



RCC Meeting
February 28, 2018
Agenda Item 7.12

Reliability Assessment Program
(NRAP)
HIGHLIGHT REPORT
Prepared for the
Reliability Coordinating Committee
February 28, 2018

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



NPCC, Inc.

Reliability Assessment Program

HIGHLIGHT REPORT

Contents

<u>Reliability Standards</u>	1
Regional Standards Committee	1
Directories, Appendices & Criteria	3
Directory Development and Revision Manual	12
NPCC Glossary of Terms	12
Regional Standards	13
Regional Standards Development Procedure	16
<u>Compliance Enforcement and Organization Registration and Certification</u>	17
Compliance Committee	17
Documents	18
<u>Training, Education, and Operator Certification</u>	19
Task Force on Coordination of Operation	19
<u>Reliability Assessment and Performance Analysis</u>	20
Task Force on Coordination of Operation	20
Task Force on Coordination of Planning	24
Task Force on System Studies	26
Task Force on System Protection	28
Eastern Interconnection Reliability Assessment Group	29
ERAG Seasonal Working Group	30
NERC	31
Other	34
<u>Situation Awareness and Infrastructure Security</u>	35
Task Force on Coordination of Operation	35
Task Force on Infrastructure Security and Technology	36
<u>Administrative Services</u>	37
Members' Forums	37



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 RSC considers requests for new or revised standards and be available for advisement to the NPCC Board of Directors on standards related matters. The RSC works in coordination with the Regional Standards Process Manager (RSPM) who is the administrator for the NPCC Regional Standard Processes Manual. In addition, the RSC reviews, comments on, and develops 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 provides input to the NERC “Periodic Review Projects” and the NERC version of the CEAP being referred to as cost effectiveness and is providing input into the “Standards Efficiency Review” (SER) project. The SER allows the industry the opportunity to identify potential standard requirements which could be candidates for retirement. The RSC also discusses potential avenues to address potential reliability related issues associated with distribution level Distributed Energy Resources (DER). In addition, the RSC coordinates work with the CC to address any issues identified with standards to 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>

Status/ Comments:

The RSC is focused on the review of each of the NERC Reliability Standards (as they are developed, revised or reviewed for reaffirmation or retirement). 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.



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 two 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. All comment responses are posted onto NPCC website and the drafting team is in the process of finalizing the redline document in order to post it for a second 45-days comment period. 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 (TFCO) 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.

The TFCP is currently reviewing a Request for Criteria Clarification submitted by the New York State Reliability Council (NYSRC). The request seeks clarity on the language in Table No. 1 (Planning Criteria) regarding station circuit breaker configuration after certain N-1-1 events.



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:	<p>The Task Force on Coordination of Operation (TFCO) and its CO-8 Working Group have posted a revised version of Directory No. 2 <i>Emergency Operations</i> to the Open Process on December 30, 2017.</p> <p>The Directory No. 2 criteria has been reformatted into NERC style requirements and has been reviewed to ensure the criteria is consistent with recently approved ERO Standards.</p> <p>The Open Process posting concludes on February 13, 2018 and TFCO is considering all comments.</p>		

<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:	<p>The Task Force on System Protection completed a technical comparison of the criteria in Directory No. 3 with PRC-005-2 <i>Protection System Maintenance</i> and recommended that the criteria in Directory No. 3 be retired.</p> <p>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 <i>Protection System Maintenance</i>.</p>		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

Item	Name	Appendices	Lead TF	Current Version
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>TFSP</p> <p>TFSP</p>	September 30, 2015
Status/ Comments:		The TFSP is currently reviewing Directory No. 4 in advance of an anticipated Open Process posting during 2018.		

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

Status/ Comments: The Task Force on Coordination of Operation 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 in 2018 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.



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-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.		

<u>Item</u>	<u>Name</u>	<u>Appendices</u>	<u>Lead TF</u>	<u>Current Version</u>
DIR-7	Special Protection System		TFSP	July 9, 2013
		Attachment 1 – Definition of Terms	TFSP	
		Appendix A – Guidance for Consideration in SPS Design Criteria	TFSP	
		Appendix B – Procedure for Review of Special Protection Systems	TFCP	
	Status/ Comments:	The Task Force on System Protection is currently reviewing Directory No. 7 in advance of an anticipated Open Process posting during 2018. In parallel with the TFSP review of the Directory No. 7 criteria, the TFCP is coordinating a review a review of Directory No. 7 Appendix B to consider revisions to the Appendix in accordance with PRC -012-2 <i>Remedial Action Schemes</i> and the revised definition of Remedial Action Schemes (RAS).		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

Item	Name	Appendices	Lead TF	Current Version
-------------	-------------	-------------------	----------------	------------------------

DIR-8	System Restoration	<p>Appendix A – Table 1 “Standard Test Procedures For key facilities and associated critical components required for system restoration</p> <p>Appendix B: NERC ERO Reliability Standards</p> <p>Appendix C-Table 2: Comparison of Test Procedures for Critical Components of Key Facilities of the System Restoration Plan</p>	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. The Task Force on Coordination of Operation is currently reviewing a Request for Criteria Clarification submitted by the Consolidated Edison Company. The Request seeks clarity on the language in Requirement R.10.2 and the requirements for battery interruption tests and battery continuity tests.

Item	Name	Appendices	Lead TF	Current Version
-------------	-------------	-------------------	----------------	------------------------

DIR-9	NPCC Verification of Generator Gross and Net Real Power Capability	<p>Appendix A – Definition of Terms</p> <p>Appendix B – Basic Flow Chart for Verification of Generator Gross and Net Real Power Capability</p>	<p>TFCO/TFCP ¹</p> <p>TFCO/TFCP ¹</p>	December 29, 2011
-------	--	--	---	-------------------

Status/ Comments:

The Task Force on Coordination of Operation 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.



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-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 Task Force on Coordination of Operation 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:	<p>On October 24, 2016 the NPCC Full Member Committee voted to approve regional Reliability Directory No. 11 <i>Disturbance Monitoring Equipment Criteria</i>.</p> <p>Also approved was the concurrent retirement of the following NPCC documents:</p> <ul style="list-style-type: none"> ● A-15 – “<i>Disturbance Monitoring Criteria</i>” ● B-25 – “<i>Guide to Time Synchronization of Substation Equipment</i>” ● B-26 – “<i>Guide for Application Disturbance Monitoring Equipment</i>” ● B-28 – “<i>Guide for Generator Sequence of Events Monitoring</i>” <p>Directory No. 11 will augment PRC-002-2 <i>Disturbance Monitoring and Reporting Requirements</i> and guide the effective application of equipment necessary to capture the data required by the NERC standard.</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-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. 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. The Regional Standards Committee (RSC) is currently drafting a revised version of the NPCC <i>Directory Development and Revision Manual</i> which will incorporate the A-01 criteria into the Directory Manual for the purposes of retiring the A-01.</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 Task Force on Coordination of Planning and its CP-11 Working Group is conducting a review of the A-10 methodology.</p> <p>The review is considering 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>On December 5, 2017 the RCC approved further testing of all three methodologies during Phase 2 of the review in 2018. Currently, CP-11 has drafted an Action Plan which will govern the Phase 2 review and calls for a preferred methodology to be presented to the RCC by December of 2018.</p>		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directory Development and Revision Manual

Item	Name	Assignment	Current Version
Directory	Directory Development and Revision Manual	The NPCC Directory Development and Revision Manual is intended to provide guidance regarding the process of establishing a new or revised Directory and will clarify the roles and responsibilities of the NPCC Task Forces responsible for Directory content.	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 is currently reviewing the Directory Development and Revision Manual and has drafted a revised and updated document that proposes incorporating the A-01 document into the Manual in advance of retiring the A-01. The RSC anticipates posting the revised Directory Manual in 2018.</p>	

NPCC Glossary of Terms

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



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Regional Standards

<u>Item</u>	<u>Name</u>	<u>Assignment</u>	<u>Current Version</u>	
PRC-002-NPCC-01	Disturbance Monitoring	This Standard establishes the technical and reporting requirements for disturbance monitoring equipment. This will lead to improved system reliability by providing the resources to do post event analyses.	Latest Version:	Retired
			Date:	August 16, 2016

Status/ Comments:

The proposal to retire PRC-002-NPCC-01 *Disturbance Monitoring* 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.

FERC issued an approval letter for the retirement of Regional Reliability Standard PRC-002-NPCC-01 *Disturbance Monitoring* on August 16, 2016.



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:

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

As a result of developments regarding NERC PRC-006-1/PRC-006-2 *Automatic Underfrequency Load Shedding*, PRC-024-1/PRC-024-2 *Generator Frequency and Voltage Protective Relay Settings*, Project 2014-01 *Standards Applicability for Dispersed Generation Resources*, NPCC Directory No. 12 *Underfrequency Load Shedding Program Requirements*, and the 2013 *NPCC UFLS Adequacy Assessment*, a RSAR for revision of Automatic Underfrequency Load Shedding PRC-006-NPCC-1 was approved by the Regional Standards Committee at its June 23, 2015 meeting. The 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. All comment responses are now posted on the NPCC website. The drafting team is in the process of finalizing the redline document in order to post it for a second 45-days comment period.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Regional Standards

Item	Name	Assignment	Current Version	
BAL-002-NPCC-01	Regional Reserve Sharing Groups	The Standard provides the measures for implementing Reserve Sharing Groups within NPCC in order to meet their reserve obligations.	Latest Version:	New
			Frequency of Reviews:	3 years
			Next Review Date:	
	Status/ Comments:	The RSAR has been developed and approved by the RSC. The RCC has assigned the TFCO to act as the drafting team and a request for drafting team members was sent to the NPCC membership. At its meeting of April 14 and 15, 2011, the TFCO established a sub-group of TFCO members and NPCC staff that will work on the Reserve Sharing Groups Standard's development. The development of Regional Standards has been held in abeyance pending further direction from NERC.		



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Regional Standards Development Procedure

Item	Name	Assignment	Current Version
RSPM	Regional Standard	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>
	Status/ Comments:	<p>At the December 7, 2017 Compliance Committee meeting, revisions to Compliance Procedures CP-02 <i>Procedure for Conduction On-Site Compliance Audits</i>, CP-03 <i>Procedure for Conducting Off-Site Compliance Audits</i>, and CP-04 <i>Procedure for NPCC Registration and Certification</i> were 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 (CCEP-1)</i> 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 December 5, 2017 RCC meeting, the <i>2018 CCEP Implementation Plan</i> was approved. 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	This Working Group establishes a program for system operator training relating to NPCC Inc. inter-Area matters, Working Group criteria, terminology, policies, and operating instructions. It prepares and presents material at system operator training sessions, exchanges information on internal system operator training methods. The CO-2 Working Group also evaluates and proposes new techniques and training aids as they become available.

Status/ Comments:

The 2018 Spring 81st NPCC System Operator Seminar planning meeting will be held February 28 and March 1st in Montreal, Quebec. Plans will be made for the coming Spring 2018 Seminar and include determining Seminar presentation topics, new topics for the Table Top Exercise, along with CO-8 Operations Managers Working Group input. The 2018 Spring Seminar will be hosted by NPCC May 1-3 2018 at the Residence Inn New York Manhattan / Time Square Hotel. As in past Seminars operators will receive Continuing Education Hours (CEHs) for their participation and successful completion of the Table Top Exercise. A meeting to discuss system operator training issues will be held in June or July. The 2017 Fall 82nd NPCC System Operator Seminar will be hosted by PJM in Valley Forge, Pa. on November 6, 7 and 8, 2018.



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 February 15-16, 2018, with its next meeting scheduled for May 2018. In response to TFCO’s assignment, the CO-1 Working Group is continuing their review of 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 in 2018 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. The CO-1 Working Group continues to closely monitor developments to their relevant BAL and FAC standards.</p>
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	<p>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 (TFCO) in their work on issues related to system security and the operation of the ISOs, and Provide advice to the TFCO, as requested.</p> <p>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, <i>Emergency Operations</i> document. The CO-8 Working Group is also working on providing comments on the Directory No. 5, <i>Reserve</i> 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 has completed its initial review of a version of Directory No. 2, which has been reformatted into the NERC style requirements against the current and developing ERO standards. A revised version of Directory No. 2 <i>Emergency Operations</i> was posted to the Open Process for comments on December 30, 2017.</p> <p>The Open Process posting concludes on February 13, 2018; the CO-8 Working Group will consider all comments received at its February 21-22, 2018 meeting and develop draft responses for the TFCO's consideration.</p>



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	<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, <i>System Restoration from Blackstart Resources</i>, and EOP-006, <i>System Restoration Coordination</i>. 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> <p>Status/ Comments:</p> <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 - <i>System Restoration</i> was approved by the RCC at its September 6, 2017 Meeting. CO-11 continued with its review of the November 1, 2017 RC-to-RC Restoration Exercise.</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 CO-12 Working Group is beginning work on the <i>2018 Summer NPCC Reliability Assessment</i> in February 2018. The kickoff call was held on February, 2nd 2018 and preliminary results will be presented to the RCC at its February 28, 2018 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> was approved by the RCC at their December 5, 2017 meeting. The RCC also approved 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 developed the assumptions for the <i>NPCC 2018 Summer Multi-Area Probabilistic Reliability Assessment</i> , which were approved by the Task Force on Coordination of Planning at their January 12, 2018 meeting. Preliminary results will be presented at the February 28, 2018 RCC meeting.
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 NPCC <i>2017 Long Range Adequacy Overview</i> was approved by the RCC 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:	<p>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 <i>Classification of Bulk Power System Elements</i> 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.</p> <p>The RCC approved the CP-11 Working Group's A-10 Methodology recommendations at their December 5, 2017 meeting. The corresponding Action Plan for the Phase 2 Review of the A-10 Methodology planned for 2018 will be submitted for RCC approval at their February 28, 2018 meeting.</p>



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 has mostly completed development of the generator relay models, capacitor protection models, and the underfrequency load shedding models necessary to perform simulations of the NPCC UFLS program. Baseline simulations will be conducted in March and April. Results of the baseline assessment will be available for a presentation to the TFSS and to the RCC in May 2018.



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-37	Base Case Development Working Group	<p>On an annual basis, develop a library of solved power flow cases and associated dynamic data.</p> <p>Status/ Comments:</p> <p>2017 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>2018 Power Flow Cases - Ongoing The SS-37 Working Group held a Kickoff meeting in January to make plans for activities during 2018. Development of the 2018 NPCC Library of Cases will commence in April. The completed NPCC cases will be 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 will be completed and published in October 2018.</p> <p>2017 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 March 2018.</p> <p>2018 Dynamic Models - Ongoing In August 2018, the SS-37 Working Group will assemble the dynamic data for the 2018 NPCC Library of Cases. The completed dynamic models will be submitted in September 2018 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 dynamic models are scheduled to be complete and published in January 2019.</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 reviewed the status of SP-7 Working Group on Protection System Misoperation Review as completed through the 3rd Quarter (Q3) of 2017. The number for the NPCC misoperations by cause codes that had occurred in Q3 of 2017 has been compared to the cumulative quarterly average misoperations reported since 2011. This quarter had the highest number of misoperations in 2017 caused by Relay Failure/Malfunction due to Digital I/O Module Failure/Malfunction. In addition, the number of misoperations caused by Communication Failure were at its highest this quarter on DCB schemes.</p> <p>The total number of misoperations for Q3 is 38 compared to the NPCC Q3 quarterly average of 51 misoperations. The misoperations reported for this quarter represent the lowest Q3 count since 2013. The highest count occurred in Q3 of 2013 at 70.</p> <p>There were four reported SPS operations in Q3 2017 and two reported misoperations. The misoperation of a Type I SPS was caused by Logic Error. The digital control elements within the “A” and “B” protection relays were not in the intended state. The misoperation of a Type III SPS was caused by As-left personnel error, which was due to the fact the pallet multiplier of a disconnect was incorrectly set in the wrong position, effectively disabling the SPS.</p>



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

Eastern Interconnection Reliability Assessment Group

Study Committees

Item	Name	Assignment
ERAG	Eastern Interconnection Reliability Assessment Group	<p>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.</p>
	<p>Status/ Comments:</p>	<p><u>Peer Review of Planning Coordinators (PCs) Transmission Studies</u> In 2017, the Eastern Interconnection Reliability Assessment Group (ERAG) held two Planning Coordinator peer review meetings focused on transmission planning studies being performed by each PC. The peer review sessions were held to enhance ERAG’s understanding of the types of studies being performed and to determine where ERAG could add value performing interconnection-wide studies. A report summarizing the effort and its findings was approved at the January 2018 ERAG meeting and will be shared with the PCs, Regional Entity staff, and NERC staff.</p> <p>ERAG has developed some next steps for possible future work within ERAG potential work plan items could include: 1) ERAG follow-up work to the NERC Special Reliability Assessment: Potential Bulk Power System Impacts Due to Severe Disruptions on the Natural Gas System analysis, 2) improve power flow and dynamics model accuracy, 3) Extreme event discussion, 4) resource adequacy/load forecast processes, 5) validation for the MOD-033 Standard, 6) workshop for planners and operators, 7) seams issues and coordination, 8) resilience, 9) Distributed Energy Resources and 10) contingency list sharing and storage</p> <p><u>Eastern Interconnection (EI) MOD-032 Designee</u> The Eastern Interconnection Planning Collaborative (EIPC) is still exploring the acquisition of the EI designee role to develop the annual set of EI power flow and dynamics base cases. The EIPC is expected to report on its decision in early spring 2018.</p> <p><u>Severe Disruptions on the Natural Gas System</u> ERAG plans to conduct a more detailed follow-up study to NERC’s <i>Special Reliability Assessment: Potential Bulk Power System Impacts Due to Severe Disruptions on the Natural Gas System</i>. ERAG will follow up with the PCs to obtain feedback on any work the Planning Coordinators have performed to address NERC’s recommendations in the assessment.</p> <p><u>ERAG Events Analysis model development process</u> ERAG continues to pursue the creation of an ERAG Events Analysis model development process. NPCC has provided updates on the work they have been doing conducting the NPCC Event Replication Case Development effort. ERAG plans to leverage the NPCC work in its effort. ERAG scheduled the next face-to-face meeting on April 12, 2018 in Baltimore, MD.</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)	<p>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.</p>
	<p>Status/ Comments:</p>	<p>The NERC Planning Committee endorsed the <i>2017 Long-Term Reliability Assessment (LTRA)</i> via email vote on October 25, 2017. NERC’s Board of Trustees approved the LTRA on December 4, 2017.</p> <p>The NERC Reliability Assessment Subcommittee issued the following data request to the Regional Executives on January 26, 2018:</p> <ul style="list-style-type: none"> ▪ Data and supporting narrative request supporting the 2018 NERC Summer Reliability Assessment, including a supplemental data request. <p>The NERC Reliability Assessment Subcommittee issued the following data request to the Regional Executives on January 22, 2018.</p> <ul style="list-style-type: none"> ▪ Data and supporting narrative request supporting the 2018 NERC Long-Term Reliability Assessment, including a supplemental data request supporting a new technology integration assessment. <p>The next NERC RAS meeting is scheduled for April 10-11, 2018 in Philadelphia, PA.</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 Probabilistic Assessment Working Group is currently developing the assumptions, methods and data request related for the probabilistic assessment to be conducted with the 2018 NERC Long-Term Reliability Assessment.

Item	Name	Assignment
TADS	Transmission Availability Data System	Serve as the Regional Entity Coordinator (REC) in support of the NERC TADS outage data collection and the analysis of the NPCC Transmission Owners (TO) outage information. As the REC, oversee the use of and the data entry of automatic outage information by the TO in the NERC Internet based data management tool - webTADS.
	Status/ Comments:	<p>The NERC TADS Working Group (TADSWG) met on January 23-25, 2018 at San Diego Gas &Electric’s office in San Diego, CA. The next face-to-face meeting will be on June 26-29, 2018 in Boise Idaho in conjunction with the 2018 IEEE PMAPS conference. 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>The NATF provided a highly insightful presentation going over the sub-cause codes that the NATF collects for Failed AC Circuit Equipment, Failed AC Substation Equipment, Human Error, and Unknowns. The presentation included various details about the sub-causes and their trending since they started being collected in 2014.</p> <p>The TADSWG conducted an in-person training session on November 27-29, 2017 at the NERC offices in Atlanta, GA. Another training will be conducted in 2018.</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 DADSWG had a conference call on January 11, 2018. The next face-to-face meeting will be announced in 2018. The DADSWG worked on its Scope to develop a process for soliciting and evaluating DADS changes and has recommended 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. The group has started working on clarification of DADS reporting criteria.</p> <p>The DADSWG is working on its training materials and is planning to have a training session in 2018. NERC Training expects to complete the video during Q1 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>Beginning January 1, 2018, quarterly reporting for all wind plants with a Total Installed Capacity of 200 MW or larger will be mandatory. Additional phased-in mandatory reporting is as follows:</p> <ul style="list-style-type: none"> • January 1, 2019: Mandatory reporting begins for plants with a Total Installed Capacity of 100 MW and greater. • January 1, 2020: Mandatory reporting begins for plants with a Total Installed Capacity of 75 MW and greater. <p>Reporting data requirements for Solar have been initiated with a target goal of beginning data submittal by 2021.</p> <p>NERC plans to conduct three training sessions in 2018 for conventional GADS and GADS Wind.</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 IPSAC held a WebEx on December 11, 2017. Agenda items included 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>
	Status/ Comments:	<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, at the request of the Task Force on Coordination of Operation (TFCO) has created a draft NPCC “C” document procedure that addresses the Requirements in TOP 003-3on how each NPCC Area may implement 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. Once the procedure is accepted by the TFCO members and circulated to the TFCO leadership for their concurrence, work will commence the NPCC A-1 process for the Comment and Approval process of this procedure as a new ‘C’ Document. Also, the CO-10 Working Group will present to TFCO at their March 2018 meeting the biennial NPCC Critical Summary report, which allows 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. Last Workshop: November 2017
	Status/ Comments:	TFIST presented at NPCC's Fall 2017 Standards & Compliance Workshop.
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:	TFIST presenting the 2017 annual Cross Border Emergency Telecommunications report at the RCC's February 28, 2018 meeting.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Administrative Services

MEMBERS' FORUMS

Item	Name	Assignment
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 was held on December 6, 2017 in Boston, MA. Agenda items included 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.

Item	Name	Assignment
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 was held in conjunction with the NPCC 2017 General Meeting. Agenda items included 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.

Item	Name	Assignment
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.