



RCC Meeting
September 10, 2015
Agenda Item 7.8

Reliability Assessment Program
(NRAP)
HIGHLIGHT REPORT
Prepared for the
Reliability Coordinating Committee
September 10, 2015

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

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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	<p>The NPCC Regional Standards Committee (RSC), a committee of the NPCC Board, is primarily charged with management and maintenance of the NPCC Regional Standard Processes Manual (approved by FERC Dec. 23, 2014 superseding the NPCC Reliability Standards Development Procedure). 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 Standard Processes Manual. In addition, the NPCC RSC will review, comment on and develop ballot recommendations for the NERC Reliability Standards under development. The NPCC RSC also provides oversight for the NPCC Regional Reliability Directories which contain the NPCC more stringent regional Criteria and supporting procedures and guidelines. The RSC also conducts and coordinates the Cost Effectiveness Analysis Procedure (CEAP) for evaluation of the cost effectiveness of NPCC’s Regional Standards and Directories. The RSC continues to support NERC staff in the Paragraph 81 and Informal Standard Development efforts which are now being performed during the Periodic Review of the standards. The RSC has provided input to the NERC “Enhanced Periodic Review Project”. This process will allow NERC to expeditiously review standards projects and determine if revisions are needed. The RSC is also providing input into the NERC Drafting Team training materials.</p> <p>Status/ Comments:</p> <p>The RSC is focused on the review of each of the NERC Reliability Standards (as they are developed or revised). The 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. The RSC also supports the NERC Functional Model Working Group, NERC Standards Committee, and the NERC Standards Committee Process Subcommittee. The RSC has also revised the NPCC Regional Reliability Standards Development Procedure, renamed the Regional Standard Processes Manual, which was approved by FERC Dec. 23, 2014, and has been filed with the Provincial Authorities. The RSC continues to participate in the NERC Standard Processes Manual revisions and the Results Based Standards Initiative through its support of the Standards Committee Process Subcommittee, and also solicits members for the NERC drafting teams as necessary to ensure NPCC is adequately represented. The RSC is actively supporting the Order 706 Cyber Security Standards development and revision process. The Disturbance Monitoring Regional Standard and the Automatic Underfrequency Load Shedding Regional Standard have been approved by FERC. The RSC has initiated and is currently initiating Phase II of the NPCC Directory project to convert the criteria in the Directories to specific “requirements” on which compliance may be assessed.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Regional Standards Committee

Item	Name	Assignment
RSC	Regional Standards Committee	<p>The RSC continues to consider enhancements to the NPCC Website to provide further uniformity and consistency with that of NERC and other Regions.</p> <p>The RSC has also developed a Cost Effectiveness Analysis Procedure to evaluate if developing regional standards provides a cost effective solution to achieving a standard's reliability objective and considers the economics of the implementation. The RSC has helped NERC adopt a similar approach. The RSC has also developed the Work Plan for 2015-2016 and a revised Scope of Work, both of which have been approved by the NPCC Board of Directors at their February 4, 2015 meeting. The RSC has been active with the development and approvals of RSARs to address various issues such as a regional variance for continent-wide PRC-006-3 Automatic Underfrequency Load Shedding, and the possible redundancy of PRC-006-NPCC-1 Automatic Underfrequency Load Shedding, and PRC-002-NPCC-01 Disturbance Monitoring with continent-wide standards.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories and Appendices

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
DIR-1	Basic Criteria for the Design And Operation of the Bulk Power System	Appendix A – Definition of Terms Appendix B – Guidelines and Procedures for NPCC Area Transmission Review Appendix C – Procedure for Testing and Analysis of Extreme Contingencies Appendix D – Guidelines for Area Review of Resource Adequacy Appendix E – Guidelines for Requesting Exclusions to Sections 5.4.1 (B) and 5.5.1 (B) of NPCC Directory No. 1 - Design and Operation of the Bulk Power System Appendix F – Procedure for Operational Planning Coordination Appendix G – Procedure for Inter Reliability Coordinator Area Voltage Control	TFCP TFCP TFCP TFCP TFCP TFCO* TFCO*	December 1, 2009

Status/ Comments:

The Task Force on Coordination of Planning (TFCP) and the Task Force on Coordination of Operation (TFCO) have completed a collaborative review of Directory No. 1 through their respective Working Groups.

The combined CO7/CP11 Working Group reviewed the Directory as an integrated planning and operational document and examined all aspects of the criteria, posting Directory No. 1 to the Open Process for three 45 day comment periods.

The revised Directory No. 1 (and associated New England Implementation Plan) will be submitted to the RCC for approval at their September 10, 2015 RCC. Contingent upon RCC approval and in accordance with the NPCC By-Laws, the revised Directory No. 1 will be balloted by the NPCC Full Member Committee for final approval.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories and Appendices

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
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DIR-2	Emergency Operation	Appendix A – Definition of Terms Appendix B - Guideline and Procedure for Emergency Operation	TFCO TFCO TFCO	June 26, 2009
	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 No. 12 (UFLS Program Requirements) effective with the Full Member approval of Directory No.12 on June 26, 2009.</p> <p>Phase 2 reformatting of Directory No. 2 is pending the Task Force on Coordination of Operation (TFCO) coordination with other TFCO Directories.</p>		

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
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DIR-3	Maintenance Criteria for Bulk Power System Protection	Appendix A – Definition of Terms Appendix B – Guidelines and Procedures for Maintenance of Bulk Power System Protection	TFSP TFSP TFSP	July 14, 2009
	Status/ Comments:	<p>The Task Force on System Protection has completed a technical comparison of the criteria in Directory No. 3 with PRC-005-2 <i>Protection System Maintenance</i> and has recommended that the criteria in Directory No. 3 can be retired. The TFSP recommendation was posted to NPCC Open Process and all comments on the TFSP proposal have been addressed.</p> <p>The RCC has approved the TFSP recommendation and on October 15, 2014 the NPCC Full Members voted to approve the retirement of Directory No. 3 effective April 1, 2015 upon the enforcement date of PRC -005-2 <i>Protection System Maintenance</i>.</p>		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories and Appendices

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
DIR-4	BPS Protection Criteria	Appendix A – Guideline and Procedure for Bulk Power System Protection	TFSP TFSP	December 1, 2009
	Status/ Comments:	<p>The Task Force on System Protection (TFSP) has incorporated a new protection system technology (IEC 61850) into the system protection criteria based on a SP-8 Working Group review and subsequent white paper during its current review of Directory No. 4.</p> <p>TFSP has also developed five new NPCC specific Glossary terms which support the new IEC 61850 technology as well as other aspects of the criteria. Additionally, enhanced criteria for the monitoring of tele –protection communication channels as recommended by the TFSP during their evaluation of the proposal to retire Directory No. 3 have been incorporated into the Directory No. 4 criteria.</p> <p>The revised version of Directory No. 4 was posted to the Open Process for two forty five day comment periods and the TFSP has reviewed and responded to all comments. Contingent upon RCC approval at their September 10, 2015 meeting, and in accordance with the NPCC By-Laws, these revisions will be balloted by the NPCC Full Member Committee for final approval.</p>		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories and Appendices

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
DIR-5	Reserve	Appendix 1 – Monitoring Procedure for Interconnected System Frequency Response Appendix 2 – Monitoring Procedures for Reserve Criteria Appendix 3 – Procedures during Abnormal Operating Conditions Appendix 4 – Guidelines for SAR Allocation Following Radial Source Contingencies Appendix 5 – NPCC Control Performance Reporting Process Appendix 6 – Light Load Conditions Appendix 7 – Participation Request Form - Simultaneous Activation of Reserve and Ace Diversity Interchange	TFCO TFCO TFCO TFCO TFCO TFCO TFCO	October 11, 2012

Status/ Comments: The Task Force on Coordination of Operation (TFCO) has addressed a number of key reserve issues that were unresolved when Directory No. 5 was approved in late 2010, including DCS compliance and wheeling radial source contingencies outside the region.

On October 11, 2012 the NPCC Full Member Committee voted to approve revisions to the criteria within Directory No. 5 Reserve which addressed these issues.

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
DIR-6	Regional Reserve Sharing		TFCO	April 6, 2012

Status/Comments: Directory No. 6 was developed in Phase 2 format and approved by the NPCC Full Member committee on April 6, 2012.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories and Appendices

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
DIR-7	Special Protection System	Attachment 1 – Definition of Terms Appendix A – Guidance for Consideration in SPS Design Criteria Appendix B – Procedure for Review of Special Protection Systems	TFSP TFSP TFSP	July 3, 2013
	Status/ Comments:	<p>The RSC continues to monitor the progress of NERC Project 2010-05.2 –<i>Special Protection Systems</i> in order to assess its impact on the NPCC criteria for Special Protection Systems in Directory No.7.</p> <p>At the request of the TFCP, the TFSS has reviewed the existing NPCC list of Special Protection Systems (SPS) to determine which protection systems conform to the proposed definition of Remedial Action Schemes (RAS) and which do not.</p>		

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
DIR-8	System Restoration	Appendix A – Table 1 “Summary of Test Procedures For Critical Components of Key Facilities of the System Restoration Plan”	TFCO TFCO/TFSS ¹	October 22, 2010
	Status/ Comments:	<p>The CO-11 Restoration Working Group is reviewing the initial Phase 2 draft of Directory No. 8 and will provide comments and recommendations to the TFCO. The CO-11 Restoration Working Group will also review the battery testing criteria in Directory No. 8 with PRC-005-2 Protection System Maintenance to address any duplicative requirements. The Final Draft of this effort will be submitted to the TFCO at its meeting on October 14-15, 2015.</p>		

¹ Indicates that the Task Force responsible for review of the Appendix is not the same as the lead Task Force for the respective Directory.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories and Appendices

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
DIR-9	NPCC Verification of Generator Gross and Net Real Power Capability	Appendix A – Definition of Terms Appendix B – Basic Flow Chart for Verification of Generator Gross and Net Real Power Capability	TFCO TFCO/TFCP ¹ TFCO/TFCP ¹	December 29, 2011
	Status/ Comments:	<p>Directory No. 9 was approved by the NPCC Full Membership on December 22, 2008.</p> <p>The Full Member Committee approved the Phase 2 reformatting of Directory No. 9 in December 2011. NPCC has completed a preliminary technical comparison between the criteria in Directory No. 9 and Directory No. 10 and the NERC requirements in MOD-025-2 which is enforceable on July 1, 2016. TFCO has assigned its CO7 Working Group to review this comparison and provide a recommendation to the TFCO regarding the criteria in Directory No.9 in consideration of MOD-025-2.</p>		

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
DIR-10	NPCC Verification of Generator Gross and Net Reactive Power Capability	Appendix A – Definition of Terms Appendix B1 – Basic Flow Chart for Verification of Generator Gross and Net Reactive Power Capability Appendix B2 – Generator Reactive Capability Form	TFCO TFCO/TFCP ¹ TFCO/TFCP ¹ TFCO/TFCP ¹	December 29, 2011
	Status/ Comments:	<p>Directory No. 10 was approved by the NPCC Full Membership on December 22, 2008.</p> <p>The Full Member Committee approved the Phase 2 reformatting of Directory No. 10 in December 2011. NPCC has completed a preliminary technical comparison between the criteria in Directory No. 9 and Directory No. 10 and the NERC requirements in MOD-025-2 which is enforceable on July 1, 2016. TFCO has assigned its CO7 Working Group to review this comparison and provide a recommendation to the TFCO regarding the criteria in Directory No. 10 in consideration of MOD-25-2.</p>		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories and Appendices

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
DIR-12	UFLS Load Shedding Program Requirements	Appendix A – Definition of Terms	TFSS TFSS	July 9, 2013
	Status/ Comments:	<p>Directory No.12 was revised by the Task Force on System Studies (TFSS) in order to synchronize the UFLS program tolerance bands in Directory No.12 with those in the UFLS Regional Standard PRC-006-NPCC-1, allowing regional entities to implement a program that is consistent with the Regional Standard and the SS-38 Working Group design recommendations as part of the ongoing six year UFLS Implementation Plan.</p> <p>The NPCC Full Member Committee approved the revised Directory No.12 on July 9, 2013.</p>		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directory Development and Revision Manual

Item	Name	Assignment	Current Version
Directory	Directory Development and Revision Manual	The NPCC Directory Development and Revision Manual is intended to provide guidance regarding the process of establishing a new or revised Directory and will clarify the roles and responsibilities of the NPCC Task Forces responsible for Directory content.	December, 2013
Status/ Comments:		<p>The Directory Development and Revision Manual was revised in 2013 to incorporate changes in the approval process for a Criteria Interpretation (clarification).</p> <p>The RSC approved an additional posting to the NPCC Open Process to consider revisions to the Manual that incorporate cost considerations for new or revised NPCC criteria.</p> <p>The RSC has responded to all comments and on October 3, 2014 the RSC approved the revisions to the <i>Directory Development and Revision Manual</i>.</p>	

NPCC Glossary of Terms

Item	Name	Assignment	Current Version
Glossary	NPCC Glossary of Terms	The NPCC Glossary of Terms has replaced the A7 document and was approved by the RSC on October 26, 2011. The Glossary contains the definitions of all terms found within NPCC Directories, Guidelines and Procedures. The Glossary is organized in sections containing those terms found in Directories (including Appendices) which support the NPCC criteria and another Section for definitions found within remaining NPCC B and C documents. The Glossary is located in the Directory section of the NPCC website.	October 26, 2011



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Regional Standards

<u>Item</u>	<u>Name</u>	<u>Assignment</u>	<u>Current Version</u>
PRC-002-NPCC-01	Disturbance Monitoring	This Standard establishes 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: October, 2014

Status/ Comments:

The NPCC Board approved the Standard on February 9, 2010. 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 were submitted to the NERC BOT at its November 4, 2010 meeting and approved. Materials were reviewed by NERC and filed with FERC on May 31, 2011. A Filing was made with the appropriate Canadian authorities for their approvals on June 8, 2011. FERC approved PRC-002-NPCC-01 on October 20, 2011. The Task Force on System Protection (TFSP) responded to a Request for Interpretation regarding generators in Requirements R4, R5, and R6 which was approved by the NPCC Board of Directors. Four additional Requests for Interpretation have been resolved by TFSP. Three Requests for Clarification have been resolved by TFSP. The Drafting Team for PRC-002-NPCC-01 has been reconvened in response to a RSC approved RSAR to address the new BES definition, Paragraph 81, and the development of NERC’s PRC-002-2 Disturbance Monitoring and Reporting Requirements standard. Retiring PRC-002-NPCC-01 is to be considered if it is determined that it can be retired without sacrificing the ability to capture post-disturbance data. This work is dependent upon FERC’s approval of continent-wide standard PRC-002-2. The October, 2014 review date will be postponed pending outcome of this effort. A Standard Drafting Team has been reconvened and the first team meeting was a WebEx held on August 13, 2015.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Regional Standards

<u>Item</u>	<u>Name</u>	<u>Assignment</u>	<u>Current Version</u>	
PRC-006 NPCC-1	Under Frequency Load Shedding	This Standard will provide the requirements 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:	February 2016

Status/ Comments:

FERC approved PRC-006-NPCC-1 and its Implementation Plan on February 21, 2013. Based on the FERC approved Implementation Plan the enforcement date for requirements R1 – R7 is January 1, 2016. Requirements R8 – R23 became on enforceable on July 1, 2015.

As a result of developments regarding NERC PRC-006-1/PRC-006-2 Automatic Underfrequency Load Shedding, PRC-024-1/PRC-024-2 Generator Frequency and Voltage Protective Relay Settings, Project 2014-01 Standards Applicability for Dispersed Generation Resources, NPCC Directory No. 12 Underfrequency Load Shedding Program Requirements, and the 2013 NPCC UFLS Adequacy Assessment, a RSAR for revision of Automatic Underfrequency Load Shedding PRC-006-NPCC-1 was approved by the Regional Standards Committee at its June 23, 2015 meeting. The NPCC Manager of Reliability Standards submitted a letter requesting the RCC to assign a drafting team, recommending the TFSS. The RCC approved the Regional Standards Committee’s request to assign the TFSS to the project scope outlined in the RSAR and to populate the Drafting Team.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>	<u>Current Version</u>	
BAL-002- NPCC-01	Regional Reserve Sharing Groups	The Standard provides 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. The RCC has assigned the TFCO to act as the drafting team and a request for drafting team members was sent to the NPCC membership. At its meeting of April 14 and 15, 2011, the TFCO established a sub-group of TFCO members and NPCC staff that will work on the Reserve Sharing Groups Standard’s development. The development of Regional Standards has been held in abeyance pending further direction from NERC.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Regional Standards Development Procedure

Item	Name	Assignment	Current Version
RSPM	Regional Standard Processes Manual	The NPCC Regional Standard Processes Manual 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 northeastern North America.	<p>Latest Version: Dec, 23 2014</p> <p>Frequency of Reviews: 3 years</p> <p>Next Review Date: Dec. 23, 2017</p>

Status/ Comments:

The Regional Standard Processes Manual (RSMP) is posted on the NPCC Website. The RSC is actively reviewing the activities at the NERC level to ensure the regional procedure is consistent with the NERC Standard Processes Manual and achieves a consistency with the NERC common attributes adhered to by the other Regions. The RSPM was posted for a 45 day comment period Dec. 7, 2011. It was reposted June 6, 2013 through July 22, 2013 for comments. The Regional Standard Processes Manual passed the ballot that was posted November 12, 2013 through January 17, 2014. The document was approved by the NPCC Board of Directors and NERC BOT at its August 14, 2014 meeting. The RSPM was approved by FERC Dec. 23, 2014. It has been forwarded to the Provincial Authorities for their approvals.



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) is 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 provides 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. In addition, the CC is responsible for providing non-monetary sanction recommendations to the RCC for incidents of non-compliance with monitored Reliability Criteria.</p> <p>Status/ Comments: On July 14, 2015, the CC approved language associated with the compliance position of NPCC Staff on TPL-001-4, Requirement 2.7. On July 15, 2015, the position of NPCC Staff was posted on the NPCC website and all Registered Entity Primary and Alternate Compliance Contacts were notified.</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>
CCEP	Criteria Compliance and Enforcement Program	<p>The CC will maintain the <i>NPCC Criteria Compliance and Enforcement Program Process Document (CCEP-1)</i> which documents the process for actively monitoring and enforcing compliance on a subset of the Reliability Criteria.</p> <p>The CC will provide to the RCC for approval an annual CCEP Implementation Plan which identifies the Reliability Criteria that will be monitored in the upcoming CCEP compliance year and identifies the due dates for the Reliability Criteria Certification forms.</p> <p>The CC will provide to the RCC for approval an annual written assessment of the submitted Reliability Criteria Certification forms which will include recommendations as necessary of non-monetary sanctions for incidents of non-compliance.</p> <p>Status/ Comments: The Reporting Full Members have submitted all certification forms in accordance with 2014 CCEP Implementation Plan. CC Members have completed reviewing the 2014 forms. On June 17, 2015, the CC approved the 2014 CCEP Implementation Plan Assessment Report. The assessment report will be presented at the September 10, 2015 RCC meeting for approval. The CCEPWG will be presenting the 2016 CCEP Implementation Plan and the associated CCEP Certification Forms for approval at the September 2015 CC meeting.</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	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.
	Status/ Comments:	The 2015 Spring NPCC System Operator Seminar was held in New York City on May 5, 6 and 7, 2015. The Seminar included a Table Top exercise related to operating aspects of NERC standards and participating system operators were awarded Continuing Education Hour credits. Presentations at the Seminar included: 1) operator presentations on events that occurred in reach of the NPCC Areas and in PJM, 2) frequency response, 3) operation challenges in the southeastern NY system. Tours of the Con Edison Control Room and West 49 th Street 345 kV substation were also conducted. The program is currently being developed for the Fall Seminar, to be held in Montreal, Quebec on November 4-5, 2015.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF OPERATION

Item	Name	Assignment
CO-1	Control Performance	<p>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.</p>
	Status/ Comments:	<p>NPCC staff and an NPCC consultant are continuing work with the NPCC Balancing Authorities (BAs) on frequency response of the NPCC generators. Actual generator frequency response samples have been obtained for more generators and for more events. All NPCC BAs have completed the NERC governor-plant control survey but as more actuals are analyzed that information is being used to refine the responses provided in the previous survey submissions..</p> <p>The CO-1 Working Group met on May 21 and 22, 2015. There was additional discussion on the revised BAL-002-2 “Disturbance Control Standard – Contingency Reserve for Recovery from a Balancing Contingency Event” draft standard. The draft is in its 7th version as it had been voted down six times. However The CO-1 Working Group prepared a letter summarizing the concerns and it was reviewed and revised by the CO-8 Working Group, with the changes made so far for the 7th version the content may now be acceptable for the NPCC BAs and PJM. Remaining concerns with the BAL-005-2 draft revised standard are still a concern and may affect the present practices of the NPCC BAs. Discussion at CO-1 and the NERC BARC Standard Drafting Team are continuing to make the content acceptable.. Other topics addressed at the meeting: 1) analysis of recent SAR events, 2) Balancing Standards BAL-001-2, BAL-003-1, BAL-004 and 006 NERC Review, and 3) Periodic monitoring of operating reserve, control performance and frequency.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

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

Item	Name	Assignment
CO-7	Operational Planning Working Group	The Working Group CO-07 was restructured to serve the Task Force on Coordination of Operation as an Ad Hoc Working Group, populated and charged to address specific issues as required to assist the TFCO. It has been renamed the “Operational Planning Working Group.”
	Status/ Comments:	<p>The combined CO7/CP11 Working Group reviewed the Directory as an integrated planning and operational document and examined all aspects of the criteria, posting Directory No. 1 to the Open Process for three 45 day comment periods.</p> <p>The revised Directory No. 1 (and associated New England Implementation Plan) will be submitted to the RCC for approval at their September 10, 2015 meeting. Contingent upon RCC approval and in accordance with the NPCC By-Laws, the revised Directory No. 1 will be balloted by the NPCC Full Member Committee for final approval.</p>

Item	Name	Assignment
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 has worked with the TFCO to develop and release a template that summarizes the present market commitment practices together with RC to RC communications. At its meeting of August 26-27, 2015, the CO-8 Working Group reviewed its basic communication document, CO-1, “ <i>NPCC Emergency Preparedness Communications Procedures.</i> ”



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 CO-11 Working Group facilitates effective and coordinated power system restoration among the NPCC Reliability Coordinator areas and with adjacent Regions. Annually review the restoration plans of the NPCC Reliability Coordinator areas to identify in each individual plan the physical points of coordination, the general elements of the restoration plan, the Key Facilities associated with the restoration plan, the communication protocols employed and the roles and responsibilities of the restoration participants. Identify opportunities for mutual assistance during restoration and the extent to which each system can rely on its neighbors for assistance. Coordinate Reliability Coordinator restoration exercises and develop and supervise annual wide area restoration simulations. The Restoration Working Group (CO-11) monitors the NERC Reliability Standards EOP-005, “System Restoration from Blackstart Resources,” and EOP-006, “System Restoration Coordination,” and coordinates input to the NPCC Task Force on Coordination of Operation and the NPCC Regional Standards Committee as revisions to these Standards are proposed and implemented.

Status/ Comments:

The NPCC Restoration Working Group conducted reviews of the Ontario, and the Québec TransÉnergie Restoration Plans, presented at its meeting on September 1-2, 2015. A summary of the general elements of the restoration plans was provided, together with an identification of the Key Facilities which make up the Basic Minimum Power System as defined by NPCC. The review also included descriptions of the elements of coordination of the restoration plans with neighboring Reliability Coordinators (desired points of interconnection and control parameters).

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
CO-12	Seasonal Assessment Working Group	Review the overall reliability of the generation and transmission system in the NPCC Region for the Summer and Winter Seasonal conditions. Working Group CO-12 has been renamed the “Seasonal Assessment Working Group” to avoid confusion with the restructured Working Group CO-07.

Status/ Comments:

The 2015 NPCC Summer Assessment Final Report was issued on May 1, 2015. It included the deterministic assessment conducted by the CO-12 Working Group and the probabilistic assessment conducted by the CP-8 Working Group. The NPCC media teleconference was conducted on April 30. The press release and summary report were posted on the NPCC web site on April 30, 2015. Work has begun on the 2015 NPCC Winter Assessment, planned to be presented to the RCC for approval at their December 2015 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 Areas and perform pre-seasonal resource adequacy assessments.
	Status/ Comments:	<p>The Scope and Schedule for the 2015 NPCC Long Range Adequacy Overview (LRAO) and the 2015 NPCC Tie Benefits Study were approved the September 10, 2014 RCC meeting. Work is currently underway by the CP-8 Working Group; approval of both reports is planned for consideration at the December 2015 RCC meeting.</p> <p>The TFCP approved the NPCC Winter 2015 – 2016 Multi-Area Probabilistic Reliability Assessment at their August 18 6, 2015 meeting; approval planned for consideration at the September 10, 2015 RCC meeting.</p>

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
CP- 2015S	Summer 2015 Multi-Area Probabilistic Reliability Assessment	Assess NPCC Area reliability for the year 2014 by estimating the projected use of Area Operating Procedures designed to mitigate resource shortages for the summer (May through September) period.
	Status/ Comments:	The 2015 Summer NPCC Multi-Area Probabilistic Reliability Assessment was completed and approved by the Task Force on Coordination of Planning in April 2015; the assessment was released at the April 30, 2015 NPCC Media Event.



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- 2015W	Winter 2015-2016 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 through March) period.
	Status/ Comments:	The Task Force on Coordination of Planning (TFCP) approved NPCC Winter 2015 – 2016 Multi-Area Probabilistic Reliability Assessment at their August 18, 2015 meeting; approval is planned to be considered at the September 10, 2015 Reliability Coordinating Committee meeting.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
LRAO	NPCC 2015 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 Reliability Coordinating Committee (RCC) approved the Scope of Work and Schedule for the 2015 LRAO at its September, 2014 meeting. Work is underway by the CP-8 Working Group; assumptions used in the 2015 LRAO are to be consistent the NERC 2015 Long-Term Reliability Assessment. Approval is planned to be considered at the December 2015 RCC 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>	<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>
	Status/ Comments:	<p>The combined CO7/CP11 Working Group reviewed the Directory as an integrated planning and operational document and examined all aspects of the criteria, posting Directory No. 1 to the Open Process for three 45 day comment periods.</p> <p>The revised Directory No. 1 (and associated New England Implementation Plan) will be submitted to the RCC for approval at their September 10, 2015 RCC. Contingent upon RCC approval and in accordance with the NPCC By-Laws, the revised Directory No. 1 will then be balloted by the NPCC Full Member Committee for final approval.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON SYSTEM STUDIES

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
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:	As part of Task Force on System Studies’ work plan in 2015, the SS-38 Working Group will be conducting the NPCC Overall Reliability Assessment (ORA) as projected for 2020. The Terms of Reference for this ORA was approved at the March 4, 2015 RCC Meeting. The SS-38 Working Group will present preliminary results of this study at the September 10, 2015 RCC meeting.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
SS-37	Base Case Development Working Group	On an annual basis, develop a library of solved power flow cases and associated dynamic data.
	Status/ Comments:	<p>Power Flow Cases – Ongoing: In June 2015, the SS-37 Working Group completed the 12 Power Flow Cases for 2015 NPCC Library of Cases. The completed NPCC cases were submitted in July 2015 to the Multiregional Modeling Working Group (MMWG) of the Eastern Interconnection Reliability Assessment Group (ERAG). The MMWG has the responsibility to aggregate the power flow cases from the six regions within the Eastern Interconnection into the Eastern Interconnection power flow cases. The scheduled completion date for the Eastern Interconnection power flow cases is October 16, 2015. The SS 37 Working Group will remain engaged with the MMWG during development of the Eastern Interconnection power flow cases to provide technical expertise and support on behalf of NPCC.</p> <p>Dynamic Models – Ongoing: In July 2015, the SS-37 Working Group assembled the dynamic data for the 2015 NPCC Library of Cases. The completed dynamic models were submitted in August 2015 to the Multiregional Modeling Working Group (MMWG) of the Eastern Interconnection Reliability Assessment Group (ERAG). The MMWG has the responsibility to aggregate the dynamic models from the six regions within the Eastern Interconnection into the Eastern Interconnection dynamic models. The scheduled completion date for the Eastern Interconnection dynamic models is January 18, 2016. The SS 37 Working Group will remain engaged with the MMWG during development of the Eastern Interconnection dynamic models to provide technical expertise and support on behalf of NPCC.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON SYSTEM PROTECTION

Item	Name	Assignment
SP-7	Working Group on Review of Protection System Misoperations	Review and analyze misoperations of transmission and generation protection systems and special protection systems on the bulk electric system and report on the statistics of misoperations as they occur in the NPCC region including lessons learned and implementation of corrective action plans by registered entities.
	Status/ Comments:	<p>The SP-7 Working Group has completed review of First Quarter 2015 misoperation reports and outstanding reports from prior Quarters. The First Quarter Report and updates to prior Quarter Reports were submitted to NERC on July 14, 2015, and a status report will be given at an upcoming RCC meeting. The SP-7 Working Group is currently reviewing Second Quarter 2015 reports and outstanding reports from prior Quarters.</p> <p>The Working Group is reviewing the SPS Misoperations as of 2nd Quarter 2015 under a new template as it was directed by NERC. The SP-7 working Group is continuing discussion with its members and their respective organizations on the NERC proposed move of Protection System Misoperation and Operation data out of PRC-004 compliance requirements to NERC Rules of Procedure Section 1600 Mandatory Data Reporting and its potential effects on the NPCC Misoperation and Operation reporting process. The Working Group also worked on several lessons and Learned from all the prior Misoperations.</p> <p>NPCC has started collecting all SPS types (Type I, II, III) Misoperation and Operations in a new SPS reporting template that is uploaded to a secure FTP site. An email was sent to Registered Entities who own one or more Special Protection System (SPS) to notify them about the changes. The SP-7 Working Group has revised its scope to review these submittals in addition to relay misoperation.</p>



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	<p>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.</p> <p>Status/ Comments:</p> <p>Based on the MOD-032-1 standard, Requirement 4, NERC will need to determine a designee for creation of Eastern Interconnection base cases:</p> <p>R4. Each Planning Coordinator shall make available models for its planning area reflecting data provided to it under Requirement R2 to the Electric Reliability Organization (ERO) or its designee to support creation of the Interconnection-wide case(s) that includes the Planning coordinator’s planning area.</p> <p>The Regional Entity representatives from the ERAG Management Committee and the full Management Committee met on July 15-16, 2015 to discuss possible approaches for ERAG assessments. ERAG (or its successor organization) will focus on conducting Eastern Interconnection assessments and these assessments should supplement other assessment work presently done within the RE committee structures or within the NERC committees. Several other conference calls have been held since to continue the discussions.</p> <p>The scheduled 2015-2016 Winter ERAG Assessment will be conducted as previously planned but discussions will continue on possible changes to the ERAG assessment process for 2016.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program ERAG Seasonal Working Group

Item	Name	Assignment
ERAGWG	ERAG Seasonal Working Group	<p>The ERAG Seasonal Working Group (ERAGWG) combined and replaced the MRO-RFC-SERC-SPP (MRSS) working group and RFC-NPCC (RN) working group to conduct appraisals of the Eastern Interconnection. Appraisals are conducted for the upcoming summer and winter periods or for weather scenarios, including drought and polar vortex type conditions, to determine the impacts on power flows across the Eastern Interconnection.</p> <p>Status / Comments:</p> <p>2015 Summer Assessment – Complete NPCC Staff and members participated in the development of the ERAG 2015 Summer Transmission System Assessment. The 2015 Summer Transmission System Assessment was approved and released by the ERAG Management Committee in May 2015.</p> <p>2015 Weather Based Transfer Analysis - Ongoing In lieu of conducting a seasonal 2015/16 Winter transmission system assessment, the ERAG Steering Committee will appraise the performance of the bulk power transmission systems covered by the Eastern Interconnection by examining weather scenarios, including drought and polar vortex type conditions, and determine their impacts on power flows across the Eastern Interconnection. The Study Scope was approved by the ERAG Management Committee in June 2015. The final report of the 2015 Special Weather Assessment is scheduled to be approved by the ERAG Management Committee in November 2015.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION (NERC)

Item	Name	Assignment
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 data request for the 2015 Long-Term Reliability Assessment (LTRA) was distributed by NERC staff on January 20, 2015; the initial LTRA data and corresponding narratives were due to NERC by June 12, 2015; the NPCC CP-8 Working Group responded to the request. Identified 2015 LTRA reliability issues include: declining reserve margins in some Assessment Areas; ongoing changes in the North American resource mix; and related challenges in operations and planning. The draft 2015 LTRA will be presented at the September NERC Planning Committee (PC) meeting. There will also be a review of additional reliability issues and new data checks that were implemented for the 2015 LTRA. These include verification of import/exports and generator unit level data validation with interconnection-wide planning cases. The 2015 NERC LTRA is expected to be released in December 2015. The winter operational assessment will be finalized at the October 6-7, 2015 RAS meeting.
Item	Name	Assignment
RADWG	Reliability Assessment Data 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:	The NERC Reliability Assessment Data Working Group (RADWG) met February 9, 2015 to further discuss proposed changes and improvement in the overall NERC assessment process, the on-going development of the RADS, and DOE data requirements. The NERC Planning Committee (PC) will review NERC Reliability Assessment (RAS) 2015 efforts, including consideration of PC approval of an updated RAS updated charter, which includes absorbing the responsibilities and members of the Reliability Assessment Data Working Group (RADWG).



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION (NERC)

Item	Name	Assignment
ProbA	Probabilistic Assessment	Trial assessment to determine if probabilistic reliability metrics based on the NERC Long Term Reliability Assessment can be used to supplement NERC regional reliability outlooks.
	Status/ Comments:	The 2014 NERC Probabilistic Assessment was presented and approved at the March 2015 NERC Planning Committee (PC) Meeting, The NERC PC also recommended reconvening the GTRPMTF to develop a scope and work plan that addresses the recommendations presented in the assessment. As a result, NERC formed the Probabilistic Assessment Improvement Group (PAIG). The NERC Planning Committee (PC) will review the PAIG efforts and the next steps for NERC's probabilistic assessments and consider approval of their Scope of Work. The NERC PC Review and provide comments to the draft Probabilistic Assessment Summary to enhance probabilistic assessment approaches in support of NERC's Long-Term Reliability Assessment.

Item	Name	Assignment
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:	The NERC TADS Working Group (TADSWG) met on August 11-13, 2015 at NPCC's office in New York. The next face to face meeting will be on January 20-21, 2016. The Working Group reviewed the status of TADS Planned Outage Reporting A full 1600 data request process (incl. a survey of industry stakeholders) was undertaken. NERC staff and TADSWG members prepared the content for a 1600 data request. Following NERC and FERC review periods, the associated survey was sent to Transmission Owners (TOs). Responses to the survey were reviewed by the TADSWG at this August meeting. The large majority of TO responses indicated support to discontinue collection of TADS Planned Outage data and continue collection of TADS Operational Outage data. Approvals from the NERC Planning Committee (Sept. 2015) and NERC Board (Oct./Nov. 2015) will be sought to implement this change in TADS reporting. A TADSWG sub-team is preparing draft versions of the Data Reporting Instruction (DRI) manual and Definitions (Appendix 7) document to incorporate the changes in preparation for TO training (November 2015) 2016 reporting.



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>
DADS	Demand Availability Database System	Serve as the Regional Entity Coordinator (REC) in support of the DADS data collection and analysis for NPCC. As the REC, oversee the collection of the data in the NERC Internet based data management tool – webDADS.
	Status/ Comments:	The NERC Demand Response Availability Data System Working Group (DADSWG) held a face to face meeting on June 2-3, 2015 at MRO’s office in St. Paul MN. The next face to face meeting will be at MISO’s office in Carmel, Indiana on August 25-26, 2015. The group worked on the 2015 State of Reliability report. The group is also working on a new set of metrics to shows the amount of demand response reduction (in MW) provided during all the reliability events deployed in a given month by time of day.



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>
SEWG	Spare Equipment Working Group	Serve as the Regional Entity Coordinator (REC) in support of the Spare Equipment Database and analysis for NPCC. As the REC, oversee the collection of the data in the NERC Internet based data management tool.
	Status/ Comments:	<p>The NERC Spare Equipment Working Group (SEWG) held a face-to-face meeting on February 24-25, 2015 at NERC’s office in Washington D.C and a conference call on April 9, 2015. The Working Group will have one face-to-face meeting per year and one conference call per quarter. Meetings will be held in public, but there may be times when attendance at the meetings will be limited to the SEWG voting members to allow discussion of confidential information. The SEWG voting members may also invite guests to provide input on specific areas.</p> <p>In 2014, the primary focus of SEDWG was to increase participation. To that end, SEDWG worked with NERC and industry associations to host webinars and make presentations to explain the program to registered entities and to solicit new participants.</p> <p>In September 2014, the SEDWG’s scope was updated to reflect the broader landscape of spare equipment and was renamed to the Spare Equipment Working Group (SEWG). The SEWG will continue to oversee the SEDS, but also assess the industry’s posture on long-lead time electric transmission equipment and act as a conduit for information exchange between the industry and government on the issue of spare equipment.</p> <p>The group reviewed the spare equipment chapter for the 2014 State of Reliability report and provided its updates to Performance Analysis Subcommittee (PAS). Also the SEWG will work with Department of Energy to update their report/paper on “Large Power Transformers and the U.S. Electric Grid. Below are the topics that will be included on the paper:</p> <ul style="list-style-type: none">✓ “National Strategy for Reducing Risk from the Loss of Large Power Transformers”✓ Supply chain considerations: electrical steel and bushings✓ Transformer transportation—challenges and opportunities✓ Mobile transformers✓ NERC Reliability Standards (GIC and Physical standards)✓ Security and protective measures (manufacturers’ efforts)✓ Re-manufacturing or refurbishing of transformers



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>
GADS	Generator Availability Data System	Serve as the Regional Entity Coordinator (REC) in support of the Generator Availability data collection and Data System analysis for NPCC. As the REC, oversee the collection of the data in the NERC Internet based data management tool – webE-GADS.
	Status/ Comments:	<p>The NERC GADS Working Group (GADSWG) conducted a conference call on August 19, 2015. The next face to face meeting will be on September 30- October 1, 2015 at NERC’s Office Atlanta Georgia. NERC requested public comment, on its proposal to add Generator Operators that operate wind turbine facilities of 75 MW or greater to the existing Generating Availability Data System. The group discussed the preparation needed to integrate the wind DRI into GADS. The GADSWG reviewed the Wind GADS Section 1600 Public Comments and consolidated all comments into 4 categories:</p> <ol style="list-style-type: none"> 1. Burden 2. Reporting Requirements 3. DRI Clarification 4. General Comments <p>Wind generation continues to grow at a robust pace and will probably exceed hydro generation around 2017. As a result some bulk power distributors are already seeing impacts to their planning and reserve requirements. Completion of the revised Wind DRI depends upon the perceived urgency by the NERC Planning Committee (PC). If the PC review and public comment go smoothly, mandatory reporting for wind could occur as early as 2016.</p>



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>
RADS	Reliability Assessment Data System	<p>The purpose of the ERO Reliability Assessment Data System (RADS) is to facilitate the collection of data used for the development of NERC's reliability assessments. RADS-Phase 2 was initiated by the ERO-EMG to identify and document the differences and similarities of existing data collection processes among the Regions/Assessment Areas.</p>
	Status/ Comments:	<p>NERC's 2015 Long-term Reliability Assessment (LTRA) will be using the newly developed Reliability Assessment Data System (RADS). This database was created to provide increased support and accuracy for the LTRA data provided by ERO members. With more secure and better aligned data dating back to 1990, NERC is better able to insure data integrity upon import of annual submissions and more quickly able to access additional tools for ongoing trending and analysis.</p> <p>NERC held Webinars in August 2015 to familiarize ERO stakeholders with the operation/functionality of the new database and demonstrate how NERC staff will be using RADS, showing the full process. from generation of new data forms to the finalization of data, and presentation of the automatic reports, highlighting new requirements.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

OTHER

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
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:	The Inter-ISO Working Group last met (via WebEx) on Friday, December 12, 2014. The main purpose of the WebEx was to update stakeholders on interregional planning activities. The IPSAC is being convened in support of the comprehensive process of coordinating system planning activities established under the Northeastern ISO/RTO Planning Coordination Protocol (“Protocol”) by the three ISO/RTOs.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Situation Awareness and Infrastructure Security Program TASK FORCE ON COORDINATION OF OPERATION

Item	Name	Assignment
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 has become completely engaged in the review of tool failure lessons learned generated from the EAP program and have provided many reviews which are now posted on the NPCC Event Analysis lessons learned page. Also, the CO-10 WG has prepared a presentation for TFCO on the survey results from RCs ,BAs, TOs and TOPs, regarding the findings and recommendations of minimum acceptable capabilities and best practices for real-time tools necessary to ensure reliable electric system operation and reliability coordination to be presented by year-end.</p>



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 presentations 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: May 2015
	Status/ Comments:	Presentation given at the NPCC Spring 2015 Standards & Compliance Workshop. NPCC Fall 2015 Standards & Compliance Workshop will include one day devoted to CIP topics

<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.
	Status/ Comments:	The EMS-SCADA Working Group has been designed as an Ad-hoc Working Group by TFIST.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Situation Awareness and Infrastructure Security Program

TASK FORCE ON INFRASTRUCTURE SECURITY AND TECHNOLOGY

Item	Name	Assignment
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:	TFIST to review a draft scope at its September 2015 meeting.

Item	Name	Assignment
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:	Per the 2015-2016 TFIST Work Plan, re-populate the Physical Security Working Group.



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 2015 NPCC General Meeting is scheduled for December 2, 2015 in Albany, New York.

<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 will next meet the afternoon of December 1, 2015 in conjunction with the NPCC 2015 General Meeting in Albany, New York.

<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 communications coordination with NERC and the Regions. The 2015 Media Event for the release of the 2015 NPCC Summer Reliability Assessment was held April 30, 2015.