



RCC Meeting
December 5, 2017
Agenda Item 7.11

Reliability Assessment Program
(NRAP)
HIGHLIGHT REPORT
Prepared for the
Reliability Coordinating Committee
December 5, 2017

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
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and
NPCC Staff



NPCC, Inc.

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 review or development. The RSC also provides oversight for the NPCC Regional Reliability Directories which contain NPCC's more stringent regional Criteria and supporting procedures and guidelines. The RSC also conducts and coordinates the NPCC 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 during 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" and the NERC version of the CEAP entitled Cost of Risk Reduction Analysis (CRRRA). In addition, the RSC coordinated efforts with the CC to develop a feedback mechanism to route issues identified with standards to the RSC to decide how best to address those issues and improve standards and reliability. The RSC also is sanctioned in the Compliance Guidance Policy process to vet potential approaches to compliance prior to submission to NERC.</p> <p>Status/ Comments:</p> <p>The RSC is focused on the review of each of the NERC Reliability Standards (as they are developed, revised or reviewed for reaffirmation). 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 which 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 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 has initiated and is currently overseeing Phase II of the NPCC Directory project which will translate the criteria in the Directories into specific "requirements" on which compliance may be assessed.</p>



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 is in the process of developing a draft Work Plan for 2018-2019 and a review and potential revision of its Scope of Work; these revisions or reaffirmation are pending approval by the RSC and will be submitted to the NPCC Board of Directors (BOD) at their February 2017 meeting for final approval. The RSC has been active with the development and approval of RSAR's which address the scope of work surrounding various regional standard issues including a regional variance for PRC-006-3 <i>Automatic Underfrequency Load Shedding</i>, and the review of PRC-006-NPCC-1 <i>Automatic Underfrequency Load Shedding</i> with its corresponding continent-wide NERC standard. The regional variance for PRC-006-3 Automatic Underfrequency Load Shedding drafting team has proposed revisions to the Quebec variance which conform with the unique characteristics of the Quebec system. The members of the RSC approved the revised variance, NPCC Full Members and NPCC General Members. The approved regional variance is approved by the NPCC BOD and NERC BOT. The variance was also filed to FERC for information purpose. The PRC-006-NPCC-01 Automatic Underfrequency Load Shedding drafting team has conducted nine in-person meetings and three conference calls. All requirements have been reviewed by the SDT and the draft standard was posted for a 45-days comment period which concluded on October 16, 2017. The drafting team convened on October 25, 2017 in order to draft responses to the comments and make necessary modifications. The goal is to finalize all documents and post them for a second 45-days comment period in the beginning of 2018. The proposal to retire PRC-002-NPCC-01 <i>Disturbance Monitoring</i> regional standard was approved by the NPCC BOD on March 23, 2016 and by the NERC Board on May 5, 2016. A petition to retire the regional standard was approved by FERC on August 16, 2016. The RSC is also working with Quebec to determine an approach to address the concerns expressed as a result of the FERC NOPR on TPL-007-1 GMD.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

<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 – ERO Standards 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*	September 30, 2015

Status/ Comments:

The Task Force on Coordination of Planning (TFCP) and the Task Force on Coordination of Operation completed their collaborative review of Directory No. 1 in 2015. The NPCC Full Member committee approved the most recent version of Directory No. 1 on September 30, 2015.

Currently the RCC is monitoring an Implementation Plan governing protection upgrades in New England.

On September 7, 2016, the RCC approved a TFCP clarification on the criteria governing the Area review of Resource Adequacy as outlined in Criteria Requirement R4 and Appendix D of Directory No. 1. The clarification provides guidance on the calculation of available resources and the treatment of capacity backed purchases as part of these calculations.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
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:	The Task Force on Coordination of Operation (TFCO) and its CO-8 Working Group is continuing its review of a reformatted draft version of Directory No. 2 to verify consistency of the content with the criteria of the currently active Directory No. 2 document, to make recommended changes consistent with the currently effective NERC Standards and any revisions to the existing criteria. The CO-8 Working Group effort is anticipated to continue throughout 2017 and will result in a reformatting of the criteria into NERC style requirements and will include a comprehensive review to ensure that the criteria is consistent with recent ERO standard developments. The TFCO will review the latest revised version of the document at its December 7-8, 2017 meeting, and discuss approval to post for a 45-day comment period in the open process.		

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
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	Retired
	Status/ Comments:	The Task Force on System Protection completed a technical comparison of the criteria in Directory No. 3 with PRC-005-2 <u>Protection System Maintenance</u> and recommended that the criteria in Directory No. 3 be retired. The RCC approved the TFSP recommendation and on October 15, 2014 the NPCC Full Membership voted to approve the retirement of Directory No. 3, effective April 1, 2015, upon the enforcement date of PRC -005-2 <u>Protection System Maintenance</u> .		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
DIR-4	BPS Protection Criteria	<p>Appendix A – Guideline for Bulk Power System Protection</p> <p>Appendix B - Procedure for Reporting to TFSP New and Modified Protection Systems</p> <p>Status/ Comments:</p> <p>The Task Force on System Protection (TFSP) incorporated new protection system technology (IEC 61850) into the system protection criteria based on a SP-8 Working Group review.</p> <p>The TFSP 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>In December 2016, the RCC approved a TFSP clarification on the criteria governing the design of breaker failure protection and related trip coil monitoring requirements.</p>	<p>TFSP</p> <p>TFSP</p>	September 30, 2015



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

<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 TFCO and its CO-1 Working Group are reviewing the draft version of Directory No. 5 to verify consistency of the content with the criteria of the currently active Directory No. 5 document. The CO-1 Working Group effort is anticipated to continue throughout 2017 and will result in a reformatting of the criteria into NERC style requirements and will include a comprehensive review to ensure that the criteria is consistent with recent ERO standard developments.

<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 Membership on April 6, 2012.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

<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 9, 2013
Status/ Comments:		The TFCP is coordinating a review of Directory No. 7 Appendix B to consider revisions in accordance with PRC -012-2 <u>Remedial Action Schemes</u> and the revised definition of Remedial Action Scheme (RAS).		

<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 “Standard Test Procedures For key facilities and associated critical components required for system restoration Appendix B: NERC ERO Reliability Standards Appendix C-Table 2: Comparison of Test Procedures for Critical Components of Key Facilities of the System Restoration Plan	TFCO	October 6, 2017
Status/ Comments:		On October 6, 2017 the Full Member Committee approved revisions to Directory No. 8, which included reformatting the criteria into NERC style requirements, elimination of certain duplicative battery testing requirements contained in PRC -005 and revisions to three restoration Glossary terms.		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

<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:

The TFCO has completed a technical comparison of the Directory No. 9 criteria with the requirements of MOD-25-2 and concluded that Directory No. 9 can be retired without creating a reliability gap. The RCC approved TFCO’s recommendation to retire Directory No. 9 along with seven existing NPCC Glossary terms contained solely within Directories No. 9 and No. 10 at its May 31, 2017 meeting, with the effective date of the retirement on July 1, 2019 to coincide with the completion of the MOD-25-2 Implementation Plan. On August 3, 2017, the NPCC Full Member Committee voted to approve the retirement of NPCC Regional Reliability Directory No. 9 Verification of Real Power Capability and seven existing NPCC Glossary terms contained solely within Directories No. 9 and No. 10, effective July 1, 2019.

<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:

The TFCO has completed a technical comparison of the Directory No. 10 criteria with the requirements of MOD-25-2 and concluded that Directory No. 10 can be retired without creating a reliability gap. RCC approved TFCO’s recommendation to retire Directory No. 10 along with seven existing NPCC Glossary terms contained solely within Directories No. 9 and No. 10 at its May 31, 2017 meeting, with the effective date of the retirement on July 1, 2019 to coincide with the completion of the MOD-25-2 Implementation Plan. On August 3, 2017, the NPCC Full Member Committee voted to approve the retirement of NPCC Regional Reliability Directory No. 10 Verification of Reactive Power Capability and seven existing NPCC Glossary terms contained solely within Directories No. 9 and No.10, effective July 1, 2019.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
DIR-11	Disturbance Monitoring Equipment Criteria		TFSP	October 24, 2016

Appendix A – Guide to Time Synchronization of Substation Equip.	TFSP
Appendix B – Guide for Application of DME	TFSP
Appendix C – Guide for Generator Sequence of Events Monitoring	TFSP

Status/ Comments:

On October 24, 2016 the NPCC Full Member Committee voted to approve regional Reliability Directory No. 11 Disturbance Monitoring Equipment Criteria.

Also approved was the concurrent retirement of the following NPCC documents:

- A-15 – “Disturbance Monitoring Criteria”
- B-25 – “Guide to Time Synchronization of Substation Equipment”
- B-26 – “Guide for Application Disturbance Monitoring Equipment”
- B-28 – “Guide for Generator Sequence of Events Monitoring”

Directory No. 11 will augment PRC-002-2 Disturbance Monitoring and Reporting Requirements and guide the effective application of equipment necessary to capture the data required by the NERC standard.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

<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) 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 Membership approved the revised Directory No. 12 on July 9, 2013.</p> <p>Currently a Regional Standard Drafting Team is reviewing PRC-006-NPCC-1 and will also review Directory No. 12 to ensure that all required program performance characteristics in the Directory No. 12 criteria have been incorporated into the Regional Standard. Pending all approvals of the revised Regional Standard Directory No. 12 will be considered for retirement.</p>		

<u>Item</u>	<u>Name</u>	<u>Criteria</u>	<u>Lead TF</u>	<u>Current Version</u>
A-01	Criteria for Review and Approval of Documents		TFCP	April 21, 2017
	Status/ Comments:	<p>In accordance with the NPCC Reliability Assessment Program the TFCP reviewed the A-01 Criteria for <i>Review and Approval of Documents</i>. The TFCP posted the A-01 document to the NPCC Open Process for two postings and has considered all comments received, has evaluated the initial comments, and has reposted the A-01 for a second comment period. The RCC recommended Full NPCC Membership approval at its March 1, 2017 meeting.</p> <p>The NPCC Full Membership approved a revised version of the A-01 document on April 21, 2017.</p>		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

<u>Item</u>	<u>Name</u>	<u>Criteria</u>	<u>Lead TF</u>	<u>Current Version</u>
A-10	Classification of Bulk Power System Elements		TFCP	December 1, 2009
	Status/ Comments:	<p>The TFCP and its CP-11 Working Group is conducting a review of the A-10 methodology.</p> <p>The review is considering the existing and alternative methodologies to: 1) identify critical facilities for the applicability of NPCC Directories 2) simplify the existing methodology to make it less labor intensive, and 3) Improve consistency across Areas in application and outcomes of the methodology.</p> <p>The CP-11 Working Group has presented three methodologies to the Task Force on Coordination of Planning (TFCP) including a revised existing methodology and two alternative methodologies.</p> <p>The TFCP will present the CP-11 recommendations for consideration at the December 5, 2017 RCC meeting.</p>		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directory Development and Revision Manual

<u>Item</u>	<u>Name</u>	<u>Assignment</u>	<u>Current Version</u>
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.	October 3, 2014
	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) and to consider revisions to the Manual that incorporate cost considerations for new or revised criteria.</p> <p>The RSC anticipates reviewing the Manual in 2018.</p>	

NPCC Glossary of Terms

<u>Item</u>	<u>Name</u>	<u>Assignment</u>	<u>Current Version</u>
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:	Retired
			Date:	August 16, 2016
	Status/ Comments:	<p>The proposal to retire PRC-002-NPCC-01 <u>Disturbance Monitoring</u> regional standard was approved by the NPCC Board on March 23, 2016 and by the NERC Board of Trustees on May 5, 2016. After NERC Board approval, a petition to retire the regional standard is filed with FERC on June 9, 2016 and it was filed with all Canadian Provinces on June 14, 2016.</p> <p>FERC issued an approval letter for the retirement of Regional Reliability Standard PRC-002-NPCC-01 <u>Disturbance Monitoring</u> on August 16, 2016.</p>		



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 (UFLS)	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:	<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 became on enforceable on July 1, 2015.</p> <p>As a result of developments regarding NERC PRC-006-1/PRC-006-2 <i>Automatic Underfrequency Load Shedding</i>, PRC-024-1/PRC-024-2 <i>Generator Frequency and Voltage Protective Relay Settings</i>, Project 2014-01 <i>Standards Applicability for Dispersed Generation Resources</i>, NPCC Directory No. 12 <i>Underfrequency Load Shedding Program Requirements</i>, and the <i>2013 NPCC UFLS Adequacy Assessment</i>, 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 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. On October 7, 2015, the RSC approved the drafting team roster as per the recommendation of the TFSS leadership. The PRC-006-NPCC-01 Automatic UFLS drafting team met nine times and two conference calls. The draft redline of the regional standard was posted for a 45-days comment period which concluded on October 16, 2017. The drafting team convened on October 25, 2017 in order to draft responses to the comments and make necessary modifications. The goal is to finalize all documents and post them for a second 45-days comment period beginning of 2018.</p>		

<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:	<p>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.</p>		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Regional Standards Development Procedure

<u>Item</u>	<u>Name</u>	<u>Assignment</u>	<u>Current Version</u>	
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.	Latest Version:	Dec, 23 2014
			Frequency of Reviews:	3 years
			Next Review Date:	Dec. 23, 2017
	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 December. 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 Board at its August 14, 2014 meeting. The RSPM was approved by FERC on December. 23, 2014.		



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 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). Regarding 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: At the June 13, 2017 Compliance Committee meeting, Compliance Procedure CP-09 <u>Procedure for the Validation of NPCC Registered Entity Bulk Electric System Assets</u> was approved. At the August 16, 2017 Compliance Committee meeting, Compliance Procedure revision 4 of CP-06 <u>Procedure for Guided Self Certification and Self Reporting</u> was approved.</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</i>” (CCEP-1) which documents the process for actively monitoring and enforcing compliance on a subset of the Reliability Criteria.</p> <p>The Compliance Committee 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 Compliance Committee 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: At the September 2017 RCC meeting, the <i>2016 CCEP Assessment Report</i> developed by the Compliance Committee was approved by the RCC. At the September 18, 2017 Compliance Committee meeting, the <i>2018 CCEP Implementation Plan</i> was approved and will be presented for approval at the December 5, 2017 RCC meeting. The implementation plan requires Full Members to certify, for the first time, Directory No. 4, Directory No. 6, and Directory No. 11.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Training, Education, and Operator Certification Program

TASK FORCE ON COORDINATION OF OPERATION

Item	Name	Assignment
CO-2	System Operator Training	<p>This Working Group establishes a program for system operator training relating to NPCC Inc. inter-Area matters, Working Group criteria, terminology, policies, and operating instructions. It prepares and presents material at system operator training sessions, exchanges information on internal system operator training methods. The CO-2 Working Group also evaluates and proposes new techniques and training aids as they become available.</p> <p>Status/ Comments:</p> <p>The 2017 Fall 80th NPCC System Operator Seminar planning meeting was held September 7-8, 2017 at the ISO-New England Backup Control Center in Windsor, Connecticut. Plans were made for the coming Fall 2017 Seminar including: a new ice-breaker communication exercise, presentations on “Human Performance”, “Meteorological Forecasting”, “GridEx IV”, “What is NPCC?”, “Changes to the Simultaneous Activation of Reserve Algorithm” and new topics for the Table Top Exercise. As in past Seminars operators will receive Continuing Education Hours (CEHs) for their participation and successful completion of the Table Top Exercise. The 2017 Fall 80th NPCC System Operator Seminar was held in Boston at the Colonnade Hotel on November 7-9, 2017. The CO-2 Working Group will next meet in Montreal in March 2018.</p>



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 ensures 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> <p>Status/ Comments: The CO-1 Working Group met May 11-12, 2017, with its next meeting scheduled for August 2017. In response to TFCO’s assignment, CO-1 is reviewing the reformatted draft version of Directory No. 5 to verify consistency of the content with the criteria of the currently active Directory No. 5 document. The review, which began in December 2016, is anticipated to continue throughout 2017 and in addition to reformatting the criteria into NERC style requirements, will consider the impacts of recent ERO standard developments and revisions on the document.</p> <p>The CO-1 Working Group continues to generate the NERC Disturbance Control Standard Report and conducts periodic monitoring as required. CO-1 Working Group is also reviewing the recent FERC approval of BAL-002-2, <i>Contingency Reserve for Recovery from a Balancing Contingency Event</i> and is generating a response to TFCO. The CO-1 Working Group continues to closely monitor developments to their relevant standards.</p>

Item	Name	Assignment
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> <p>Status/ Comments: The CO-7 Working Group has completed its review of a draft comparison between the criteria in Directories No. 9 and No. 10 with MOD 25-2-2. The TFCO has accepted CO-7 Working Group’s recommendation to retire both directories. The RCC approved the retirement at its May 31, 2017 meeting. On August 3, 2017, the NPCC Full Member Committee voted to approve the retirement of NPCC Regional Reliability Directory No. 9 <i>Verification of Real Power Capability</i>, Directory No. 10 <i>Verification of Reactive Power Capability</i> and seven existing NPCC Glossary terms contained solely within Directories No. 9 and No. 10, effective July 1, 2019. The CO-7 ad-hoc WG stood up for the specific assignment to review Directories No. 9 and No. 10 has been disbanded. There are currently no active CO-7 WG assignments.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF OPERATION

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:	In response to TFCO's assignment, the CO-8 Working Group is conducting a triennial periodic review of the Regional Reliability Reference Directory No. 2, " <u>Emergency Operations</u> " document. The CO-8 Working Group is also working on providing comments on the Directory No. 5, " <u>Reserve</u> " to the CO-1 Working Group which was tasked by the TFCO to lead the triennial review effort of the Directory No. 5. The Working Group is continuing its review of a version of Directory No. 2, which has been reformatted into the NERC style requirements against the current and developing ERO standards to consider the impacts and develop recommendations for revisions of the NPCC criteria defined in Directory No. 2. the CO-8 Working Group has held several conference calls and a face-to-face review session with the last discussion held on November 8, 2017 during CO-8 WG's face-to-face meeting. A reformatted and revised draft of the Directory 2 will be presented to the TFCO at its December 7-8, 2017 meeting for approval to post in the NPCC Open Process for a 45-day open comment period.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

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

Item	Name	Assignment
CO-11	Restoration Working Group	<p>The CO-11 Restoration Working Group facilitates effective and coordinated power system restoration among the NPCC Reliability Coordinator areas, and with adjacent Regions. It annually reviews the restoration plans of the NPCC Reliability Coordinator areas to identify in each individual plan the physical points requiring 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. It identifies opportunities for mutual assistance during restoration and the extent to which each system can rely on its neighbors for assistance. Coordinates Reliability Coordinator restoration exercises, and develops and supervises annual wide-area restoration drills. CO-11 monitors the NERC Reliability Standards EOP-005, <u>System Restoration from Blackstart Resources</u>, and EOP-006, <u>System Restoration Coordination</u>. The CO-11 Working Group provides comments to the NPCC Task Force on Coordination of Operation and the NPCC Regional Standards Committee as revisions to these Standards are posted for consideration, and weighed for implementation.</p>
	Status/ Comments:	<p>The NPCC CO-11 Restoration Working Group conducted a review of the ISO-New England Restoration Plan at its meeting on November 29, 2017. The review included descriptions of the elements of coordination of the restoration plans with neighboring Reliability Coordinators (desired points of interconnection and control parameters). This review completed the annual CO-11 review of all NPCC Area Restoration Plans. Directory No. 8 - <u>System Restoration</u> was approved by the RCC at its September 6, 2017 Meeting.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF OPERATION

Item	Name	Assignment
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 <i>2017-2018 Winter NPCC Reliability Assessment</i> will be presented to the RCC for approval at its December 5, 2017 meeting.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF PLANNING

Item	Name	Assignment
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:	The Scope and Schedule for the <i>2018 NPCC Long Range Adequacy Overview</i> will be presented to the RCC for approval at their December 5, 2017 meeting. The RCC will also be considering approval of the Maritimes, New York and Ontario Interim Reviews of Resource Adequacy, and the New England and Quebec Comprehensive Reviews of Resource Adequacy at their December 5, 2017 meeting.

Item	Name	Assignment
CP- 2018S	Summer 2018 Multi-Area Probabilistic Reliability Assessment	Assess NPCC Area reliability by estimating the projected use of Area Operating Procedures designed to mitigate resource shortages for the summer (May through September) period.
	Status/ Comments:	The CP-8 Working Group is developing the assumptions for the <i>NPCC 2018 Summer Multi-Area Probabilistic Reliability Assessment</i> .

Item	Name	Assignment
CP- 2017-18W	Winter 2017-2018 Multi-Area Probabilistic Reliability Assessment	Assess NPCC 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 RCC approved the <i>NPCC Winter 2017 – 2018 Multi-Area Probabilistic Reliability Assessment</i> at their September 6, 2017 meeting.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF PLANNING

Item	Name	Assignment
LRAO	NPCC 2017 Long Range Adequacy Overview (LRAO)	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 <u>2017 Long Range Adequacy Overview</u> will be presented to the RCC for approval at their December 5, 2017 meeting.

Item	Name	Assignment
CP-11	<i>NPCC Basic Criteria For Design and Operation of the Bulk Power System Review Working Group</i>	This Working Group is charged with the revision of the NPCC Basic Design Criteria Directory No. 1 and the NPCC Glossary of Terms Document A-07. In addition, the Task Force on Coordination of Planning (TFCP) charged the CP-11 Working Group with the development of the A-10 Classification of BPS Elements document.
	Status/ Comments:	The NPCC Task Force on Coordination of Planning (TFCP) has assigned the CP-11 Working Group on Review of NPCC Basic Criteria to perform a comprehensive review of the NPCC A-10 Document <u>Classification of Bulk Power System Elements</u> methodology. The goal of the CP-11 Working Group review is to consider existing and alternative methodologies to identify a set of critical facilities within NPCC and to efficiently apply the outcome of the methodology to the applicable NPCC reliability criteria. The RCC will consider the CP-11 Working Group's A-10 Methodology recommendations at their December 5, 2017 meeting.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON SYSTEM STUDIES

Item	Name	Assignment
SS-38	Inter-Area Dynamic Analysis Working Group	Assigned to analyze dynamic phenomena, which may affect interconnected system reliability, especially in the area of low frequency oscillations.
	Status/ Comments:	The SS-38 Working Group completed development of the base cases for 2017-2018 NPCC UFLS Assessment. The Working Group members will add the generator relay models, capacitor protection models, and the underfrequency load shedding models to the cases in the next few weeks as the data has become available.

Item	Name	Assignment
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 – Completed: In June 2017, the SS-37 Working Group prepared 12 Power Flow Cases for the 2017 NPCC Library of Cases. The completed NPCC cases were submitted at the end of June 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 Eastern Interconnection power flow cases were completed and published in October 2017.</p> <p>Dynamic Models – Ongoing: In August 2017, the SS-37 Working Group assembled dynamics data for the 2017 NPCC Library of Cases. The completed dynamics models were submitted in September 2017 to the MMWG. 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 SS-37 Working Group will continue to support the MMWG during the aggregation of the dynamic models. The dynamic models are scheduled to be complete and published in January 2018.</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 Task Force on System Protection has reviewed the status of SP-7 Working Group on Protection System Misoperation Review as completed through the 2nd Quarter (Q2) of 2017. The total number of misoperations for Q2 is 42; the NPCC quarterly average is 51 misoperations. The misoperations reported for this quarter represent the second lowest count since 2013. The highest count occurred in Q2 of 2013 at 77.</p> <p>The misoperation rate for Q2 2017 is 6.65%. During this quarter, 632 operations were reported; the Q2 quarterly average is 709 operations. This 6.65% rate is 0.43% lower compared to the 7.8% average rate for all Q2 since 2013. There were 18 reported SPS operations in Q2 2017 and one reported misoperation of a Type III SPS.</p> <p>A MIDAS Portal presentation was given at the NPCC Compliance and Standards Workshop on November 9, 2017.</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	The Eastern Interconnection Reliability Assessment Group (ERAG) 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.
	Status/ Comments:	<p><u>Peer Review of Planning Coordinators Transmission Studies</u> The ERAG held two Planning Coordinator peer review meetings focused on transmission planning studies being performed by each Planning Coordinator. The peer review sessions were held to assist ERAG’s understanding of the types of studies being performed and to determine where ERAG could add value performing interconnection-wide studies. ERAG members found the sessions to be informative. A report summarizing the effort and its findings is currently being drafted and will be shared with the Planning Coordinators, Regional Entity staff, and NERC staff.</p> <p>Participants also noted areas of opportunities including better ERAG coordination with other organizations (e.g., Eastern Interconnection Planning Collaborative (EIPC), NERC, North American Transmission Forum (NATF)) to ensure efforts are not being duplicated and focusing on specific areas for future Peer Review sessions (i.e., emerging risks, model building improvements).</p> <p><u>ERAG Leadership Meeting with EIPC and NERC:</u> NERC staff initiated a meeting of the leadership of ERAG, the EIPC, and NERC reliability assessment staff. The meeting was held to discuss a possible eventual transition of the Eastern Interconnection Designee from ERAG to EIPC for power flow and dynamic simulation cases based on the MOD-032 Data <i>for Power System Modeling and Analysis</i> standard. The meeting was beneficial to all parties with EIPC indicating that they are open to taking on this responsibility. The EIPC has tasked a small working group to discuss this further and present a proposal. NERC, ERAG, and EIPC will continue to discuss this issue.</p> <p>ERAG is also developing an ERAG Events Analysis model development process. NPCC has provided updates on its NPCC Event Replication Case Development effort. ERAG plans to leverage the NPCC work in its effort. ERAG is also discussing conducting a more detailed follow-up study to NERC’s Special Reliability Assessment: <u>Potential Bulk Power System Impacts Due to Severe Disruptions on the Natural Gas System</u>. After NERC’s report is final, ERAG will develop a proposal scope for consideration.</p> <p>The next ERAG face-to-face meeting is scheduled for for January 16-17, 2018 at FRCC’s Tampa, FL office.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

ERAG Seasonal Working Group

Item	Name	Assignment
ERAGWG	ERAG Seasonal Working Group	The ERAG Seasonal Working Group (ERAGWG) conducts appraisals of the Eastern Interconnection. Appraisals are conducted for weather scenarios, including drought and polar vortex type conditions, to determine the impacts on power flows across the Eastern Interconnection.
	Status / Comments:	The ERAG Working Group is and will remain inactive until an ERAG-conducted system study is initiated.



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:	<p>The NERC Planning Committee endorsed the <u>2017-18 Winter Reliability Assessment</u> (WRA) via email vote on November 3, 2017. The WRA was presented to NERC’s Board of Trustees and was released November 20, 2017.</p> <p>The NERC Planning Committee endorsed the <u>2017 Long-Term Reliability Assessment</u> (LTRA) via email vote on October 25, 2017. NERC’s Board of Trustees is scheduled to approved the LTRA on December 4, 2017.</p> <p>The NERC RAS met on November 14-16, 2017 at FRCC’s Tampa office; Agenda items included:</p> <ul style="list-style-type: none"> ✓ The Probabilistic Assessment Working Group’s Probabilistic Adequacy and Measures assignment; ✓ Development of the Reliability Assessment Guidebook; ✓ OC/ORS participation for the 2018 Seasonal Assessments; ✓ The 2018 Long-Term Reliability Assessment, including: <ul style="list-style-type: none"> ▪ Proposed ERSWG M6 LTRA screening methodology ▪ Proposed 2018 ProbA Metrics/Scenario(s) ▪ Schedule <p>The next NERC RAS meeting is scheduled for February 6-7, 2018 in New Orleans, LA.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION (NERC)

Item	Name	Assignment
ProbA	NERC 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 NERC ProbA report detailing the assumptions, methods and results of the probabilistic assessment associated with the 2016 NERC LTRA was approved the NERC Planning Committee at their March 2017 meeting.

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:	<p>The NERC TADS Working Group (TADSWG) met on November 1-3, 2017 at NERC's office in Atlanta Georgia. The next face-to-face meeting will be on January 23-25, 2017 in San Diego, CA. The TADSWG reviewed the six key-findings and the analysis done in the 2017 NERC State of Reliability (SOR) report and briefly discussed. increased involvement from the TADSWG for sections relating to TADS in future iterations of the SOR. As part of this involvement the possibility of changing the manner in which information is presented was discussed.</p> <p>The potential for additional analysis of TADS data outside of the SOR which would provide informational benefit to individual members of the industry in order to incentivize better reporting was also discussed. NERC requested suggestions for what type of analysis would be beneficial to provide and it was indicated that a more thorough discussion as to what information is available for analysis would be necessary first.</p> <p>A request for obtaining sub-cause code data from the North American Transmission Forum (NATF) was discussed to assist with the further analysis of ICC's and SCC's such as Fail AC Circuit Equipment and Failed AC Substation Equipment. The TADSWG hosted an in-person training session on November 27-29 at the NERC offices in Atlanta, GA. A sub-team has been formed to develop the training materials along with the support from NERC staff.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION (NERC)

Item	Name	Assignment
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 – web DADS.
	Status/ Comments:	<p>The NERC Demand Response Availability Data System Working Group (DADSWG) held a face-to-face meeting on August 23- 25, 2017 at the PJM’s office, Pennsylvania. The next face-to-face meeting will be announced in 2018. DADSWG worked on its Scope to develop a process for soliciting and evaluating DADS changes and recommend selected improvements, such as changes to definitions, metrics, Demand Response Programs. The group also discussed the Severity Risk Index (SRI) correlation with Demand Response Event Days.</p> <p>The DADSWG is working on its training materials and is planning to have a training webinar session in 2018.</p>

Item	Name	Assignment
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 – web E-GADS.
	Status/ Comments:	<p>The NERC GADS Working Group (GADSWG) held a face-to-face meeting on September 19-20, 2017 at WECC’s office in Salt Lake City, Utah. NERC has scheduled three GADS/GADS-Wind training workshops in 2017. NERC has posted the GADS Wind Data Reporting Instructions (DRI), GADS Wind DRI version 1.2. This update to the DRI reflects minor changes to instructions associated with an authorized request for data and was approved by the Planning Committee on September 13, 2016.</p> <p>Currently, GADS does not include wind, solar or other renewable technology generating assets. Wind performance data reporting requirements have been developed and a phased in reporting process will begin in 2017 through 2020. Reporting data requirements for Solar have been initiated with a target goal of beginning data submittal by 2021.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

OTHER

<u>Item</u>	<u>Name</u>	<u>Assignment</u>
IPSAC	Interregional Planning Stakeholder Advisory Committee	The Interregional Planning Stakeholder Advisory Committee (IPSAC) is an open stakeholder group that provides input for the development of the Northeast Coordinated System Plan (NCSP). The NCSP outlines activities conducted jointly by ISO New England, New York ISO, and PJM.
	Status/ Comments:	The next IPSAC meeting is a WebEx on December 11, 2017. Agenda items include an update on system needs that could have potential interregional solutions, projects with potential cross border impacts, and next steps.



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> <p>Status/ Comments:</p> <p>The CO-10 Working Group continues to review of tool failures and associated lessons learned as generated from the NERC Event Analysis Program. The CO-10 Working Group develops regional insights templates from the review of said lessons learned to further aid NPCC entities in utilizing these valuable lessons. The CO-10 Working Group has discussed and presented to TFCO a summary identifying how each NPCC Area will meet the requirements R3 of IRO-018-1 and R4 of TOP-010-1(i). In addition, the CO-10 Working Group, at the request of TFCO to create a procedure that addresses the Requirements in TOP 003-3, has drafted a document addressing how each NPCC Area implements Area to Area data sharing. This document is to be used to show compliance to the standard during audits and to have an overarching document to outline our model for sharing activities. The draft document will be presented and review at the December 7-8, 2017 TFCO meeting. Also, CO-10 WG will be preparing the biennial NPCC Critical Summary report which will allow for the development of the NPCC Operating Tools Failure Analysis survey to be developed and distributed to the member entities to begin the process for next year.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Situation Awareness and Infrastructure Security Program

TASK FORCE ON INFRASTRUCTURE SECURITY AND TECHNOLOGY (TFIST)

Item	Name	Assignment
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.
	Status/ Comments:	TFIST presented at NPCC's Fall 2017 Standards & Compliance Workshop.
		Last Workshop: November 2017

Item	Name	Assignment
IST-2	TFIST Telecommunications Working Group	Provide a forum to identify, discuss and advance the technology of Telecommunications Infrastructure for the reliable operations of the NPCC Bulk Power System. The Telecommunications Working Group (IST-2) will also support TFIST in their work on issues related to Telecommunications
	Status/ Comments:	The RCC accepted the 2016 annual Cross-Border Emergency Telecommunications Report at its December 6, 2016 meeting.



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 2017 NPCC General Meeting will be held on December 6, 2017 in Boston, MA. Agenda items include wholesale market accommodation of MA State mandates and policies, New York's Public Policy Planning process, Resiliency, an update on the Maritime Link project, and a session regarding northeast natural gas availability.

<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 2017 NPCC Governmental/Regulatory Affairs Advisory Group meeting will be held in conjunction with the NPCC 2017 General Meeting. Agenda items include presentation of New England's Regional System Plan, a New England Markets and Public Policy update, Hydro-Quebec's Clean Energy Partnership, and an update on IEEE Standard 1547.

<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 NPCC Media Event for the release of the 2017 NPCC Summer Reliability Assessment was held for May 4, 2017. NPCC participated in the November 7, 2017 NERC Regional Communication Group meeting, and tested NPCC's Emergency Communication Plan during the GridEx IV exercise.