC Reliability Standards Development Procedure which may affect the need for revising the NPCC procedure. The RSC is actively reviewing the activities at the NERC level to ensure the regional procedure is consistent with the NERC procedure and achieves a consistency with the NERC common attributes adhered to by the other Regions.	



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Compliance Enforcement and Organization Registration and Certification Program

#### Compliance Committee

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
CC	NPCC Compliance Committee	The NPCC Compliance Committee (CC) shall be charged with providing independent policy input for the NPCC Compliance Monitoring and Enforcement Program (CMEP). The NPCC CMEP covers compliance assessment and enforcement of NERC Reliability Standards, Regional Reliability Standards and NPCC Reliability Criteria (NPCC Directories). With regard to NERC Reliability Standards and Regional Reliability Standards, the CC shall provide an oversight role to the NPCC Compliance Staff's implementation of the CMEP. In this oversight role the CC will endorse the compliance procedures (CP) used by the NPCC Compliance Staff in the conduct of the CMEP. The CC shall be responsible for final approval of compliance assessments related to NPCC Reliability Criteria, which includes non-monetary sanction recommendations.

**Status/ Comments:**

The NPCC Compliance Committee continues to meet on a monthly basis either face to face or by conference call. The NPCC Compliance Committee Assessment Team recently did an assessment of the NPCC CC completed an assessment in May 2010 on the NPCC CMEP Implementation Plan and Self-Certifications. The CC also plans on completing assessments on the Registration Process and the Spot Check Program this year. The NPCC CC also has active working groups that assist the Compliance Staff with Compliance Criteria Enforcement Program (CCEP) and suggestions for the compliance workshops.



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Compliance Enforcement and Organization Registration and Certification Program

NPCC Compliance Committee

#### Documents

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
RCP	Reliability Compliance and Enforcement Program	The process and requirements are defined for compliance assessment and enforcement of selected reliability criteria and standards.
	<b>Status/ Comments:</b>	The program is currently under development by the Compliance Committee. The CC has an active working group working on the draft of a new Compliance Criteria Enforcement Program (CCEP) and is working on the schedule and criteria templates for 2010. The CC will have the 2010 criteria templates approved at the June 2010 meeting. A letter and schedule for the 2010 criteria program was sent to all members and registered entities in May 2010. The goal is to have the new CCEP approved and effective in 2011.



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Training, Education, and Operator Certification Program

#### TASK FORCE ON COORDINATION OF OPERATION

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
CO-2	System Operator Training	This Working Group establishes a program for system operator training relating to NPCC Inc. inter-Area matters, Working Group criteria, terminology, policies and operating instructions. It prepares and presents material at system operator training sessions, exchanges information on internal system operator training methods. The CO-2 Working Group also evaluates and proposes new techniques and training aids as they become available.
	<b>Status/ Comments:</b>	The CO-2 Working Group conducted the 65 <sup>th</sup> NPCC System Operator Seminar on May 5-6, 2010. Seminar topics included a communication exercise, a system restoration exercise, Quebec-NY and PJM-NY Variable Frequency Transformers, NPCC Highlights, Geomagnetically Induced Currents and 2010 Summer System Operation Expectations. Co-2 is applying for 8 Continuing Education Hours for each participant. Also, presentation material from the seminar will be used in the training program coursework of the NPCC RCs. CO-2 members are working on the BES company-specific reliability-related task lists and any necessary changes to the training programs to satisfy the requirements and measures of NERC standard PER-005-1. A meeting of the CO-2 working group in early August will be devoted to coordination of these efforts.



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program BLACKOUT 2003 FOLLOW-UP

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
<b>BSP</b>	Blackout Study Plan	Building on the Event Replication Study, perform additional analysis to evaluate possible risks for other rerating conditions, planned system changes, and possible system design changes.
	<b>Status/ Comments:</b>	The Blackout Study Recommendations Working Group's report and action plan was presented and approved at the March 2006 RCC meeting. Task 5 "Terms of Reference" was approved at the November 2006 RCC meeting. The NPCC Blackout Investigation Task 5 study was deferred last year due to re-prioritization of assignments in order to complete higher priority items; the RCC will be considering a revised updated scope of work at their September 2010 meeting.



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program

#### TASK FORCE ON COORDINATION OF OPERATION

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
CO-1	Control Performance	The Working Group insures coordination between adjacent control areas in establishing interchange schedules, Working Group reviews time error correction procedures, and monitors the conformance of the Areas with NPCC Control Performance Criteria and Operating Reserve Criteria. At the request of the Task Force on Coordination of Operation (TFCO), it conducts investigations of control performance problems.

**Status/ Comments:**

CO-1 met on May 13-14, 2010. Topics addressed included; a review of the revisions made in NPCC Directory # 5, requirements for synchronized reserve, /system frequency response analysis and proposals to improve performance, Shared Activation of Reserve (SAR) past occurrences, close calls and the analysis of past SAR events, . The main near term focus of CO-1 work is on the requirements for synchronized reserve,, frequency response and application of SAR (now titled “Simultaneous” Activation of Reserve) under the revised Directory #5.



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program TASK FORCE ON COORDINATION OF OPERATION

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
<b>CO-7</b>	Operational Review Working Group	To assess, coordinate and evaluate regional operational issues and reliability concerns as directed by the TFCO. Periodically review the NPCC Regional Reliability Plan and the Registration and Certification of entities to achieve conformance with NPCC criteria and NERC Standards.
	<b>Status/ Comments:</b>	The TFCO is redrafting the scope of Working Group CO-07, identifying its new tasks and responsibilities.

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
<b>CO-8</b>	System Operations Managers Working Group	Provide a forum for the Managers of the NPCC control centers to identify and discuss security concerns in the operation of the interconnected bulk power supply system, and specific concerns related to the integration of operation between and among the evolving ISOs. The System Operations Managers Working Group will also assist the Task Force on Coordination of Operation in their work on issues related to system security and the operation of the ISOs, and provide advice to the TFCO, as requested.
	<b>Status/ Comments:</b>	The CO-8 Working Group will review the second draft of NPCC Directory No. 5 following the TFCO review of posted comments at the TFCO meeting of June 24 and 25, 2010. It has also completed a review of Document C-17 for further redraft by the Working Group CO-10.





## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program TASK FORCE ON COORDINATION OF OPERATION

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
CO-11	Restoration Working Group	The Restoration Working Group addresses the issue of ensuring appropriate operation of key system restoration facilities and their critical components.
	<b>Status/ Comments:</b>	The Working Group has completed a second revised draft of NPCC Regional Reliability Reference Directory No. 8, "System Restoration," reviewed the posted comments, and provided the TFCO with its response to these comments. The CO-11 Working Group will sponsor a wide area restoration drill on October 27, 2010, including MISO and PJM participation.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
CO-12	Operations Planning Working Group	Review the overall reliability of the generation and transmission system in the NPCC Region for the Summer and Winter Seasonal conditions.
	<b>Status/ Comments:</b>	The 2010 Summer NPCC Reliability Assessment was completed and issued/posted on April 29, 2010.



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program

#### TASK FORCE ON COORDINATION OF PLANNING

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
CP- 8	Working Group on Review of Resource and Transmission Adequacy	Review the overall reliability of the NPCC Inc. Areas and perform pre-seasonal resource adequacy assessments.
	<b>Status/ Comments:</b>	The 2009 New England Interim Review of Resource Adequacy was approved at the November 18-19, 2009 RCC meeting. The 2009 Ontario Comprehensive Review of Resource Adequacy was also approval. The RCC approved the 2009 Quebec Interim Review of Resource Adequacy, the 2009 Maritimes Interim review of Resource Adequacy, and the 2009 New York Comprehensive Review of Resource Adequacy at its March 10, 2010 meeting.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
CP- 2010S	Summer 2010 Multi-Area Probabilistic Reliability Assessment	Assess NPCC Area reliability for the year 2010 by estimating the annual Loss of Load Expectation (LOLE) an projected use of Area Operating Procedures designed to mitigate resource shortages for the summer (May through September) period.
	<b>Status/ Comments:</b>	The RCC approved the NPCC Long Range Adequacy Assessment Scope and Schedule at its September 10, 2009 meeting; the scope calls for a report of the results of the summer assessment will be published no later than April 30, 2010. Preliminary results were presented to the RCC at its March 10, 2010 meeting; the report was finalized and approved and was released as Appendix VIII in the 2010 NPCC Summer Reliability Assessment, April 30, 2010.



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Reliability Assessment and Performance Analysis Program

### TASK FORCE ON COORDINATION OF PLANNING

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
CP- 2010W	Winter 2010-2011 Multi-Area Probabilistic Reliability Assessment	Assess NPCC Inc. Area reliability by estimating projected use of Area Operating Procedures designed to mitigate resource shortages for the winter (November 2010 through March 2011) period.
	<b>Status/ Comments:</b>	The 2010-2011 NPCC Winter Multi-Area Probabilistic Reliability Assessment was approved at the November 18-19, 2009 RCC meeting. The scope and schedule for the NPCC Long Range Adequacy Overviews calls for a report of the results of the winter assessment will be published no later than June 30, 2010. Results are scheduled to be presented to the RCC at its June 9, 2010 meeting; the report will be included as Appendix VIII in the 2010-2011 NPCC Winter Reliability Assessment.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
CP - TIE	Review of Interconnection Assistance Reliability Benefits	On a consistent basis, estimate the amount of interconnection assistance available to the NPCC Inc. Areas and for the near term.
	<b>Status/ Comments:</b>	The RCC approved the scope of work and schedule at the September 10, 2009 RCC meeting; the CP-8 Work Group is in the process of developing a database for the analysis, based on NPCC's 2010 NERC LTRA data submittal.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
LRAO	NPCC Long Range Adequacy Overview	On a consistent basis, evaluate the near-term seasonal and long-range (five year) adequacy of NPCC Areas', reflecting neighboring regional plans proposed to meet their respective resource adequacy criteria through multi-area probabilistic assessments.
	<b>Status/ Comments:</b>	The RCC approved the scope of work and schedule at the September 10, 2009 RCC meeting; the CP-8 Work Group is in the process of completing the near-term seasonal assessments, and developing the database for the analysis, based on NPCC's 2010 NERC LTRA data submittal.



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program

#### TASK FORCE ON COORDINATION OF PLANNING

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
CP-11	<i>NPCC Basic Criteria For Design and Operation of the Bulk Power System Review Working Group</i>	<p>This Working Group is charged with the revision of the NPCC Inc. Basic Design Criteria Directory No. 1 and the NPCC Glossary of Terms Document A-07. In addition, the Task Force on Coordination of Planning (TFCP) charged the CP-11 Working Group with the development of the A-10 Classification of BPS Elements document.</p> <p><b>Status/ Comments:</b></p> <p>At the May meeting, TFCP re-charged CP-11 to begin a comprehensive review of Directory #1 to assure that it is consistent with other NPCC Directories, Criteria, Guidelines and Procedures and with applicable NERC Reliability Standards. In conjunction with the development of Phase 2 of the Directory effort, CP-11 review will also assist with the creation of criteria “Requirements” to provide sound foundation for the creation of the NPCC Criteria Compliance Enforcement Program. CP-11 will be holding a series of meetings and conference calls to review schedule and work on Directory #1. Members are encouraged to participate in this important effort which is expected to take about 18 months to complete.</p>



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program

#### TASK FORCE ON SYSTEM STUDIES

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
SS-37	Base Case Development Working Group	On an annual basis, develop a library of solved load flow cases and associated dynamic data.
	<b>Status/ Comments:</b>	Year 2010 development effort has begun and is on schedule.

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
SS-38	Inter-Area Dynamic Analysis Working Group	Assigned to analyze dynamic phenomena, which may affect interconnected system reliability, especially in the area of low frequency oscillations.
	<b>Status/ Comments:</b>	SS-38 is performing simulations to address issues in support of the NPCC Regional UFLS standard development which began in January 2009. Work on NPCC Blackout Recommendation Task 5 has been delayed until completion of these simulations. The Overall Transmission Assessment and sensitivity on Wind integration was completed at the end of March and the final report was subsequently approved by RCC via electronic ballots. The development of guideline for load modeling is anticipated to start at the August SS-38 meeting.



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program

#### Eastern Interconnection Reliability Assessment Group

##### Study Committees

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
ERAG	Eastern Interconnection Reliability Assessment Group	The Eastern Interconnection Reliability Assessment Group (ERAG) Management Committee (MC) oversees the Multi-Regional Modeling Group steady state and dynamics base case development, all Eastern Interconnection interregional assessment activities and other interregional matters of interest. Eastern Interconnection assessment forums include: RFC-NPCC, RFC-SERC East and RFC-MRO-SPP-SERC West.

##### **Status/ Comments:**

The MMWG Series 2009 base cases were completed. PowerTech has been chosen as the new MMWG base case coordinator replacing long time coordinator AEP. The Power Flow Database (PFDB) will be the tool used to assemble the MMWG cases. The PFDB was used by RFC to assemble the 2009 series MMWG cases. Several enhancements will be made to the PFDB for the 2010 series: the data dictionary will now be part of the PFDB, a new error checking routine which produces an excel file that can be sorted by control area. Conversion and testing of user written HVDC dynamic models is under way and is nearing completion for the anticipated move to PSSE version 32 in 2011. The ERAG Management Committee will meet in July.

The RFC-NPCC Steering Committee met on April 27, 2010 to review and provide final comments on the Summer 2010 RFC-NPCC Inter-regional study and on the RFC-NPCC Study Procedures Manual. The ERAG MC met on April 28, 2010 to review the study reports of all three assessment forums for the Summer 2010 study period.



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program

#### RFC - NPCC Working Group

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
RNWG	RFC-NPCC Working Group	The RFC-NPCC Working Group, under the direction of the RFC-NPCC Steering Committee, conducts appraisals of the RFC-NPCC interconnected systems for the upcoming summer and winter capability periods.

**Status/ Comments:**

The RFC-NPCC Working Group completed the summer 2010 inter-regional study on May 14, 2010. The resulting inter-regional transfer capabilities were consistent with those of the previous summer results.



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION (NERC)

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
<b>RAS</b>	Reliability Assessment Subcommittee (RAS)	Conduct an annual review of the overall reliability of the existing and planned generation and transmission systems of the eight Regional Reliability Entities for the ten year horizon. Conduct semiannual seasonal assessments of the overall reliability of the existing generation and transmission systems of the eight Regional Reliability Entities.
	<b>Status/ Comments:</b>	The Summer NERC Seasonal Assessment was released May 26, 2010. Work is continuing on the 2009-2010 Winter Post-Seasonal Assessment, the first such post-seasonal assessment conducted by the RAS. A first draft of the 2010 Long Term Reliability Assessment (LTRA) will be reviewed at the RAS meeting of June 22-24, 2010.

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
<b>DCWG</b>	Data Collection Working Group	Serve as the electric utility industry's coordinator with the Department of Energy (DOE) and the Energy Information Administration (EIA) in submitting yearly data and in negotiating the requirements for data submission to the EIA.
	<b>Status/ Comments:</b>	A meeting of the NERC DCWG and DOE EIA representatives has been scheduled for June 7-8, 2010. Agenda items include an update on DOE EIA activities, review of NERC June PC presentations, the NERC post seasonal assessments, and proposed changes for the 2011 NERC Reliability Assessments. The next meeting was scheduled for September 7-8, 2010.





## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program

#### NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION (NERC)

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
<b>G&amp;TRPMTF</b>	Generation & Transmission Reliability Planning Model Task Force	The objective of the G&TRPMTF is to determine if a reliability modeling methodology can be used to forecast regional reliability in the NERC Long Term Reliability Assessment.
	<b>Status/ Comments:</b>	The GTRPMTF will present a status report regarding the model and methodology that could be used for NERC composite G&T reliability assessments at the June 2010 NERC Planning Committee meeting; the PC will consider the proposal to schedule Webinar(s) to solicit broader industry comment on the proposed model and methodology before seeking PC approval at the September PC meeting.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
<b>TADS</b>	Transmission Availability Data System	Serve as the Regional Entity Coordinator (REC) in support of the NERC TADS outage data collection and the analysis of the NPCC Transmission Owners (TO) outage information. As the REC, oversee the use of and the data entry of automatic outage information by the TO in the NERC Internet based data management tool - webTADS.
	<b>Status/ Comments:</b>	TADS data entry for calendar year 2009 has been completed. NERC is currently developing the metric reports for 2008 and 2009. Starting in 2010, the TO will be required to provide information on non automatic outages in addition to automatic outages.



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program

#### OTHER

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
<b>Inter-ISO</b>	Inter-ISO Working Group	The Inter-ISO Working Group was formed to address Inter-Regional planning and Inter-Area issues of projects that have “cross border” impacts while providing an open stakeholder forum and committee structure to allow market input.
	<b>Status/ Comments:</b>	<p>A WebEx Meeting was held February 2, 2010; materials presented are available on the “Inter-ISO” link, accessible from the NPCC website. Topics presented included: Draft NCSP09 Report Status, the IREMM Study Update, and a summary of existing transmission cost allocation methods.</p> <p>A WebEx Meeting was held April 30, 2010; topics included an update on Interregional Cost Allocation, discussion of comments received on the Draft NCSP09 Report and the IREMM Study Update. The NCSP09 Report was released on May 24, 2010.</p>



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Situation Awareness and Infrastructure Security Program

#### TASK FORCE ON COORDINATION OF OPERATION

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
CO-10	Operational Tools Working Group	The Operational Tools Working Group (CO-10) is responsible for taking a lead role in the development of NPCC and NERC operational tools (e.g. electronic tagging, the NERC Interchange Distribution Calculator and electronic scheduling), including hardware, software and integrated systems. The Operational Tools Working Group will define the need for operational tools, evaluate the cost benefits of operational tools, coordinate their implementation within NPCC and coordinate common training in the use of operational tools.
	<b>Status/ Comments:</b>	The CO-10 Working Group completed its real-time tools survey for the NPCC registered entities.



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Situation Awareness and Infrastructure Security Program

#### TASK FORCE ON INFRASTRUCTURE SECURITY AND TECHNOLOGY

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
IST-1	Infrastructure Security and Technology Workshop	Periodic workshops to address timely issues and update member system personnel associated with the provision of on-line computer systems for operation of the power system.
		<b>Last Workshop:</b> May 2008
	<b>Status/ Comments:</b>	A successful Cyber Security Workshop was held in Albany, NY in May 2008, and was coordinated with the Spring 2008 Compliance Workshop. The next workshop is planned for September 2010.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
IST-3	TFIST EMS-SCADA Working Group	Provide a forum to identify, discuss and advance the technology of EMS-SCADA for the reliable operation of the NPCC Bulk Power System. The EMS-SCADA Working Group (IST-3) will also support TFIST in their work on issues related to EMS-SCADA.
	<b>Status/ Comments:</b>	The EMS-SCADA Working Group has been designed as an Ad-hoc Working Group.



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Situation Awareness and Infrastructure Security Program

#### TASK FORCE ON INFRASTRUCTURE SECURITY AND TECHNOLOGY

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
IST-4	TFIST Cyber Security Working Group	Provide a forum to identify, discuss and advance the technology of Cyber Security for the reliable operation of the NPCC Bulk Power System. The Cyber Security Working Group (IST-4) will also support TFIST in their work on issues related to Cyber Security.
	<b>Status/ Comments:</b>	The Cyber Security Working Group has been designated as an Ad-hoc Working Group by TFIST.
<b>Item</b>	<b>Name</b>	<b>Assignment</b>
IST-5	TFIST Physical Security Working Group	Provide a forum to identify, discuss and advance the use of Physical Security for the reliable operation of the NPCC Bulk Power System. The Physical Security Working Group (IST-5) will also support TFIST in their work on issues related to Physical Security.
	<b>Status/ Comments:</b>	Since the previous update, the Physical Security Working Group held meetings in December 2009 and February 2010.



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Administrative Services

### MEMBERS' FORUMS

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
<b>General</b>	NPCC General Meeting	To promote the reliable and efficient operation of the interconnected bulk power systems in Northeastern North America, NPCC invites high level policy makers from Federal, Provincial, and State regulatory and/or Governmental authorities and senior executives within NPCC to identify and discuss emerging issues related to the reliability of the NPCC Region.
	<b>Status/ Comments:</b>	The NPCC 2010 General Meeting is planned for December 1, 2010 in Albany, New York at the Desmond Hotel; the agenda is currently being developed.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
<b>Gov/Reg</b>	NPCC Governmental Regulatory Affairs Advisory Group	To provide a forum where industry and governmental and/or regulatory representatives can exchange views and strive to develop consensus policy recommendations on reliability issues specific to the NPCC Region and share actionable information related to regional energy and reliability matters.
	<b>Status/ Comments:</b>	The NPCC Governmental/Regulatory Affairs Advisory Group met via a WebEx teleconference call on February 23, 2010, conducted from the Westborough, MA Doubletree Hotel. Topics discussed included the recently released NREL Wind Study, development of the 2010 New England Regional System Plan, and an update of the EIPC and EISPC activities. The second meeting was held May 5 <sup>th</sup> at the Quebec Energy Board following CAMPUT 2010 in Montreal, Quebec. Topics discussed included development of the NERC and NPCC 2011 Business Plan & Budget, the 2010 Summer NPCC Reliability Assessment, the FERC BES NOPR, the Ontario Green Energy Act, and Interconnect-wide Planning Initiatives, including a status of the EIPC.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
<b>PIC</b>	Public Information Committee	To highlight and summarize NPCC activities and accomplishments and disseminate appropriate information to the media, as well as respond to related requests for information.
	<b>Status/ Comments:</b>	NPCC continues to participate in the monthly communications coordination calls with NERC and the Regions.