NPCC, Inc.

RCC Meeting
September 8, 2021
Agenda Item 8.9

Reliability Assessment Program

(NRAP)

HIGHLIGHT REPORT

Prepared for the

Reliability Coordinating Committee

September 8, 2021

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

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Regional Standards Committee

Item	Name	Assignment
RSC	**Regional Standards Committee**	The NPCC Regional Standards Committee (RSC), a committee of the NPCC Board, is charged with management and maintenance of the NPCC Regional Standard Processes Manual (approved by FERC Dec. 23, 2014). The RSC considers requests for new or revised regional 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 as well as opportunities to enhance reliability associated with the deployment of Distributed Energy Resources (DER). In addition, the RSC coordinates work with the RCC and 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 and is engaged in revising the NPCC Regional Standard Processes Manual. The RSC will also serve as a liaison for the Northeast Region to the NERC RSTC for any Standards related recommendations.
	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 Standards Efficiency Review, Functional Model Working Group, NERC Standards Committee, and the NERC Standards Committee Process Subcommittee. The RSC is in the process of reviewing the NPCC Regional Reliability Standards Development Procedure, renamed the Regional Standard Processes Manual. 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 has been overseeing the Strategic Review of NPCC Criteria.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Regional Standards Committee

Item	Name	Assignment
RSC	**Regional Standards Committee**	The RSC continues to consider enhancements to the NPCC Website to provide further uniformity and consistency with that of NERC and other Regions.
	Status/Comments:	The RSC is currently engaged in reviewing a potential approach to penetration of utility-scale Distributed Energy Resources (DERs) on the distribution system, and adverse impact on the BES. The Distributed Energy Resource BES impact reporting form is posted on the NPCC website. The RSC hosted three DER forums in 2021. The DER Forums are open to the public. The next DER Forum is tentatively scheduled for October 14, 2021. The DER Forums are hosted on the second day of RSC meetings. The NPCC Standards staff developed Version 1 and 2 of the DER Guidance Document which was endorsed by the members of RSC in 2019 and 2020. All comments from the DER Guidance Document comment period were reviewed and responded to by the NPCC Standards staff and members of RSC. Version 3 of the NPCC DER Guidance Document is under development and the goal is to have the document finalized by the beginning of fourth quarter 2021 and post it for comments by the end of the year.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

Item	Name	Appendices	Lead TF	Current Version
DIR-1	**Basic Criteria for the Design And Operation of the Bulk Power System**		**TFCP**	**September 30, 2015**
		Appendix A – ERO Standards	TFCP	
		Appendix B – Guidelines and Procedures for NPCC Area Transmission Review	TFCP	
		Appendix C – Procedure for Testing and Analysis of Extreme Contingencies	TFCP	
		Appendix D – Guidelines for Area Review of Resource Adequacy	TFCP	
		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	TFCO*	
		Appendix G – Procedure for Inter Reliability Coordinator Area Voltage Control	TFCO*	

Status/ Comments:

The Task Force on Coordination of Planning (TFCP) and the Task Force on Coordination of Operation (TFCO) completed a 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 has approved a Scope of Work, and a Joint Planning and Operations Working Group has begun the review of this document.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

Item	Name	Appendices	Lead TF	Current Version
DIR-2	Emergency Operation		TFCO	June 29, 2018
		Appendix A – Definition of Terms	TFCO	
		Appendix B - Guideline and Procedure for Emergency Operation	TFCO	

Status/ Comments:

The Task Force on Coordination of Operation (TFCO) and its CO-8 Working Group posted a revised version of Directory No. 2 *Emergency Operations* to the Open Process on December 30, 2017.

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.

The NPCC Full Member Committee approved the revised version of Directory No. 2 on June 29, 2018.

Item	Name	Appendices	Lead TF	Current Version
DIR-3	Maintenance Criteria for Bulk Power System Protection		TFSP	Retired April 1, 2015
		Appendix A – Definition of Terms	TFSP	
		Appendix B – Guidelines and Procedures for Maintenance of Bulk Power System Protection	TFSP	

Status/ Comments:

The Task Force on System Protection (TFSP) completed a technical comparison of the criteria in Directory No. 3 with PRC-005-2 *Protection System Maintenance* 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 *Protection System Maintenance.*

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

Item	Name	Appendices	Lead TF	Current Version
DIR-4	BPS Protection Criteria		**TFSP**	January 30, 2020
		Appendix A – Guideline for Bulk Power System Protection	TFSP	
		Appendix B - Procedure for Reporting to TFSP New and Modified Protection Systems	TFSP	
	Status/ Comments:	An updated version of Directory No. 4 was approved at the December 3, 2019 RCC meeting. The NPCC Full Membership approved the proposed RCC revisions to Directory No. 4 on January 30, 2020.		

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

Item	Name	Appendices	Lead TF	Current Version
DIR-5	Reserve		**TFCO**	**September 27, 2019**
		Appendix A – Monitoring Procedure for Operating Reserve Criteria Frequency Response	TFCO	
		Appendix B – Procedures during Abnormal Operating Conditions	TFCO	
		Appendix C – Participation Request Form – Simultaneous Activation of Reserve and ACE Diversity Interchange	TFCO	
		Appendix D – Guidelines for Determining the Time T+0	TFCO	

Status/ Comments: The Task Force on Coordination of Operation (TFCO) completed a comprehensive review of Directory No. 5 in 2019 with the NPCC Full Membership approving the revised version of Directory No.5 on September 27, 2019. The review considered the impact of evolving ERO standards, NPCC Glossary updates and revisions, revised synchronized reserve criteria, and retired procedures detailed within the Appendices.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

Item	Name	Appendices	Lead TF	Current Version
DIR-6	**Regional Reserve Sharing**		**TFCO**	**September 27, 2019**

Status/Comments: The Task Force on Coordination of Operation (TFCO) and its CO-8 Working Group completed a comprehensive review of Directory No. 6 and posted a revised version of the document to the NPCC Open Process. The TFCO review considered the impact of evolving ERO standards, emerging industry technologies and the recommendations contained in the Phase 2 Final Report on the A-10 Methodology. An updated version of Directory No. 6 was approved by the RCC for approval at its September 4, 2019 meeting. The NPCC Full Membership approved the revised version of Directory No.6 on September 27, 2019.

Item	Name	Appendices	Lead TF	Current Version
DIR-7	Remedial Action Schemes		TFCP	**Dec. 22, 2020**
		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 Coordination of Planning (TFCP) and the Task Force on System Protection (TFSP) completed a comprehensive review of Directory No. 7 to ensure that the existing regional review process and the specific criteria attributes within the document are consistent with PRC-012-2. The title of the document and the existing NPCC Glossary term for Special Protection Systems was revised to be consistent with NERC's Glossary term for Remedial Action Scheme. The RCC recommended the NPCC Full Member Committee approval of these changes at its December 1, 2020 meeting. The NPCC Full Membership approved the revised version of Directory No.7 on December 22, 2020.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

Item	Name	Appendices	Lead TF	Current Version
DIR-8	System Restoration		TFCO	September 25, 2018
		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		
	Status/ Comments:	The Directory No. 8 Review Team, which consists of the CO-11 Working Group members and additional NPCC Transmission Operator representatives, continues to conduct focused review sessions of Directory No. 8 every three weeks throughout 2021. The next focused review session is scheduled for September 17, 2021. The team members have addressed non-substantive and deferred NPCC member comments from the previous triennial review in 2018. The Directory 8 Review Team continues to review the Test Procedures for Critical Components in Directory No. 8 and has proposed some new language for certain Test Procedures to better align with available technology and computer systems that may be subject to the testing requirements. Through the TFCO, the Directory 8 Review Team will be requesting additional support from the Task Force on System Protection to review Testing Procedures in Directory No. 8 to ensure the criteria remains more specific and stringent to any changes made to PRC-005.		

Item	Name	Appendices	Lead TF	Current Version
DIR-9	NPCC Verification of Generator Gross and Net Real Power Capability		TFCO	Retired July 1, 2019
		Appendix A – Definition of Terms	TFCO/TFCP [1]	
		Appendix B – Basic Flow Chart for Verification Generator Gross and Net Real Power Capability	TFCO/TFCP [1]	
	Status/ Comments:	The NPCC Full Membership voted to approve the retirement of NPCC Regional Reliability Directory No. 9 V*erification of Real Power Capability,* and seven existing NPCC Glossary terms contained solely within Directories No. 9 and No. 10, effective July 1, 2019. Directory No. 9 is posted on the NPCC website marked with a 'retired' watermark.		

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

Item	Name	Appendices	Lead TF	Current Version
DIR-10	NPCC Verification of Generator Gross and Net Reactive Power Capability		TFCO	Retired July 1, 2019
		Appendix A – Definition of Terms	TFCO/TFCP [1]	
		Appendix B1 – Basic Flow Chart for Verification of Generator Gross and Net Reactive Power Capability	TFCO/TFCP [1]	
		Appendix B2 – Generator Reactive Capability Form	TFCO/TFCP [1]	

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. The 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 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. Directory No. 10 is posted on the NPCC website marked with a 'retired' watermark.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

Item	Name	Appendices	Lead TF	Current Version
DIR-11	**Disturbance Monitoring Equipment Criteria**		**TFSP**	**October 24, 2016**
		Appendix A – Guide to Time Synchronization of Substation Equipment	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 augments PRC-002-2 *Disturbance Monitoring and Reporting Requirements* and guides effective application of equipment necessary to capture the data required by the NERC standard.

The Task Force on System Protection has completed its periodic review of Directory No.11 and posted the updated document to the Open Process for comments.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

Item	Name	Appendices	Lead TF	Current Version
DIR-12	UFLS Load Shedding Program Requirements	Appendix A – Definition of Terms	TFSS TFSS	July 9, 2013

Status/ Comments:

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. Pending all regulatory approvals of recently revised PRC -006-NPCC-2 Directory No. 12 will be considered for retirement.

The TFSS posted a retirement recommendation for Directory No. 12 on April 28, 2021 for a 45- day comment period. The TFSS has recommended that Directory No. 12 can be retired effective October 1, 2021 to coincide with the enforcement date of PRC –006-NPCC –02 in all jurisdictions.

Item	Name	Criteria	Lead TF	Current Version
A-01	Criteria for Review and Approval of Documents		TFCP	Retired Sept. 25, 2018

Status/ Comments:

The Regional Standards Committee (RSC) updated the NPCC *Directory Development and Revision Manual,* and relevant sections of the A-01 *Criteria for Review and Approval of Documents have been* incorporated into the Directory Manual for the purposes of retiring the A-01. The revised and updated NPCC Directory Manual, including sections of the A-01 document, was approved by the RSC in August 2018. Concurrent with the RSC review of the revised Directory Manual, the RCC approved the retirement of the A-01 document and on September 25, 2018 the NPCC Full Membership approved the retirement of the A-01 Document.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Directories, Appendices & Criteria

Item	Name	Criteria	Lead TF	Current Version
A-10	Classification of Bulk Power System Elements		TFCP	March 27, 2020

Status/ Comments:

The Task Force on Coordination of Planning (TFCP) and its CP-11 Working Group conducted a review of the A-10 methodology. The CP-11 Working Group effort focused on three objectives as highlighted by the TFCP in the project scope:1) Identify critical facilities for the applicability of NPCC Directories; 2) improve consistency of application and outcome across the region; and 3) simplify the methodology to make it less resource intensive.

The RCC approved testing of three proposed methodologies developed by the CP-11Working Group during Phase I of the review in 2017. These proposals included revisions to the existing methodology and two new methodologies. The CP-11 Working Group Final Report concluded that a revised and improved existing methodology is the most effective of the proposals in identifying those facilities critical to the design and operation of the BPS. The recommended improvements include revisions to the overall testing strategy (i.e., where to begin and conclude testing), base case set-up (i.e., load levels, interface stress and generation patterns) and the use of performance requirements to assess testing outcomes. The RCC approved the CP-11 Working Group's recommendations in December of 2018 and these recommendations have been incorporated into a revised version of the A-10 Document.

The TFCP posted a revised version of the A-10 to the Open Process for two Open Process comment periods and the TFCP has responded to all comments. The RCC approved the revised A-10 Document and an associated implementation plan at its February 27, 2020 meeting. The NPCC Full Member Committee voted to approve the revised A-10 Document on March 27, 2020.

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 Force responsible for Directory content.	**October 2020**
	Status/ Comments:	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. A revised version of the Directory Manual which incorporated relevant sections of the A-01 document to facilitate retirement of the A-01 was approved by the RSC in August 2018. A repeatable cost- effective evaluation has also been incorporated into the Directory Manual to ensure a cost- effective evaluation of the criteria during periodic Task Force reviews of each Directory. The RSC approved minor updates to the Manual in October 2020.	

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

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 in the Directory section of the NPCC website.	**October 26, 2011**

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Regional Standards

Item	Name	Assignment	Current Version	
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 was filed with FERC on June 9, 2016 and it was filed with all Canadian Providences 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

Item	Name	Assignment	Current Version	
PRC-006 NPCC-1	**Under Frequency Load Shedding (UFLS)**	This Standard will provide the requirements for implementing an automatic under frequency load shedding program to effectively respond to system under frequency events.	**Latest Version:**	**Feb. 2020**
			Frequency of Reviews:	**3 years**
			Next Review Date:	**Feb. 2023**

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 Regional Standard Authorization Request (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 eleven times and three conference calls. All requirements have been reviewed by the SDT and the draft standard was posted for three open process comment periods and for a 90-daya pre-ballot review. A ballot was then conducted which closed on February 10, 2019. The ballot achieved 80.95% quorum and approval of 76%. Due to an ERRATA, the standard was re-approved by the NPCC Board at their September 5, 2019 meeting. It was approved at the November 5, 2019 BOT meeting. The petition for approval is sent to FERC on December 23, 2019 and FERC has assigned Docket RD20-1-000 open for comment period which closed on January 22, 2020. The PRC-006-NPCC-02 was endorsed by FERC on February 18, 2020.

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 to meet their reserve obligations.	Latest Version: **Frequency of Reviews:** **Next Review Date:**	**New** **3 years**
	Status/ Comments:	A Regional Standard Authorization Request (RSAR) has been developed and approved by the RSC. The RCC has assigned the Task Force on Coordination of Operation (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:** Nov. 2020 **Frequency of Reviews:** 3 years **Next Review Date:** Nov. 2023

Status/ Comments:

The Regional Standard Processes Manual (RSPM) is posted on the NPCC Website. The RSC actively reviewed 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. During the June 20, 2018 RSC meeting, a small team was formed to review the current RSPM for any potential updates. The RSC reviewed and updated the existing RSPM. The revised RSPM was approved by the RSC for comment posting on August 7, 2019. The RSPM was posted for a 45-day comment period from September 11, 2019 to October 26, 2019. The RSPM was posted for a ballot period from January 17, 2020 to February 25, 2020. The results of the ballot were as follows: 81.65% quorum and 100% approval. The RSPM was approved by the NPCC Board at their meeting on May 6, 2020.

The NPCC RSPM was posted by NERC for a 45-day industry wide comment period that concluded on July 29, 2020. The proposal to approve Regional Standard Processes Manual was submitted to the NERC Board of Trustees and approved at their August 19-20, 2020 meeting. NERC and NPCC filed the joint petition to FERC on September 10, 2020. On November 23, 2020, FERC issued a letter order endorsing the revised NPCC Regional Standard Processes Manual. Docket Number: RR20-7-000.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Compliance Enforcement and Organization Registration and Certification Program

Compliance Committee

Item	Name	Assignment
CC	**NPCC Compliance Committee**	The NPCC Compliance Committee is charged with providing objective stakeholder input for Staff consideration in the implementation of the NPCC Compliance Monitoring and Enforcement Program (CMEP). The NPCC CMEP covers compliance assessment and enforcement of NERC Reliability Standards and NPCC Regional Reliability Standards. Regarding NERC Reliability Standards and Regional Reliability Standards, the CC provides input on the NPCC Compliance Staff's implementation of the CMEP. In this 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 reviewing Directory certification forms and providing non-monetary sanction recommendations to the RCC for incidents of non-compliance with monitored Reliability Criteria.
	Status/ Comments:	At the January 13, 2021 meeting, the 2021 CC Scope and CC Work Plan were discussed and approved. Both documents were approved by the NPCC Board on January 27, 2021. On the January through May 2021 CC calls, NPCC Staff shared with the CC updates and explanations on the transition from the CDAA compliance reporting tool to the new ERO compliance tool, which will occur through 3 Releases in 2021. The new tools are Align and the Secure Evidence Locker. A prioritized Align/SEL training plan for stakeholder users was developed by NPCC Staff and accepted by the CC on March 17. The CC was presented with the draft NPCC criteria for incorporating entity performance considerations in the development of Compliance Oversight Plans (COPs). Due to CC questions, a small working group was set-up to review the criteria in an objective fashion to propose updates at the May 26, 2021.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Compliance Enforcement and Organization Registration and Certification Program

NPCC Compliance Committee

Documents

Item	Name	Assignment
CCEP	**Criteria Compliance and Enforcement Program**	The CC will maintain the *NPCC Criteria Compliance and Enforcement Program Process Document* (CCEP-1) which documents the process for actively monitoring and enforcing compliance on a subset of the Reliability Criteria. 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. 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.
	Status/ Comments:	The CCEP Working Group has updated the CCEP-1 process document and it was presented and endorsed by the CC on April 22, 2020. It was provided to the RCC and posted on the NPCC website. In addition, the CC provided a recommendation to the RCC on April 23, 2020 on how issues with Full Member Directory noncompliance due to COVID response should be documented. On July 15, 2020 the CC developed and endorsed the 2019 CCEP Assessment Report which was presented for acceptance at the September 9, 2020 RCC meeting. The 2021 CCEP Implementation Plan and the blank forms for the 2021 Implementation Plan (IP) were approved at the September 16, 2020 CC meeting. The 2021 CCEP IP was accepted at the December 1, 2020 RCC meeting. The last of the CCEP certification forms for the 2020 CCEP year are due on May 20, 2021. The CC will develop the 2021 CCEP Assessment Report in time for discussion at the July meeting.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Training, Education, and Operator Certification Program

TASK FORCE ON COORDINATION OF OPERATION

Item	Name	Assignment
CO-2	**System Operator Training Seminar**	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 2021 Spring 86th NPCC System Operator Seminar was held on Wednesday, May 5, 2021 in virtual format via WebEx due to ongoing COVID-19 pandemic related travel restrictions. The seminar program focused on topics related to Human Performance, NPCC Simultaneous Activation of 10-Minute Reserve, ERCOT February 2021 Winter Event and recent operating events. The CO-2 Working Group met on May 19, 2021, to discuss participant evaluation results from the seminar 2021 Spring Seminar Planning Meeting. The Working Group members continue to discuss and make enhancements to their training programs, monitor System Operator Credential Maintenance under pandemic related restrictions, and share lessons learned to provide system operators with the necessary CEHs and safe training opportunities to support reliable system operations during COVID-19 pandemic protocols. The 2021 Fall 87th NPCC System Operator Seminar will be held virtually on November 3, 2021, with a special presentation focusing on Human Performance Improvement. The proposed seminar agenda will be developed at the CO-2 Working Group planning meeting on September 15, 2021 and will be coordinated with CO-8 Working Group.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF OPERATION

Item	Name	Assignment
CO-1	**Control Performance Working Group**	The Working Group ensures coordination between adjacent control areas in establishing interchange schedules, reviews time error correction procedures, and monitors the conformance of the Areas with NPCC Control Performance Criteria and Operating Reserve Criteria. At the request of the Task Force on Coordination of Operation (TFCO), it conducts investigations of control performance problems.
	Status/ Comments:	The CO-1 Working Group most recently met on August 4-5, 2021; the next meeting is scheduled for December 9-10, 2021. In addition to the regular periodic Control Performance monitoring activities, the CO-1 Working Group held a focused session on April 7, 2021 to review and provide comments to the latest version of the BAL-003.1 Phase II Standards Drafting Team Whitepaper, which had been released for an informal comment period on March 29, 2021 through April 27, 2021. The CO-1 Working Group solicited the CO-8 Working Group and the TFCO for additional feedback prior to submitting comments to NERC. The CO-1 Working Group continues to conduct periodic monitoring as required by NERC and NPCC Control Performance and Operating Reserve Criteria, and in coordination with the CO-8 Working Group and the TFCO. No discernable operational trends have been identified. The Working Group continues to closely follow industry related storage integration discussions and monitor developments to their relevant BAL and FAC standards.

Item	Name	Assignment
CO-7	**Operational Planning Working Group**	The Working Group CO-07 was restructured to serve the Task Force on Coordination of Operation (TFCO) as an Ad Hoc Working Group, populated and charged to address specific issues as required to assist the TFCO. It has been renamed the "Operational Planning Working Group."
	Status/ Comments:	The CO-7 Working Group has been populated in preparation for the 2021-22 TFCO/Task Force on Coordination of Planning coordinated comprehensive triennial review of NPCC Directory No. 1. A new CO-7 Working Group roster was approved at the May 26, 2021, RCC meeting.

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 (TFCO) 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:	At its May 3-4, 2021, meeting the CO-8 Working Group members, including representative form PJM reviewed Areas' Winter 2020-21 operations and Summer 2021 outlook. The CO-8 Working Group most recently met on August 17-18, 2021 and will meet again on November 3-4, 2021. At its August 17-18 meeting the group reviewed Areas' Summer 2021 operations, to date. Additionally, at its August meeting the CO-8 Working Group discussed preparations and coordination activities with the CO-2 Working Group for the Fall 2021 NPCC System Operator Seminar, scheduled to be held virtually on November 3, 2021, and status of preparation activities, topics and scenarios being considered by the CO-11 Working Group for the October 20, 2021 virtual NPCC RC to RC annual restoration exercise. The CO-8 Working Group continues to hold weekly Emergency Preparedness calls to discuss pandemic operations and any anticipated system operations challenges.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF OPERATION

Item	Name	Assignment
CO-11	**Restoration Working Group**	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, and coordinates Reliability Coordinator restoration exercises and develops and supervises annual wide-area restoration drills. The CO-11 working Group monitors the NERC Reliability Standards EOP-005, *System Restoration from Blackstart Resources*, and EOP-006, *System Restoration Coordination*. 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.
	Status/ Comments:	The CO-11 Working Group will meet next on September 22, 2021. The Working Group and TOP representatives have been regularly meeting to complete the 2021 triennial review of Directory No. 8. The scope of work was approved by the Task Force on Coordination of Operation (TFCO) at its January 13-14, 2021 meeting and addresses non-substantive and deferred NPCC member comments from the previous triennial review in 2018, Criteria Clarification requests submitted by NPCC members, reviews of recently updated, relevant NERC mandatory reliability standards, and relevant industry trends and topics. In accordance with the NPCC Directory Development and Revision Manual, the CO-11 Working Group will also develop a Cost Effectiveness Analysis review on the Directory No. 8 criteria to identify potential alternatives that achieve the same reliability outcome. The Working Group is also planning the 2021 NPCC Wide Area RC-to-RC Restoration Exercise, scheduled to occur on Wednesday, October 20, 2021. In response to 2021 NPCC Corporate Reliability Objective IA-3, the Working Group is also assessing critical telecommunications interdependency risks and identifying best available mitigation actions with the IST-2 Working Group. A final report is anticipated to be endorsed by the RCC at their November 30, 2021 meeting, following TFCO and Task Force on Infrastructure Security & Technology review and recommendation for endorsement.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF OPERATION

Item	Name	Assignment
CO-12	**Operations Planning Working Group**	Review the overall reliability of the generation and transmission system in the NPCC Region for the Summer and Winter Seasonal conditions.
	Status/ Comments:	The CO-12 Working Group will hold a kickoff call for the *2021-2022 NPCC Winter Reliability Assessment* effort on September 10, 2021 to review the upcoming effort scope, schedule, and potential assessment enhancements. The NPCC assessment will be developed in conjunction with the NPCC CP-8 Working Group and coordinated to align with the *2021-2022 NERC Winter Reliability Assessment* (WRA). Preliminary NERC WRA results will be submitted by September 14, 2021. As requested by the Task Force on Coordination of Operation (TFCO), the CO-12 Working Group met frequently throughout Summer 2021 to discuss enhancements to the 2021-2022 NPCC Winter Reliability Assessment to account for abnormal and/or extreme weather conditions. The CO-12 Working Group proposed preliminary enhancements at the August 12-13, 2021 TFCO meeting. Preliminary results will be presented to the TFCO at its October 13-14, 2021 meeting. Following TFCO and TFCP review, results will be presented to the RCC for approval at its November 30, 2021 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 CP-8 Working Group has initiated the *NPCC 2021 Long Range Adequacy Overview* following the finalization of the NERC Long Term Reliability Assessment data by the NERC Reliability Assessment Subcommittee in July 2021.

Item	Name	Assignment
CP- 2021S	**Summer 2021 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:	Following the Task Force on Coordination of Operation and the Task Force on Coordination of Planning approvals, the results of the *NPCC 2021 Summer Reliability Assessment* were presented to the NPCC Board of Directors on May 5, 2021. The NPCC 2021 Summer Media release followed on May 6, 2021.

Item	Name	Assignment
CP- 2021-22W	**Winter 2021-2022 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 CP-8 Working Group has initiated the *NPCC Winter 2021-2022 Multi-Area Probabilistic Assessment*. he Task Force on Coordination of Planning will be reviewing the assumptions at their September 13, 2021 meeting.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF PLANNING

Item	Name	Assignment
TIE	**NPCC 2021 Tie Benefits Report**	Estimate NPCC Area Annual Tie Benefits for a five-year period, assuming a hypothetically "At Criteria" and "As Is" system representation, applying consistent methodology and assumptions to all NPCC Areas, using the same multi-area reliability model.
	Status/ Comments:	The Task Force on Coordination of Planning approved the Scope of Work for the *NPCC 2021 Tie Benefits Report* at its February 10, 2021 meeting. The CP-8 Working Group has initiated the analysis following the finalization of the NERC Long Term Reliability Assessment data by the NERC Reliability Assessment Subcommittee in July 2021.

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 members is evaluating other transient stability software tools using the 2019 Series MMWG base case with user written models removed to compare dynamic system responses and to have an alternative backup software.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON SYSTEM STUDIES

Item	Name	Assignment
SS-37	**Base Case Development Working Group**	On an annual basis, develop a library of solved power flow cases and associated dynamic data.
	Status/ Comments:	**MMWG 2020 Dynamics Cases** The MMWG Coordinator released the final dynamics cases for the 2020 series on June 1st, 2021. NPCC SS-37 Working Group members were informed about the availability of the final dynamic cases for the 2020 series. **MMWG 2021 Power Flow Cases** The SS-37 Working Group met on June 14 – 15, 2021 to initiate the development of twelve power flow cases for the MMWG 2021 series. All twelve cases were developed successfully as well as a NPCC region specific 2026 Spring Light Load case, recommended by the Task Force on System Studies (TFSS). MMWG requirements were satisfied as the twelve power flow cases and five power flow contingencies were submitted on time to the MMWG Coordinator. Trial 2 power flow case corrections have been submitted by NPCC to the MMWG coordinator and are now awaiting the release of Trial 3 cases. **MMWG 2021 Dynamic Cases** The SS-37 Working group met on August 18 – 19, 2021 to initiate the development of eight dynamics cases for the MMWG 2021 series. The dynamics case was successfully initialized, and the dynamic data package was developed to submit to the MMWG coordinator. NPCC successfully met the MMWG requirement. Providing Composite Load Model Data (CMLD) for all eight dynamics cases is required by the MMWG for the 2021 series; the SS-37 Working Group members are working to meet this requirement. **Automation Sub-Group** The SS-37 Automation Sub-Group continues to develop a formal structure (objective, scope, testing procedures, script hosting, tool deployment and work plan) and brainstorm tools and scripts for development. The August 2021 meeting will consist of Sub-Group members presenting tools used within their organizations that can be modified to benefit the SS-37 Working Group, identify deliverables aimed at power flow and dynamics case development automation, discuss documentation best practices, and discuss a power flow and dynamics text recognition tool currently under development. **Short Circuit Sub-Group** The SS-37 Short Circuit Sub-Group will meet again during Q4 of 2021 to continue discussions on methods for achieving consistency in their models at boundary buses and share best practices.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON SYSTEM STUDIES

Item	Name	Assignment
SS-39	**Geomagnetic Disturbance Working Group**	Develop a White Paper recommending voluntary guidelines to address R3, R4, and R8 of NERC Standard TPL-007-4.

Status/ Comments:

The SS-39 Working Group has divided its scope of work into the following tasks: 1) develop criteria for acceptable system steady state voltage performance; 2) define "events" to use for vulnerability assessments; 3) develop common practices for GMD related case set-up and conditioning; and 4) develop common practices on methodology for applying and studying the effects of the "events" defined in 3).

A draft white paper has been prepared and is being reviewed and edited by the working group for presentation to Task Force on System Studies (TFSS) in September. Comments received by TFSS members will be incorporated into the white paper and a final draft will be presented to TFSS in November for approval.

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:	The Task Force on System Protection reviewed the status of SP-7 Working Group on Protection System Misoperation Review as completed through Q4 of 2020. The total number of misoperations for Q4 2020 is 33 compared to the NPCC Q4 quarterly average of 37 misoperations. This is the second lowest misoperation reported for the Q4 in the past four years. The misoperation rate for Q1 2021 is 15.5%. This is the highest misoperation rate reported for the past four years. The cumulative misoperation rate as of 2017 is 8.26%. Note that during this quarter, only 258 operations were reported compared to the Q1 quarterly average of 369 operations. The low number of operations may be related to the fair weather in northeast or other favorable system/environmental conditions. Also, improvement in vegetation management program would typically result in less operations. While reducing the number of operations is also beneficial to the system, it negatively affects the Misoperation Rate as currently calculated by NERC.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

Eastern Interconnection Reliability Assessment Group

Item	Name	Assignment
ERAG	**Eastern Interconnection Reliability Assessment Group**	The Eastern Interconnection Reliability Assessment Group (ERAG) oversees the Multi-Regional Modeling Group (MMWG) steady state and dynamics base case development, Eastern Interconnection interregional assessment activities and other interregional matters of interest.
	Status/ Comments:	**Eastern Interconnection (EI) MOD-032 Designee** A new MOD-032 designee agreement continues to be developed for execution by NERC and the EI Regional Executives to codify ERAG as the permanent MOD-032 designee. Upon receipt of the draft updated agreement from NERC, ERAG will incorporate the document into its revised ERAG agreement and request NPCC Legal to review and comment. Currently, ERAG is operating under an interim MOD-032 designee agreement. **Multiregional Modeling Working Group (MMWG) Update** Key items of interest include: • The MMWG accelerated the coordination of interchange values to facilitate the timely development of interconnection-wide power flow cases. This is a result of concerns that the cases were being developed without agreed-upon area interchange values in place and this resulted in delays. • The MMWG data coordinators will be requesting member PC/TPs to run initialization tests on their dynamics data prior to submittal to the MMWG Coordinator to ensure quality data is being provided. NPCC PCs have been following this practice for several years under the SS-37 Working Group on Base Case Development. • The MMWG is working with NERC and WECC to share best practices for dynamics data quality. A special webinar is being planned to take place in October during which representatives from MMWG and WECC will present case development and testing procedures.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

Eastern Interconnection Reliability Assessment Group

Item	Name	Assignment
ERAG	**Eastern Interconnection Reliability Assessment Group**	The Eastern Interconnection Reliability Assessment Group (ERAG) oversees the Multi-Regional Modeling Group (MMWG) steady state and dynamics base case development, Eastern Interconnection interregional assessment activities and other interregional matters of interest.

Request for Proposal (RFP) of a MOD-032 Case Developer

ERAG issued an RFP to select organizations to obtain competitive bids for the potential replacement of the current case developer under contract by ERAG. The RFP was issued to five organizations on March 9, 2021. Responses to the RFP were forwarded to the MMWG Chair for evaluation. The MMWG is expected to provide ERAG a recommendation for MOD-032 Case Developer in September, after which ERAG members will make a final decision. The winning bidder is expected to be selected during Q3 of 2021 and will initially develop the 2023 Series MMWG cases.

Planning Coordinator Assessment – DER Penetration

A workshop on the topic of DER Penetration was originally proposed for Q3/Q4 2020 and is now scheduled to take place on October 26, 2021. A subgroup has been formed among ERAG RE representatives to develop an agenda, invite speakers, and coordinate overall logistics of the event. ERAG sub-group members have reached out to potential speakers and to date have received one commitment. The agenda will be finalized after speakers have made commitments, after which an announcement letter will be issued to invitees along with the agenda.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

Eastern Interconnection Reliability Assessment Group

ERAG Seasonal Working Group

Item	Name	Assignment
ERAGWG	**ERAG Seasonal Working Group**	The ERAG Seasonal Working Group 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 remains 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**	Conduct an annual review of the overall reliability of the existing and planned generation and transmission system of the six 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 six Regional Reliability Entities.
	Status/ Comments:	The NERC Reliability Assessment Subcommittee (RAS) met on April 13-14, 2021, to discuss the 2021 Summer Reliability Assessment (SRA), the 2021 Long-Term Reliability Assessment (LTRA), and the 2021-22 Winter Reliability Assessment (WRA). The RAS will meet next on July 13-15, 2021, to review the draft 2021 LTRA. The RAS also endorsed the NERC Probabilistic Assessment Working Group developed 2020 ProbA Regional Risk Scenarios and Data Collections Technical Reference Reports for NERC Reliability and Security Technical Committee (RSTC) approval at their June 2021 meeting. **NERC 2021 Summer Reliability Assessment (SRA)** The draft SRA was reviewed by the RAS and endorsed by the RSTC. A webinar was held on May 26, 2021; the SRA was released on May 27, 2021. **NERC 2021-2022 Winter Reliability Assessment** Preliminary narrative and data submissions, coordinated by the NPCC CO-12 and CP-8 Working Groups, are due to NERC on September 14 and 24, 2021 respectively. Following RAS, RSTC review and NERC Executive Management approval, the final assessment is expected to be released on November 17, 2021. **NERC 2021 Long-Term Reliability Assessment** The RAS requested each Region's assistance in assessing the long-term (10-year) reliability of their Region (as outlined in the ERO Reliability Assessment Process Document) on February 12, 2021. Initial narrative and data responses, coordinated by the NPCC CP-8 Working Group, were submitted to NERC by June 18, 2021. The RAS completed a peer review process in July 2021 and final responses were submitted by July 30, 2021. NERC is targeting a release of the public report by December 14, 2021, following, RAS, NERC RSTC, and NERC Board of Trustees review.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

North American Electric Reliability Corporation (NERC)

Item	Name	Assignment
PAWG	**NERC Probabilistic Assessment Working Group**	Advance the work initiated by the NERC Generation & Transmission Reliability Planning Models Task Force (GTRPMTF) and the Probabilistic Assessment Improvement Task Force (PAITF) in the conduct of NERC's Core probabilistic assessments. Coordinate and promote the alignment of probabilistic resource adequacy assessments conducted by the ERO and industry.
	Status/ Comments:	The NERC Probabilistic Assessment Working Group (PAWG) most recently met on August 10, 2021 to develop responses to the NERC Energy Reliability Assessment Task Force survey. The group is also planning efforts for the 2nd biennial 2021 NERC Probabilistic Analysis Forum (PAF), scheduled for October 5-7, 2021. Additionally, the group published the 2020 NERC ProbA Sensitivity Case results through the Regional Risk Scenario Report and the Data Collections Approaches for Probabilistic Assessments Technical Reference Report in June 2021. These reports were endorsed by the NERC Reliability Assessment Subcommittee and approved by the NERC Reliability & Security Technical Committee (RSTC). Additionally, the NERC PAWG was recently assigned a new work plan item by the RSTC to develop a whitepaper on Probabilistic Planning for Tail Risks. This whitepaper is expected to be completed in Q4 – 2021 and will explore best practices and modelling approaches to extreme events in probabilistic resource adequacy planning processes.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

North American Electric Reliability Corporation (NERC)

Item	Name	Assignment
TADS	**Transmission Availability Data System**	Serve as the Regional Entity Coordinator in support of the NERC TADS outage data collection and the analysis of the NPCC Transmission Owners (TO) outage information. 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:	In December 2020, the TADS Working Group became the TADS User Group (TADSUG). The TADSUG performs the same functions as the TADSWG; however, it no longer reports into the NERC Committee structure. Instead, it reports to the NERC Performance Analysis Department. The User Group holds monthly calls; the last one was conducted on April 20, 2021. The User Group was informed about the portions of the State of Reliability as they appeared in the final publication, focusing on the Transmission Outage Severity (TOS) calculation. The calculation attempts to demonstrate the unexpected loss of transmission elements on any given day throughout the year. The User Group suggested that it might be beneficial to perform the analysis on an interconnection basis for a more accurate representation and to identify any potential localized events and/or common causes. The user group reviewed the latest State of Reliability Report (SOR) and discussed Reliability Indicators in the Chapter 3 and a new section in Chapter 5, TADS Restoration Analysis under Extreme Weather. The User Group will be conducting training on November 9, 2021; the training consists of ten modules. The modules are background, data entry demo, checklist completion, in service state/TADS reportable, outage types, cause codes, fault types, outage modes, outage ID and event ID Codes and examples to cause code.

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 in support of the DADS data collection and analysis for NPCC. Oversee the collection of the data in the NERC Internet based data management tool – web DADS.
	Status/ Comments:	In December 2020, the DADS Working Group became the DADS User Group (DADSUG). The DADSUG performs the same functions as the DADSWG; however, it no longer reports into the NERC Committee structure. Instead, it reports to the NERC Performance Analysis Department. In response to the recent coronavirus (COVID -19) developments, NERC extended the Q1 reporting deadline for all Section 1600 applications to June 29, 2020. The DADS User Group 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 DADS User Group also discussed the Severity Risk Index correlation with Demand Response Event Days. The DADS User Group has started working on clarification of DADS reporting criteria.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

North American Electric Reliability Corporation (NERC)

Item	Name	Assignment
GADS	**Generator Availability Data System**	Serve as the Regional Entity Coordinator in support of the Generator Availability data collection and Data System analysis for NPCC. Oversee the collection of the data in the NERC Internet based data management tool – web E-GADS.
	Status/ Comments:	In December 2020, the GADS Working Group became the GADS User Group (GADSUG). The GADSUG performs the same functions as the GADSWG, however, it no longer reports into the NERC Committee structure. Instead, it reports to the NERC Performance Analysis Department. A conference call held on March 23, 2021. In February 2021, the central United States experienced extended periods of record low temperatures creating conditions which resulted in power outages across multiple states. In the interest of being able to identify generator events that were a direct result of the low temperatures, NERC and the GADS User Group requesting that entities use the following reporting guidelines for events that occurred from February 8, 2021 through February 20, 2021 and that were a result of the cold weather event. 1. Create and code the event as is normally done. a. Identify any equipment that failed using the Primary Cause Code. b. If additional cause codes are necessary, include them as the secondary, tertiary, etc., causes. 2. Add an additional cause code, **9036 – Storms (Ice, snow, etc.)**, after adding all Cause Codes that would normally be included. 3. Ensure that the Description of the event is filled out. a. Describe what happened to cause the outage. b. If possible, include information on whether the equipment was considered winterized at the time of the event. Events which are not attributable to the cold weather event during this period will be reported as usual. 2020 was the first year of having complete data for GADS Wind. Mandatory Reporting for all wind plants with a Total Installed Capacity of 75 MW or greater. The full year of the phased in reporting for GADS Wind will be completed at the end of March 2021. After the completion of phased in reporting, additional GADS wind Validations may be developed.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

North American Electric Reliability Corporation (NERC)

Item	Name	Assignment
MIDASUG	**Misoperation Data Analysis System User Group**	Serve as the Regional Entity Coordinator in support of the Misoperation data collection and Data System analysis for NPCC. Oversee the collection of the data in the NERC Internet based data management tool – MIDAS.
	Status/ Comments:	In December 2020, the MIDAS Working Group became the MIDAS User Group (MIDASUG). The MIDASUG performs the same functions as the MIDASWG; however, it no longer reports into the NERC Committee structure. Instead, it reports to the NERC Performance Analysis Department. The User Group holds monthly calls. A WebEx call was held on January 5, 2021. The 2021 MIDAS Data Reporting Instructions (DRI) have been posted to NERC's website. The document is intended to provide guidance for MIDAS reporting as detailed in the Section 1600 Data Request and is not intended as guidance for any NERC Standards Compliance. The document is used for identifying Composite Protection Systems that should be reported in MIDAS, determining the number of Composite Protection System Operations to report quarterly, and identifying and coding Misoperations. The MIDASUG made several changes to the 2021 MIDAS DRI and has added new examples to the document. The MIDASUG will be conducting MIDAS Virtual Training in 2021 on October 5, 2021 – MIDAS 101 Training and October 6, 2021– MIDAS Portal Training. The regions discussed their process of collecting Remedial Action Schemes (RAS) Operations/Misoperations quarterly reports. The MIDASUG is in the process of requesting an interpretation by the PRC-004 Standard Drafting Team for the definition of Misoperation The MIDASUG also discussed compliance requirement DP-UFLS entities.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

OTHER

Item	Name	Assignment
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 meeting on June 4, 2021. Agenda items included stakeholder discussion of PJM, ISO-New England and New York ISO Regional Planning Needs and Solutions, coordination of the New York ISO, ISO-New England and PJM Interconnection Queue and Long-Term Firm Transmission Requests, and an Offshore Wind Integration update from PJM, ISO New England, and the New York ISO. The next stakeholder meeting is scheduled for October 29, 2021.

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**	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.
	Status/ Comments:	The CO-10 Working Group continues to review of tool failures and associated lessons learned as generated from the NERC Event Analysis Program and develops regional insights templates from the review of NERC EMS/SCADA lessons learned to further aid NPCC entities in utilizing these valuable lessons. Once obtaining Task Force on Coordination of Operation (TFCO) approval of the Critical Operating Tools Survey Report (COTSR) the CO-10 Working Group successfully distributed the report to all participants in the survey. At its August 9-10, 2021 meeting, the CO-10 Working group laid out the plans and schedule for the development of the Critical Operating Tool Failure Analysis (COTFA) report, which will begin to be drafted now but must wait until year's end to obtain all the data to be completed. Further discussions/analysis of the data will be held at the November meeting with the intention of finalizing the report at the February 2022 meeting before presenting it to TFCO in March 2022.

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 (TFIST) 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 2019
	Status/ Comments:	The Task Force on Infrastructure Security & Technology (TFIST) presented at NPCC's Fall 2019 Standards & Compliance Workshop. TFIST expected to present at the NPCC's 2020 Standards & Compliance Workshops; however, the virtual workshop format did not allow time for a TFIST update. The TFIST expects to present at NPCC's Fall 2021 Standards and Compliance Workshop.

Item	Name	Assignment
IST-2	**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 the Task Force on Infrastructure Security & Technology in their work on issues related to Telecommunications.
	Status/ Comments:	The Working Group provided their 2020 annual report at the May 26, 2021 meeting. The IST-2 Working Group continues to support this testing.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Situation Awareness and Infrastructure Security Program

TASK FORCE ON INFRASTRUCTURE SECURITY AND TECHNOLOGY (TFIST)

Item	Name	Assignment
IST-4	**Cyber Security**	The purpose of the Cyber Security Working Group is to address specific cyber security issues that are assigned by the TFIST. Although these cyber security topics are assigned by the TFIST, they may be developed by any Task Force or Working Group that require a response or a coordinated effort between Task Forces regarding a cyber security matter.
	Status/ Comments:	At its August 14-15, 2019 meeting, the Task Force on Coordination of Operation (TFCO) discussed the recently filed for regulatory approval CIP-012-1 standard and its implementation plan. TFCO members agreed that the impacted NPCC RCs, BAs and TOPs would benefit from a coordinated approach to meeting the requirements of the CIP-012-1 standard. On November 10, 2019, the TFCO requested TFIST consider standing-up ad-hoc Working Group IST-4. IST-4's whitepaper was posted for Open Process comments from June 14. 2021 to July 29, 2021. The Task Force on Infrastructure Security and Technology (TFIST) approved IST-4's responses which did not change the whitepaper. In August 2021, TFIST and the Task Force on Coordination of Operations approved the CIP-012 Whitepaper for Reliability Coordinating Committee's (RCC) approval. This whitepaper is on the RCC's September 8, 2021 agenda for approval.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Situation Awareness and Infrastructure Security Program

TASK FORCE ON INFRASTRUCTURE SECURITY AND TECHNOLOGY (TFIST)

Item	Name	Assignment
IST-5	**Physical Security Working Group**	The Physical Security Working Group exchanges information regarding approaches to physical security to enhance the reliability and resiliency of the BPS. The Physical Security Working Group (IST-5) also supports TFIST in their work on issues related to Physical Security.
	Status/ Comments:	The Working Group continues to develop an "Emerging Trends" guidance document through collaboration with industry physical security experts and Physical Security Working Group (PSWG) members regarding remerging threat vectors, suggested mitigation practices, technologies and continued lessons learned as a result of the current COVD-19 pandemic. Member entities continue to contribute changes and adaptations that are needed to their Security plans as new issues and situations arise. This will continue to be an ongoing exercise to address both emerging threat trends and new issues regarding the COVID-19 pandemic. Members of the PSWG continue to share physical security approaches and mitigations to unique situations posed by the COVID-19 pandemic. The Working Group held their 2021 Q2 meeting in a virtual setting on June 9, 2021 with 48 attendees. Meetings will continue to be held in virtual settings until the end of the COVID-19 pandemic. 2021 Q3 meeting has been scheduled for September 16, 2021, in a virtual setting. Items on the agenda for discussion will be back to work plans, emerging threats and trends and collaboration with the Gas Sector (AGA) through the attendance of their Managing Director, Security and Operations and Intelligence analysts. Members of the Working Group and NPCC staff continue to work closely with the NERC E-ISAC and Pacific Northwest National Labs to develop a virtual version of the Design Basis Threat program. An NPCC Registered Entity has volunteered their site to be used for development of a generic site with attributable characteristics removed so the site cannot be identified. GPS mapping of the virtual site is expected to be completed in late September due to travel restrictions on Pacific Northwest National Labs which are expected to be lifted in early September. To date, NPCC Staff has participated in three virtual programs that have been presented for volunteer entities in other regions using their specific sites with lessons learned from each being incorporated into the development process as the program matures. To date, three NPCC Registered Entities have expressed an interest in conducting a DBT at their sites but expressed that they would like to wait until Pandemic restrictions are lifted to do the exercises face to face.

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:	Due to the current COVID-19 pandemic, the timing of next the NPCC General meeting will be reviewed later in 2021.

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:	Due to the current COVID-19 pandemic, the timing of the next NPCC Governmental/Regulatory Affairs Advisory Group meeting will be reviewed later in 2021.

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. On May 6, 2021, the *NPCC 2021 Summer Reliability Assessment* Media statement was released.