

RCC Meeting February 27, 2013 Agenda Item 7.11

Reliability Assessment Program

(NRAP)

HIGHLIGHT REPORT

Prepared for the

Reliability Coordinating Committee

February 27, 2013

Distributed to:

Members, Reliability Coordinating Committee

Members, Compliance Committee

Members, Regional Standards Committee

Members, Task Force on System Studies

Members, Task Force on System Protection

Members, Task Force on Coordination of Planning

Members, Task Force on Coordination of Operation

Members, Task Force on Infrastructure Security and Technology

Chairmen, Working Groups

and

NPCC Staff



Reliability Assessment Program HIGHLIGHT REPORT

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Reliability Standards Program

Regional Standards Committee

<u>Item Name Assignment</u>

RSC Regional Standards Committee

The NPCC Regional Standards Committee (RSC), a committee of the NPCC Board, is primarily charged with management and maintenance of the NPCC Regional Standards Development Procedure and Regional Standards, under a sector based voting structure as described in the NPCC, Inc. Bylaws. The NPCC RSC will consider requests for new or revised standards and be available for advisement to the NPCC Board on the standards. The NPCC RSC will work in coordination with the Regional Standards Process Manager (RSPM) who will be the administrator for the NPCC Regional Reliability Standards Development Procedure (this is going to be renamed Regional Reliability Standards Process Manual in the next revision). In addition, the NPCC RSC will review, comment on and develop ballot recommendations for the NERC Reliability Standards under development. The RSC will also review and comment on NERC CANs, and RSAWs. The NPCC RSC also provides oversight for the NPCC Reliability Directories which contain the NPCC more stringent regional Criteria and supporting information. The RSC also conducts and coordinates the Cost Effectiveness Analysis Procedure or CEAP for evaluation of the cost effectiveness of NPCC's Regional Standards. RSC is also providing input through its member to the developing NERC CEAP and implementation of that process. Also the RSC continues to support NPCC staff in the Paragraph 81 effort. The RSC also participated in the development of the new NERC standards development process and Standards Process Input Group (SPIG) recommendations, and commented on revisions. The RSC is providing input to the NERC "Single Portal Project" NERC is currently conducting to retire standard requirements that are duplicative or of little or no benefit to reliability.

Status/ Comments:

The RSC is focusing on the review of each of the NERC Reliability Standards (as they are developed or revised). The RSC is currently reviewing all the FERC Orders and NOPRs that pertain to Reliability Standards. The RSC develops recommendations for the membership on ballots when posted. The RSC also participates in the NERC Functional Model Working Group, NERC Standards Committee, and the NERC Standards Committee Process Subcommittee. The RSC has also revised the NPCC Regional Reliability Standards Development Procedure (to be renamed Regional Reliability Standards Process Manual), which will be posted and submitted to the NPCC Board for approval. The RSC is continually participating in the NERC Reliability Standards Manual revisions and the Results Based Standards Initiative through the Standards Committee Process Subcommittee, and also soliciting members for the NERC drafting teams as necessary to ensure NPCC is adequately represented. The RSC is actively supporting the Order 706 Cyber Security Standards development and revision process. The RSC is overseeing and managing the development of a Regional Reserve Sharing Group Standard. The Disturbance Monitoring Standard has been approved by the NPCC General Membership, the NPCC Board of Directors, NERC Board of Trustees, and FERC. Provincial Government approval is pending. The Underfrequency Load Shedding Standard has been approved by the NPCC General membership, the NPCC Board of Directors, and the NERC Board of Trustees. FERC has solicited comments. It is pending approval of FERC, and Provincial Government authorities. The RSC has initiated Phase II of the NPCC Directory project to convert the criteria in the Directories to specific "requirements" on which compliance may be assessed.



Reliability Standards Program

Regional Standards Committee

<u>Item</u>	Name	Assignment
RSC	Regional Standards Committee	The RSC continues to develop enhancements to the NPCC Website to provide further uniformity and consistency with that of other Regions and participates in various drafting efforts of those Regions.
		The RSC has also developed a Cost Effectiveness Analysis Procedure to evaluate if developing standards provide a cost effective solution to achieving a standard's reliability objective and considers the economics of the implementation. The RSC has also developed the Work Plan for 2013-2014 and a revised Scope of Work, both of which have been approved by the NPCC BOD.

NPCC 2 revised February 22, 2013



Reliability Standards Program

Directories and Appendices

<u>ltem</u>	Name	Appendices	Lead TF	Current Version
DIR-1	Basic Criteria for the Design And Operation of the		TFCP	December 1, 2009
	Bulk Power System	Appendix A – Definition of Terms	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	TFCP	
		Appendix F – Procedure for Operational Planning Coordination	TFCO*	
		Appendix G – Procedure for Inter Reliability Coordinator Area Voltage Control	TFCO*	
	Status/ Comments:	TFCP is presently drafting a new version of Directory No. 1 that will requirements. The reformatted version of Directory No.1 will highligh also facilitating program compliance (Phase 2 of the Directory project)	nt the more stringe	•
		TFCP has requested that the TFCO and TFSS review their respective popen Process posting.	portions of the refo	ormatted draft prior to the initial
		TFCO continues to review the Operating Criteria portion of Directory regarding the interpretation of certain aspects of the Operating Criteria achieve consensus surrounding this issue and will work collaboratively	. TFCO Working	Group C07 has been assigned to
		Directory No. 1initial Phase 2 Open Process posting pending resolution	n of Task Force is	sues.

NPCC 3 revised February 22, 2013



Reliability Standards Program

Directories and Appendices

<u>ltem</u>	Name	<u>Appendices</u>	Lead TF	Current Version
DIR-2	Emergency Operation		TFCO	October 21, 2008
		Appendix A – Definition of Terms	TFCO	
		Appendix B - Guideline and Procedure for Emergency Operation	TFCO	
	Status/ Comments:	ocument A-3 was retired on b. 2 was transferred into eval of Directory No.12 on		
		Phase 2 reformatting of Directory No. 2 is pending TFCO Workpla	n coordination with	other TFCO Directories.
<u>ltem</u>	Name	Appendices	Lead TF	Current Version
DIR-3	Maintenance Criteria for Bu	ılk	TFSP	July 14, 2009
	Power System Protection	Appendix A – Definition of Terms	TFSP	
		Appendix B – Guidelines and Procedures for Maintenance of Bulk Power System Protection	TFSP	
	Status/ Comments:	In 2009 TFSP conducted a review of Directory No. 3 to clarify specific intent on a number of requirements. Additional language was also incorporated into Appendix B of the document to provide guidance that credit can be obtained for normal breaker operations if the equipment design permits verification and documentation of breaker tripping by each individual trip coil. The above changes to Directory No. 3 were approved by the Full Members on July 14, 2009.		
			e within Directory No. 3.The ent and/or more specific than the	
		Phase 2 reformatting of Directory No. 3 pending TFSP resources (I	Directory No. 4 and	Directory No. 7).



Reliability Standards Program

Directories and Appendices

<u>Item</u>	Name	Appendices	Lead TF	Current Version
DIR-4	BPS Protection Criteria	Appendix A – Guideline and Procedure for Bulk Power System Protection	TFSP TFSP	December 1, 2009
	Status/ Comments:	Directory No. 4 received Full Member approval on December 1, 200 the retirement of NPCC documents A5, B5, B7, B24, and C22.	9. The approval of	f Directory No. 4 resulted in
		The RCC has approved an implementation plan to achieve the recom- redundant protection systems and/or battery systems on BPS facilitie Directory No.4 in early 2012.		1 0
		As part of the Phase 2 reformatting of Directory No. 4, the TFSP is a the criteria within Directory No. 4 and the structure of the reformatte exists within Directory No. 7. The NPCC Compliance Committee (Compliance requirements in the initial Phase 2 draft to be posted	ed requirements wit CC) has reviewed a	thin the document; this issue also and approved the inclusion of

NPCC 5 revised February 22, 2013



Reliability Standards Program

Directories and Appendices

<u>Item</u>	Name	Appendices	Lead TF	Current Version
DIR-5	Reserve		TFCO	October 11, 2012
		Appendix 1 – Monitoring Procedure for Interconnected System Frequency Response	TFCO	
		Appendix 2 – Monitoring Procedures for Reserve Criteria	TFCO	
		Appendix 3 – Procedures during Abnormal Operating Conditions	TFCO	
		Appendix 4 – Guidelines for SAR Allocation Following Radial Source Contingencies	TFCO	
		Appendix 5 – NPCC Control Performance Reporting Process	TFCO	
		Appendix 6 – Light Load Conditions	TFCO	
		Appendix 7 – Participation Request Form - Simultaneous Activation of Reserve and Ace Diversity Interchange	TFCO	
	Status/ Comments:	The TFCO has addressed a number of key reserve issues that were unresolved including DCS compliance and wheeling radial source contingencies outside the		o. 5 was approved in late 2010,
		On October 11, 2012 the NPCC Full Member Committee voted to approve revi Directory No. 5 Reserve which addressed these issues.	sions to the criter	ia within

<u>ltem</u>	<u>Name</u>	Appendices	Lead TF	Current Version
DIR-6	Regional Reserve Sharing		TFCO	April 6, 2012
	Status/Comments:	Directory No. 6 was developed in Phase 2 format and approved by the	ne NPCC Full Men	nber committee on April 6, 2012.



Reliability Standards Program

Directories and Appendices

<u>ltem</u>	<u>Name</u>	<u>Appendices</u>	Lead TF	<u>Current Version</u>	
DIR-7	Special Protection System		TFSP	December 27, 2007	
		Attachment 1 – Definition of Terms	TFSP		
		Appendix A – Guidance for Consideration in SPS Design Criteria	TFSP		
		Appendix B – Procedure for Review of Special Protection Sy	ystems TFCP		
	Status/ Comments:	Directory No. 7 was approved by the NPCC Full Members on December 27, 2007. The Task Force on System Protection has initiated a review of Directory No.7, including Appendix B which details the process for SPS approached appendix or retirement. The TFCP, TFSS, and the TFCO are coordinating their comments on Appendix B at overall Directory with TFSP which is the lead Task Force for Directory No. 7. TFSP will merge these revisions initial Phase 2 draft of the document and will include compliance requirements similar to those described above Directory No. 4. Directory No. 7 was posted to the Open Process by the TFSP through November 12, 2012; The is currently reviewing comments received in the Open Process.			
Item	Name	Appendices	Lead TF	Current Version	
DIR-8	Black Start System		TFCO	October 22, 2010	
	Restoration	Appendix A – Definition of Terms	TFCO/TFSS 1		
	Status/ Comments:	The CO11 Restoration Working Group is reviewing the initial Phase 2 draft of Directory No. 8 and will provide comments and recommendations to the TFCO. CO11 revisions will be incorporated into the Phase 2 reformatting of Directory No. 8 and presented to the TFCO for Open Process posting in mid- 2013.			

revised February 22, 2013

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



Reliability Standards Program

Directories and Appendices

<u>ltem</u>	Name	Appendices	Lead TF	Current Version		
DIR-9	NPCC Verification of Generator Gross and Net		TFCO	December 29, 2011		
	Real Power Capability	Appendix A – Definition of Terms Appendix B – Basic Flow Chart for Verification of Generator Gross and Net Real Power Capability	TFCO/TFCP ¹ r TFCO/TFCP ¹			
	Status/ Comments:	Directory No. 9 was approved by the NPCC Full Membership on December 22, 2008.				
		The Full Member Committee approved the Phase 2 reformatt	ing of Directory No. 9 in	December 2011.		
<u>ltem</u>	Name	Appendices	Lead TF	Current Version		
DIR-10	NPCC Verification of Generator Gross and Net Reactive Power Capability		TFCO	December 29, 2011		
		Appendix A – Definition of Terms Appendix B1 – Basic Flow Chart for Verification of Generate Gross and Net Reactive Power Capability	TFCO/TFCP ¹ or TFCO/TFCP ¹			
		Appendix B2 – Generator Reactive Capability Form	TFCO/TFCP 1			
	Status/ Comments:	Directory No. 10 was approved by the NPCC Full Membersh	nip on December 22, 2008			
		The Full Member Committee approved the Phase 2 reformatt	ing of Directory No. 10 in	December 2011.		



Reliability Standards Program

Directories and Appendices

<u>ltem</u>	Name	Appendices	Lead TF	Current Version
DIR-12	UFLS Load Shedding Program Requirements	Appendix A – Definition of Terms	TFSS TFSS	March 3, 2010
	Status/ Comments:	Directory No. 12 was developed from the Automatic Un within existing NPCC Directory No. 2 <i>Emergency Opera</i> implementation plans provided in the 2006 Assessment 2008 Assessment of Under frequency Load Shedding Acthe Reliability Coordinating Committee on November 19 implementation plan were approved by ballot of the NPC its implementation plan were further revised to consider revisions were approved by the NPCC Full Members on	ations and also from the reof Under frequency Load dequacy – Québec Area, by 2008. Directory No. 12 CC Full Members on June UFLS requirements for co	ecommendations and Shedding Adequacy; and the both of which were approved by 2 and a six year program 26, 2009. Directory No. 12 and
		The Task Force on System Studies (TFSS) posted NPCC to the Open Process for 45 days concluding on October 2 No. 12 that will synchronize the UFLS program tolerand Standard PRC -006-NPCC-1 and allow regional entities design recommendations as part of the ongoing six year	26th, 2012. The TFSS has be bands between Director to implement a program t	s proposed changes to Directory y No. 12 and the UFLS Regional hat is consistent with the SS-38
		TFSS has reviewed comments received in the Open Procriteria surrounding Section 5.5.2 of the Directory. Thes assessments in order to align these studies with the timel	e latest revisions would m	nodify the time period between UFLS
		Directory No. 12 was posted to the Open Process on Jan	nuary 28th, 2013 for 45 da	sys through March 14, 2013.



Reliability Standards Program

Directory Development and Revision Manual

<u>ltem</u>	Name	Assignment	Current Version	
Directory	Directory Development and Revision Procedure Procedure	The NPCC Directory Development and Revision Manual is intended to provide guidance regarding the process of establishing a new or revised Directory and will clarify the roles and responsibilities of the NPCC Task Forces responsible for Directory content.	Latest Version: October 26, 2011	
	Status/ Comments:	The Regional Standards Committee (RSC) approved the Directory Directory section of the NPCC website.	Manual on October 26, 2011, which is posted in the	

NPCC Glossary of Terms

<u>ltem</u>	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	Latest Version: October 26, 2011
		Directories, Guidelines and Procedures. The Glossary is organized in sections containing those terms found in Directories	Frequency of Reviews: N/A
		(including Appendices) which support the NPCC criteria and another	Next Review Date: N/A
		Section for definitions found within remaining NPCC B and C docume	nts.
		The Glossary is located in the Directory section of the NPCC website.	



Reliability Standards Program

Regional Standards

<u>ltem</u>	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	Latest Version:	New
		system reliability by providing the resources to do post event analyses.	Frequency of Reviews: Next Review Date: Oct	3 years ober, 2014
	Status/ Comments:	The DME Regional Standard and its Implementation Plan were posted the NPCC Full Members on January 16, 2010. The NPCC Board approximately standard was submitted to NERC for review. NERC accepted the telephone Implementation Plan; however issues were identified with the construction of the VSL portion of the Standard was re-posted for a 30 day industrial followed by submission to NPCC Members for approval. The VSLs Standard and its Implementation Plan were submitted to the NERC Elementarials were reviewed by NERC and filed with FERC on May 31, Canadian authorities for their approvals on June 8, 2011. FERC approximately provided to a Request for Interpretation regarding generators approved by the NPCC BOD.	proved the Standard on February chnical content of the requirement of the VSLs. The VSLs was try review and comment period were approved by ballot Oct. 3 BOT at its November 4, 2010 mer 2011. A Filing was made with roved PRC-002-NPCC-01 on Oct.	y 9, 2010. The ents and the were reworked, and d. This was 1, 2010. The setting and approved. the appropriate ctober 20, 2011.
Item	Name	Assignment	Current Version	
PRC-006 NPCC-01	Under Frequency Load shedding	This Standard will provide the requirements for implementing an automatic under frequency load shedding program in order to	Latest Version:	New
		effectively respond to system under frequency events.	Frequency of Reviews:	3 years
			Next Review Date:	N/A
	Status/ Comments:	On September 20, 2012 FERC issued a NOPR proposing to approve of the Federal Power Act and seeking comment on certain requireme Comments were due with the Commission by November 26, 2012. No comments on the NOPR. NPCC filed reply comments on December NPCC-1 at the February 21, 2013 meeting.	nts within the proposed regional PCC and four other entities (inc	l standard. luding NERC) filed



Item

Name

RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Current Version

Reliability Standards Program

Regional Standards

Assignment

Itom	ITGIIIO	71001911110111	Garrone Volcion
BAL-002- NPCC-01	Regional Reserve Sharing Groups	This Standard will provide the measures for implementing Reserve Sharing Groups within NPCC in order to meet	Latest Version: New
11 00-01	Groups	their reserve obligations.	Frequency of Reviews: 3 years
		Ç	Next Review Date:
	Status/ Comments:	The RSAR has been developed and approved by the RSC. The R and a request for drafting team members was sent to the NPCC in the TFCO established a sub-group of TFCO members and NPCC Standard's development. The development of Regional Standard from NERC. Regional Standards Development Procedure.	nembership. At its meeting of April 14 and 15, 20 a staff that will work on the Reserve Sharing Group ds has been held in abeyance pending further direct
tem	Name	Assignment	Current Version
RSDP	Regional Reliability Standards Development Procedure	The NPCC Regional Reliability Standards Development Procedure describes the procedures, policies, and practices implemented to ensure an "open, fair, and inclusive"	Latest Version: Sept. 19, 2007
		process for the transparent initiation, development, implementation and revision of the NPCC Regional	Frequency of Reviews: 3 years
		Standards necessary for the reliable operation of the Interconnected bulk power system in Northeastern North America.	Next Review Date: Nov. 8, 2011
	Status/ Comments:	The Regional Reliability Standards Development Procedure is poreviewing the activities at the NERC level to ensure the regional	

Processes Manual and achieves a consistency with the NERC common attributes adhered to by the other Regions. The RRSDP was posted for a 45 day comment period Dec. 7, 2011. Comments received have been reviewed and necessary revisions incorporated. The title of the document is going to be revised to "Regional Reliability Standards Process

Manual'. The revised document will be presented to the NPCC Board of Directors for approval.



Compliance Enforcement and Organization Registration and Certification Program

Compliance Committee

<u>ltem</u>	Name	Assignment
CC	NPCC Compliance Committee	The NPCC Compliance Committee (CC) is charged with providing independent policy input for the NPCC Compliance Monitoring and Enforcement Program (CMEP). The NPCC CMEP covers compliance assessment and enforcement of NERC Reliability Standards, Regional Reliability Standards and NPCC Reliability Criteria (NPCC Directories). With regard to NERC Reliability Standards and Regional Reliability Standards, the CC provides an oversight role to the NPCC Compliance Staff's implementation of the CMEP. In this oversight role the CC will endorse the compliance procedures (CP) used by the NPCC Compliance Staff in the conduct of the CMEP. The CC is responsible for final approval of compliance assessments related to NPCC Reliability Criteria, which includes non-monetary sanction recommendations.
	Status/ Comments:	NPCC has completed review of all 18 responses received and held all corresponding feedback teleconferences with those 18 participants in the 2012 Entity Impact Evaluation Initiative (EIE). A draft report, summarizing the 2012 EIE Trail Test, has been developed and is being finalized. This report will then be presented to the NPCC Compliance Committee for information and discussion regarding the next steps in the use of the EIE. NPCC will continue to share its experiences of the trial with the NERC Board of Trustees Compliance Committee (BOTCC) and the NERC ERO Compliance and Enforcement Management Group (ECEMG)
		The CC has discussed the development of a Compliance Guidance Statement related to the implementation of the recently approved BES definition.
		The NPCC Board of Directors approved the revised scope and charter for the Compliance Committee at its January 30, 2013 meeting.

NPCC 13 revised February 22, 2013



Compliance Enforcement and Organization Registration and Certification Program

NPCC Compliance Committee

Documents

<u>Item</u>	Name	Assignment
CCEP - 1, 2	Criteria Compliance and Enforcement Program	The process and requirements are defined, in these documents, for compliance monitoring, assessment and enforcement of NPCC reliability criteria.
	Status/ Comments:	In October 2012, the CCEP Working Group developed Implementation Plan documents for the 2012 and 2013 Criteria Compliance and Enforcement Program (CCEP) in accordance with the CCEP Process document, CCEP-1. The Implementation Plan documents were endorsed by the NPCC Compliance Committee in October 2012 to the for approval at the November 2012 RCC Meeting. The documents were approved by the RCC
		The 2012 CCEP Certification forms have been received. The CC will review the forms at the March 2013 meeting

NPCC 14 revised February 22, 2013



Training, Education, and Operator Certification Program

TASK FORCE ON COORDINATION OF OPERATION

<u>ltem</u>	Name	Assignment
CO-2	System Operator Training	This Working Group establishes a program for system operator training relating to NPCC Inc. inter-Area matters, Working Group criteria, terminology, policies and operating instructions. It prepares and presents material at system operator training sessions, exchanges information on internal system operator training methods. The CO-2 Working Group also evaluates and proposes new techniques and training aids as they become available.
	Status/ Comments:	The CO-2 Working Group will meet on March 7-8, 2013 to develop the Spring 2013 System Operator Seminar agenda, to refine plans for the Seminar Table Top exercise topic and to continue sharing information on how to interpret and satisfy the PER-005 standard requirements. The Table Top exercise will again cover the revised Directory No. 5 "Reserve and the use of Simultaneous Activation of Reserve (SAR), with special focus on addressing radial source contingencies. Participants at the Spring 2013 Seminar will receive Continuing Education Hours.



Reliability Assessment and Performance Analysis Program

BLACKOUT 2003 FOLLOW-UP

<u>ltem</u>	Name	Assignment
BSP	Blackout Study Plan	Building on the Event Replication Study, perform additional analysis to evaluate possible risks for other rerating conditions, planned system changes, and possible system design changes.
	Status/ Comments:	Task 5 Study was completed by the SS-38 Working Group and approved by the RCC in November 2011.



Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF OPERATION

Item	Name	Assignment
CO-1	Control Performance	The Working Group insures coordination between adjacent control areas in establishing interchange schedules, Working Group reviews time error correction procedures, and monitors the conformance of the Areas with NPCC Control Performance Criteria and Operating Reserve Criteria. At the request of the Task Force on Coordination of Operation (TFCO), it conducts investigations of control performance problems.
	Status/ Comments:	The CO-1 Working Group met in December 2012 and on February 14-15, 2013. Topics that are actively addressed by CO-1 include: 1) training covering Simultaneous Activation of Reserve (SAR) and SAR procedure changes indicated in the revised Directory 5, 2) SAR implementation for the loss of radial sources contingencies, 3) analysis of past SAR events, 4) providing support and research regarding frequency response issues including NPCC governor response and frequency bias setting issues and the new BAL-003-1 standard content, 5) ACE Diversity Interchange ensuring consistency between the NPCC application and the NERC White Paper principles, 6) re-engineering the NPCC inadvertent calculation methodology and 7) meeting the reporting requirements on SAR-ATR reports, CPS and inadvertent energy.



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

<u>Item</u>	Name	Assignment
CO-7	Operational Planning Working Group	To assess, coordinate and evaluate regional operational issues and reliability concerns as directed by the TFCO. Periodically review the NPCC Regional Reliability Plan and the Registration and Certification of entities to achieve conformance with NPCC criteria and NERC Standards.
	Status/ Comments:	The Working Group CO-07 has been reformulated to accept specific operational planning tasks from the Task Force o Coordination of Operation on an ad hoc basis; it has been renamed the "Operational Planning Working Group." Its fir task will be the identification of those third party asset owners and equipment that will be subject to the operational requirements of the Cyber Standards. Working Group CO-12 has been renamed the "Seasonal Assessment Working Group" to avoid confusion with Working Group CO-07; its tasks remain unchanged

<u>ltem</u>	Name	Assignment
CO-8	System Operations Managers Working Group	Provide a forum for the Managers of the NPCC control centers to identify and discuss security concerns in the operation of the interconnected bulk power supply system, and specific concerns related to the integration of operation between and among the evolving ISOs. The System Operations Managers Working Group will also assist the Task Force on Coordination of Operation in their work on issues related to system security and the operation of the ISOs, and provide advice to the TFCO, as requested.
	Status/ Comments:	The CO-8 Working Group met on September 5-6, 2012. Topics addressed during that meeting included an update and redraft of NPCC Document C-15, "Procedures for Solar Magnetic Disturbances Which Affect Electric Power Systems"; and, the completion of a draft NPCC Procedure defining the NPCC practices in the implementation of ACE Diversity Interchange (ADI), ensuring consistency with the recommendations presented in the recently released NERC White Paper, "ACE Diversity Interchange White Paper February 2012."



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

<u>ltem</u>	Name	Assignment
CO-11	Restoration Working Group	The Restoration Working Group addresses the issue of ensuring appropriate operation of key system restoration facilities and their critical components.
	Status/ Comments:	The NPCC Restoration Working Group (CO-11) conducted its wide area interregional restoration exercise on October 24, 2012. The exercise included all five of the Reliability Coordinators of NPCC as well as the Midwest ISO and PJM.

<u>ltem</u>	Name	Assignment
CO-12	Seasonal Assessment Working Group	Review the overall reliability of the generation and transmission system in the NPCC Region for the Summer and Winter Seasonal conditions.
Status/ Co	mments:	The CO-12 Working Group has initiated the 2013 Summer NPCC Reliability Assessment. TFCO has requested additional focus on the transmission section and enhanced transmission analysis content in the NPCC Assessments. Preliminary results for the NPCC 2013 Summer Reliability Assessment will be presented at the February 27, 2013 RCC meeting.



RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF PLANNING

<u>ltem</u>	Name	Assignment
CP- 8	Working Group on Review of Resource and Transmission Adequacy	Review the overall reliability of the NPCC Areas and perform pre-seasonal resource adequacy assessments.
	Status/ Comments:	The Scope and Schedule for the 2013 NPCC Long Range Adequacy Overview is being was approved at the November 27, 2102 RCC meeting.
<u>ltem</u>	Name	Assignment
CP- 2013S		
Cr - 20133	Summer 2013 Multi- Area Probabilistic Reliability Assessment	Assess NPCC Area reliability for the year 2013 by estimating the projected use of Area Operating Procedures designed to mitigate resource shortages for the summer (May through September) period.



Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF PLANNING

<u>ltem</u>	Name	Assignment
CP- 2012W	Winter 2012-2013 Multi- Area Probabilistic Reliability Assessment	Assess NPCC Inc. Area reliability by estimating projected use of Area Operating Procedures designed to mitigate resource shortages for the winter (November 2012 through March 2013) period.
	Status/ Comments:	The NPCC 2012-13 Winter Multi-Area Probabilistic Reliability Assessment was approved at the June 13, 2012 RCC meeting, for release in CO-12 Working Group's Winter Reliability Assessment, which was approved at the November 27, 2012 RCC meeting
Item	Name	Assignment
LRAO	NPCC Long Range Adequacy Overview	On a consistent basis, evaluate the near-term seasonal and long-range (five year) adequacy of NPCC Areas', reflecting neighboring regional plans proposed to meet their respective resource adequacy criteria through multi-area probabilistic assessments.
	Status/ Comments:	The "2012 NPCC Long Range Adequacy Overview" will be presented to the RCC for review and approval at their February 27, 2013 meeting.



Reliability Assessment and Performance Analysis Program

TASK FORCE ON COORDINATION OF PLANNING

<u>ltem</u>	Name	Assignment
CP-11	NPCC Basic Criteria For Design and Operation of the Bulk Power System Review Working Group	This Working Group is charged with the revision of the NPCC Inc. Basic Design Criteria Directory No. 1 and the NPCC Glossary of Terms Document A-07. In addition, the Task Force on Coordination of Planning (TFCP) charged the CP-11 Working Group with the development of the A-10 Classification of BPS Elements document.
	Status/ Comments:	In September 2011 CP-11 Working Group delivered to TFCP the draft D1 revisions intended for Open Process Review pending input from TFCO. Earlier this year, the Chairs of TFCP and TFCO have agreed to form a joint group consisting of members from CP-11 and CO-7 to revisit this effort. A final draft is expected in May 2013.

	ltem	Name	Assignmer
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SP-7

Working Group on Review of Protection System Mis-operations Review and analyze mis-operations of transmission and generation protection systems and special protection systems on the bulk electric system and report on the statistics of mis-operations as they occur in the NPCC region including lessons learned and implementation of corrective action plans by registered entities.

Status/ Comments:

The SP-7 Working Group has completed review of Second and Third Quarters 2012 misoperation reports and outstanding reports from prior Quarters. The Second Quarter Report and updates to prior Quarter Reports were submitted to NERC on October 15, 2012, and a status report was given at the June 13, 2012, RCC meeting; the Third Quarter Report and updates to prior Quarter Reports were submitted to NERC on January 15, 2013, and a status report will be given at an upcoming RCC meeting. The reporting deadline for Fourth Quarter 2012 misoperation reports passed on January 20, 2013; the SP-7 Working Group will convene via teleconference in February and in person in March to begin review of Fourth Quarter 2012 reports and outstanding reports from prior Quarters.



Reliability Assessment and Performance Analysis Program

TASK FORCE ON SYSTEM STUDIES

Name	Assignment
Base Case Development Working Group	On an annual basis, develop a library of solved load flow cases and associated dynamic data.
Status/ Comment:	The SS-37 Working Group will commence development of the 2013 Library of Load Flow cases per the SS-37 Work Plan Schedule.
	The Working Group will update the SS-37 Procedure Manual to reflect recent revisions made to the MMWG Procedure Manual.
	The 2012 load flow cases were approved and finalized by the MMWG.
	The Dynamics cases were submitted to the MMWG on October 15, 2012. Final cases will be issued at the beginning of February 2013.
	Base Case Development Working Group

<u>ltem</u>	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 has completed the load modeling white paper and has submitted it for review for approval at the February 27, 2013 RCC Meeting. SS-38 has also developed the Terms of Reference for the 2013 UFLS Adequacy Assessment for review and approval at the November 27, 2012 RCC meeting.



Reliability Assessment and Performance Analysis Program

Eastern Interconnection Reliability Assessment Group

Study Committees

<u>ltem</u>	Name	Assignment
ERAG	Eastern Interconnection Reliability Assessment Group	The Eastern Interconnection Reliability Assessment Group (ERAG) Management Committee (MC) oversees the Multi-Regional Modeling Group steady state and dynamics base case development, all Eastern Interconnection interregional assessment activities and other interregional matters of interest. Eastern Interconnection assessment forums include: RFC-NPCC, RFC-SERC East and RFC-MRO-SPP-SERC West.
	Status/ Comments:	The ERAG Management Committee met on December 4-5, 2012 at the PJM offices in Valley Forge, Pa. and on February 7-8, 2013 at the SERC offices in Charlotte, NC. During the meetings the topics discussed included:
		 Frequency response modeling changes in MMWG dynamics base cases were agreed to by the ERAG MC. The MMWG was requested to incorporate generic governor system models that include the effects of other plant contro systems. This will be done initially for the 2012 MMWG case series 2013 Spring Light Load case. That will be done as an interim step to achieve good frequency modeling in dynamics base cases. The Regions will continue the review of the NERC governor survey information to assess how to revise the models at most generators. The second day of the February 7-8 ERAG MC meeting was dedicated to discuss frequency response and system modeling needs and possible areas for development. NERC staff, North American Transmission Forum, NERC System Analysis and Modeling Subcommittee and FERC representatives participated. A half-day session on April 4, 2013 will again address general modeling improvements and will include participation from additional industry groups. That is likely to include Eastern Interconnection Planning Collaborative and North American Generation Forum representatives. An ERAG MC request was made to the ISOs / RTOs to provide dispatches that more closely align with economic dispatch practices in future and seasonal ERAG/MMWG base cases. Received the ERAG Steering Committee (SC) status report on the 2013 Summer Assessment work. Discussed a CEII and Non-Disclosure Agreement concern regarding Canadian system modeling information transmittal and use in MMWG steady state and dynamics models. The region to region data protection still needs to be clarified.

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Reliability Assessment and Performance Analysis Program

RFC - NPCC Working Group

<u>ltem</u>	Name	Assignment
RNWG	RFC-NPCC Working Group	The RFC-NPCC Working Group (RNWG), under the direction of the newly combined SERC-East and the RFC-NPCC Steering Committees (SerN SC), conducts appraisals of the RFC-NPCC interconnected systems for the upcoming summer and winter capability periods.
	Status/ Comments:	The ERAG Steering Committee provided a draft Scope document outlining the requirements of the Summer 2013 Interregional Study. The scheduled completion timeframe for the summer study is by late April 2013.



Reliability Assessment and Performance Analysis Program

<u>ltem</u>	Name	Assignment
RAS	Reliability Assessment Subcommittee (RAS)	Conduct an annual review of the overall reliability of the existing and planned generation and transmission systems of the eight Regional Reliability Entities for the ten year horizon. Conduct semiannual seasonal assessments of the overall reliability of the existing generation and transmission systems of the eight Regional Reliability Entities.
	Status/ Comments:	The NERC RAS 2012 Winter Assessment was released in November, 2012, along with the NERC RAS 2012 Long Term Reliability Assessment .
		The RAS is initiating its first required probabilistic reliability assessment, to be released in 2013. The request for 2013 LTRA and the 2013 Summer Assessment has been received. The 2013 Summer Assessment publication date is targeted May 20, 2013. The 2013 LTRA publication date is October 31, 2013.
Item	Name	Assignment
RADWG	Reliability Assessment Data Working Group	Serve as the electric utility industry's coordinator with the Department of Energy (DOE) and the Energy Information Administration (EIA) in submitting yearly data and in negotiating the requirements for data submission to the EIA.
	Status/ Comments:	NERC will provide an overview of the proposed development of the NERC Reliability Assessment Data System (RADS), including the expected benefits, Regional involvement, and a proposed timeline at a "kick-off" Webinar February 25, 2013. The RADWG met February 13-14, 2013 at NERC's Washington DC office, and reviewed the proposed DOE EIA-411 and 2013 NERC Reliability Assessment Subcommittee LTRA data requirements, and continue discussion of reliability assessment data requirements and Regional submittal processes.



Reliability Assessment and Performance Analysis Program

<u>ltem</u>	Name	Assignment
RIS ProbA	Reliability Issues Subcommittee	Trial assessment to determine if probabilistic reliability metrics based on the NERC Long Term Reliability Assessment can be used to supplement NERC regional reliability outlooks.
	Status/ Comments:	NERC's Generation and Transmission Reliability Planning Models Task Force (GTRPMTF) recommended the creation of an annual report summarizing a probabilistic assessment of the resource adequacy by Region across NERC. The GTRPMTF was subsequently disbanded and the Planning Committee has assigned the Reliability Assessment Subcommittee (RAS) to coordinate the assembly of this report.
		In 2011, the RAS piloted this effort to produce enhanced resource adequacy metrics for the 2010 Long-Term Reliability Assessment. The NERC Planning Committee (PC) approved the recommendations from this report which initiates a mandatory probabilistic assessment study to be performed biennially. The Probabilistic Assessment (ProbA) Report is designed to complement the Long-Term Reliability Assessment by providing additional probabilistic statistics of Loss of Load Hours (LOLH) and Expected Unserved Energy (EUE). On September 6, 2012 NERC requested reports on the third and fifth year of the 2012 Long-Term Reliability Assessment—for the years 2014 and 2016. NPCC will satisfy these requirements through the 2012 NPCC Long Range Adequacy Overview, scheduled for RCC approval at their February 27, 2013 meeting.
<u>Item</u>	Name	Assignment
TADS	Transmission Availability Data System	Serve as the Regional Entity Coordinator (REC) in support of the NERC TADS outage data collection and the analysis of the NPCC Transmission Owners (TO) outage information. As the REC, oversee the use of and the data entry of automatic outage information by the TO in the NERC Internet based data management tool - webTADS.
	Status/ Comments:	The scheduled start of data entry by reporting transmission owners of their 2012 outage information into webTADS began as of January 1, 2013 and will continue until February 28, 2013. On March 1, 2013, the REC will have two weeks until March 15 th with which to review and correct the data entry by the reporting transmission owners.



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<u>ltem</u>	Name	Assignment
DADS	Demand Availability Database System	Serve as the Regional Entity Coordinator (REC) in support of the DADS data collection and analysis for NPCC. As the REC, oversee the collection of the data in the NERC Internet based data management tool – webDADS.
	Status/ Comments:	The Summer 2012 DADS Data reporting period ended on December 15, 2012. NPCC and NERC staff have cooperated to complete timely collection of DADS data from NPCC reporting entities.
		NPCC Members have been active participants on the DADS Working Group. Due to NPCC Member efforts, the Working Group is continuing to refine NERC Staff's DADS metrics development and data reporting.

<u>ltem</u>	Name	Assignment
SEDS	Spare Equipment Database System	Serve as the Regional Entity Coordinator (REC) in support of the Spare Equipment Database and analysis for NPCC. As the REC, oversee the collection of the data in the NERC Internet based data management tool.
	Status/ Comments:	The webSED data entry tool was activated in June 2012. NPCC staff attended NERC sponsored user training sessions in June 2012.



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<u>Item</u>	Name	<u> Assignment</u>
GADS	Generator Availability Data System	Serve as the Regional Entity Coordinator (REC) in support of the Generator Availability data collection and Data System analysis for NPCC. As the REC, oversee the collection of the data in the NERC Internet based data management tool – webE-GADS.
	Status/ Comments:	The deadline for the completion of 2012 mandatory GADS reporting is January 30, 2013. New England reporting GO/entities will report GADS data to NERC through the ISO-New England; New York and NPCC Canadian reporting GO/entities will report GADS data directly to NERC.
		NPCC staff participates in the GADS Working Group as observer member of the working group and will continue to function as a member until a GO member from NPCC becomes the official NPCC representative member of the working group. The GADSWG is discussing upcoming change orders for the webE-GADS system, development of wind generation reporting criteria in GADS, updated design and event data and cause code definitions, and updated hydro and solar GADS reporting criteria.



Reliability Assessment and Performance Analysis Program OTHER

<u>ltem</u>	Name	Assignment
Inter-ISO	Inter-ISO Working Group	The Inter-ISO Working Group was formed to address Inter-Regional planning and Inter-Area issues of projects that have "cross border" impacts while providing an open stakeholder forum and committee structure to allow market input.
	Status/ Comments:	A meeting (via WebEx) is scheduled for February 26, 2013. Topics include discussion of comments received for consideration in the Planning Coordination Protocol revision.



Situation Awareness and Infrastructure Security Program

TASK FORCE ON COORDINATION OF OPERATION

<u>ltem</u>	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 met with technical IT staff from each of the member organizations and developed the modifications to the FTC specification that had been proposed over the past several CO-10 Working Group meetings. The updates included improvements to the XML messages, including additional input and output values to allow all of the members to eventually have a standard interpretation of data requests and deliveries. The members also settled on a plan for version control of the specification and the XML/XSD/WSDL documents, to be stored on the NPCC website. A draft of the updated specification will be available in early 2013

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Situation Awareness and Infrastructure Security Program

TASK FORCE ON INFRASTRUCTURE SECURITY AND TECHNOLOGY

<u>ltem</u>	Name	Assignment
IST-1	Infrastructure Security and Technology Workshop	Periodic workshops presentations to address timely issues and update member system personnel associated with the provision of on-line computer systems for operation of the power system. Last Workshop: Fall 2012
	Status/ Comments:	IST-1 presented at the Fall 2012 NPCC Standards & Compliance Workshop on CIP versions 4 and 5

<u>ltem</u>	Name	Assignment
IST-3	TFIST EMS-SCADA Working Group	Provide a forum to identify, discuss and advance the technology of EMS-SCADA for the reliable operation of the NPCC Bulk Power System. The EMS-SCADA Working Group (IST-3) will also support TFIST in their work on issues related to EMS-SCADA.
	Status/ Comments:	The EMS-SCADA Working Group has been designed as an Ad-hoc Working Group by TFIST.



Situation Awareness and Infrastructure Security Program

TASK FORCE ON INFRASTRUCTURE SECURITY AND TECHNOLOGY

<u>ltem</u>	Name	Assignment
IST-4	TFIST Cyber Security Working Group	Provide a forum to identify, discuss and advance the technology of Cyber Security for the reliable operation of the NPCC Bulk Power System. The Cyber Security Working Group (IST-4) will also support TFIST in their work on issues related to Cyber Security.
	Status/ Comments:	Expect TFIST to review a draft scope at the 2013 meeting.

<u>ltem</u>	Name	Assignment
IST-5	TFIST Physical Security Working Group	Provide a forum to identify, discuss and advance the use of Physical Security for the reliable operation of the NPCC Bulk Power System. The Physical Security Working Group (IST-5) will also support TFIST in their work on issues related to Physical Security.
	Status/ Comments:	Per the 2013-2014 TFIST Work Plan, re-populate the Physical Security Working Group.



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RELIABILITY ASSESSMENT PROGRAM HIGHLIGHTS

Administrative Services

MEMBERS' FORUMS

Assignment

<u>item</u>	<u>name</u>	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 2012 NPCC General Meeting was held the afternoon of November 28, 2012 in Montreal, Quebec.
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 NPCC Governmental/Regulatory Affairs Advisory Group is was held November 27, 2012 in conjunction with the NPCC 2012 General Meeting in Montreal, Quebec.
<u>ltem</u>	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 the monthly communications coordination calls with NERC and the Regions. The 2012 Media Event for the release of the 2012 NPCC Summer Reliability Assessment was held May 10, 2012. The NERC Regional Communications Group met November 7-8, 2012 in New Orleans, LA; discussions were held on standards communications, media monitoring, coordination of media communication in times of emergencies, and outreach to stakeholders. The Media Event for release of the 2013 NPCC Summer Reliability Assessment is scheduled for May 2, 2013.