



RCC Meeting  
March 4, 2015  
Agenda Item 7.10

**Reliability Assessment Program**  
**(NRAP)**  
**HIGHLIGHT REPORT**  
*Prepared for the*  
*Reliability Coordinating Committee*  
*March 4, 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	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 referred to as "Consensus Building". The RSC is providing input to the NERC "Enhanced Periodic Review Project", to allow NERC expeditiously review standards projects and determine if revisions are needed. RSC is also providing input into the NERC Drafting Team training materials.

**Status/ Comments:**

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 FERC and the Provincial Authorities. The RSC continues to participate in the NERC Reliability Standards 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 RSC is overseeing and managing the development of a Regional Reserve Sharing Group Standard. The Disturbance Monitoring Regional Standard has been approved by the NPCC General Membership, the NPCC Board of Directors, NERC Board of Trustees, and FERC. The Underfrequency Load Shedding Regional Standard has been approved by FERC. 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.



# 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 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 3, 2015 meeting.</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	<b>Basic Criteria for the Design And Operation of the Bulk Power System</b>	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 and the Task Force on Coordination of Operation requested a collaborative review of the draft Phase 2 version of Directory No. 1 by their respective Working Groups CP11 and C07.

The combined CP11/C07 Working Group was instructed to review the draft as an integrated planning and operational document, examine all aspects of the criteria, and return the draft of Directory No. 1 to the TFCP and the TFCO for their collective consideration.

Directory No.1 has been posted to the Open Process for two 45 day comment periods with the most recent posting concluding on July 7, 2014.

As directed by the TFCO and TFCP the CO7/CP11 has completed its review of comments received in the 2nd Open Process posting and has returned the draft of Directory No. 1 to the Task Forces with an assessment of two outstanding issues that the Working Group failed to reach consensus on. This assessment included a description of each issue along with suggested alternative solutions for Task Force consideration.



# 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
	<b>Status/ Comments:</b>	<p>Directory No. 2 was approved by the Full Members on October 21, 2008 and NPCC Document A-3 was retired on the same date. The Automatic UFLS language formerly contained within Directory No. 2 was transferred into Directory 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
	<b>Status/ Comments:</b>	<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<sup>st</sup>, 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
	<b>Status/ Comments:</b>	<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 TFSP proposed revisions to Directory No. 4 were posted to the Open Process for 45 days through February 2nd, 2015 and the TFSP will be considering comments received at its upcoming meetings.</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
	<b>Status/ Comments:</b>	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.		
DIR-8	Black Start System Restoration	Appendix A – Definition of Terms	TFCO TFCO/TFSS <sup>1</sup>	October 22, 2010
	<b>Status/ Comments:</b>	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 revisions will be incorporated into the Phase 2 reformatting of Directory No. 8 and presented to the TFCO. The CO-11 Restoration Working Group will also review Directory No. 8 and in the recently approved NERC Standard PRC-005-2 to address any conflicts and / or duplicated requirements.		

<sup>1</sup> Indicates that the Task Force responsible for review of the Appendix is not the same as the lead Task Force for the respective Directory.  
NPCC



# 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 <sup>1</sup> TFCO/TFCP <sup>1</sup>	December 29, 2011
<b>Status/ Comments:</b>		<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. TFCO plans to perform a final review in order to determine if the criteria in Directory No. 9 and No. 10 remains consistent with the revised ERO standard. At its meeting of March 18 and 19, 2015, the TFCO will initiate the review of Directory No. 9.</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 <sup>1</sup> TFCO/TFCP <sup>1</sup> TFCO/TFCP <sup>1</sup>	December 29, 2011
<b>Status/ Comments:</b>		<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. TFCO plans to perform a final review in order to determine if the criteria in Directory No. 9 and No. 10 remains consistent with the revised ERO standard. At its meeting of March 18 and 19, 2015, the TFCO will initiate the review of Directory No. 10.</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
	<b>Status/ Comments:</b>	<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> <p>NPCC will retire Directory No.12 upon full implementation of PRC -006-NPCC-1.</p>		



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Standards Program

#### Directory Development and Revision Manual

<b>Item</b>	<b>Name</b>	<b>Assignment</b>	<b>Current Version</b>
<b>Directory</b>	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.	<b>December, 2013</b>
<b>Status/ Comments:</b>		<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

<b>Item</b>	<b>Name</b>	<b>Assignment</b>	<b>Current Version</b>
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.	<b>October 26, 2011</b>



# 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.	<b>Latest Version:</b> New <b>Frequency of Reviews:</b> 3 years <b>Next Review Date:</b> October, 2014
<b>Status/ Comments:</b>		<p>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 an approved RSAR to address the new BES definition, and clarifications needed from the Requests for Interpretation. Additional RSARs are being considered to determine the need for PRC-002-NPCC-01. 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 the continent wide PRC-002-2</p>	

<u>Item</u>	<u>Name</u>	<u>Assignment</u>	<u>Current Version</u>
PRC-006-NPCC-01	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.	<b>Latest Version:</b> New <b>Frequency of Reviews:</b> 3 years <b>Next Review Date:</b> February 2016
<b>Status/ Comments:</b>		<p>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 will be enforceable July 1, 2015.</p>	



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Reliability Standards Program

### Regional Standards

<u>Item</u>	<u>Name</u>	<u>Assignment</u>	<u>Current Version</u>
<b>BAL-002-NPCC-01</b>	Regional Reserve Sharing Groups	The Standard provides the measures for implementing Reserve Sharing Groups within NPCC in order to meet their reserve obligations.	<b>Latest Version:</b> <b>New</b>  <b>Frequency of Reviews:</b> <b>3 years</b> <b>Next Review Date:</b>

**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.

### Regional Standards Development Procedure

<u>Item</u>	<u>Name</u>	<u>Assignment</u>	<u>Current Version</u>
<b>RSPM</b>	Regional Standards Process Manual	The NPCC Regional Standards Process 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.	<b>Latest Version:</b> <b>Dec, 23 2014</b>  <b>Frequency of Reviews:</b> <b>3 years</b> <b>Next Review Date:</b> <b>Dec. 23, 2017</b>

**Status/ Comments:**

The Regional Standard Processes Manual 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 RSP 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, and 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	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.

**Status/ Comments:** On December 4, 2014, the CC reviewed and approved the CC Scope and 2015-16 CC Work Plan. Both documents were presented to the NPCC BOD on February 4, 2015.



## 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	<b>Criteria Compliance and Enforcement Program</b>	<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><b>Status/ Comments:</b> The Reporting Full Members are in the process of submitting certification forms in accordance with 2014 CCEP Implementation Plan. The 2015 CCEP Implementation Plan along with the revised certification forms have been approved by the RCC at their December meeting and CC at their September meeting, respectively.</p>





## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Training, Education, and Operator Certification Program

#### TASK FORCE ON COORDINATION OF OPERATION

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
CO-2	System Operator Training	This Working Group establishes a program for system operator training relating to NPCC Inc. inter-Area matters, Working Group criteria, terminology, policies and operating instructions. It prepares and presents material at system operator training sessions, exchanges information on internal system operator training methods. The CO-2 Working Group also evaluates and proposes new techniques and training aids as they become available.
	<b>Status/ Comments:</b>	Planning is underway for the 2015 Spring NPCC System Operator Seminar to be held in New York City on May 5, 6 and 7. An early March meeting will be held to prepare the plans and agenda for the Seminar. Training issues among the NPCC RCs and BAs will also be discussed.



# 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:**

NPCC staff and an NPCC consultant are continuing work with the NPCC Balancing Authorities (BAs) on frequency response of the NPCC generators. All NPCC BAs have completed the NERC governor-plant control survey.

The CO-1 Working Group met on February 12 and 13, 2015. There was much discussion on the revised BAL-002-2 draft standard. The draft is in its 6th version as it had been voted down 5 times. Significant concerns still exist among the NPCC BAs and PJM. The CO-1 Working Group prepared a letter summarizing the concerns and it was reviewed and revised by the CO-8 Working Group. Other topics addressed at the meeting : 1) analysis of recent SAR events, 2) Balancing Standards BAL-001-2, BAL-003-1and the BAL-004-006 NERC Review, 3) Periodic monitoring of operating reserve, control performance and frequency.



## 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 Planning Working Group	<p>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.”</p>
	<b>Status/ Comments:</b>	<p>The Task Force on Coordination of Planning and the Task Force on Coordination of Operation requested a collaborative review of the draft Phase 2 version of Directory No. 1 by their respective Working Groups CP11 and C07.</p> <p>The combined CP11/CO7 Working Group was instructed to review the draft as an integrated planning and operational document, examine all aspects of the criteria, and return the draft of Directory No. 1 to the TFCP and the TFCO for their collective consideration.</p> <p>The CP11/CO7 Working Group has progressed through the document addressing all Task Force comments submitted on previous versions and completed the original Task Force charge to review the Directory No.1 criteria.</p> <p>Directory No.1 has been posted to the Open Process for two 45 day comment periods with the most recent posting concluding on July 7, 2014.</p> <p>Following the collaborative effort by the Working Groups CP-11 and CO-7, a revised draft of Directory No. 1 was developed and approved by the Task Forces on Coordination of Planning and Operation. In accordance with Task Force instructions CO7/CP11 has identified an area of disagreement during its review and has provided the Task Forces with background on the issue.</p> <p>At issue is how the existing language in Directory No. 1 Section 5.4.1 (Stability Assessment) and Section 5.5.1 (Transmission Operating Criteria) should be interpreted: TFCO and TFCP will consider the CO7/CP11 report and decide on next steps at their November 2014 meetings.</p>



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

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

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
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.
	<b>Status/ Comments:</b>	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.



## 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 Maritimes, New England, New York, Ontario, and Québec TransÉnergie Restoration Plans, presented at each of the 2014 TFCO meetings. 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 CO-12 Working Group is in the early stages of preparation for the 2015 Summer NPCC Reliability Assessment Report. The report will now include energy analysis, more focus on specific items of concern within each NPCC area and more coordination with NERC staff to avoid duplication with the NERC RAS report.



## 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.
	<b>Status/ Comments:</b>	<p>The Scope and Schedule for the 2015 NPCC Long Range Adequacy Overview (LRAO) and the 2015 NPCC Tie Benefits Study was approved at the August 14, 2014 TFCP and was approved the September 10, 2014 RCC meeting..</p> <p>The TFCP approved the Base Case and Severe Case assumptions for the Summer 2015 Multi-Area Probabilistic Reliability Assessment; preliminary results will be presented at the March 4, 2015 RCC meeting.</p> <p>The 2014 NPCC Long Range Adequacy Overview was approved at the December 2, 2014 RCC meeting. The 2014 NPCC Proba report has been finalized and will be released following approval of the 2014 NERC Proba report at the March PC 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.
	<b>Status/ Comments:</b>	The 2015 Summer NPCC Multi-Area Probabilistic Reliability Assessment is underway – expected to be completed and 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.
	<b>Status/ Comments:</b>	The Scope and Schedule for the NPCC 2015-16 Winter Multi-Area Probabilistic Reliability Assessment was approved by the RCC at their September 10, 2014 RCC meeting, to be released as part of the 2015-2016 NPCC Winter Reliability Assessment in December 2015.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
LRAO	NPCC 2014 Long Range Adequacy Overview	On a consistent basis, evaluate the near-term seasonal and long-range (five year) adequacy of NPCC Areas', reflecting neighboring regional plans proposed to meet their respective resource adequacy criteria through multi-area probabilistic assessments.
	<b>Status/ Comments:</b>	The Task Force on Coordination of Planned reviewed the 2014 NPCC Long Range Adequacy Overview at its November 20, 2014 meeting; the RCC approved the report at their December 2, 2014 meeting.



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Reliability Assessment and Performance Analysis Program

### TASK FORCE ON COORDINATION OF PLANNING

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
CP-11	<i>NPCC Basic Criteria For Design and Operation of the Bulk Power System Review Working Group</i>	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.
	<b>Status/ Comments:</b>	<p>The Working Group CO-07 has been reformulated to accept specific operational planning tasks from the Task Force on Coordination of Operation on an ad hoc basis; it has been renamed the “Operational Planning Working Group.”</p> <p>On January 31, 2013 the Task Force on Coordination of Planning (TFCP) and the Task Force on Coordination of Operation (TFCO) requested a collaborative review of the Phase 2 draft of Directory No. 1 by their respective Working Groups: CP-11 and CO7.</p> <p>The combined CP11/CO7 Working Group was instructed to review the draft as an integrated planning and operational document, examine all aspects of the criteria and return the draft of Directory No. 1 to the TFCP and the TFCO for their collective consideration.</p> <p>Following the collaborative effort by the Working Groups CP-11 and CO-7, a revised draft of Directory No. 1 was developed and approved by the Task Forces on Coordination of Planning and Operation. In accordance with Task Force instructions CO7/CP11 has identified an area of disagreement during its review and has provided the Task Forces with background on the issue.</p> <p>The combined CO7/CP11 Working Group identified two issues related to the criteria that the group was unable to achieve consensus on and in accordance with Task Force instructions, has provided the TFCO and TFCP with background on each of the issues. Based on additional information which will quantify the impact of potential solutions along with further Task Force consideration it is anticipated that consensus can be achieved and Directory No.1 will be posted for a final review in the Spring of 2015.</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.
	<b>Status/ Comments:</b>	As part of Task Force on System Studies' work plan in 2015, SS-38 Working Group will be conducting the NPCC Overall Transmission Assessment (OTA) as projected for 2020. The Terms of Reference for this OTA has been developed and reviewed with TFSS and was submitted for approval at the March 4, 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 load flow cases and associated dynamic data.
	<b>Status/ Comments:</b>	<p>Ongoing:</p> <p>Power Flow -- The SS-37 Working Group is scheduled to complete the Power Flows for 2015 NPCC Library of Cases in June 2015. The completed NPCC cases will be 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.</p> <p>Dynamic Models -- The SS-37 Working Group is scheduled to complete the dynamic models for the 2015 NPCC Library of Cases to support the August 2015 submittal of the dynamic models 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.</p> <p>The SS-37 Working Group will remain engaged with the MMWG during development of both the Eastern Interconnection power flow cases and 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

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
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.
	<b>Status/ Comments:</b>	<p>The SP-7 Working Group has completed review of Third Quarter 2014 misoperation reports and outstanding reports from prior Quarters. The Third Quarter Report and updates to prior Quarter Reports were submitted to NERC on January 16, 2015, and a status report will be given at an upcoming RCC meeting. The SP-7 Working Group is currently reviewing Fourth Quarter 2014 reports and outstanding reports from prior Quarters.</p> <p>The Working Group is reviewing the SPS Misoperations as of 3rd Quarter 2014 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>



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Reliability Assessment and Performance Analysis Program

### Eastern Interconnection Reliability Assessment Group

#### Study Committees

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
<b>ERAG</b>	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><b>Status/ Comments:</b></p> <p>The ERAG Management Committee met on February 19 and addressed: 1) the incorporation of direct Planning Coordinator participation in the MMWG activities, 2) the role of ERAG in compiling / developing the Eastern Interconnection set of power flow and dynamics base cases in the short range (2-3 years) and the long range (&gt; 3 years), 3) changes in the approach ERAG can use in conducting assessment of the Eastern Interconnection systems and 4) ERAG expenditures and the 2016 budget.</p> <p>NERC is forming a group to participate and provide input to the NERC development of requirements for the entity that NERC will select as the Eastern Interconnection base case development designee, in accordance with the MOD-032-1 standard, Requirement 4. The first meeting of the group will be held in early March at NERC in Atlanta. NPCC staff will participate on the group.</p> <p>The ERAG 2015 Summer Assessment base case is being developed with revisions to the MMWG seasonal base case. The ERAG 2015 Summer assessment will include transfer capability results and analysis from the IESO and NYISO seasonal operating studies. It is intended to include additional BA to BA transfer limit results to enhance the report content for the NPCC-PJM-MISO vicinity.</p>



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Reliability Assessment and Performance Analysis Program

### RFC - NPCC Working Group

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
RNWG	RFC-NPCC Working Group	<p>The RFC-NPCC Working Group (RNWG), under the direction of the newly combined SERC-East and the RFC-NPCC Steering Committees (SerN SC), conducts appraisals of the RFC-NPCC interconnected systems for the upcoming summer and winter capability periods.</p> <p><b>Status/ Comments:</b></p> <p>Completed: NPCC Staff was assigned to be the Report Writer for the RNWG 2014 ERAG Summer and 2014/2015 Winter Transmission System Assessment Studies. The ERAG Study Working Groups completed the 2014 Summer Transmission System Assessment study in May, and the 2014 Summer Assessment report was approved and released by the ERAG Management Committee in May 2014.</p> <p>The RNWG began preparations for the 2014/2015 Winter Assessment Study in June 2014 and released the final version of the ERAG 2014/2015 Winter Assessment case in August. The Winter Assessment Study final report was approved and released by the ERAG Management Committee in November 2014.</p>



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program

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

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
<b>RAS</b>	Reliability Assessment Subcommittee (RAS)	Conduct an annual review of the overall reliability of the existing and planned generation and transmission systems of the eight Regional Reliability Entities for the ten year horizon. Conduct semiannual seasonal assessments of the overall reliability of the existing generation and transmission systems of the eight Regional Reliability Entities.
	<b>Status/ Comments:</b>	<p>The NERC 2014 Long-Term Reliability Assessment was approved by the NERC Board of Trustees in October 2014, and released November 12, 2014.</p> <p>The NERC 2014-15 Winter Reliability Assessment was approved by the NERC Board of Trustees in November 2014, and released November 21, 2014.</p> <p>Work has begun to finalize the data request for the 2015 LTRA.</p> <p>At its meeting of February 10 and 11, 2015, the RAS will prepare the data request to initiate the 2015 Summer Reliability Assessment.</p>

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
<b>RADWG</b>	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.
	<b>Status/ Comments:</b>	<p>The NERC Reliability Assessment Data Working Group 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 Reliability Assessment Data System (RADS) development involves two phases. RADS Phase 1A lays the foundation for a flexible overall ERO data management tool for data validation, processing, and reporting. RADS Phase 1B expands Phase 1A to Regions/assessment areas that is planned to leverage Phase 1A architecture, and existing ERO user management protocol for Regional and assessment area users.</p>



## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program

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

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
<b>ProbA</b>	<b>Probabilistic Assessment</b>	<p>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.</p> <p><b>Status/ Comments:</b></p> <p>The Probabilistic Assessment (ProbA) Report complements the LTRA by providing additional probabilistic statistics of Loss of Load Hours (LOLH) and Expected Unserved Energy (EUE). The 2012 ProbA was completed in June 2013 as an addition to the 2012 LTRA and covered the year 2014 and 2016. This is now the second ProbA Report complementing the 2014 LTRA. The ProbA will calculate metrics for the third and fifth year—2016 and 2018. The metrics will be compared to the 2012 Probabilistic Assessment. The initial data request is planned to be distributed on July 21, 2014.</p> <p>At its April meeting, the RAS decided to add a ‘No Emergency Operating Procedures’ scenario for the 2014 ProbA. The scenario addresses concerns by the PC and RAS about forgoing all operating reserves, resulting in conditions where all available resources are committed to meet firm load, and firm transactions without any remaining to respond to outages and contingencies. The NERC RAS peer reviewed the draft 2014 ProbA reports at their October 2014 meeting.</p> <p>A summary of the submitted draft 2014 Probabilistic Assessments will be given at the December 9-10, 2014 NERC PC meeting. The NERC PC is scheduled to approve the 2014 NERC Probabilistic Assessments at their March 2015 meeting.</p>

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
<b>TADS</b>	<b>Transmission Availability Data System</b>	<p>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.</p> <p><b>Status/ Comments:</b></p> <p>The NERC TADS Working Group (TADSWG) met January 21-23, 2015, at FRCC Offices in Tampa, Florida. The next face to face meeting will be on May 12-14, 2015 at Richmond Virginia.</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>
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.
	<b>Status/ Comments:</b>	The NERC Demand Response Availability Data System Working Group (DADSWG) held a face to face meeting on February 10-11 at Salt Lake City (WECC). The group worked on the 2015 State of Reliability report. The group focused on events related to 2014 Polar Vortex by Regional Entities and the Demand Response (DR) capacity available during 2014 summer reporting period. The group is also working on a new set of metrics such as registration numbers, enrollments, etc.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
SEDS	Spare Equipment Data System	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.
	<b>Status/ Comments:</b>	<p>The NERC Spare Equipment Database Working Group (SEDSWG) held a conference call on December 15, 2014, the next face-to-face meeting was held on February 24-25, 2015 at NERC’s office in Washington D.C. 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>In 2015, SEWG will continue to increase SED awareness and participation, but also develop a white paper on the industry’s posture on long-lead time (where “long lead time” is defined as six months or more) electric transmission equipment.</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>
<b>GADS</b>	Generator Availability Data System	<p>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.</p> <p><b>Status/ Comments:</b> The NERC GADS Working Group (GADSWG) held a conference call on November 13, 2014. The GADSWG also held a face to face meeting on September 30 - October 1 2014 at NERC’s Office Atlanta Georgia. The next face to face meeting will be in March 17-18, 2015 at NERC’s Office Atlanta Georgia.</p> <p>During the conference call and face to face meeting, the GADSWG discussed the Polar Vortex review. The key factors during the event included fuel deliverability issues, natural gas pipeline outages, gas service interruptions, frozen electricity and gas equipment and other extreme cold weather operating challenges. During the event, grid operators employed techniques, such as voltage reduction and demand-side management to ensure the bulk electric system reliability was maintained.</p> <p>On September 26, 2014 FERC requested data for the January 6-8, 2014 polar vortex and January 17-29, 2014 winter storm events. NPCC is in the process of collecting the data from NPCC’s GADS members and respond to FERC’s questions.</p>

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
<b>RADS</b>	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> <p><b>Status/ Comments:</b> The NERC PMO issues weekly status reports describing the progress of the development,; an identified risk is the lack of an approved Project Charter, due to the inability of the NERC Regions to agree upon a common process. On-going executive level discussions are being held to address the identified issues.</p>





## RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

### Reliability Assessment and Performance Analysis Program

#### OTHER

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
<b>Inter-ISO</b>	Inter-ISO Working Group	The Inter-ISO Working Group was formed to address Inter-Regional planning and Inter-Area issues of projects that have “cross border” impacts while providing an open stakeholder forum and committee structure to allow market input.
	<b>Status/ Comments:</b>	The Inter-ISO Working Group meet (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

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
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> <p><b>Status/ Comments:</b> 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	<p>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. <b>Last Workshop:</b> Fall 2014</p> <p><b>Status/ Comments:</b> An update to CIP version 5 was presented at the Fall 2014 NPCC Standards &amp; Compliance Workshop. TFIST is working with NPCC CIP Compliance on a CIP Transition Workshop scheduled for March 24-25, 2015</p>

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
IST-3	TFIST EMS-SCADA Working Group	<p>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.</p> <p><b>Status/ Comments:</b> The EMS-SCADA Working Group has been designed as an Ad-hoc Working Group by TFIST.</p>



# RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

## Situation Awareness and Infrastructure Security Program

### TASK FORCE ON INFRASTRUCTURE SECURITY AND TECHNOLOGY

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
IST-4	TFIST Cyber Security Working Group	Provide a forum to identify, discuss and advance the technology of Cyber Security for the reliable operation of the NPCC Bulk Power System. The Cyber Security Working Group (IST-4) will also support TFIST in their work on issues related to Cyber Security.
	<b>Status/ Comments:</b>	TFIST to review a draft scope at its May 2015 meeting.

<b>Item</b>	<b>Name</b>	<b>Assignment</b>
IST-5	TFIST Physical Security Working Group	Provide a forum to identify, discuss and advance the use of Physical Security for the reliable operation of the NPCC Bulk Power System. The Physical Security Working Group (IST-5) will also support TFIST in their work on issues related to Physical Security.
	<b>Status/ Comments:</b>	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>
<b>General</b>	NPCC General Meeting	To promote the reliable and efficient operation of the interconnected bulk power systems in Northeastern North America, NPCC invites high level policy makers from Federal, Provincial, and State regulatory and/or Governmental authorities and senior executives within NPCC to identify and discuss emerging issues related to the reliability of the NPCC Region.
	<b>Status/ Comments:</b>	The 2014 NPCC General Meeting was held the afternoon of December 3, 2014 in Halifax, Nova Scotia. The Theme of “Resilient Reliability”; included presentations regarding Physical Security, Cyber Security, and Natural Gas-Electricity Coordination. The 2015 NPCC General Meeting is scheduled for December 1, 2015 in Albany, New York.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
<b>Gov/Reg</b>	NPCC Governmental Regulatory Affairs Advisory Group	To provide a forum where industry and governmental and/or regulatory representatives can exchange views and strive to develop consensus policy recommendations on reliability issues specific to the NPCC Region and share actionable information related to regional energy and reliability matters.
	<b>Status/ Comments:</b>	The NPCC Governmental/Regulatory Affairs Advisory Group met the afternoon of December 2, 2014 in conjunction with the NPCC 2014 General Meeting in Halifax, Nova Scotia. Items discussed included status of identifying Bulk Electric System facilities and elements in the U.S. and Canada, and updates on Regional Planning activities.

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
<b>PIC</b>	Public Information Committee	To highlight and summarize NPCC activities and accomplishments and disseminate appropriate information to the media, as well as respond to related requests for information.
	<b>Status/ Comments:</b>	NPCC continues to participate in communications coordination with NERC and the Regions. The 2015 Media Event for the release of the 2015 NPCC Summer Reliability Assessment is scheduled for April 30, 2015.