



**RCC Meeting
November 30, 2010
Agenda Item 7.10**

**Reliability Assessment Program
(NRAP)
HIGHLIGHT REPORT**
*Prepared for the
Reliability Coordinating Committee
November 30, 2010*

Distributed to:

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Members, Regional Standards Committee
Members, Task Force on System Studies
Members, Task Force on System Protection
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and
NPCC Staff



**Reliability Assessment Program
HIGHLIGHT REPORT**

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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 all the FERC Orders and NOPRs that pertain to Reliability Standards. The RSC develops recommendations for the membership on ballots when posted. RSC also participates in the NERC Functional Model Working Group, NERC Standards Committee, NERC Standards Committee Process Subcommittee, and the NERC Regional Standards Group. RSC is also producing a revision to the NPCC Regional Reliability Standards Procedure. RSC is continually 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 sufficiently 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 and revision process. 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 the Regional Reliability Underfrequency Load Shedding Standard, Special Protection Systems Standard, and recently started work on a Regional Reserve Sharing Standard. The Disturbance Monitoring Standard has been approved by the NPCC General Membership, and approved by the NPCC Board of Directors. Its VSLs have been revised and approved by NPCC ballot, and has been approved by the NERC BOT. It will be sent to FERC and the Canadian authorities for their approvals. The RSC has initiated Phase II of the NPCC Directory 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. Also the RSC is developing enhancements to the NPCC website to provide further uniformity and consistency with that of other Regions and participating in various efforts to address the September FERC Order assessing NERC's performance as the ERO.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories

<u>Item</u>	<u>Name</u>	<u>Assignment</u>		
DIR-1	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.	Latest Version:	New
			Frequency of Reviews:	3 years
			Next Review Date:	
	Status/ Comments:	<p>Directory No. 1 received Full Member approval on December 1, 2009 and NPCC Document A-2 was retired on the same date. NPCC documents B4, B8, B10, C4, C13, C18, and C40 were also incorporated within Directory No. 1 and retired.</p> <p>TFCP has assigned the CP11 working Group to begin the triennial review of Directory No. 1 and the working group is presently drafting a new version of Directory No. 1 that will reformat existing NPCC criteria into NERC style requirements. The reformatted version of Directory No. 1 will highlight the more stringent and specific criteria while also facilitating program compliance.</p> <p>This reformatting of Directory No. 1 is consistent with the goals of Phase 2 of the NPCC Directory development project and will also allow CP11 Working Group to coordinate its review along with the progress of the NERC Drafting Team which is working to revise the TPL standards</p>		

<u>Item</u>	<u>Name</u>	<u>Assignment</u>		
DIR-2	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.	Latest Version:	Oct. 21, 2008
			Frequency of Reviews:	3 years
			Next Review Date:	Oct. 2011
	Status/ Comments:	<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>		
DIR-3	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.	Latest Version:	July 14, 2009
			Frequency of Reviews:	3 years
			Next Review Date:	Dec. 2012
	Status/ Comments:	<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>		
DIR-4	BPS Protection Criteria	This Directory establishes the criteria and practices which result in dependable and secure protection system operation for the bulk power system	Latest Version:	Dec. 1, 2009
			Frequency of Reviews:	3 years
			Next Review Date:	2012
	Status/ Comments:	<p>Directory No. 4 received Full Member approval on December 1, 2009. The approval of Directory No. 4 resulted in the retirement of NPCC documents A5, B5, B7, B24, and C22.</p> <p>The RCC has approved an implementation plan to achieve the recommended reduction in BPS risk pertaining to redundant protection systems and/or battery systems on BPS facilities.</p>		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Directories

<u>Item</u>	<u>Name</u>	<u>Assignment</u>		
DIR-5	Reserve	This Directory establishes the criteria and practices which result in dependable and secure operating reserve.	Latest Version:	Dec. 2, 2010
			Frequency of Reviews:	3 years
			Next Review Date:	Dec. 2013
	Status/ Comments:	<p>Directory No. 5 received Full Member approval on October 15, 2010 and NPCC Document A-6 was retired on the same date. NPCC documents B2, C8, C9, C11, C12, C20, C37, and C38 were also retired. The TFCO has identified a number of regional reserve sharing issues that will require additional review.</p> <p>In order to expedite the resolution of these issues, the Regional Standards Committee (RSC) will manage the development of a Regional Standard that addresses reserve sharing and the TFCO will simultaneously develop a new Directory on reserve sharing which could provide the criteria for entities to participate in regional reserve sharing agreements during the interim period that the Regional Standard is being developed.</p>		

<u>Item</u>	<u>Name</u>	<u>Assignment</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.	Latest Version:	Dec. 27, 2007
			Frequency of Reviews:	3 years
			Next Review Date:	Dec. 2010
	Status/ Comments:	<p>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, including a review of Appendix A which details the process for SPS approval, modification, or retirement.</p> <p>The TFCP, TFSS, and TFCO are coordinating their comments on Appendix A and the Directory No. 7 review and will provide those comments to the TFSP, the lead Task Force for Directory No. 7.</p>		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Directories

Item	Name	Assignment		
DIR-8	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	Latest Version:	Oct. 21, 2008
			Frequency of Reviews:	3 years
			Next Review Date:	Oct. 2011
	Status/ Comments:	Directory No. 8 was approved by the NPCC Full Membership on Oct. 21, 2008.		
		TFCO has developed revisions to the Directory No. 8 criteria language pertaining discharge testing of station batteries. The revisions to Directory No. 8 received Full Member approval on October 22, 2010.		

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



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	Latest Version:	Dec. 22, 2008
			Frequency of Reviews:	3 years
			Next Review Date:	Dec. 2011
	Status/ Comments:	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.	Latest Version	March 3, 2010
			Frequency of Reviews:	3 years
			Next Review Date:	
	Status/ Comments:	<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 and a six year program implementation plan were approved by ballot of the NPCC Full Members on June 26, 2009.</p> <p>Directory No. 12 and its implementation plan were further revised to consider UFLS requirements for certain small entities, and these revisions were approved by the NPCC Full Members on March 3, 2010.</p>		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Regional Standards

<u>Item</u>	<u>Name</u>	<u>Assignment</u>		
PRC-002- NPCC-01	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.	Latest Version:	New
			Frequency of Reviews:	3 years
			Next Review Date:	
	Status/ Comments:	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 th , 2010. The Standard was submitted to NERC for review. NERC accepted the technical content of the requirements and the Implementation Plan; however issues were identified with the construction of the VSLs. The VSLs were reworked, and only the VSL portion of the Standard was re-posted for a 30 day industry review and comment period. This was followed by submission to NPCC Members for approval. The VSLs were approved by ballot Oct. 31, 2010. The Standard and its Implementation Plan was submitted to the NERC BOT at its November 4, 2010 meeting and approved. It will now be filed with FERC and the appropriate Canadian authorities for their approvals .		

<u>Item</u>	<u>Name</u>	<u>Assignment</u>		
PRC-006	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.	Latest Version:	New
			Frequency of Reviews:	3 years
			Next Review Date:	
	Status/ Comments:	<p>The NPCC UFLS Regional Standards Drafting Team (RSDT) continues its effort to draft a regional standard while addressing a number of significant issues surrounding UFLS in the region. Presently the team is reviewing comments received during the second Open Process posting of the document which concluded on July 9, 2010.</p> <p>The UFLS RSDT has been supported in its work by the SS38 Working Group which has studied program tolerances, applicability and generator coordination on behalf of the drafting team. Other significant issues addressed by the DT include the standard's implementation, and requirements for the program's undervoltage inhibit.</p> <p>The UFLS RSDT expects to complete its review of comments by the end of November 2010 and will present the draft UFLS standard to TFSS and RCC for review. RSC is expected to post the standard for a 30 day pre-ballot review in early December 2010.</p>		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Regional Standards

Item	Name	Assignment		
BAL-002	Regional Reserve Sharing	This Standard will provide the measures for implementing Reserve Sharing Groups within NPCC in order to meet their reserve obligations.	Latest Version:	New
			Frequency of Reviews:	3 years
			Next Review Date:	
	Status/ Comments:	The RSAR has been developed and approved by the RSC. It will be addressed by the RCC at its Nov. 30, 2010 meeting, at which time a Task Force will be assigned responsibility. It is expected to have the document completed and approved by the NPCC Board of Directors by December, 2011.		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Regional Standards Development Procedure

Item	Name	Assignment	
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>Latest Version: Sept. 19, 2007</p> <p>Frequency of Reviews: 3 years</p> <p>Next Review Date: Sept. 19, 2010</p>
	Status/ Comments:	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 identifies 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 and is working on revisions to the procedure.	



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	<p>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.</p> <p>Status/ Comments:</p> <p>Status of the Events Analysis and Investigation Pilot Project is being reported at each meeting. The pilot program is underway with several events being analyzed with entity cooperation. Presentation was made at 2010 Fall Compliance Workshop.</p> <p>Quality Enhancement Program (QEP) is being developed as a template for NERC to approve and use as a guide for other Regional Entities to enhance their Reliability and Compliance Enforcement Programs. Six elements of QEP are described with examples of how the elements can be applied. One of the elements of QEP, a "Culture of Compliance" questionnaire has been developed and is ready to be sent to a sampling of entities to develop a metric for Culture of Compliance. Presentation was made at 2010 Fall Compliance Workshop.</p> <p>The topic of "Misoperations" and compliance requirements for reporting and analysis per PRC-004, Analysis and Mitigation of Transmission and Generation Protection System Misoperations, has been investigated and discussed. Actions going forward are the development of a draft Compliance Procedure for NPCC entities, and companion Compliance Instruction for NPCC compliance staff for implementation of the requirements of PRC-003 (a fill-in-the-blank standard). The draft CP and CI, when developed, will be presented to CC for review and approval. Presentation was made at 2010 Fall Compliance Workshop.</p> <p>Criteria Compliance Enforcement Program (CCEP) has also been discussed. See status under NRAP RCP (next section).</p>



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.
	Status/ Comments:	<p>The Compliance Committee (CC) has an active working group working on the draft of a new Compliance Criteria Enforcement Program (CCEP).</p> <p>The CCEP working group conducted 2 cycles of review for the draft Compliance Criteria Enforcement Program Process Document (CCEP-1) and incorporated comments and changes. The final Compliance Criteria Enforcement Program Process Document (CCEP-1), along with the Implementation Plan (CCEP-2) was approved during the CC meeting held on 11/17/10. The next step is to have RCC consensus approval of the CCEP-1 document for implementation in 2011.</p> <p>Compliance staff has modified the NPCC website to accommodate posting of the Criteria Certification schedule and reporting responsibility, blank Criteria Certification Forms, secure FTP submittal process and Restricted CC Member Area for review of submittals in accordance with the CCEP-1 process document and Implementation Plan.</p>



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	<p>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.</p>
	Status/ Comments:	<p>The CO-2 Working Group met on September 23-24, 2010 and prepared the agenda for the Fall 2010 System Operators Seminar. The Seminar was held on November 2-3, 2010. The main table top exercise involved a multi-area sabotage scenario and the other exercise was on three way communication. Participating system operators will receive Continuing Education Hours. Other presentations were on events and systems changes, innovations in operating tools, NPCC activities and 2010/2011 winter operating expectations.</p> <p>CO-2 continued in sharing and coordination of the approaches being used to satisfy the requirements of the PER-005-1 NERC standard. A key item in the sharing has involved the Job Task Analysis Process. CO-2 has shared the methodologies used in the assembly of the RC/BA Task Lists. Another effective sharing of knowledge has occurred in the sharing of the construction of Initial and Continuing Operator Training Programs as well as the programs used to train Operations trainers. The sharing of procedures for assembling and maintaining these programs will also prove to be valuable in that it will allow for each area to improve their programs while not requiring the complete restructuring of them. This will allow the NPCC Area Operations Training programs to be similar while still completely “personalized” to each RC/BAs specific area, similar to the resemblance between each area’s restoration procedures.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

BLACKOUT 2003 FOLLOW-UP

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
BSP	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.
	Status/ Comments:	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:

The main near term focus of CO-1 work is on the requirements for synchronized reserve, frequency response and analysis of past SAR events and application of SAR (now titled “Simultaneous” Activation of Reserve) under the revised Directory No. 5. The CO-1 Working Group has provided support to the TFCO in its recent work to complete Directory No. 5, “Reserve” and obtain RCC and NPCC membership approval. Now that Directory No. 5 has been approved and is being implemented CO-1 is providing support to the TFCO for the effort to resolve several open issues that were not included in the Directory No. 5 content. These issues include: 1) How are unit contingent sales treated in SAR allocations?, 2) How is wheeling outside of NPCC treated in SAR allocations?., 3) Determine the appropriate level of synchronized reserve and 4) Establish an alternate reserve sharing process in NPCC to replace the RRSE process in Document C-38. Work is continuing on these items.

The CO-1 Working Group will meet on December 9-10, 2010.



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-7	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.
	Status/ Comments:	The TFCO is redrafting the scope of Working Group CO-07, identifying its new tasks and responsibilities.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
CO-8	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.
	Status/ Comments:	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.
	Status/ Comments:	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.
	Status/ Comments:	The 2010-11 Winter NPCC Reliability Assessment report has been completed and is being reviewed for comment and approval at the November 30, 2010 RCC meeting.



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.
	Status/ Comments:	The 2010 New England Interim Review of Resource Adequacy, the 2010 Ontario Interim Review of Resource Adequacy, the 2010 Quebec Interim Review of Resource Adequacy, and the 2010 New York Interim Review of Resource Adequacy have all been submitted to the RCC for approval at their November 30, 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) and projected use of Area Operating Procedures designed to mitigate resource shortages for the summer (May through September) period.
	Status/ Comments:	The report was finalized and approved by the RCC 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.
	Status/ Comments:	The 2010-2011 NPCC Winter Multi-Area Probabilistic Reliability Assessment was approved at the June 9, 2010 RCC meeting. The report will be included as Appendix VIII in the 2010-2011 NPCC Winter Reliability Assessment, scheduled for RCC approval at its November 30, 2010 meeting.
<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.
	Status/ Comments:	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 analysis, based on NPCC's 2010 NERC LTRA data and Long Range Adequacy Overview database; a status report including preliminary results for 2011 will be given at the November 30, 2010 RCC meeting.
<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.
	Status/ Comments:	The RCC approved the scope of work and schedule at the September 10, 2009 RCC meeting; the analysis, based on NPCC's 2010 NERC LTRA data submittal, will be submitted for RCC approval at their November 30, 2010 meeting.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF PLANNING

Item	Name	Assignment
CP-11	<i>NPCC Basic Criteria For Design and Operation of the Bulk Power System Review Working Group</i>	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.
	Status/ Comments:	At the May meeting, TFCP re-charged the CP-11 Working Group to begin a comprehensive review of Directory No. 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, the CP-11 Working Group 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 No. 1. Members are encouraged to participate in this important effort which is expected to take about 18 months to complete. At the August 18, 2010 meeting, TFCP approved the revised scope and schedule submitted by CP-11 for the Directory No. 1 review to be completed by November 2011 with milestones for two rounds of Task Force review and two rounds of Open Process Review.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON SYSTEM STUDIES

Item	Name	Assignment
SS-37	Base Case Development Working Group	On an annual basis, develop a library of solved load flow cases and associated dynamic data.

Status/ Comments: Year 2010 development effort has begun and is on schedule.

Item	Name	Assignment
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.

Status/ Comments: SS-38 completed the simulations to address issues in support of the NPCC Regional UFLS standard development. In addition, SS-38 has completed the follow-up effort on the development of a recommendation for generator UF tripping applicability as requested at the September RCC meeting. A report will be presented at the November 30, 2010 RCC meeting. Work on NPCC Blackout Recommendation Task 5 is on-going as per the revised schedule and updated Terms of Reference approved at the September RCC meeting. 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 has been re-prioritized in the development of the TFSS work plan for 2011-2012.



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 ERAG Joint Steering Committees met on October 26, 2010 and the ERAG Management Committee met on October 27, 2010. Discussion continued at both groups on achieving more consistency between how assessments are conducted by the three interregional ERAG study forums in the Eastern Interconnection. That will involve changes in the ways the studies are conducted to more closely reflect actual system operation. In addition, concerns with adherence to all items in TPL standards that involve interregional assessments and rethinking the objectives and results of the assessments were addressed. A survey is being developed seek feedback from each Eastern Interconnection Region on how the present interregional assessment are used and whether changes are needed. The survey will obtain information on the use made of the assessments and their results. The survey should be sent to stakeholders within the Regions to determine: 1) how the existing seasonal and future assessments are used, 2) what value they have and 3) can the studies be conducted differently to provide more value. The ERAG Management Committee will evaluate the results of the surveys to determine if changes are needed and what they are.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program RFC - NPCC Working Group

Item	Name	Assignment
RNWG	RFC-NPCC Working Group	The RFC-NPCC Working Group (RNWG), under the direction of the RFC-NPCC Steering Committee (RNSC), conducts appraisals of the RFC-NPCC interconnected systems for the upcoming summer and winter capability periods.
	Status/ Comments:	The RNWG completed its 2010-2011 winter inter-regional assessment study as of October 25, 2010 and reviewed its results with the RNSC at a meeting in Charlotte, NC where the report was accepted with minor changes. The final report will be issued by the end of November 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>
RAS	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.
	Status/ Comments:	The NERC RAS Long Term Reliability Assessment (LTRA) was approved by the NERC BOT and released in October 2010; the 2010-2011 NERC Winter Assessment is expected to be released in November 2010. The NERC data request for the 2011 LTRA is expected to be sent to the Regional Managers in December 2010.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
DCWG	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.
	Status/ Comments:	A meeting of the NERC DCWG and DOE EIA representatives was held on October 20, 2010 in Washington DC.



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>
G&TRPMTF	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.
	Status/ Comments:	The GTRPMTF presented their recommendations regarding the model and methodology that could be used for NERC composite G&T reliability assessments at the September 2010 NERC Planning Committee meeting; the recommendations, methodology and metrics were approved. The GTRPMTF has been working on the report outline and structure to be followed in next year's pilot trial, to be conducted by the NERC Reliability Issues Subcommittee. The report outline and requirements will be presented to the NERC PC for approval at their December 7-8, 2010 meeting.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
TADS	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.
	Status/ Comments:	NPCC completed a review of the 2009 TADS database to ensure the accuracy of the outage information. Work will begin shortly on a similar review of the 2008 TADS database. It is from the TADS database that NERC is developing reporting metrics on the transmission system.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

OTHER

Item	Name	Assignment
Inter-ISO	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.
	Status/ Comments:	A WebEx Meeting was held on October 29, 2010; materials presented are available on the “Inter-ISO” link, accessible from the NPCC website. Topics included the review of the draft IREMM results of Inter-Area Production Cost Studies, the status of Joint Grid View/PROMOD Databases, the draft PROMOD assumptions and approach, an EIPC update and relationship to IPSAC Study Activities, and a summary of the ISO/RTO Council and PJM/NYISO/ISO-NE comments on the FERC Planning NOPR



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	<p>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.</p>
	Status/ Comments:	<p>The CO-10 Working Group completed its real-time tools survey for the NPCC registered entities. The CO-10 WG is currently revising and updating Document C-17, Procedures for Monitoring and Reporting Critical Operating Tool Failures, Monitoring Phasor Measurement Applications, Analyzing Critical Operating Tool Failures, and Investigating Web Services Applications.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Situation Awareness and Infrastructure Security Program

TASK FORCE ON INFRASTRUCTURE SECURITY AND TECHNOLOGY

Item	Name	Assignment
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. Last Workshop: Sept. 2010
	Status/ Comments:	A successful Cyber Security Workshop was held on September 21-22, 2010 at Sheraton Boston Hotel. The Cyber Security Workshop provided insight and assistance on implementing CIP Standards, preparing for CIP Audits, information that should be provided when requesting a Technical Feasibility Exception, review and reminder on the NERC Alert system plus suggesting improvements for Entities and Regions.

Item	Name	Assignment
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.
	Status/ Comments:	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

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
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.
	Status/ Comments:	The Cyber Security Working Group has been designated as an Ad-hoc Working Group by TFIST.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
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.
	Status/ Comments:	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>
General	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.
	Status/ Comments:	The NPCC 2010 General Meeting is scheduled for December 1, 2010 at the Desmond Hotel and Conference Center in Albany, NY.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
Gov/Reg	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.
	Status/ Comments:	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. A second meeting was held May 5 th 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. The next meeting is scheduled for November 29, 2010 at the Desmond Hotel and Conference Center in Albany NY.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
PIC	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.
	Status/ Comments:	NPCC continues to participate in the monthly communications coordination calls with NERC and the Regions. A meeting of the NERC Regional Communications Group was held August 3-4, 2010 in Atlanta, Georgia.