NPCC, Inc.

RCC Meeting
September 8, 2023
Agenda Item 8.10

Reliability Assessment Program

(NRAP)

HIGHLIGHT REPORT

Prepared for the

Reliability Coordinating Committee

September 8, 2023

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 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 the penetration of utility-scale Distributed Energy Resources (DERs) on the distribution system, and its adverse impact on the BES. The Distributed Energy Resource BES impact reporting form is posted on the NPCC website. The RSC hosted three DER/VER forums in 2022 and the goal is to host three more forums in 2023. The DER Forums are open to the public. The next DER/VER Forum is tentatively scheduled for October 12, 2023, the topic of focus will be on Battery Energy Storage Systems (BESS). The DER/VER Forums are hosted on the second day of RSC meetings. The NPCC Standards staff developed Version 1, 2, and 3 of the DER Guidance Document which was endorsed by the members of RSC in 2019, 2020, and 2021. NPCC DER Guidance Document Appendix J is developed based on the DER/VER Forums held by the RSC in 2022. It is also posted for industry comments from September 23, 2022, to November 7, 2022. All industry comments are addressed and posted by the NPCC Standards Staff. The document also received endorsement from the RSC members on November 23, 2022.

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:

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 is currently reviewing Directory No. 1 in accordance with the TFCP Scope. The Working Group anticipates an initial posting of the document in mid-2023. The TFCP has proposed new footnotes to clarify how testing required by Tables 1, 2, and 3 of Directory No. 1 should be performed in locations where free standing or column-type current transformers (CT) are provided on only one side of a live tank circuit breaker protecting a transmission element. The footnotes were posted to the Open Process, comments were addressed and the RCC approved at its meeting on December 6, 2022.

A *Roadmap to Implement Future Revisions to Directory No.1* has been developed to initiate a reliability discussion and provide a path forward to the appropriate NPCC technical groups and committees. The Roadmap document examines the current issues confronting the industry (Energy Adequacy (all hours), Resource Adequacy Metrics, Essential Reliability Services, Electrification Load Forecasting Issues) and highlights specific portions of Directory No. 1 that should be considered for revision in order to address these challenges. *The Roadmap to Implement Future Revisions to Directory No.1* was endorsed by the RSC and RCC at their respective December 2022 meetings.

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 continues its triennial review of Directory No. 2 as part of TFCO's 2023-24 Work Plan.		

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:	The NPCC Full Member Committee approved the current version of 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. A Criteria Clarification request, submitted by the NYISO, addressing sustainability requirements upon the activation of reserves was approved by the RCC in September 2022.

The TFCO approved at its January 2023 meeting a Scope of Work for the next triennial review of the Directory in 2023. In addition to other items, the triennial review will address the Simultaneous Activation of 10-Minute Reserve program in conjunction with recent events from Winter Storm Elliott and the 2022 Criteria Clarification request.

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 has initiated its triennial review of Directory No. 6. as part of TFCO's 2023-24 Work Plan.

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 NPCC Full Member Committee approved the most recent 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	February 2, 2023
		Appendix A - "Standard Test Procedures for Key Facilities and Associated Critical Components Required for System Restoration. Appendix B: NERC ERO Reliability Standards Appendix C - Comparison of Test Procedures for Critical Components of Key Facilities of the System Restoration Plan		
	Status/ Comments:	The Task Force on Coordination of Operation (TFCO) completed a comprehensive review of Directory No. 8 in 2023 with the NPCC Full Membership approving the revised version of Directory No. 8 on February 2, 2023. The review considered the impact of evolving ERO standards, NPCC Glossary updates and revisions, and proposed language for certain Test Procedures to better align with available technology and computer systems that may be subject to testing requirements.		

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. 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**	**February 11, 2022**
		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 NPCC Full Member Committee approved the most recent version of Directory No. 11 on February 11, 2022.

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:

The Task Force on System Studies (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. On October 19, 2021, the NPCC Full Member Committee voted to approve the retirement of Directory No. 12 effective October 1, 2021.

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.	**August 10, 2021**

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-3	**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:	**5 years**
			Next Review Date: Feb. 2025	

Status/ Comments:

The PRC-006-NPCC-2 was endorsed by FERC on February 18, 2020.

A Regional Standard Authorization Request (RSAR) for revision of Automatic Underfrequency Load Shedding PRC-006-NPCC-3 was sent to the Regional Standards Committee at its August 9, 2023, meeting. On August 9, 2023, the NPCC Regional Standards Committee (RSC) accepted a Regional Standard Authorization Request (RSAR) for PRC-006-NPCC-2. The RSAR was submitted by the Chairperson of the NPCC Task Force System Protection (TFSP) and serves as a project scope to review the existing FERC approved Regional Standard PRC -006-NPCC-2 Automatic Underfrequency Load Shedding. The intent of the review will be to establish tolerances within the total operating time (300 milliseconds) of each stage of +/- 50 milliseconds. Upon RSC review other non-substantive clarifications were also added to the project scope. NPCC Staff recommends assigning the TFSP to the project scope as outlined in the attached RSAR. Upon RCC approval of the recommendation to assign the RSAR and review to the TFSP, NPCC will affirm Members of the Standard Drafting Team (SDT) and solicit for additional members among stakeholders. The final SDT roster will be presented to the RSC for approval.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Standards Program

Regional Standards Development Procedure

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 Processes Manual**	The NPCC Regional Standard Processes Manual describes the procedures, policies, and practices implemented to ensure an "open, fair, and inclusive" process for the transparent initiation, development, implementation and revision of the NPCC Regional Standards necessary for the reliable operation of the Interconnected Bulk Power System in northeastern North America.	**Latest Version:** 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 provides a forum for objective stakeholder input for NPCC 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. In addition, the CC is responsible for annually reviewing Directory certification forms and developing an annual report for e RCC acceptance for incidents of non-compliance with monitored Reliability Criteria.
	Status/ Comments:	At the December 2022 CC meeting, the 2023 CC Scope and CC Work Plan were discussed and approved. Both documents were approved by the NPCC Board on January 18, 2023. Throughout 2022, NPCC Staff provided the CC with updates and explanations on the transition to the new Align/SEL compliance tool and provided updates on the NPCC generator winter preparation outreach efforts.

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 maintains 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 provides 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 annually provides to the RCC a 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:	On April 14, 2022, the CC approved the update to the CCEP-1 process document to Revision 9. Over the Summer/Fall 2022 timeframe, the CC took efforts to develop the 2021 CCEP Assessment Report and the 2023 CCEP Implementation Plan. On September 14, 2022, the CC endorsed the 2021 CCEP Assessment Report which was then presented for acceptance at the September 2022 RCC meeting. On October 19, 2022, the 2023 CCEP Implementation Plan and the blank forms for the 2023 Implementation Plan (IP) were approved. The 2023 CCEP IP was approved via the consent agenda at the December 6, 2022 RCC 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 Working Group**	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 CO-2 Working Group most recently met on June 14-15, 2023 in Mississauga, Ontario hosted by the Ontario IESO; the next CO-2 Working Group meeting is scheduled on September 20-21, 2023 in Halifax, NS hosted by Nova Scotia Power. The CO-2 Working Group, during its June meeting conducted elections and appointed a new Chair and Vice-Chair. The Working Group also confirmed the location of the 2023 Fall 91st NPCC System Operator Seminar. The Working Group held discussions on external organizations that provide NERC CEHs, internal and external NERC System Operator exam preparation courses, and human performance programs and tools. Additionally, the group discussed collaborating with the CO-11 Working Group on the upcoming RC/RC exercise scheduled for October 24-25, 2023, in Montreal, QC. At their next meeting, the CO-2 Working Group will be planning for the upcoming 2023 Fall 91st NPCC System Operator seminar to be conducted on November 7 – 9, 2023 in Moncton, NB.

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 1-2, 2023; the next meeting is scheduled for December 13-14, 2023. The CO-1Working Group has closely tracked the developments of the BAL-003 SDT and updates by SDT members continue to occur at quarterly CO-1 Working Group meetings. The CO-1 Working Group presented to the TFCO a draft scope of work for the next triennial review of Directory No. 5. The scope includes the recently approved criteria clarification request from the New York ISO along with additional considerations developed by the CO-1 Working Group. The TFCO members reviewed the scope document and provided some additional suggestions for consideration. The TFCO approved the scope of work. The CO-1 Working Group continues its efforts towards the ongoing triennial review of Directory No. 5. 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.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF OPERATION

Item	Name	Assignment
CO-7	**Operational Planning Working Group**	The Working Group CO-07 was restructured to serve the Task Force on Coordination of Operation (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 roster was approved at the May 26, 2021, RCC meeting. The CO-7 Working Group, jointly with the CP-11 Working Group is performing a comprehensive review of the Directory No. 1.

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 February 22-23, 2023, meeting, the CO-8 Working Group, as well as a representative from the PJM, discussed winter operating conditions of the two cold weather events of the season: December 2022 Winter Storm Elliott and the February 3-5, 2023, cold snap. The discussion covered specific challenges each Area faced, and the coordination activities and communications during the events. At the same meeting, the Working Group reviewed and discussed work plans for the triennial review of the four documents assigned to the Working Group as part of the 2023-24 TFCO Work Plan, including Directories No. 2, 5 and 6, as well as the C-01 Procedure document. The Working Group also discussed coordination among the CO-8, CO-2 and the CO-11 Working Groups to look for CEH opportunities from various NPCC training activities, such as the semi-annual System Operator seminars, the annual RC to RC restoration exercise and the biannual GridEx exercise. At the May 1-2, 2023 meeting, the Working Group reviewed NPCC Area operating conditions since the February meeting as well as PJM's summer preparations and forecasted summer adequacy conditions. The Working Group continued its triennial review of the four documents referenced above as part of the 2023-24 TFCO Work Plan. The Working Group joined the CO-8 Working group to provide their feedback and facilitate a discussion between the two group around a possibility of developing material and curriculum for the NPCC System Operator Seminar and RC to RC exercise to meet Individual Learning Activity requirements to have an option to receive CEHs for the participants.

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, 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 most recently met on May 31 – June 1, 2023 and conducted a review of the New England Restoration Plan; the next meeting is scheduled for September 27-28, 2023 in Fredericton, NB. The 2023 NPCC RC-to-RC Wide Area Restoration Exercise has been scheduled for October 24-25, 2023 at the Hydro Quebec offices in Montréal, Québec; planning efforts are underway.

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 Operating Periods.
	Status/ Comments:	The CO-12 Working Group will hold a kickoff call for the 2023-2024 NPCC Winter Reliability Assessment effort on September 13, 2023, to review the scope, schedule, and possible assessment enhancements. Preliminary findings on the assessment will be presented to the TFCO at their October 19-20, 2023, meeting at the Ontario IESO in Toronto and the October 2023 TFCP meeting. The final assessment will be presented to the TFCO, TFCP, RCC and NPCC BOD scheduled in November and December 2023. The final 2023-2024 NPCC Winter Reliability Assessment will be released on December 7, 2023. The CO-12 Working Group also is coordinating input on the 2023-2024 NERC Winter Reliability Assessment (WRA) in conjunction with the NPCC CP-8 Working Group. The request was initially received on August 1, 2023 and was reviewed for potential winter reliability issues by the NERC Reliability Assessment Subcommittee at their August 30-31, 2023, meeting. Consistent with past practice, efforts are being made to ensure alignment of the 2023-2024 NERC WRA with the 2023-2024 NPCC Winter Reliability Assessment. The 2023-2024 NERC WRA is planned to be released on November 9, 2023.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF OPERATION

Item	Name	Assignment
CO-14	**Operations Load Forecast WG**	The CO-14 Working Group promotes information sharing among NPCC Reliability Coordinators, Balancing Authorities and Transmission Operators in producing accurate and timely load forecast products.
	Status/ Comments:	The CO-14 Working Group most recently met on April 4-5, 2023 in Springfield, MA. The group held discussions around forecasting challenges and anomalies surrounding the December 21-26, 2022 and February 2-5, 2023 cold weather events that impacted the NPCC region along with other areas of North America. The CO-14 Working Group is scheduled to meet next on September 19-20, 2023 in Halifax, NS.

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 and long-term resource adequacy assessments.
	Status/ Comments:	The CP-8 Working Group has initiated development of the NPCC 2023 Long Range Adequacy Overview (LRAO) following the final data submission of the 2023 NERC Long Term Reliability Assessment data. The CP-8 Working Group's proposal regarding the load shape assumption to be utilized in the 2023 NPCC LRAO, Tie Benefit Analysis and the Winter Reliability Assessment was discussed at the Task Force of Coordination of Planning (TFCP) meeting and is targeting approval at the October 2023 TFCP meeting. The CP-8 WG is targeting Reliability Coordinating Committee (RCC) final approval of the LRAO report at its December 5, 2023, meeting. NPCC staff presented a proposal to the CP-8 Working Group and the TFCP on energy sufficiency assessment enhancements for NPCC and NERC reliability assessments as part of the NPCC Corporate Reliability Goal IB-1 effort. The proposal will be presented to the RCC at the September 12, 2023, meeting.

Item	Name	Assignment
CP- 2023S	**Summer 2023 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 completed the assessment along with approval and approved by the NPCC Task Forces on April 21, 2023; a presentation was given to the NPCC Board of Directors on May 3, 2023. The 2023 NPCC Summer Reliability Assessment and summary report was released on May 4, 2023.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF PLANNING

Item	Name	Assignment
CP- 2023-24W	**Winter 2022-2023 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 is currently coordinating the development of the NPCC Winter 2023-2024 Multi-Area Probabilistic Assessment. The TFCP approved the assumptions at their August 9-10, 2023 meeting with the request to consider a sensitivity analysis based on the February 3-4, 2023, operating experience. Preliminary findings on the assessment will be presented to the TFCO at their October 19-20, 2023, meeting at the Ontario IESO in Toronto and the October 2023 TFCP meeting. The final assessment will be presented to the TFCO, TFCP, RCC and NPCC BOD scheduled in November and December 2023. The RCC will consider final approval on the report at its December 5, 2023, meeting.

Item	Name	Assignment
TIE	**NPCC 2023 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's approved the scope of work for the NPCC 2023 Tie Benefits Report at its July 10, 2023, meeting. The CP-8 Working Group has initiated the analysis following the final data submission of the 2023 NERC Long Term Reliability Assessment data. Preliminary findings on the assessment will be presented to the TFCP in October 2023. The RCC is anticipated to consider review and approve the report on December 5, 2023, meeting, following the TFCP's approval in November 2023.

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 are documenting the results of the 2022/2023 NPCC Underfrequency Load Shedding (UFLS) Assessment in the draft report that will be presented to the Task Force on System Studies (TFSS) at its September meeting. In response to a recent request, the SS-38 Working Group is working with the TFSS to adjust the UFLS study scope so that the work related to the sensitivity analysis on the DER impact will be performed as a separate assessment. The UFLS assessment is on schedule to be completed for RCC review and approval at its December 2023 meeting.

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 2023 Series Power Flow Cases

The NPCC SS-37 Working Group continues to work together with the MMWG coordinator to resolve any issues that arise during the 2023 Series power flow trials. The NPCC areas recently submitted data on time for Trial 3 corrections and are now waiting for the MMWG coordinator to incorporate those corrections and release the pre-final cases for review.

The NPCC SS-37 Working Group met on August 16 – 17, 2023 to initiate the development of eight (8) dynamics cases for the MMWG 2023 series. The dynamics case was successfully initialized, and the dynamic data package has been submitted to the MMWG coordinator on time per the MMWG schedule. Providing Composite Load Model Data (CMLD) for all eight (8) dynamics cases is required by the MMWG for the 2022 series, SS-37 members are working to meet this requirement. The meeting took place in a hybrid format, held at the IESO office with a MS Teams option for those who could not attend in person.

Automation Sub-Group

The SS-37 Automation Sub-Group continues to develop tools to make the power flow and dynamic case building process more efficient. The Automation Sub-Group is focusing on leveraging existing tools and efficiencies deployed by NPCC PC's and update those tools to account for the NPCC footprint. The automation sub-group meets on as needed basis to discuss automation efficiencies for the power flow and dynamics case building process.

Short Circuit Sub-Group

The SS-37 Short Circuit Sub-Group invited software vendor ASPEN to provide a demonstration on the Enterprise Module (EDX). ASPEN One-liner is software utilized SS-37 Short Circuit Sub-Group members for short circuit analysis and relay coordination

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:	On September 15, 2023, faculty from York University in Ontario are scheduled to make a presentation on the topic of transformer heating during a GMD event. This presentation was arranged by SS-39 Working Group members who work closely with the faculty members. SS-39 Working Group members will continue to arrange academic presentations related to GMD issues to understand their implications on modeling.

Item	Name	Assignment
SS-40	**Load Modeling for Transient Stability Studies Working Group**	Coordinate development and assessment of load models in dynamic simulations, which include benchmarking the load models with actual system events, exploring potential impact of dynamic load models on inter-area dynamics and transfer capabilities, ensuring consistency & accuracy of load model fractions, and investigating practical methods for observability into the distribution system.
	Status/ Comments:	The SS 40 Working Group has developed a detailed two-year work plan which was approved by TFSS at its March meeting. This effort and the Working Group's participation supporting NERC Load Modeling Working Group (LMWG) is on-going. Preliminary study results comparing the application of the composite load model at different scales (by region, area, zone, etc.) were presented at the July 25, 2023 NERC LMWG meeting. Members are working with NERC LMWG to gather data for components that will be added to the composite load model such as electric vehicle chargers.

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 the 1st Quarter (Q1) of 2023. The total number of misoperations for Q1 2023 is 20 compared to the NPCC Q1 quarterly average since 2017 of 33 misoperations. This is the lowest number of misoperations reported in a Q1 ever. The misoperation rate for Q1 2023 is 7.14%. This is the lowest misoperation rate reported in a Q1. Note that during this quarter, 280 operations were reported compared to the Q1 quarterly average of 346 operations.

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:	The Eastern Interconnection Reliability Assessment Group (ERAG) held its most recent meeting on June 29, 2023 as a teleconference. The ERAG activity update includes: **Eastern Interconnection Regional Entity Agreement** An updated Eastern Interconnection Regional Entity (ERAG) Agreement is now complete and has been signed by the Eastern Interconnection Regional Entity CEOs. **ERO Transfer Capability Study** The ERAG generation mix study that was planned for late 2023 will be postposed so members and Regional Entity staff can focus their efforts on the inter-regional transfer capability study that is being led by NERC. ERAG members reviewed a NERC presentation providing the latest study plans for this effort. ERAG members also agreed to work together to exchange ideas and collectively provide comments on behalf of the Regional Entities in the Eastern Interconnection. **Acceptable Model Working Group** The ERAG Acceptable Model Working Group (AMWG) held its kickoff meeting in July and a second meeting in August. The kickoff meeting primarily focused on the purpose of the AMWG, which is to review, develop, and validate dynamic models for the Eastern Interconnection. The August meeting focused on discussions and activities related to User Defined Models and work plan development for the AMWG. The next ERAG meeting is scheduled to take place on October 17, 2023.

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

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 (RAS)**	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 RAS most recently met on August 30-31, 2023 in Cleveland, OH to discuss the: 2023 NERC Long Term Reliability Assessment (LTRA), planning efforts and enhancements for the 2024 NERC Probabilistic Assessment (ProbA), the 2023-2024 NERC Winter Reliability Assessment (WRA), the 2023 Probabilistic Analysis Forum (PAF), and the ERO Enterprise Interregional Transfer Capability Study. The RAS will meet next on November 14-15, 2023 in Tempe, AZ. **2023 Long Term Reliability Assessment (LTRA)** The NERC Reliability Assessment Subcommittee (RAS) requested each Region's assistance in assessing the long-term (10-year) reliability of their Region on February 27, 2023. The NPCC CP-8 Working Group submitted narrative and data responses to NERC by the initial and final deadlines in June and July 2023. NERC is targeting a release of the public report by December 6, 2023, following subsequent RAS, NERC Reliability and Security Technical Committee (RSTC), and NERC Board of Trustees (BOT) reviews. The RAS will host an industry webinar to review the 2023 LTRA final report on December 6, 2023. **2023-2024 NERC Winter Reliability Assessment (WRA)** The NERC RAS requested each Region's assistance in assessing reliability risks for the 2023-2024 winter season on August 1 2023. Initial WRA narrative and data responses, coordinated by the NPCC CO-12 and CP-8 Working Groups, are due to NERC on September 11 and 20, 2023. NERC is targeting a release of the public report by November 9, 2023, following subsequent RAS, NERC RSTC, and NERC BOT reviews. The RAS will host an industry webinar to review the 2023-2024 WRA final report on November 3, 2023.

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) met on August 29-30, 2023 in Cleveland, OH to discuss the: Energy Assessment in the ERO Reliability Assessments, 2024 ProbA enhancements, 2023 Probabilistic Analysis Forum (PAF), Probabilistic Techniques and Methods for evaluation of High Altitude EMP, and the Probabilistic Planning for Tail Risks White Paper. The aim of the ProbA evolution is to have the 2024 LTRA explain the energy risks in more fidelity with an updated ProbA that specifically mentions resource modeling (VER energy contributions) and load profiles. The next steps include the development of detailed plan for the PAWG to consider. The 2024 ProbA data request is targeted for Q1 - 2024. The next meeting of the NERC PAWG is a teleconference scheduled on November 14, 2023

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:	The NERC TADS User Group (TADSUG) met on October 1-2, 2019 at WECC's office in Salt Lake City, UT. The Working Group has held monthly calls, the last call was on August 15, 2023. NERC conducted a training on October 11-12, 2022. The Transmission Availability Data System User Group implements a uniform approach to reporting and measuring North American BES transmission inventory, availability, and other related reliability data. Training was intended for all members of industry with roles relating to TADS. Examples of roles include data gathering, data entry, and data quality reviews.

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 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. NERC staff announced the suspension of Demand Response program with the period of Summer of 2023.

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:	The User Group has held monthly calls. There was a conference call on August 22, 2023. NERC has posted the 2023 Data Reporting Instructions (DRI) for GADS. A new Cause Code- 4741 – Frequency Trip (81 Relay) has been added to the Appendix B of this DRI. The GADS Solar team continues to make progress on the Data Reporting Instructions (DRI). Site-level event reporting criteria and cause codes for events are in development. Solar reporting will be similar to the GADS Wind application. A phased in approach will be used. Configuration and performance reporting will be at the inverter sub-group level. Based on recent solar outage studies conducted by NERC staff, the following revisions have been made to define the event reporting threshold for solar: o Event Start: The plant output at the point of interconnection experiences a decrease in Actual Generation of at least 20 MW below the Expected Generation. o Event End: The difference between Expected and Actual Generation is less than 5% and the plant is producing 10% of the plant's capacity or 5MW of energy, whichever is greater, or 95% of the equipment unavailable due to the event cause has been returned to service. NERC will be posting the following non-substantive clarifications and simplifications for the GADS Wind and Solar 2024 Data Reporting Instructions.

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:	The NERC MIDAS User Group (MIDASUG) had its face-to-face meeting on January 30, 2020 at Schweitzer's office in Phoenix, AZ. The User Group has held monthly calls. A Web-Ex call was held on August 1, 2023. The following items are in the scope of MIDASUG: • Draft and maintain MIDAS Data Reporting Instructions (DRI); • Assist with development of addition industry assisting content (i.e., training); • Solicit and/or evaluate recommended changes and improvements to MIDAS data collection; • Assist with development and production of public reports; and, • Develop additional specialized analysis reports. The MIDASUG will focus on a better alignment of how the system protection Operation/Misoperation data is being reported. The 2023 MIDAS Data Reporting Instructions have been posted to NERC's website. This is the official published version of the document for 2023, not a draft. This document is intended only to provide guidance for MIDAS reporting as detailed in the Section 1600 Data Request, it is not intended a guidance for any NERC Standards Compliance. This document should be used for topics such as identifying Composite Protection Systems that should be reported in MIDAS, determining the number of Composite Protection System Operations to report quarterly, identifying and coding Misoperations, etc.

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 last IPSAC meeting was held on May 23, 2023. Agenda items included discussion of PJM/ISO-NE/NYISO Regional Planning Needs and Solutions, Interconnection Coordination, Interconnection Queue and Long-Term Firm Transmission Requests. On March 27, 2023, ISO New England requested the Joint ISO/RTO Planning Committee (JIPC) perform the necessary coordinated study(s) to determine the feasibility of raising the minimum loss of source value for New England from an existing level of 1,200 MW to a proposed level of 2,000 MW . After consideration, the JIPC has accepted to collaboratively participate in the aforementioned study, which is currently expected to commence in Q4 2023. ISO New England will lead the study effort with active participation from the New York ISO and PJM in finalizing the Study Scope, providing modeling data, reviewing and recommending assumptions and conditions to be evaluated as well as reviewing study results and recommendations. The JIPC anticipates this complex study effort involving three RTOs will require approximately 18-24 months to complete. This effort will include an investigation of the procedures and agreements that are needed to withstand a 2,000 MW source loss in New England. The JIPC will update stakeholders on the major findings of the study and any subsequent 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**	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. Once sufficient responses and enough data from the survey were received, a discussion and analysis of the Critical Operating Tool (COT) data was held during the November 3-4, 2022 CO-10 meeting. A draft of the report, which was created following the meeting, was reviewed during the February 9-10, 2023 meeting. The decision was made to continue to revise the draft report at the CO-10 meeting in May, 2023. Once completed, the report will assess the implementation of best practices from the survey and provide recommendations. The completed the Critical Operating Tools Survey Report (COTSR) will then be presented to the Task Force on Coordination of Operation at their next available meeting.

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:** October 2022
	Status/ Comments:	The Task Force on Infrastructure Security & Technology (TFIST) hosted an Operational Technology Workshop on October 5, 2022. This virtual workshop included presentations by Idaho National Laboratory, Cybersecurity and Infrastructure Security Agency, Multi-State Information Sharing and Analysis Center and DOE's Office of Cybersecurity, Energy Security and Emergency Response. TFIST expects to present at NPCC's Fall 2023 Compliance and Reliability 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 2022 annual report at the June 7, 2023 RCC 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 the Task Force on Infrastructure Security & Technology (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. TFIST approved IST-4's responses which did not change the whitepaper. In August 2021, TFIST and the TFCO recommended the CIP-012 Whitepaper for Reliability Coordinating Committee's (RCC) approval. The RCC approved this whitepaper during its September 8.2021 meeting. Building on top of that whitepaper, IST-4 worked with NPCC's CIP Compliance on corresponding audit expectations. Compliance presented at NPCC's 2022 Fall Compliance and Reliability Workshop.

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 maintain 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 2022 Q3 meeting on September 22, 2022 with the Q4 meetings scheduled for December 13, 2022. September meeting agenda included another collaborative gas and electric sectors security threats joint discussion with participation of American Gas Association (AGA) representatives, emerging threats and trends, and training and conferences opportunities. Members of IST-5 WG, also participated in the Fall 2022 Threat Discussion forum organized by Avangrid and held in Boston on October 6, 2022. Forum agenda included presentations on various physical and cyber security topics, including threat overview presentation by E-ISAC and DHS.

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 need for next the NPCC General meeting will be reviewed in 2024.

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 Advisory Group's activities are currently being provided by the NPCC DER/VER Forums and ERO State/Provincial Outreach initiatives.

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 2023 Summer Reliability Assessment* Media Release was issued May 4, 2023.