

Reception Agenda

March 3, 2020 | 5:30-7:00 p.m. Eastern

Atlanta Marriott Marquis Hotel
265 Peachtree Center Avenue
Atlanta, GA 30303

Conference Room: Marquis Ballroom Salon D

Please join us at the Reception to take an opportunity to reflect on the work of the Operating, Planning, and Critical Infrastructure Committees and to say goodbye and thank you to a long-time colleague and friend, Bob Cummings.

Agenda

- Welcome Remarks by Mark Lauby, Senior Vice President and Chief Engineer
- Remarks by Jim Robb, NERC President and CEO
- Remarks by Ken DeFontes, Chair-Elect/Vice Chair, NERC Board of Trustees
- Remarks by Greg Ford, Chair, RSTC
- Remarks by Operating, Planning, and Critical Infrastructure Protection Committees' Chairs
- Remarks by Bob Cummings, Senior Director of Engineering and Reliability Initiatives

Agenda

Reliability and Security Technical Committee

March 4, 2020 | 1:00–5:00 p.m. Eastern

Atlanta Marriott Marquis Hotel
265 Peachtree Center Avenue
Atlanta, GA 30303

Conference Room: Imperial Ballroom

Dial-in: 1-415-655-0002 | Access Code: 730 127 263 | Attendee Code: If asked, just press #

Webex: [Click Here](#)

Call to Order

NERC Antitrust Compliance Guidelines and Public Announcement

Introductions and Chair's Remarks

Welcome Remarks – Mark Lauby

1. Administrative Items

- a. Arrangements
 - i. Safety Briefing and Identification of Exits (Hotel Staff)
- b. Announcement of Quorum
- c. Reliability and Security Technical Committee (RSTC) Membership 2020-2023*
 - i. [RSTC Roster](#)
 - ii. [RSTC Organization](#)
 - iii. [RSTC Charter](#)
 - iv. [Parliamentary Procedures](#)
 - v. [Participant Conduct Policy](#)

d. Future Meetings

2020 Meeting Dates	Time	Location	Hotel
June 10, 2020	1:00 to 5:00 p.m.	TBD	TBD
June 11, 2020	8:00 a.m. to 12:00 p.m.	TBD	TBD
September 15, 2020	1:00 to 5:00 p.m.	TBD	TBD
September 16, 2020	8:00 a.m. to 12:00 p.m.	TBD	TBD
December 15, 2020	1:00 to 5:00 p.m.	TBD	TBD
December 16, 2020	8:00 a.m. to 12:00 p.m.	TBD	TBD

Regular Agenda

2. Remarks and Reports

- a. Remarks - Greg Ford, RSTC Chair
- b. Introduction of Executive Committee – Chair Ford
- c. Report of February 5, 2020 Member Representatives Committee (MRC) Meeting and the February 6, 2020 Board Meeting – Chair Ford

3. Election of Nominating Subcommittee – Chair Ford

4. Committee Organization Charts* – Information

- a. Operating Committee (OC) Organization – Vice Chair Zwergel, OC Chair
- b. Planning Committee (PC) Organization – Brian Evans-Mongeon, PC Chair
- c. Critical Infrastructure Protection Committee (CIPC) Organization – Marc Child, CIPC Chair

5. 2020 Subcommittee Work Plans* – Approve - Chair Ford

- a. OC Work Plan – Vice Chair Zwergel, OC Chair
- b. PC Work Plan – Brian Evans-Mongeon, PC Chair
- c. CIPC Work Plan – Marc Child, CIPC Chair

6. RSTC Transition Plan – Discussion - Chair Ford

- a. Reliability Issues Steering Committee (RISC) Coordination*
- b. RSTC Transition Plan Tracking Document
- c. Policy Input and Industry Comments Resolution and Tracking*
- d. RSTC Agenda Template Review*
- e. RSTC 2020 Calendar Review*

7. Reliability Issues Steering Committee (RISC) Status Report – Information – Vice Chair Zwergel

8. Forum and Group Reports – Information

- a. North American Generator Forum – Allen Schriver
- b. North American Transmission Forum – Roman Carter

9. Chair’s Closing Remarks and Adjournment

*Background materials included.

Antitrust Compliance Guidelines

I. General

It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.

It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Antitrust laws are complex and subject to court interpretation that can vary over time and from one court to another. The purpose of these guidelines is to alert NERC participants and employees to potential antitrust problems and to set forth policies to be followed with respect to activities that may involve antitrust considerations. In some instances, the NERC policy contained in these guidelines is stricter than the applicable antitrust laws. Any NERC participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether NERC's antitrust compliance policy is implicated in any situation should consult NERC's General Counsel immediately.

II. Prohibited Activities

Participants in NERC activities (including those of its committees and subgroups) should refrain from the following when acting in their capacity as participants in NERC activities (e.g., at NERC meetings, conference calls and in informal discussions):

- Discussions involving pricing information, especially margin (profit) and internal cost information and participants' expectations as to their future prices or internal costs.
- Discussions of a participant's marketing strategies.
- Discussions regarding how customers and geographical areas are to be divided among competitors.
- Discussions concerning the exclusion of competitors from markets.
- Discussions concerning boycotting or group refusals to deal with competitors, vendors or suppliers.

- Any other matters that do not clearly fall within these guidelines should be reviewed with NERC's General Counsel before being discussed.

III. Activities That Are Permitted

From time to time decisions or actions of NERC (including those of its committees and subgroups) may have a negative impact on particular entities and thus in that sense adversely impact competition. Decisions and actions by NERC (including its committees and subgroups) should only be undertaken for the purpose of promoting and maintaining the reliability and adequacy of the bulk power system. If you do not have a legitimate purpose consistent with this objective for discussing a matter, please refrain from discussing the matter during NERC meetings and in other NERC-related communications.

You should also ensure that NERC procedures, including those set forth in NERC's Certificate of Incorporation, Bylaws, and Rules of Procedure are followed in conducting NERC business.

In addition, all discussions in NERC meetings and other NERC-related communications should be within the scope of the mandate for or assignment to the particular NERC committee or subgroup, as well as within the scope of the published agenda for the meeting.

No decisions should be made nor any actions taken in NERC activities for the purpose of giving an industry participant or group of participants a competitive advantage over other participants. In particular, decisions with respect to setting, revising, or assessing compliance with NERC reliability standards should not be influenced by anti-competitive motivations.

Subject to the foregoing restrictions, participants in NERC activities may discuss:

- Reliability matters relating to the bulk power system, including operation and planning matters such as establishing or revising reliability standards, special operating procedures, operating transfer capabilities, and plans for new facilities.
- Matters relating to the impact of reliability standards for the bulk power system on electricity markets, and the impact of electricity market operations on the reliability of the bulk power system.
- Proposed filings or other communications with state or federal regulatory authorities or other governmental entities.
- Matters relating to the internal governance, management and operation of NERC, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meetings.

NERC Operating Committee (OC)

Operating Committee Executive Committee (OC ExCom)

**Events Analysis
Subcommittee
(EAS)**

**Personnel
Subcommittee (PS)**

**Operating
Reliability
Subcommittee
(ORS)**

**Resources
Subcommittee (RS)**

**EMS Working Group
(EMSWG)**

**Continuing Education
Review Panel (CERP)**

**Eastern Interconnect
Data Sharing Network
(EIDSN)**

**Reserves Working
Group
(RWG)**

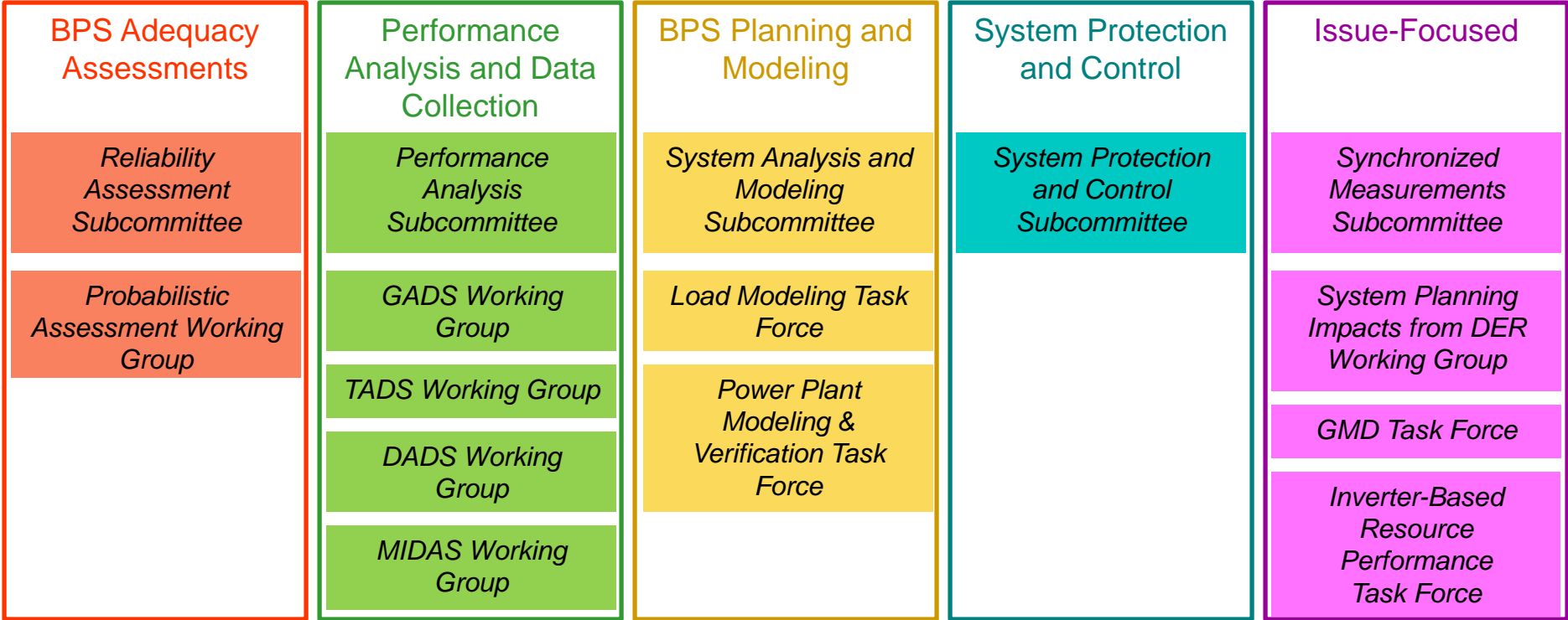
Joint OC/PC Task Forces / Working Groups

**Interchange
Distribution
Calculator Working
Group (IDCWG)**

**Frequency Working
Group
(FWG)**

**Inverter-Based
Resource
Performance Task
Force (IRPTF)**

**Inadvertent
Interchange Working
Group
(IIWG)**



NERC Critical Infrastructure Protection Committee (CIPC)

CIPC Executive Committee (CIPC EC)

Physical Security Subgroups

Physical Security
Advisory Group
(PSAG)

Physical Security
Working Group
(PSWG)

Cybersecurity Subgroups

Security Training
Working Group
(STWG)

Remote Access
Guideline Task Force
(RAGTF)

Operating Security Subgroups

Grid Exercise Working
Group (GEWG)

Supply Chain Working
Group (SCWG)

Policy Subgroups

Compliance Input
Working Group
(CIWG)

Security Metrics
Working Group
(SMWG)

Joint CIPC/OC/PC Task Forces / Working Groups

Events Analysis

Priority (H, M, L)	Group	Subgroup	Task No	Task Name	Task Description	Target Completion	Requested Action	Status	Action Status (Future, Current, Complete)	"X" if Update to Task	Created Date	Update Date	Risk Profile(s) from RISC Report	Strategic Focus Area(s)
	OC		1		Nominating Subcommittee to present slate for OC Chair and Vice-Chair at June meeting for election.	Q2 2019		Complete						
	OC		2		Annual membership nomination period and election if necessary.	Q3		Annually						
	OC		3		OC Chair Appointment of Subcommittee Leadership after appointment of a new OC chair.	Q4 2019		Every two years or as necessary						
	OC		4		OC Structure and organization. Per Section 6.1 of OC Charter, the OC will "annually review the appropriateness of ongoing subcommittees, task forces, and working groups"	Q1 2019		Complete for 2019; RSTC to continue going forward.						
	OC		5		OC review of Time and GMD Monitor transitions	Q1 2019		Complete for 2019						
	OC		6		OC review of its Strategic Plan	Q2 2020		Every two years or as necessary.						
	OC		7		Development of OC and subcommittee work plans. Monitor RISC report, Resiliency Framework, ERO Strategic Plan and other documents as it relates to possible OC actions.	Q1 2019		Complete						
	OC		8		Review and endorsement of the Annual Frequency Response Analysis Report during Q4 of each year.	Q4 2019		In Progress						
	OC		9		NERC Website: Per OC Strategic plan, Reliability Guidelines, Reference Documents and Lessons Learned will be grouped together based on focus area	Q4 2019		In Progress						
	OC		10		Per OC Strategic Plan: Engage the Regional Entity by volunteering to present new reliability guideline and reference documents and updated guidelines and reference documents	Q4 2019		In Progress						
	OC		11		Identify reliability guidelines and reference documents that are under development and revision at the joint OC/PC/CIPC meetings	on-going		In Progress						
	OC		12		Provide support for Inverter-based Resources Performance Task Force (Joint OC/PC TF).	Q4 2019		In Progress						
	EAS		1		EAS industry presentation quarterly for OC meetings relating to operational experiences and events	Quarterly		In Progress						
	EAS		2		Plans, arrangements and agenda for Annual Monitoring and Situational Awareness Conference	Q3 Annually		In Progress						
	EAS		3		Prepare for and facilitate the Annual Winter Weather Prep Webinar.	Q3 Annually		In Progress						
	EAS		4		Annual update to the OC of events, cause codes, trends, etc.	Q4 Annually		In Progress						
			5		Analysis of cause codes looking for common threads and trends. Provide annual update to OC on trends, threads, etc.	on-going		As Required						
	EAS		6		Develop EA Chapter of the State of Reliability Report in coordination with PAS	Q3 2020		In Progress						
	EAS		7		Reliability Guidelines and Reference Documents - Develop summary for each document and conduct webinars as needed for each revised document.	on-going		In Progress						
	EAS		8		Generating Unit Winter Weather Readiness – Current Industry Practices	Q3 2020		In Progress						
	EAS		9		Risks and Mitigations for Losing EMS Functions Reference Document	Q1 2020		In Progress						
	EAS		10		Lessons Learned development and publication	on-going		In Progress						
	EAS		11		Prepare for and facilitate lessons learned summary webinars.	on-going		As Required						
	EAS		12		Events Analysis Program Review and Update	on-going		As Required						
	EAS		13		Review the UK final report for findings and recommendation's that are applicable to the North American grid and present to the OC	Q1 2020		In Progress						
	ORS		1		Monitor development of common tools and act as point of contact for EIDSN.	on-going		In Progress						
	ORS		2		ORS to act as lead on development of, and recommendation to implement, Parallel Flow Visualization tool.	Q4 2020		In Progress						
	ORS		3		Notify OC of Time Monitors for 2020 and 2021.	Q1 2020		In Progress						
	ORS		4		GridEx IV After Action Report	Q3 2019		complete						
	ORS		5		Frequency Monitor Reporting (Standing ORS agenda item to discuss).	on-going		In Progress						

No action needed. There were no items in the after action report that fell within the scope of the ORS

Guideline Title	Approved Version Number	Approval Date	Due Date	Start Date	Originating Subcommittee or Task Force
ACE Diversity Interchange	2	Dec-17	Dec-20	Jan-20	RS
BPS-Connected Inverter-Based Resource Performance	1	Sep-18	Sep-21	Sep-20	IRPTF
Cyber Intrusion Guide for System Operators	1	Jun-18	Jun-21	Jun-20	ORS
Gas and Electrical Operational Coordination Considerations	1	Dec-17	Dec-20	Jan-20	ORS
Generating Unit Operations During Complete Loss of Communications	3	Dec-18	Dec-21	Jan-21	EAS
Generating Unit Winter Weather Readiness – Current Industry Practices	2	Aug-17	Aug-20	Jun-19	EAS
Improvements to Interconnection Requirements for BPS-Connected Inverter-Based Resources	1	Sep-19	Sep-22	Dec-21	IRPTF
Inadvertent Interchange	1	Dec-17	Dec-20	Jan-20	RS
Integrating Reporting ACE with the NERC Reliability Standards	1	Dec-19	Dec-22	Jan-22	RS
Methods for Establishing IROs	1	Sep-18	Sep-21	Sep-20	MEITF
Operating Reserve Management	2	Dec-17	Dec-20	Jan-20	RS
Power Plant Model Verification for Inverter-Based Resources	1	Sep-18	Sep-21	Sep-20	IRPTF
Primary Frequency Control	2	Jun-19	Jun-22	Jul-21	RS
Situational Awareness for the System Operator	1	Mar-17	Mar-20	Mar-19	PS

Power Plant Model Verification for Inverter-Based Resources	1	Sep-18	Sep-21	Sep-20	IRPTF
---	---	--------	--------	--------	-------

Reference Document Title	Approved Version Number	Approval Date	Due Date	Start Date	Originating Subcommittee or Task Force
Balancing Authority Area Footprint Change Tasks	1	Apr-19	Apr-22	Apr-21	RS
Dynamic Tag Exclusion Reference Document	1	Dec-19	N/A	N/A	Retired December 2019
Dynamic Transfer Reference Document	2	Dec-19	Dec-22	Jan-22	RS/ORS
Geomagnetic Disturbance Monitoring Reference Document	2	Dec-19	Dec-22	Jan-22	ORS
Pseudo-Tie Coordination Reference Document	1	Dec-19	N/A	N/A	Retired December 2019
Reference Document and Reliability Guideline Communications Process Document	1	Sep-18	Sep-21	Jan-21	OC Task team
Reliability Coordinator Plan Reference Document	1	Dec-18	Dec-21	Jan-21	ORS
Risks and Mitigations for Losing EMS Functions	1	Dec-17	Dec-20	Jan-20	EAS/EMSWG
Time Monitoring Reference Document	2	Dec-19	Dec-22	Jan-22	RS/ORS

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

NERC Planning Committee Work Plan

2020 – Q1

February 2020

RELIABILITY | RESILIENCE | SECURITY



3353 Peachtree Road NE
Suite 600, North Tower
Atlanta, GA 30326
404-446-2560 | www.nerc.com

Table of Contents

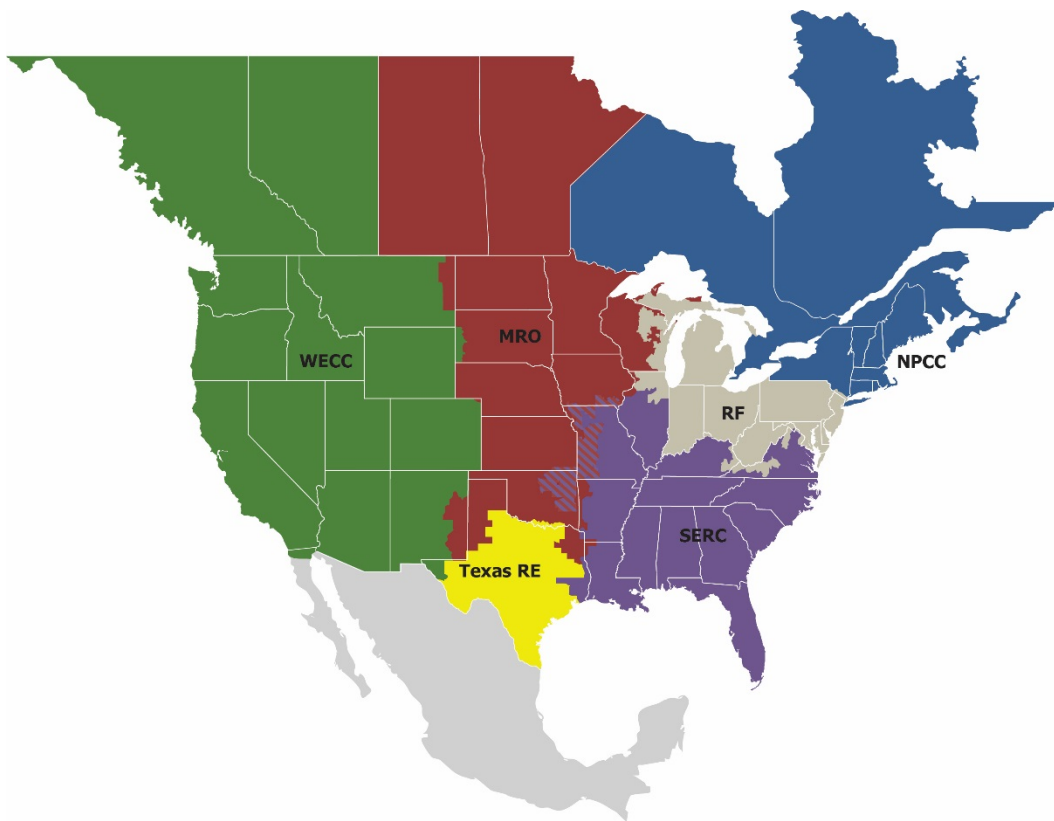
Preface	iii
PC Meeting Schedule	iv
PC Subgroup Organization Chart	v
Chapter 1: PC Subgroup Work Plan	1
Reliability Assessment Subcommittee (RAS).....	1
Probabilistic Assessment Working Group (PAWG).....	1
Performance Analysis Subcommittee (PAS).....	2
Generating Availability Data System Working Group (GADSWG)	2
Transmission Availability Data System Working Group (TADSWG).....	3
Demand Response Availability Data System Working Group (DADSWG)	3
Misoperations Information Data Analysis System Working Group (MIDASWG)	3
Electric - Gas Working Group (EGWG)	4
System Analysis & Modeling Subcommittee (SAMS)	4
Load Modeling Task Force (LMTF)	6
Power Plant Modeling & Verification Task Force (PPMVTF)	7
System Protection & Control Subcommittee (SPCS)	7
Synchronized Measurements Subcommittee (SMS)	8
System Planning Impacts of Distributed Energy Resources Working Group (SPIDERWG)	9
Geomagnetic Disturbance Task Force (GMDTF)	13
Inverter-Based Resource Performance Task Force (IRPTF).....	16

Preface

Electricity is a key component of the fabric of modern society and the Electric Reliability Organization (ERO) Enterprise serves to strengthen that fabric. The vision for the ERO Enterprise, which is comprised of the North American Electric Reliability Corporation (NERC) and the six Regional Entities (REs), is a highly reliable and secure North American bulk power system (BPS). Our mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid.

Reliability | Resilience | Security
Because nearly 400 million citizens in North America are counting on us

The North American BPS is divided into six RE boundaries as shown in the map and corresponding table below. The multicolored area denotes overlap as some load-serving entities participate in one Region while associated Transmission Owners/Operators participate in another.



MRO	Midwest Reliability Organization
NPCC	Northeast Power Coordinating Council
RF	ReliabilityFirst
SERC	SERC Reliability Corporation
Texas RE	Texas Reliability Entity
WECC	Western Electricity Coordinating Council

PC Meeting Schedule

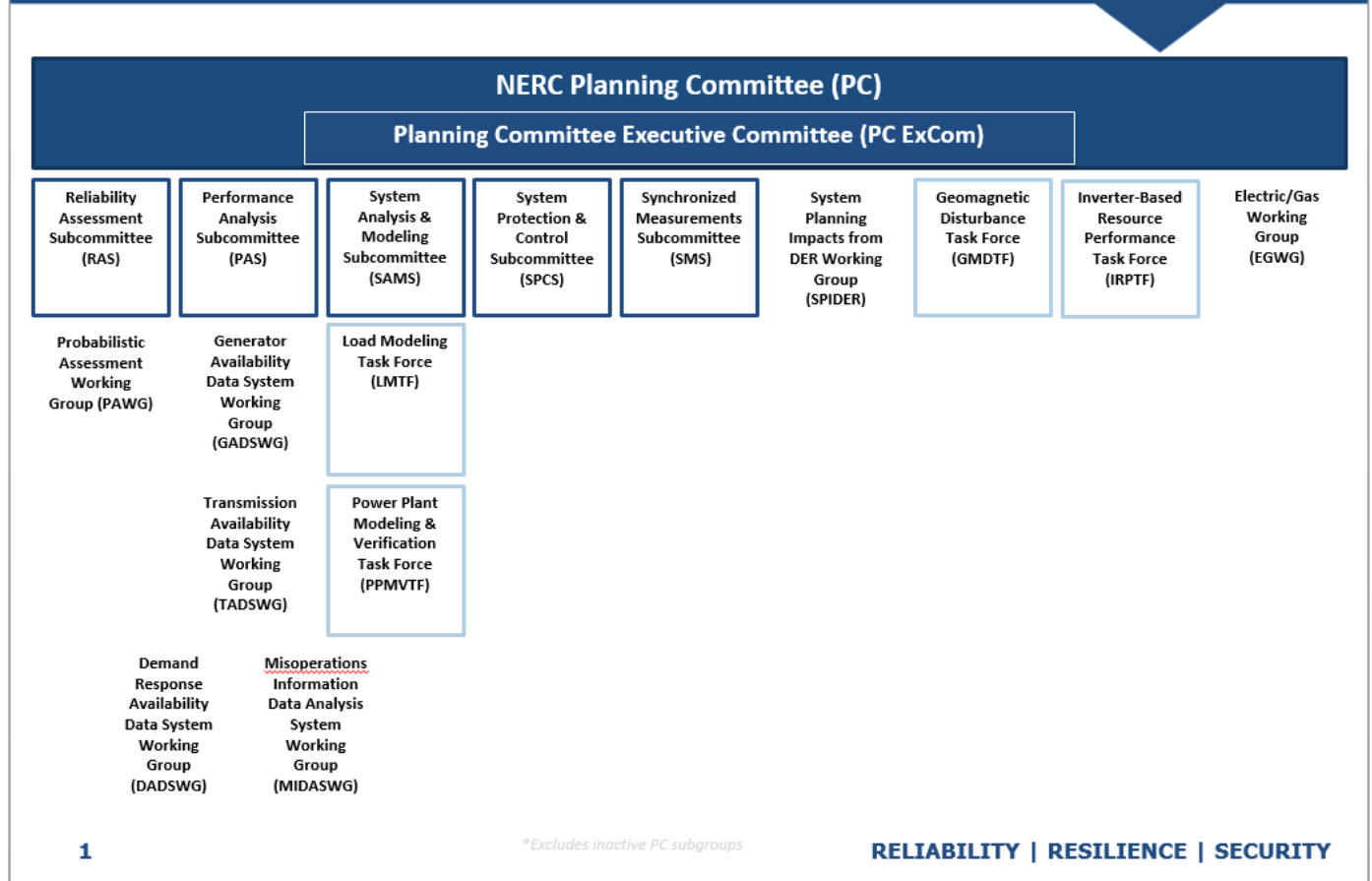
[NERC Calendar](#)

Meeting / Conference Call	Date / Time	Objectives / Goals
PC Executive Committee Web Meeting	January 27, 2020	December meeting follow-up Planning Session for March Meeting Agenda
PC Executive Committee Web Meeting	February 14, 2020	December meeting follow-up Planning Session for March Meeting Agenda
PC Meeting Atlanta	March 3, 2020 1:00-5:00pm (LT) March 4, 2020 8:00am-12:00pm (LT)	Final Meeting of the PC
PC Executive Committee Strategic Meeting Texas RE, Austin	March 31- April 1, 2020	PC Work Plan Detailed Review
Reliability and Security Technical Committee (RSTC) Meeting TBD	June 10-11, 2020	First Regular Meeting of the RSTC

PC Subgroup Organization Chart



Planning Committee Subgroup Organizational Chart – January 2019*



PC Subgroup Work Plan

Reliability Assessment Subcommittee (RAS)

Website: [RAS](#)

Chair: Lewis De La Rosa (12/2019)

NERC Lead: Bill Lamanna

Hierarchy: Reports to PC

Vice-Chair: Anna Lafoyiannis (12/2019)

Scope Update: December 2018

#	Task Description	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
1	2020 Long-Term Reliability Assessment	1, 2, 3	1, 2, 3, 4	4Q-2020	Endorse Link to Schedule	Data requested from NERC Regions. Anticipate RSTC review in September 2020.
2	2020 Summer Reliability Assessment	1, 2, 3	1, 2, 3, 4	2Q-2020	Endorse Link to Schedule	Data requested from NERC Regions. Anticipate PC, OC, and RSTC review in May 2020.
3	Review and provide input to NERC Staff (Advanced System Analytics and Modeling) on NERC Study of Resource Adequacy and Transmission Deliverability	1,3	1, 2, 3	TBD	Information	NERC Staff is studying this issue and working with RAS for industry technical input. RAS and PAWG have provided feedback to NERC on study scope. Opportunities to provide input to NERC staff on analysis an results are anticipated as study progresses.
4	Measure 6 Analysis	1,3	1, 2, 3	TBD	Information	RAS will discuss next steps at April 2020 meeting. White Paper is in development by RAS members.

Probabilistic Assessment Working Group (PAWG)

Website: [PAWG](#)

Chair: Andreas Klaube (1/2019)

NERC Lead: JP Skeath

Hierarchy: Reports to RAS

Vice-Chair: Alex Crawford (9/2019)

Scope Update: December 2016

#	Task Description	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
1	Data collection approaches and recommendations technical report Develop a technical report that describes industry approaches and best practices for probabilistic	2, 3	1, 2, 3	Q2-2020	Approve	Initial draft has been developed.
2	Long-Term Reliability Assessment Enhancement Pilot Study to look at screening approaches to supplement off year probabilistic scenarios.	3	1, 2, 3	Q4 2020	Information	Pilot Study underway. At end of work product, recommendations for adoption in 2021 LTRA to be made to RAS. Proof of Concept given at Q1-2020 RAS meeting. Additional Assessment Areas to incorporate at Q4 2020 deadline. Timeline for incorporation into 2021 LTRA / 2023 LTRA given to RAS in Q1 – 2020 meeting
3	Develop scope and schedule for 2020 probabilistic assessment. Produce the 2020 ProbA.	3	1, 2, 3	Q4-2020	Information	Discussed with RAS at November 2019 meeting. Updated schedule reviewed at joint PAWG-RAS meeting in February 2020. Base ProbA to be in conjunction of 2020 LTRA.

PC Subgroup Work Plan

						Sensitivity scenarios to be complete in Q1 2020
5	Perform periodic Scope Review	NA	NA	Q2 2020	Approve	Discussed revisions with RAS at February meeting. RAS review prior to April RAS meeting.

Performance Analysis Subcommittee (PAS)

Website: [PAS](#)

Chair: Maggie Peacock (09/2018)

NERC Lead: Margaret Pate

Hierarchy: Reports to PC

Vice-Chair: Brantley Tillis (09/2018)

Scope Update: March 2019

#	Task Description	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
1	Close out 2019 metric review.	3,4	1,5	Q2-2020	Information	Complete
2	Conduct after action review focused on how can we, the PAS our work groups, EAS and RS can improve the report. Review aspects such as metrics and deeper dive analysis with the end goal of how to improve our contribution to the State of Reliability report for next year.	3,4	1,5	Q1-2020	Information	In planning phase.
3	Support development of 2020 State of Reliability Report (SoR)	1-4 (2019)	1, 2, 5, 6	Q2 2020	Endorse	In planning phase.
4	Review NERC Reliability Indicators webpage	3,4	1,5	Q3-2020	None	Ongoing improvements.
5	Review and update the Bulk Power System Reliability Performance Metric report and processes.	3, 4	1, 5	Q1-2020	Information	Complete. Comments received and reviewed in the December PAS meeting..
6	Conduct detailed assessments that integrate analytic data trend insights regarding resilience under severe weather conditions, identifying preventable aspects for BPS reliability.	2019 RISC Profile 2	1, 2, 3	TBD	Information	In execution phase. Working to identify cause codes. Sub group formed for both PAS and RAS. PAS obtained data and provided analysis in the 2019 SoR. RAS includes questions in the LTRA narrative request. In addition, updated seasonal assessments include weather-related risks.
7	Review proposed new metrics	1-4 (2019)	5	Q3 2020	Approve	In initiation phase - Pilot metric on severity of transmission outages under development.
8	Define the process for the annual metric review	1-4 (2019)	5	Q1 2021	Approve	On hold until Q3. Process to be developed.

Generating Availability Data System Working Group (GADSWG)

Website: [GADSWG](#)

Chair: Leeth DePriest (01/2018)

NERC Lead: Margaret Pate

Hierarchy: Reports to PAS

Vice-Chair: Steve Wenke (01/ 2018)

Scope Update: September 2018

#	Task Description	Risk Profile(s)	Strategic Focus Area	Target Completion	Requested Action	Status
1	<p>NERC RoP GADS Section 1600 Data Reporting to collect and analyze GADS data:</p> <ul style="list-style-type: none"> Conventional - relevant design data and enhanced event reporting Wind - connected energy storage and event reporting Solar - plant configuration, performance and event data as well as equipment outage detail 	3, 4	1, 5	Q3-2020	Endorse	On track for acceptance phase . Requesting PC authorization to post at March PC meeting.

PC Subgroup Work Plan

#	Task Description	Risk Profile(s)	Strategic Focus Area	Target Completion	Requested Action	Status
2	GADS Wind Data Reporting: Implement mandatory wind reporting	3, 4	1, 5	Ongoing	None	On-track for completion of phased-in mandatory reporting status in 2020.

Transmission Availability Data System Working Group (TADSWG)

Website: [TADSWG](#)

Chair: Dan King (6/2019)

NERC Lead: Jack Norris

Hierarchy: Reports to PAS

Vice-Chair: John Idzior (6/2019)

Scope Update: September 2018

#	Task Description	Risk Profiles(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
1	Investigation of transmission-connected reactive devices (e.g., STATCOMS / SVCs) and their impact on the system; reviewing reactive device information to be collected; likely section 1600 data request.	3,4	1,5	Q4 2020	None	Initiation phase - Engaging with the Canadian Electricity Association, CEA, to understand their data collection process.
2	Review and consolidation of all TADSWG documentation	3	5	Q1 2020	None	Complete.

Demand Response Availability Data System Working Group (DADSWG)

Website: [DADSWG](#)

Chair: TBD

NERC Lead: Donna Pratt

Hierarchy: Reports to PAS

Vice-Chair: TBD

Scope Update: June 2018

#	Task Description	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
1	Research availability of DADS data from other sources to see if there is continued unique reliability value in current collection method.	3, 4	1, 5	Q4 2020	None	Planning phase

Misoperations Information Data Analysis System Working Group (MIDASWG)

Website:

Chair: Michael Bocovich (08/2018)

NERC Lead: Jack Norris

Hierarchy: Reports to PAS

Vice-Chair: Brian Kasmarzik (08/2018)

Scope Update: June 2018

#	Task Description	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
1	Review approved Section 1600 data request and, if appropriate, develop revisions in accordance with NERC Rules of Procedure	4, 5	3, 6	TBD	TBD	Planning phase - MIDASWG developing subgroups to determine if changes to Section 1600 are necessary.
2	Evaluate potential need to develop new or revised defined terms to support Misoperation data reporting	4, 5	3, 6	TBD	TBD	Planning phase
3	Develop training program to assist entities with consistently identifying and reporting Misoperations in MIDAS to improve data quality for analysis.	4, 5	3, 6	TBD	Information	Initiation phase
4	Evaluate additional misoperations calculations for a more comprehensive alternative to the current Misoperation Rate calculation that is currently used.	4, 5	3, 6	TBD	Information	Initiation phase

Electric - Gas Working Group (EGWG)

Website: [EGWG](#)

Chair: Michelle Thiry (01/2019)

NERC Lead: Thomas Coleman

Hierarchy: Reports to PC

Vice-Chair: Todd Snitchler (03/2019)

Scope Update: June 2019

#	Task Description	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
	Development of Reliability Guideline in progress.	1	2,3	Q1 2020	Approve	PCEC authorized posting for industry comment in October. Commenting ended December 18. EGWG will present revised guideline to PC for approval in March 2020.

System Analysis & Modeling Subcommittee (SAMS)

Website: [SAMS](#)

Chair: Hari Singh (06/2018)

NERC Lead: Jessica Harris

Hierarchy: Reports to PC

Vice-Chair: Evan Shuvo (06/2018)

Scope Update: December 2016

#	Task Description / Deliverable	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
1	Node-Breaker Planning Model Representation <i>Support advancement of node-breaker representation in planning models and alignment between planning and operations cases. Perform small scale pilot projects for future implementation of wide-scale construction of planning base case with full node breaker capability.</i>	2, 3	8, 9	Ongoing	Information	Ongoing; multi phase effort underway. SAMS revised and approved the updated "Proposal for Development and Use of NodeBreaker Topology Representations for Offline and Real-time Study Models".
2	Modeling Notifications <i>Developing Modeling Notifications, creating industry announcements and educational webinars on notifications</i>	2, 3	9	Ongoing	None	SAMS approved the modeling notification on "Dispatching DER Off of Maximum Power during Study Case Creation" Ongoing: <ul style="list-style-type: none"> • Composite load model benchmarking • Frequency calculations in stability simulations • Generator capability data for modeling
3	NERC Acceptable Models List <i>Maintain and document for industry list of 'approved models' for powerflow and dynamics; periodic updates to list based on industry advancements.</i>	2, 3	9	Ongoing	Information	On-track; SAMS reviewed and approved the latest updates.
4	Generator Protection Model Implementation and Benchmarking: Implement and benchmark GP3 I new dynamic model in all commercial planning software tools per PCPMTF recommendations	2,3	8,9	Q4-2020	Information	On track; GP3 Model Implementation in Commercial Software Tools Status: PowerWorld - Implemented in Ver. 20, released Nov. 2018 PSLF - Implemented in Ver. 21.06, released Jan. 2019 DSATOOLS - Implemented and released in April 2019 with version 19 PSS/E - Estimated completion by Fall 2020
5	Technical Report: Case Creation Practices (MOD-032-1) for Interconnection-Wide Models <i>Review and assessment of practices (e.g., generation dispatch, demand response, firm</i>	2, 3	8,9	Q3-2019 Survey (COMPLETE)	Information	On track. SAMS has identified a sub team to go through the survey results and share the findings.

PC Subgroup Work Plan

	<i>transfers, demand levels) to identify areas for improvement or consistency.</i>			Report completion Q2 2020		
<u>6</u>	<p>Applicability of Transmission-Connected Reactive Power Resources</p> <p>Develop white paper with technical justification for recommended modifications to Applicability in relevant standards. Develop SAR based on white paper's recommendations.</p>	<u>2, 3</u>	8,9	Q1-2020	Approve White Paper	Complete. White paper approved by PC DEC 2019. SAR endorsed by PC on February 11, 2020.
<u>7</u>	<p>Clarify "Load Loss" terminology</p> <p>Prepare technical brief for diverse audience (regulators & industry executives)</p> <p>Task was assigned by PCEC following PC roundtable discussion/input from IOU sector representative at December 2017 PC meeting</p>	2, 3	8	Q3-2020	Information	SAMS provided draft to NERC OC and received comments. SAMS to address comments and finalize the document.
<u>8</u>	Review reliability guidelines developed by SAMS Task Forces prior to PC approval	n/a	n/a	ongoing	information	Ongoing.

Load Modeling Task Force (LMTF)

Website: [LMTF](#)

Chair: Dmitry Kosterev

NERC Lead: Olushola Lutalo

Hierarchy: Reports to SAMS

Vice-Chair:

Scope Update: December 2016

#	Task Description / Deliverables	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
1	Load Model (Software) Benchmarking	2, 3	9	Ongoing	None	Phase 1 complete--all major software vendors benchmarked composite load model successfully; Additional work on track: beginning implementation and benchmarking of composite load model with DER component and single phase motors.
2	Robust (Default) Data Sets <i>Default datasets to support utilities seeking guidance on reasonable load model parameters (e.g., starting point or no other data available)</i>	2, 3	9	TBD	None	On-track; LMTF will approve new default data set for Phase 2 (single phase motor stalling) parameters. Two data sets were posted, 3 rd data set with relaxed protection setting is under development
3	System Impact Assessment <i>Utility members sharing experience of load modeling and studies; user forum for sharing lessons learned.</i>	2, 3	8, 9	Ongoing	None	On-track; ongoing information sharing.
4	Dynamic Load Modeling in Real-Time Stability Analysis <i>Assessment of industry practices for use of dynamic load models for real-time or operations planning studies</i>	2, 3	8, 9	Q4-2020	None	Delayed due to higher priority topics; Survey released to LMTF members; follow-up and compilation is next step.
5	Progressive Protection System Modeling <i>Testing and studying progressive tripping, reconnection, and stalling modeling approach for improved model performance</i>	2, 3	9	Q4-2020	None	Require modular implementation first (task 10). longer-term goal; beta testing being performed by multiple software vendors.
6	Improved Single-Phase Motor Model	2, 3	9	Q4-2020	None	make model available to software developer for implementation (task 8 is a prerequisite)
7	Improved Three-Phase Motor Model	2, 3	9	TBD	None	On-track, make model available to software developer for implementation (task 8 is a prerequisite)
8	Efficient Data Format & Model Management <i>New data format to modularize dynamic load models</i>	2, 3	9	Q1-2019	None	Beta testing being performed by multiple software vendors. PSLF and Powerworld already capable, PSS/E will need major version release (Verion 35)
9	Modeling Notifications: Composite Load Model Benchmarking. Develop composite load model benchmarking notification to share with industry the completion and usability of the models across all major software platforms.	2, 3	9	TBD	None	TBD
10	Load Composition Analysis (e.g, Buildings, end uses)	2,3	9	On-going	None	On-track; ongoing information sharing.
11	Power Electronics Load, adjustable drive (VFD, ECM) electric vehicle charger models	2,3	9	On-going	None	On-track; ongoing information sharing.
12	Load Model Data Management Tool	2,3	9	On-going	None	On-track; ongoing information sharing.
13	Perform Periodic Scope Review Review approved scope and revise as needed. Provide revised scope to PCEC via SAMS for approval.	PC Charter	PC Charter	Q4 2020	Approval	Not started.

Power Plant Modeling & Verification Task Force (PPMVTF)

Website: [PPMVTF](#)

Chair: Shawn Patterson

NERC Lead: Ryan Quint

Hierarchy: Reports to SAMS

Vice-Chair:

Scope Update: May 2016

#	Task Description / Deliverable	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
1	Power Plant Model Review <i>Review NERC acceptable list of models for power plants, provide guidance to development of list</i>	2, 3, 4	8,9	Ongoing	No	Ongoing
2	Reliability Guideline: MOD-032-1 Generator Data Requests <i>Develop technical guidance material for MOD-032-1 data requests and sharing; in response to NAGF letter seeking guidance</i>	2,3	8,9	Q3 2020	Approve	Moved back date to Q3 2020
3	White Paper: Generator Reactive Capability – Testing, Data, and Coordination <i>A white paper to address the activities relating to MOD-025-2, PRC-019-2, and MOD-032-1 related to testing, coordination, and modeling generator capability; a review of the applicable standards and the effectiveness of those standards in achieving the expected reliability outcomes.</i>	2, 3	4, 9	Q1 2020	Approve	Approved by SAMS; seeking review from NERC PC. PC reviewers are providing comments through Feb 18.
4	Modeling Notification: Frequency Calculations in Stability Studies	1, 2, 3	9	TBD	Information	TBD
5	Modeling Notification: Generator Capability data for Stability Studies	1, 2, 3	9	Q4 2020	Information	Tabled; seeking next steps on MOD-025 white paper first.
6	Perform Periodic Scope Review <i>Review approved scope and revise as needed. Provide revised scope to PCEC via SAMS for approval.</i>	PC Charter	PC Charter	Q1 2020	Approval	Complete. Revised scope approved at January PCEC meeting

System Protection & Control Subcommittee (SPCS)

Website: [SPCS](#)

Chair: Jeff Iler (12/2019)

NERC Lead: Jule Tate

Hierarchy: Reports to PC

Vice-Chair: Bill Crossland (12/2019)

Scope Update: June, 2017

#	Task Description	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
1	PRC-019 Implementation Guidance	2, 3, 4	8	TBD	Endorse	PC reviewers assigned at September PC meeting. SPCS is addressing comments.
2	Standards Authorization Request (SAR): PRC-023-4 – Transmission Relay Loadability	1, 2, 4	2, 4	TBD	Endorse	Reviewers assigned at December 2018 PC Meeting. SPCS is reviewing comments and determining next steps.
3	SAR and Technical Analysis Report: PRC-019-2 – Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection.	1, 2, 4	2, 4	Q1-2020	Endorse	Initial SAR and White Paper returned to SPCS at the September PC meeting for additional justification. Revisions will be discussed at the March PC meeting.
4	Protection System Commissioning Lessons-Learned <i>Errors in protection design documents and/or failure to employ effective commissioning testing practices can lead to protection system misoperations. SPCS will review and revise (as necessary) the 2014 lessons-learned document and conduct industry outreach to increase awareness of the revised lessons-learned.</i>	1 (2019)	8	Q4 2020	Endorse	PCEC reviewed the proposal in Feb 2020.
5	IBR Impacts to BPS Protection Systems <i>Transmission protection practices and systems will need to adapt to the changing nature of the grid. SPCS will develop a technical report on the impacts that BPS-connected inverter-based resources can and are having on BPS protection systems. The report will</i>	1 (2019)	2	Q1 2021	Endorse	PCEC reviewed the proposal in Feb 2020.

PC Subgroup Work Plan

	<i>be coordinated with NERC Inverter-Based Resources Performance Task Force (IRPTF), as needed, to bring protection and inverter experts together. The intent of the technical report is to provide a framework, roadmap, and technical guidance for industry to tackle this challenge.</i>					
6	PRC-024-3 Implementation Guidance <i>Due to changes in PRC-024-3 the Implementation Guidance will require updating to help entities demonstrate compliance with the revised standard.</i>	1 (2019)	8	TBD	Endorse	PCEC reviewed the proposal in Feb 2020. Technical Committee endorsement will be sought following regulatory approval of the revised standard.

Synchronized Measurements Subcommittee (SMS)

Website: [SMS](#)

Chair: Aftab Alam

NERC Lead: Ryan Quint

Hierarchy: Reports to PC

Vice-Chair: Tim Fritch

Scope Update: March 2019

#	Task Description	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
1	White Paper: Inverter-Based Resource Monitoring Task added based on discussions in NERC SMS, and in coordination with NERC IRPTF members.	2, 3, 4	8, 9	Q1 2020	Approve	PC reviewers completed review in Feb 2019. PC requested SMS coordinate with IRPTF for review prior to PC action. SMS coordinated with IRPTF and seeking final approval by PC email vote through Feb 26.
2	Technical Report on Methods for Analyzing and Mitigating Forced Oscillations To address potential reliability impacts from forced oscillation events (e.g., January 2019 EI event), SMS will provide guidance on how RC/TOPs can determine the quantities to be monitored, thresholds to be monitored and the corresponding mitigation actions for consistency in developed operating procedures and mitigation plans.	1 (2019)	8	Q4 2020	Approve	PCEC reviewed the proposal in Feb 2020.

System Planning Impacts of Distributed Energy Resources Working Group (SPIDERWG)

Website: [SPIDERWG](#)

Chair: Kun Zhu (September 2019)

NERC Lead: Ryan Quint, JP Skeath

Hierarchy: Reports to PC

Vice-Chair: Bill Quaintance (July 2018)

Scope Approved: December 2018

#	Task Description	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
Modeling Subgroup (Co-Leads: Irina Green, CAISO; Mohab Elnashar, IESO)						
M1	DER Modeling Survey <i>Perform industry survey of SPIDERWG members regarding use of DER planning models in BPS studies, dynamic load models and DER modeling guidelines.</i>	1, 2	2, 3	Q2-2020	No	Survey sent to SPIDERWG members; currently collecting data and will develop short assessment on findings from survey to be presented to PC/RSTC
M2	Reliability Guideline: DER Data Collection for Modeling <i>Guideline providing recommendations and industry practices for the mandatory and optional DER data to be collected by the Reliability Coordinator as well as on how, where, and when to gather such data.</i> <ul style="list-style-type: none"> Review the documentation of existing data collection techniques and processes that has been developed by the industry. Recommendations for DER data collection technique suitable for various study types. <i>Recommendations for the DER data complexity requirements based on DER penetration levels</i>	1, 2	2, 3	Q2 2020	Yes	Development underway . Focusing on planning aspects with focus on the TPs, PCs, and DPs. <i>(High priority task for SPIDERWG)</i>
M4	Review of MOD-032-1 for DER Data Collection <i>(In coordination with activity C4) Proposing MOD-032-1 SAR to address modifications to the standard to facilitate data collection for DERs for interconnection-wide modeling.</i>	1, 2	2, 3, 4	Q4-2019	Yes	Complete. PC endorsed at December 2019 PC meeting. Provided to NERC Standards staff December 2019.

PC Subgroup Work Plan

Verification Subgroup (Co-Leads: Michael Lombardi, NPCC; Mike Tabrizi, DNV-GL)						
	<p>Reliability Guideline: DER Performance and Model Verification</p> <p><i>Reliability Guideline covering the following topics:</i></p> <ul style="list-style-type: none"> • Recommendations and industry practices for placement of recording devices, acceptable types of recording devices, measurement requirements, and how to use data for performance and model verification • Recommended practices for tracking aggregate DER performance during large BPS disturbances. • Recommendations for leveraging individual DER performance testing to develop aggregate level modeling, and how to perform model verification for aggregate DER performance. • Guidance on how to perform model benchmarking, and when this is needed; benchmarking study results against different software platforms (e.g., positive sequence RMS simulations against more detailed three-phase distribution feeder modeling), and how this can be applied for model verification. • Recommended approaches for localized model verification of individual feeders. • Recommended approaches for accounting for DER in both steady state powerflow and dynamic model verification for system-wide model validation (i.e., MOD-033-1); consideration for DER in model conversion between real-time EMS model and planning model. • Considerations of the ways to aggregate DER data depending on the types of studies being performed. 	1, 2	2, 3	Q2-2020	Yes	<p>On track – draft guideline in development. Timeline moved back slightly based on prioritization of SPIDERWG.</p> <p>(High priority task for SPIDERWG)</p>
V2	<p>Reliability Guideline: DER Forecasting Practices and Relationship to DER Modeling for Reliability Studies</p> <p><i>Guidance providing how forecasting practices are linked to DER modeling for reliability studies. DER forecasting practices are important for accurately representing the correct amount and type of DER, particularly at an aggregate level representation for BPS studies.</i></p>	1, 2	2, 3	Q4-2020	Yes	<p>On track; early stages of development.</p>

PC Subgroup Work Plan

Studies Subgroup (Co-Leads: Peng Wang, IESO; Mohab Elnashar, IESO)						
S1	<p>Reliability Guideline: Bulk Power System Planning under Increasing Penetration of Distributed Energy Resources</p> <p><i>Guideline providing recommendations and industry practices for performing planning studies considering the impacts of aggregate DER behavior.</i></p> <ul style="list-style-type: none"> • Review and documentation of existing study approaches currently used by industry, development of findings and recommendations from these studies incorporating DER. • Review and highlight of DER study practices and known DER impacts from various entities around the world. • Guidelines on how to incorporate and represent DER in planning studies for potential reliability issues, such as selection of study scenarios with system gen/load conditions, and different approaches to incorporate DER in different types of studies. • Guidelines on study assumptions and approaches considering single-phase installation of DER; consideration of co-simulation tools and techniques. • Guidelines on types of reliability issues encountered with high DER penetration and potential solutions to these issues. • Recommended practices and approaches for reporting gross load, net load, and DER tripping/reconnection as part of simulation results. 	1, 2	2, 3	Q2-2020	Yes	<p>On track – draft guideline in development</p> <p><i>(High priority task for SPIDERWG)</i></p>
S2	<p>White Paper: Review of TPL-001 Standard for Incorporation of DER</p> <p><i>White paper discussing technical review of NERC TPL-001-5, and development of any recommendations pertaining to consideration and study of DER impacts to the BPS.</i></p>	1, 2	2, 3, 4	Q1-2020	Yes	<p>PC Reviewers provided comments in January 2020. Draft white paper will be discussed at the March PC meeting.</p> <p><i>(High priority task for SPIDERWG)</i></p>
S3	<p>Recommended Simulation Improvements and Techniques</p> <p><i>Guidance (white paper) to software vendors on tools enhancements for improved accounting and study of aggregate DER.</i></p>	1, 2	2, 3	Q2-2020	Yes	<p>Completion date moved back – needs input from S1 and S4.</p>
S4a	<p>Reliability Guideline: Recommended Approaches for Developing Underfrequency Load Shedding Programs with Increasing DER Penetration</p> <p><i>Guidance on how to study UFLS programs and ensure their effectiveness with increasing penetration of DER represented.</i></p>	1, 2	2, 3	Q2-2020	Yes	<p>Split into two guideline related to specific frequency or voltage subject.</p>

PC Subgroup Work Plan

S5	White Paper: Beyond Positive Sequence RMS Simulations for High DER Penetration Conditions <i>Considerations for high penetration DER systems and the need for more advanced tools (e.g., co-simulation tools) for studying DER impacts on the BPS.</i>	1, 2	2, 3	Q2-2020	Yes	On track.
Coordination Subgroup (Co-Leads: Clayton Stice, ERCOT; Jimmy Zhang, AESO)						
C1	Reliability Guideline: BPS Reliability Perspectives on the Adoption of IEEE Std. 1547-2018 <i>Reliability Guideline of BPS perspectives for adopting and implementing IEEE 1547-2018.</i>	1, 2	2, 3	Q1-2020	Yes	Posted for industry comment period. Comment deadline in February 2020. On March PC Meeting agenda for approval. <i>(High priority task for SPIDERWG)</i>
C2	Reliability Guideline: Communication and Coordination Strategies for Transmission Entities and Distribution Entities regarding Distributed Energy Resources <i>Develop recommended strategies to encourage coordination between Transmission and Distribution entities on issues related to DER such as information sharing, performance requirements, DER settings, etc.</i>	1, 2	2, 3	Q3-2020	Yes	In early stages of development; scoping activities for relatively short/focused guideline in the works; considering breaking into near- and long-term guidance.
C3	Educational Material to Support Information Sharing between Industry Stakeholders <i>Develop material to educate industry stakeholders on practices, recommendations and technical work developed by other industry organizations.</i>	1, 2	2, 3	Ongoing	No	Changed to ongoing task; ongoing work in other groups needed first.
C5	Coordination of Terminology <i>Review of existing definitions and terminology and development and coordination of new terms, for consistent reference across sub-groups.</i>	1, 2	2, 3	Ongoing	No	Tracking use of terminology within SPIDERWG discussions.
C6	NERC Reliability Standards Review <i>White Paper reviewing NERC Reliability Standards and impacts of DER.</i>	1, 2	2, 3, 4	Q2-2020	Yes	Will consider IRPTF review to ensure no duplication <i>(High priority task for SPIDERWG)</i>
C7	Tracking and Reporting DER Growth <i>Coordinated review of information regarding DER growth, including types of DER, size of DER, etc. Consideration for useful tracking techniques for modeling and reliability studies.</i>	1, 2	2, 3	Ongoing	No	In monitoring and data collection stage.

Geomagnetic Disturbance Task Force (GMDTF)

Website: [GMDTF](#)

Chair: Emanuel Bernabeu (12/2017)

NERC Lead: Mark Olson

Hierarchy: Reports to PC

Vice-Chair: Ian Grant (12/2017)

Scope Update: December 2016

#	Task Description / Deliverable	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
1	Final Report on NERC GMD Research Work Plan tasks; Upon completion of research deliverables, the task force will review, comment, and provide an assessment of the research results and outcome <i>Assessment Reports</i> . Plan includes topics listed below (1a – 1i)	3, 7	2, 8	Q1-2020	Information	FERC accepted NERC's GMD Research Work Plan in FERC Order No. 851. EPRI project addresses all GMD Research Work Plan objectives. EPRI report publications are listed below (1a-1h). Final reports for all tasks are on track to be completed in Q1 2020 and discussed with GMDTF at the February 2020 GMDTF meeting.
1a	Task 1: Benchmark GMD Event analysis. <i>The research activities under this task consist of performing further research and analysis on the use of spatial averaging in defining benchmark GMD events that entities use when conducting the GMD Vulnerability Assessments required by the TPL-007 standard.</i>	3, 7	2, 8	Q1-2020	Information	Technical report summarizing database of extreme GMD events released in June 2019: https://www.epri.com/#/pages/product/3002016832/ Final report of benchmark event analysis and spatial averaging in EPRI Publications review for release by March 31, 2020.
1b	Task 2: Latitude scaling analysis. <i>The research activities under this task include evaluating the latitude scaling factors in Reliability Standard TPL-007, including using existing models and developing new models to extrapolate, from historical data, the potential scaling of a 1-in-100 year GMD event on lower geomagnetic latitudes.</i>	3, 7	2, 8	Q1-2020	Information	Technical report in EPRI Publications review for release by March 31, 2020. Interim report released: https://www.epri.com/#/pages/product/3002016885/
1c	Task 3: Improve Earth Conductivity Models. <i>The research activities under this task consist of activities to improve the accuracy of existing earth conductivity models for GIC studies.</i>	3, 7	2, 8	Q1-2020	Information	EPRI Report published January 2019: Use of Magnetotelluric Measurement Data to Validate/Improve Existing Earth Conductivity Models Product ID# 3002014856 Additional technical reports on validation of GIC models and non-uniform geoelectric field modeling are in EPRI Publications review for release by March 31, 2020.
1d	Task 4: Study Geoelectric Field Orientation for Transformer Thermal Impact Assessment. <i>This task will develop an approach for applying the benchmark geoelectric field time series to individual transformers in thermal impact assessments. The research activities under this task will consist of: 1) evaluating the existing approach used to perform transformer thermal assessments; and 2) developing alternative methods of applying the benchmark geoelectric field time series to individual transformers to</i>	3, 7	2, 8	Q1-2020	Information	Technical report in final review with EPRI Publications for release by March 31, 2020.

PC Subgroup Work Plan

#	Task Description / Deliverable	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
	<i>represent worst-case hot-spot heating conditions in transformer thermal impact assessments.</i>					
1e	<p>Task 5: Analyze 75 A per Phase Criterion Used In Transformer Thermal Assessment. <i>Research for this task will analyze the 75A/phase TPL-007 criterion used for transformer thermal impact assessments. The work will:</i></p> <ul style="list-style-type: none"> <i>re-examine the screening criteria and if needed, an alternative criterion will be developed; and</i> <i>study tertiary winding harmonic heating and determine if this affects the thermal screening criteria.</i> 	3, 7	2, 8	Q1-2020	Information	1 of 2 Reports Complete: EPRI Report Published December 2019: Transformer Thermal Impact Assessments for DC Withstand Capability: Examining the Impacts of Geomagnetically Induced Current (GIC) on Transformer Thermal Performance: 3002017708 2 of 2 Reports is in EPRI Publications review for release prior to March 31, 2020.
1f	<p>Task 6: Support NERC Section 1600 Data Request <i>The activities under this task consist of developing the necessary guidance, technical guidelines, and solutions to support a request for data or information under Section 1600 of the NERC Rules of Procedure for the collection of existing and new GIC data and magnetometer data. The purpose of this data collection is to respond to FERC's Order No. 830 directive to collect GMD monitoring data and to make that data publically available.</i></p>	3, 7	2, 8	Q1-2020	Information	EPRI Support ongoing. Data Reporting Program is addressed in task 2.
1g	<p>Task 7: Calculate Ground Model Scaling Factors (Beta-factors). <i>The activities under this task are focused on calculating earth conductivity scaling factors (beta factors) as necessary to meet the needs of the industry. This includes the following: benchmark of electric field estimation results against available scientific and industry algorithms; production of beta factor averages over improved 1D regions; and determination of beta factor ranges from differences in magnetic field orientation, spectral content, and 3D contributions.</i></p>	3, 7	2, 8	Q1-2020	Information	EPRI Report Published January 2019: Tool Evaluation and Electric Field Estimate Benchmarking Results Product ID# 3002014853 Report with calculated Beta factors in EPRI Publications review for release by March 31, 2020.
1h	<p>Task 8: Improve Harmonics Analysis Capability. <i>The activities under this task consist of developing harmonics analysis guidelines and tools for entities to use in performing system-wide assessment of GMD-related harmonics.</i></p>	3, 7	2, 8	Q1-2020	Information	Complete. EPRI released beta-version of a software application for wide-area GMD-related harmonics analysis in January 2019. An update was published in December 2019: 3002014854 The tool is available to the public free of charge. A report describing the tool and functionality was published in December 2019: 3002017447
1i	<p>Task 9: Harmonic Impact Studies. <i>The activities under this task support understanding the impacts of vibrations due to GMD-related harmonics on power system equipment. The impacts of transformer heating are covered in detail in Task 4 and Task 5 of the Work Plan. The activities under this task will provide insight into the magnitudes of vibrations in power transformer tanks caused by GIC and assess the impact of these vibrations on the health of the</i></p>	3, 7	2, 8	Q4-2019	Information	Complete. 1 of 2 EPRI Report Published January 2019: Transformer Vibration Analysis Product ID# 3002014855 2 of 2 EPRI Report published December 2019: Geomagnetic Disturbance

PC Subgroup Work Plan

#	Task Description / Deliverable	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
	<i>transformer. This task is in response to FERC's request to NERC to address the effects of harmonics on transformers.</i>					Harmonic Impacts and Asset Withstand Capabilities (Generator impact update): 3002017707
2	Develop a Data Reporting Instruction for entities to collect and report GIC and magnetometer data as specified in the ROP Section 1600 Data Request	3, 7	2, 8	Q2-2020	Information	PC Review January 14 – February 14, 2020. GMDTF will discuss comments at February GMDTF meeting and develop revisions. NERC IT staff is developing the data reporting application for implementation before year-end 2020.
3	GIC Monitoring and Magnetometer Data Collection Assessment; recommend how NERC should assess and report on the degree to which industry is following Section 1600 Data Request and guidance for GIC monitoring. (Guidance for GIC monitoring was developed by the GMD Standards Drafting Team as part of revisions to TPL-007). (Ref P. 88) <i>Plan for reviewing GIC data</i>	3, 7	2, 8	Q3-2020 (process)	Information	Process will be included in the DRI.
4	Assess industry needs for capabilities to perform GMD-related harmonics analysis to support implementation of TPL-007 and identify best practices. <i>EPRI Software Tool was developed as part of the GMD Research Plan. GMDTF also considering need to develop technical guidance (Implementation Guidance/guideline)</i>	3, 7	2, 8	Q1-2020	Information	Complete. GMDTF members supported tool development. The GMDTF does not have guidance for harmonics impact assessment beyond this tool and currently available technical information.
5	Analyze data from GMD events collected under the GMD Data Request and other necessary information to further understand GIC effects on BES facilities. Summarize observations, including observations on GIC modeling.	2018 RISC Profile 7	2	Q4-2020	Information	Activity is from 2018 RISC Report. Requires implementation of the Sect 1600 data request.
6	Develop guidance for industry use in performing supplemental GMD vulnerability assessments required by approved standard TPL-007-2 (i.e., the supplemental GMD event). The approved standard provides a brief description of some approaches. However more technical detail is needed. Furthermore, other approaches being considered by entities should be documented and vetted. <i>Propose development of implementation guidance</i>	2018 RISC Profile 7	2, 3	Q2 2020	Endorsement	No longer required. Implementation Guidance was developed by GMD SDT as part of Project 2019-01 – Revisions to TPL-007-3.
7	Perform Periodic Scope Review Review approved scope and revise as needed. Provide revised scope to PCEC for approval.	PC Charter	PC Charter	Q2 2020	Approval	GMDTF is reviewing scope at the February 2020 meeting.

Inverter-Based Resource Performance Task Force (IRPTF)

Website: [IRPTF](#)

Chair: Al Schriver

NERC Lead: Ryan Quint; Rich Bauer

Hierarchy: Reports to PC and OC

Vice Chair: Jeff Billo

Scope Update: June 2017

#	Task Description	Risk Profile(s)	Strategic Focus Area(s)	Target Completion	Requested Action	Status
1	Modeling and Simulations Technical Report <i>Findings, recommendations, and experiences modeling and studying inverter-based resources; information from NERC Alert data collection; generation interconnection studies; IRPTF stability studies</i>	1, 2, 3	2, 3	Q2 2020	Approve	Report in progress. Requesting PC reviewers at March PC meeting.
2	<i>Canyon 2 NERC Alert Follow Up – Modeling and Simulation Follow up work with entities to ensure accurate and appropriate models are being used for local and interconnection-wide studies and base case creation. Engagement with MOD-032 Designees, Planning Coordinators, Transmission Planners, and Generator Owners to ensure accurate modeling. Follow up with the proposed changes and execution of those changes.</i>	1, 2, 3	2, 3, 6	Ongoing	None	Regular updates on industry progress to address modeling issues identified in Canyon 2 Fire disturbance NERC Alert. Coordinating with WECC SMAG.
3	<i>IEEE p2800 Monitoring and Support Monitor and support the activities of IEEE p2800, and provide technical expertise and input as requested.</i>	1, 2, 3	2, 3	Ongoing	None	Ongoing, as needed.
4	White Paper: Fast Frequency Response Fundamentals and BPS Reliability Needs <i>Short white paper to provide recommended terminology and definitions for discussing fast frequency response, low inertia systems, and other relevant concepts. In coordination with other NERC groups and CIGRE/IEEE activities.</i>	1, 2, 3	2, 3	Q1 2020	Approve	PC reviewers assigned in December 2019. Review through January 2020. Requesting PC approval at the March PC meeting.
5	White Paper: Coordinated Review of NERC Reliability Standards, and Applicability and Clarity of Standards to Inverter-Based Resources <i>A cursory review and documentation of potential standards that could be improved or strengthened to add clarity and consistency for inverter-based resources.</i>	1, 2, 3	2, 3, 4	Q1 2020	Approve	PC reviewers assigned in December 2019. Review through January 2020. Requesting PC approval at the March PC meeting.
6	Review IRPTF Scope <i>Develop revised scope document that reflects current group activities</i>	1, 2, 3	2, 3	Q4 2020	Approve	Revised scope developed and provided to NERC PC and OC for approval. PC leadership is recommending RSTC consider IRPTF scope as part of its technical committee review.
7	Technical Report: Energy Transition to Higher Penetrations of Inverter-Based Resources <i>Develop a technical report outlining a roadmap to ensuring BPS reliability under increasing penetration of inverter-based resources; discussion of issues and possible solutions to these issues.</i>	1, 2, 3	2, 3	Q4 2020	Approve	PCEC agreed with new work proposal December 2019.
8	Reliability Guideline: EMT Modeling and Studies <i>Positive-sequence models are utilized to represent generator resources in typical dynamic stability tools used by power system engineers in various studies. However, these models contain certain simplifications for inverter-based resources (IBRs) that may lead to erroneous results under certain system conditions (e.g., low system strength). The reliability guideline will provide guidance on when and how an entity should be performing EMT analysis. This reliability guideline will build off of the previously developed reliability guidelines by IRPTF.</i>	1, 2, 3	2, 3	Q4 2020	Approve	PCEC agreed with new work proposal December 2019.

PC Subgroup Work Plan

1 1	<p>Reliability Guideline: Battery Energy Storage and Hybrid Plant Performance and Modeling</p> <p>Battery storage systems are increasing in size and number. Further, use of hybrid resources is increasing. There is lack of guidance and expertise on how to model and simulate these types of new resources in interconnection studies and planning assessments. The IRPTF will develop a reliability guideline that outlines recommended practices.</p>	1, 2, 3	2, 3	Q4 2020	Approve	<p>PCEC agreed with new work proposal December 2019.</p>
--------	---	---------	------	---------	---------	--

Priority (H, M, L)	Group	Subgroup	Task Name	Task Description / Notes	RISC report	ERO LTS
H	Executive Committee	New WG	Charter a "CIP forum" working/outreach group (under RSC or E-ISAC)	Maintain and expand relationships established by CIPC with federal partners, labs, trade groups, research groups, cross-sector entities, international entities, including Canadian center for cybersecurity		Value #3 Focus #2 Focus #4
H	Operating Security	Supply Chain Working Group (SCWG)	Considerations for GMD EMP purchasing		2.3	
H	Operating Security	Supply Chain Working Group (SCWG)	Additional short-papers based on feedback from existing work products.	CIP-013 implementation date is July 1, and SCWG should stand ready (before/after) to address asset owner concerns or gaps		Focus #1 Focus #2
M	Operating Security	Compliance Input Working Group (CIWG)	Protection considerations for information traditionally shared between entities (modeling, load-flow, one-lines)	Perhaps a joint effort with OC?	1.1	
M	Cyber Security Physical Security	New TF	Utility Essential Security Practices Whitepaper	Guidance for cyber/physical security protections for non-CIP utility technologies such as inverters, synchrophasers, natural gas SCADA, etc. (Resources aligned with Electric-Gas Working Group (EGWG))	4.4	
M	Physical Security	New TF	Attack scenarios on midstream or interstate natural gas pipelines	Joint effort with OC/PC	3.1	
M	Operating Security	New TF	Development of planning approaches, models and simulation approaches that reduce the number of critical facilities	Joint effort with PC/OC	3.6	
M	Cyber Security Physical Security	New TF	Response to GridEx V lessons learned	Placeholder for anticipated work items stemming from the bi-annual GridEx lessons learned	4.3	
M	Executive Committee	Security Training Working Group (STWG) or Reliability Issues Steering Committee (RISC) or Reliability and Security Technical Committee (RSTC)	Hold periodic emerging technologies security workshops	RSTC action item		
L	Operating Security	Compliance Input Working Group (CIWG)	Security or implementation guidance for cloud-based EAMS and PAMS	In support of CIP development efforts pertaining to virtualization issues		Focus #2
L	Operating Security	Compliance Input Working Group (CIWG)	Examine high risk violations for implementation guidance opportunities	CIWG can identify opportunities but may leverage Cyber or Physical workgroups to assist development		Focus #1
L	Cyber Security Physical Security	New TF	Cyber-Physical Resiliency Task Force	Address resiliency issues identified through the RISC report and ERO LTS		Focus #2
L	Operating Security	New TF	Support ERO internal controls initiatives (whitepapers, compliance guidance)			
L	Cyber Security	Remote Access Guideline Task Force (RAGTF)	Update CIPC remote access guideline	Update remote access guideline taking (as input) the NERC remote access study, filed with FERC in 201x		Focus #2

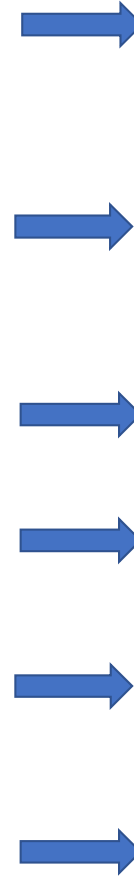
RISC Report Section			
G r i d T r a n s f o r m a t i o n	E x t r e m e N a t u r a l E v e n t s	S e c u r i t y	C r i t i c a l I n d e p e n d e n t e n c e s S t r u c t u r e

* it would be part of the EC member's responsibility to review the RISC Report for the subject area they are responsible for and to engage their subject area teams to enable appropriate coverage



RSTC Executive Committee Liaison (Service and Triage Functions)

* RSTC EC's duties include being a triage function enabling coordination of RISC Report activities to the various subject areas
 * EC member also enables the work loads between the respective subject area teams and the RSTC
 * EC is currently slated for 6 members, each member could administer an subject area



Subject Areas	Rolled Over teams
Technical Services & Modeling	SPCS SMS IRP Load Modeling SAMS
Resources	SPIDER PPMV ORS RS Physical Security
Assessments and Analysis	RAS PAS including GADS, TADS, & MIDAS EG PA
HILF	GMD EMP
Security	Compliance Input Supply Chain Security Metrics Security Controls Security Training GridEX (as needed)
Event Analysis	EAS

* Current leaderships, work plans, and deliverables are maintained as presently identified but could change or updated in time
 * At this time, it appears that the DADS WG could be disbanded.

October 2, 2019

Mr. Greg Ford, Chair
NERC Member Representatives Committee

Dear Greg:

I invite the Member Representatives Committee (MRC) to provide policy input on an issue of particular interest to the NERC Board of Trustees (Board) as it prepares for its November 5, 2019, meetings in Atlanta, Georgia. In addition, policy input is requested on items on the preliminary agendas for the quarterly Board, Board Committees, and MRC meetings. The preliminary agendas are included in the [MRC Informational Session agenda package](#) (see Item 1) and are attached hereto (**Attachment A**). As final agenda packages with background materials are posted after policy input is due, the MRC's agenda includes an opportunity for MRC members to provide additional input to the Board on the final agenda and materials. **As a reminder, please include a summary of your comments in your response (i.e., a bulleted list of key points) for NERC to compile into a single summary document to be provided to the Board for reference, together with the full set of comments.**

Reliability and Security Technical Committee Proposal

NERC is reviewing the effectiveness and efficiency of ERO Enterprise operations in an ongoing effort to advance its mission. The stakeholder engagement team (SET)¹ was created to improve the effectiveness and efficiency of how stakeholders engage with NERC to advance its critical reliability and security mission. Given the nature of NERC's model and the criticality of industry expertise to the ERO's success, enhancing the effectiveness of stakeholder participation to address the rapidly changing industry is the primary objective of the initiative, while also assessing efficiency given all of the other demands on participants and staff.

The SET reviewed the existing NERC technical committee structure (Critical Infrastructure Protection, Operating, and Planning) and developed recommendations for improving their effectiveness and efficiency. Based on the SET's detailed review, as outlined in the attached Reliability and Security Technical Committee (RSTC) Proposal (**Attachment B**), the SET is recommending replacing the three existing technical committees with a single RSTC. This committee would report to the Board and focus on managing the work of the subcommittees, working groups, and task forces organized to address specific risks to reliability and security.

¹ The SET is comprised of members of the Board, leadership and representatives from the MRC, the chairs of the technical committees, other stakeholder volunteers, and representatives from NERC executive leadership, legal, and staff.

3353 Peachtree Road NE
Suite 600, North Tower
Atlanta, GA 30326
404-446-2560 | www.nerc.com

In July and August, the Board sought policy input from the MRC and the SET sought comments from industry regarding the proposal. Based on the policy input and comments, the SET developed responses and made conforming revisions to the proposal (incorporated in the attached), including the participation model and transition timeline. As detailed in the RSTC Proposal and summarized in the [MRC Informational Session agenda package](#) (see Item 2a), the SET revised the participation model to include two elected members per sector and reduced the number of At Large members from 20 to 10 (any unfilled sector seats will be filled by At Large members). The SET is recommending a transition plan with RSTC members appointed by the Board in February 2020 and an overlap between the RSTC's first meeting (March 2020) and the OC's, PC's, and CIPC's final meeting (June 2020). To facilitate this transition, the SET created a nominating committee to propose the initial RSTC chair and vice chair to the Board, after soliciting suggestions from stakeholders. Under the revised proposal, subsequent RSTC officers will be selected by the RSTC.

At the Board's November meeting, the Board will consider accepting the proposal and approving the RSTC Charter (**Attachment C**) and transition plan (included in the proposal). If approved, the Board will also look to appoint the initial chair and vice chair, as recommended by a nominating committee appointed by the SET.

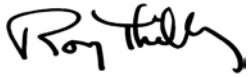
The Board requests MRC policy input on the following:

- 1. The revised proposal to replace the NERC Critical Infrastructure Protection Committee, Operating Committee, and Planning Committee with the RSTC.**
- 2. The proposed participation model of the RSTC.**
- 3. The proposed RSTC Charter.**
- 4. The RSTC transition plan and timeline.**

The Board also notes that the format for the fourth quarter meetings has been adjusted, with all open Board Committee meetings conducted as conference calls and the Board meeting shortened to one hour. The Board agenda will generally focus on Board Committee reports and items for Board action. Of the items the Board will be requested to take action on, I would like to highlight the Electromagnetic Pulse (EMP) Task Force Strategic Recommendations Report. While the Board will be requested to accept the report at its November meeting, there will be an opportunity to provide policy input on the specific recommendations in the report prior to the Board's February meeting when the recommendations will be before the Board for action.

Written comments in response to the input requested above, the preliminary agenda topics, and on other matters that you wish to bring to the Board's attention are due by **October 22, 2019**, to Kristin Iwanechko, MRC Secretary (Kristin.Iwanechko@nerc.net). The formal agenda packages for the Board, Board Committees, and MRC meetings will be available on October 23, 2019, and the presentations will be available on October 30, 2019. The Board looks forward to your input and discussion of these matters during the November 2019 meetings.

Thank You,



Roy Thilly, Chair
NERC Board of Trustees

cc: NERC Board of Trustees
Member Representatives Committee

MEMORANDUM

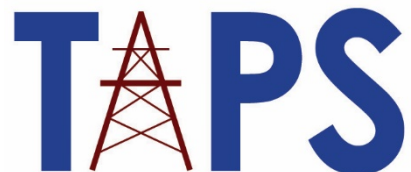
TO: Roy Thilly, Chair
NERC Board of Trustees

FROM: Jack Cashin, Director, Policy Analysis and Reliability Standards, American Public Power Association
John Di Stasio, President, Large Public Power Council
John Twitty, Executive Director, Transmission Access Policy Study Group

DATE: October 22, 2019

SUBJECT: Response to Request for Policy Input to NERC Board of Trustees

The American Public Power Association, Large Public Power Council, and Transmission Access Policy Study Group concur with the Policy Input submitted today by the State/Municipal and Transmission Dependent Utility Sectors of the Member Representatives Committee, in response to NERC Board Chair Roy Thilly's October 2, 2019 letter requesting policy input in advance of the November 5, 2019 NERC Board of Trustees' meeting.



NERC Board of Trustees Policy Input – Canadian Electricity Association

Atlanta, Georgia – November 5, 2019

The Canadian Electricity Association (“CEA”) appreciates this opportunity to provide further policy input to the NERC Member Representatives Committee (“MRC”) and Board of Trustees (“Board”).

CEA thanks NERC and the Stakeholder Engagement Team for its ongoing efforts to ensure that NERC’s stakeholder engagement structure allows it to best realize its mission of ensuring the reliability and security of the grid, and adapt as the industry model and reliability considerations evolve.

CEA also appreciates the work of NERC to seek comment on the proposal to restructure the NERC technical committees and its incorporation of stakeholder feedback, particularly the addition of language related to Canadian representation; revisions and clarification to membership and recruitment criteria; and the extended time for implementation of the Reliability and Security Technical Committee (RSTC) model.

Summary of Key Points:

- CEA appreciates NERC’s revisions to reflect industry and stakeholder feedback, especially those related to Canadian representation and ensuring North American perspectives.
- CEA encourages NERC to consider how challenges related to RSTC recruitment and leadership continuity may be best approached, given the cross-cutting nature of the model.
- CEA encourages NERC to consider how challenges related to agenda-setting and issue prioritization may be best approached, given the cross-cutting nature of the model.
- CEA recommends that the RSTC refer matters as appropriate to the E-ISAC for assistance to leverage existing support and resources within NERC for its “Cyber and Physical Security” function.
- CEA encourages NERC to consider how to ensure adequate Canadian membership and mandates to include North American perspectives, when relevant, for the subcommittees, working groups and taskforces the RSTC would oversee.
- CEA encourages NERC to ensure that proposals arising from this restructuring, and from overall effectiveness and efficiency initiatives, complement and reinforce each other, and leverage existing areas of support within NERC.
- CEA is supportive of the policy input letter comments submitted by Lloyd Linke in his role as representative of the Portion of Sector 4 representing the Federal Utilities and Federal Power Marketing Administrations.

Proposal for Restructuring NERC Technical Committees

- CEA appreciates NERC's revisions to reflect industry and stakeholder feedback, especially those related to Canadian representation and ensuring North American perspectives. The following comments are offered in the spirit of working to support NERC in fully realizing the potential benefits of the RSTC model and avoiding unintended consequences:
 - **RSTC membership & recruitment**
 - CEA appreciates the revisions to address comments about ensuring balanced representation and expertise.
 - While RSTC may take a cross-cutting approach, many companies are still internally structured through a planning/operations/security model. Under the current model, subcommittee members could work their way up to leadership roles in the three technical committees over time, as expertise in a certain technical area was gained. CEA encourages NERC to consider how working up to RSTC membership may be more difficult under the RSTC model, unless exposure is gained in all three areas, and anticipate appropriate approaches for recruitment, development and leadership continuity.
 - **Agenda-setting and prioritization**
 - With the RSTC model, streamlining could lead to less time and consideration for important issues previously accorded their own committees. At the same time, it could also lead to the inability for the RSTC to adequately focus agendas and attention on the highest priority issues, if there is an inability to prioritize or adequately manage subcommittee and task-group work.

Care must be taken to ensure that issues addressed by the RSTC are well-prioritized, while also guarding against dilution of attention due to a higher number of issues being overseen by one group rather than three.
 - **Cyber and Physical Security**
 - CEA recommends that the RSTC, after it reviews and assesses the horizon for emerging cyber and physical risks in its "Cyber and Physical Security" function, refer matters as appropriate to the E-ISAC for assistance. Doing so would leverage existing support and resources within NERC, including the Physical Security Advisory Group.
 - **North American-wide representation**
 - CEA appreciates the language integrated to ensure Canadian representation on the RSTC. Building on this, CEA encourages NERC to consider how to ensure adequate Canadian membership and mandates to include North American perspectives, when relevant, for the subcommittees, working groups and taskforces the RSTC would oversee. As these subcommittees and groups would conduct most of the technical detail work for the RSTC, it would be beneficial to have this clarified.
 - **Overall effectiveness and efficiency efforts**
 - CEA appreciates the extended implementation and transition period for the RSTC, OC, PC, and CIPC. As part of NERC's overall effectiveness and efficiency initiatives, NERC should take care to ensure that proposals that stem from different parts of this wider endeavor are

developed so that they serve to complement and reinforce each other, and leverage existing areas of support within NERC, as with the “Cyber and Physical Security” recommendation above.

- Other aspects which CEA would encourage NERC to clarify include:
 - Whether the Standing Committee Coordination Group (“SCCG”) will continue in a modified form under the RSC model, or be phased out.

CEA thanks the Board for considering these comments. CEA and its members look forward to continuing the discussion going forward.

Dated: October 22, 2019.

Contact:

Francis Bradley
President & CEO
Canadian Electricity Association
Bradley@electricity.ca



Edison Electric
INSTITUTE

Power by Association

**Policy Input for the NERC Board of Trustees
Provided by the Edison Electric Institute
October 22, 2019**

On behalf of member companies, the Edison Electric Institute (EEI) appreciates the opportunity to provide the following policy input for the NERC Board to review in advance of the meetings in Atlanta. EEI perspectives on bulk power system (BPS) reliability are formed by the CEO Policy Committee on Reliability, Security, and Business Continuity and the Reliability Executive Advisory Committee with the support of the Reliability Committee.

In the October 2, 2019 policy input letter, NERC Board of Trustees Chair, Roy Thilly, seeks input on the Reliability and Security Technical Committee (RSTC) proposal, including the participation model, charter, and transition plan. EEI appreciates the NERC and the Stakeholder Engagement Team efforts to consider and incorporate previous input in developing this proposal. EEI offers the following input for consideration.

- EEI supports the revised RSTC proposal, including the participation model, charter, and transition plan. EEI expects that the proposal should result in a more streamlined approach for addressing risk to the BPS and suggests the NERC Board accept it.
- It is important to ensure effective collaboration and efficient use of all ERO and industry resources. Organizations such as the North American Transmission Forum and the North American Generation Forum are critical to the ERO Enterprise's mission and the RSTC should determine how to effectively engage them.
- EEI suggests renaming the RSTC to the Security and Reliability Technical Committee (SRTC) to prevent confusion with the RISC.

Thank you for the opportunity to provide policy input. As previously stated, EEI supports the proposal and looks forward to working with NERC on this transformative effort.



Sector 8 Policy Input for the NERC Board of Trustees & Member Representatives Committee November 5, 2019 Meetings in Atlanta, Georgia

ELCON, on behalf of Large End-Use Consumers, submits the following policy input for the consideration of NERC's Board of Trustees (BOT) and the Member Representatives Committee (MRC). It responds to BOT Chairman Roy Thilly's October 2, 2019 letter to Greg Ford, Chair of the MRC. Replacing the NERC Critical Infrastructure Protection Committee (CIPC), Operating Committee (OC), and Planning Committee (PC) with a single committee is a challenging undertaking. Large Consumers appreciate the efforts of the stakeholder engagement team (SET) to revise the proposal for the transition to the Reliability and Security Technical Committee (RSTC), especially the participation model and transition timeframe.

SUMMARY

- **Revised proposal for the RSTC** — Large Consumers reiterate the challenges of a functional unit that includes CIPC in addition to OC and PC expertise. However, Large Consumers appreciate that the proposal acknowledges the vast breadth of skills and expertise needed to encompass such wide-ranging fields and that the RSTC composition must include this overall, rather than expect each individual to provide it across all fields.
- **Proposed participation model of the RSTC** — Large Consumers applaud the adjustment to include two representatives per sector and insist this provision remain in place. Large Consumers agree that for purposes of having adequate participation, a sector seat can be converted to an at-large seat on a temporary basis only. However, sector balance must remain an objective during the selection process for any such residual at-large seats.
- **Proposed RSTC Charter** – Large Consumers support the scope of the RSTC charter as outlined in the proposal.
- **RSTC transition plan and timeline** – Large Consumers support a timeline extension and stress that as implementation occurs any subsequent timeline adjustments should be considered to ensure quality is not sacrificed for expediency.

Revised Proposal for the RSTC

Large Consumers believe integrating planning and operating expertise is a more natural fit but including security may stretch the ability of the RSC to function effectively across all three subject matter areas. The process to disassemble standing committees and reorient subcommittees must be mindful of intended and unintended consequences. Standing committees have unique cultures, areas of expertise, and processes that reflect much fine-tuning over the years. These insights, along with transferring other forms of institutional knowledge, warrant careful consideration through a careful RSTC implementation process. Integrating disparate forms of expertise has benefits in a matrix format but the challenges may vary unevenly across different subject matter combinations.

Large Consumers support the improvements in criteria in the participation model, such as not requiring executive experience. Individual requirements should be lax to maximize the flexibility to select specialized expertise for the RSTC as a whole. Unnecessary criteria may preclude the ability to select the optimal composition of the RSTC, which may consist of numerous specialists that do not have much breadth of expertise but are key role players in the RSTC.

Proposed Participation Model of the RSTC

Large Consumers applaud the adjustment to include two representatives per sector and insist this provision remain in place. Large Consumers agree that for purposes of having adequate participation, a sector seat can be converted to an at-large seat on a temporary basis only. However, sector balance must remain an objective during the selection process for any such residual at-large seats. Large Consumers are concerned that, without this provision, sector representation will become skewed and undermine the intent of efforts to revisit the RSTC proposal to provide balance in sector representation.

RSTC Transition Plan and Timeline

Large Consumers support a timeline extension. As implementation progresses, any subsequent timeline adjustments should be considered to ensure quality is not sacrificed for expediency. In particular, avoiding performance disruptions in the transfer to the RSTC may require extended parallel operations with CIPC, OC, and PC. This may necessitate conditions under which the planned June 2020 disbandment of the CIPC, OC, and PC is modified. Anticipating such conditions now will make for easy contingency management in spring and summer 2020, if necessary.

###

TO: Roy Thilly, Chair
NERC Board of Trustees

FROM: Lloyd A, Linke
Federal Utility/Federal PMA Portion Sector 4

DATE: October 22, 2019

SUBJECT: Response to Request for Policy Input to NERC Board of Trustees

The Portion of Sector 4 representing the Federal Utilities and Federal Power Marketing Administrations (Federal PMA), appreciate the opportunity to respond to your October 2, 2019 letter to Mr. Greg Ford, Chair NERC Member Representative Committee, requesting input on certain policy issues. It is clear that the SET delved deeply into the workings of the Technical Committees and developed a streamlined organization to oversee the technical work of the Technical Committees.

The Federal PMA are in support of approving the RSTC proposal. The Federal PMA supported the Board action in reviewing the effectiveness and efficiency of ERO Enterprise operations in an ongoing effort to advance its mission. Members of the Federal PMA participated in the stakeholder engagement team (SET) that was created to improve the effectiveness and efficiency of how stakeholders engage with NERC to advance its critical reliability and security mission. The Federal PMA believe the SET accomplished in meeting the primary objective of enhancing the effectiveness of stakeholder participation to address the rapidly changing industry and also met the objective of assessing efficiency given all of the other demands on participants' subject matter experts and NERC staff.

The Board requested MRC provide policy input on the following:

- 1. The revised proposal to replace the NERC Critical Infrastructure Protection Committee, Operating Committee, and Planning Committee with the RSTC.**
 - a. The Federal PMA is in support of replacing the existing technical committees with proposed RSTC.
 - b. In addition, we believe both RSTC and RISC committees could contribute to establishing the long term strategy of ERO and NERC annual Business Plan. This year the NERC Business Plan and the ERO Long-Term Strategy approval went forward without the input of RISC and RSTC. Modifications to those documents might occur after review by RISC and RSTC.
- 2. The proposed participation model of the RSTC.**
 - a. The Federal PMA believes that the RSTC participation model provides adequate representation of the industry stakeholders. Obviously going forward new items may be identified that will need to be addressed.

- b. The Federal PMA supports the future nomination committee to being made of the industry stakeholders and does not necessarily warrant active participation of the BOT members in nomination and selection. BOT will have the opportunity to vote on the recommended slates.

3. The proposed RSTC Charter.

- a. The charter at its current phase is appropriate to initiate the RSTC committee. The committee members should have empowerment to modify the charter as deemed necessary to be effective. Such modifications would require NERC BOT approval.

4. The RSTC transition plan and timeline.

- a. The current plan outlined in the RSTC sufficiently addresses the need for smooth transition from existing committees to RSTC. The biggest challenge will be establishing a timeline to manage the current work in process and set the new priorities. We also encourage NERC to host the first few meetings of the RSTC in facilities that would not significantly in reduce observers in person participation and to develop additional events to meet the industries desire for collaboration, training and education that has been occurring during the existing technical committee meeting. As these additional events take place and the industry become accustom to the work of the RSTC the number of observers should decrease.



**Policy Input to the NERC Board of Trustees
November 5, 2019, Atlanta, GA
Provided by the North American Generator Forum**

The North American Generator Forum appreciates the opportunity to provide the following policy input in advance of the NERC BOT meeting.

Summary

Item 1: Reliability and Security Technical Committee (RSTC) Proposal

The NAGF appreciates the opportunity to provide policy input for the NERC Member Representatives Committee (“MRC”) and Board of Trustees (“Board”) in response to Mr. Greg Ford’s letter dated October 2, 2019. Overall, the NAGF supports replacing three existing technical committees into a single RSTC.

Discussion

Item 1: Reliability and Security Technical Committee (RSTC) Proposal

The Board requests MRC policy input on the following:

- 1. The revised proposal to replace the NERC Critical Infrastructure Protection Committee, Operating Committee, and Planning Committee with the RSTC.**

The NAGF agrees that the RSTC will improve the effectiveness and efficiency of stakeholder engagement with NERC.

- 2. The proposed participation model of the RSTC.**

The NAGF understands the functional model proposed and would be very interested in participating on the RSC as a means to continue the forums collaborative support of the ERO.

- 3. The proposed RSTC Charter.**

The NAGF supports the RSTC Charter.

4. The RSTC transition plan and timeline.

The NAGF is in agreement with the proposed transition plan and timeline.



NORTHEAST POWER COORDINATING COUNCIL, INC.
1040 AVE. OF THE AMERICAS, NEW YORK, NY 10018 (212) 840-1070 FAX (212) 302-2782

Policy Input
From a Northeastern North American Reliability Perspective
By the NPCC Board of Directors

1. NERC's Reliability and Security Technical Committee Revised Proposal

- The NPCC Board supports the transformation of the NERC Planning, Operating, and Critical Infrastructure Protection Committees to a multi-disciplined Reliability and Security Technical Committee (RSTC).
- The NPCC Board appreciates and supports the participation model for the RSTC that includes: the election of two representatives per industry sector; the assurance of Canadian representation; and the goal of having industry representatives from each Regional Entity and four Interconnections with knowledge of the asymmetric risks to reliability across North America.
- The NPCC Board supports non-voting Regional Entity representative participation at the RSTC meetings to enhance the effective operation of the ERO Enterprise.
- The NPCC Board continues to recommend that WebEx/Teleconference capabilities be provided for the open RSTC meetings in order to support broad and efficient industry access to the discussions.
- The NPCC Board supports the proposed transition plan that initiates regular meetings of the RSTC following the established June 2020 meetings and the disbanding of the Planning, Operating, and Critical Infrastructure Protection Committees thereafter.

*For submittal to the November 5, 2019
NERC MRC and BOT Meetings
Affirmed by the NPCC Board of Directors
October 22nd, 2019*

Cooperative Sector Policy Input to the NERC Board of Trustees
October 15, 2019

The Cooperative Sector appreciates the opportunity to provide policy input to the NERC Board of Trustees (BOT) on the Reliability and Security Technical Committee (RSTC) Proposal that will be discussed at the November 5, 2019 NERC MRC, Board and Board Committee meetings.

Summary of Policy Input – Cooperative Sector

- *Supports the Board approval of the formation RSTC.*
- *Recognizes the efforts of the Stakeholder Engagement Team (SET) to address the concerns and recommendations of industry stakeholders provided through various formal and informal comment opportunities.*
- *Continues to support the need for NERC standing committees to improve their effectiveness and efficiency with the coordination of activities to prevent duplication of efforts that support the ERO Enterprise Strategic Initiatives which focus how it manages its reliability and security mission.*
- *Supports the hybrid participation model which includes two elected members per sector and a reduced number of At Large members from 20 to 10.*
- *Recognizes that the proposed Charter incorporates the nuances of the existing OC, PC and CIPC while providing the guidance needed for the smooth transition of the RSTC.*
- *Agrees with the proposed transition plan and time line that recommends that RSTC members are appointed by the Board in February 2020 with an overlap between the first RSTC administrative meeting in March 2020 and the final meeting of the OC, PC, and CIPC in June 2020. During this period, the RSTC should inventory and evaluate the activities of the existing Technical Committees and the associated underlying committees' structure to determine which activities should continue and how to manage retiring those that are no longer needed.*

Item 1: Revised proposal to replace the NERC Critical Infrastructure Protection Committee, Operating Committee, and Planning Committee with the RSTC

The Cooperative Sector recognizes the efforts of the Stakeholder Engagement Team (SET) to address the concerns and recommendations of industry stakeholders provided through various formal and informal comment opportunities.

- Changing the name of the proposed committee from the Reliability and Security Council (RSC) to the Reliability and Security Technical Committee (RSTC) eliminates the confusion between the existing Reliability Issues Steering Committee (RISC) and this new technical committee.
- The expanded Chapter 4 of the proposal provides the clarity needed to understand the differences between the roles of the RSTC and the RISC.
- The proposal clearly recognizes the importance of the collaboration, training and education and sharing of lessons learned and the need for these activities to continue with the consolidation of the existing technical committees to the RSTC.

Item 2: Proposed participation model of the RSTC

The Cooperative Sector supports the following changes made by the SET:

- The hybrid participation model which includes two elected members per sector and a reduced number of At Large members from 20 to 10.
- Allowing each Sector to elect or appoint its representatives and the arrangement during the annual election to allow for any unfilled seats will become At Large until the term expires.
- Selection of the At Large members after the election of the Sector representatives will provide the opportunity to ensure geographic diversity, size, and subject matter expertise is represented.

- The removal of the requirement for executive level experience for RSTC members.

Item 3: Proposed RSTC Charter

The Cooperative sector recognizes the following on the proposed Charter:

- Incorporates the nuances of the existing OC, PC and CIPC while providing the guidance needed for the smooth transition of the RSTC.
- Provides the clarity needed to understand the functions and deliverables of the RSTC.

Item 4: RSTC transition plan and timeline

The Cooperative Sector supports the following changes/activities of the SET:

- Time line that recommends that RSTC members are appointed by the Board in February 2020 with an overlap between the first RSTC administrative meeting in March 2020 and the final meeting of the OC, PC, and CIPC in June 2020.
- Creation of the nominating committee that proposed the initial RSTC chair and vice chair to the Board
- Clarity in the RSTC proposal that subsequent RSTC officers will be selected by the RSTC.
- Inclusion of initial terms for Sector and At Large members (approximately half of the members for two-year terms and half for a three-year term) and plan for two-year staggered terms after initial term completion.

The Cooperative Sector recognizes that the timeline allows the RSTC to develop a formal transition plan to prepare for its first meeting in June 2020. During this period, the RSTC should inventory and evaluate the activities of the existing Technical Committees and the associated underlying committees' structure to determine which activities should continue and how to manage retiring those that are no longer needed. The evaluation of the Technical Committees must include how to manage the continuation of the partnerships that have been established with industry experts including vendors, academia and utility experts. The NERC bylaws, section 702 (establishing a forum) provides an approach that the RSTC can consider for addressing these relationships.

In addition, the Cooperative Sector expects to participate in a robust discussion on the Electromagnetic Pulse (EMP) Task Force Strategic Recommendations Report understanding that there will be an opportunity to provide additional formal input on specific recommendations in the report prior to the February 2020 Board meeting.

Submitted on behalf of the Cooperative Sector by:

Patti Metro

Senior Grid Operations & Reliability Director

Business & Technology Strategies | National Rural Electric Cooperative Association

o: 703.907.5817 m: 571.334.8890

email: patti.metro@nreca.coop

NERC Board of Trustees

Atlanta, GA

November 5, 2019

Policy Input of the Merchant Electricity Generator Sector

Sector 6, Merchant Electricity Generator Sector, takes this opportunity to provide policy input in advance of the upcoming North American Electric Reliability Corporation (NERC) Member Representatives Committee (MRC) and Board of Trustees (Board) meetings in Atlanta.

In a letter to MRC Chair Greg Ford dated October 2, 2019, Board Chair Roy Thilly requested MRC input on the Reliability and Security Technical Committee proposal. Sector 6 makes the following comments in response.

Key Points

- The Merchant Generators support the updated RSTC model as proposed by the stakeholder engagement team (SET).
- The proposed implementation plan for the RSTC addresses previous concerns about the transition by providing an overlap with the three technical committees to assume their responsibilities.
- The proposed processes and charter created by the SET provide a sound basis for establishing and operating the proposed RSTC and flexibility for creating its own culture.

Sector 6 Comments for Policy Input

The Merchant Electricity Generator Sector supports the updated proposal for the RSTC. The final proposal does a very good job addressing stakeholder concerns regarding sector representation, the transition from three committees to one, and creating a functioning charter. The proposed framework should improve how the RSTC operates with the RISC and allow NERC to address technical risks more effectively.

The Merchant Generators agree with the number of representatives on the RTSC and their selection. The Merchant Generators understand that it can be difficult to balance the needed expertise in operations, engineering, and the numerous CIP functions along with geographic representation and other considerations. The selection of At-large seats as proposed should allow the RSTC to achieve the needed balance to be effective for all stakeholders.

The plan to transition from the three current committees to the RSTC by June 2020 mitigates our earlier concerns. The three-month period where the three committees work with the new RSTC should allow the RSTC to take on the oversight of the subcommittees and working groups.

Implicit in establishing the RSTC is the need for the RSTC to create its own culture. The OC, PC, and CIPC all operate somewhat differently, and the proposal allows the RSTC the flexibility to establish its own culture, hopefully incorporating what has worked best among the three committees.

Sincerely,

/s/

Sector 6 Merchant Electricity Generator Representatives:

Martin Sidor
NRG Energy, Inc.

Sean Cavote
PSEG

MEMORANDUM

TO: Roy Thilly, Chair NERC Board of Trustees

FROM: Jackie Roberts and Kristin Munsch – MRC Sector 9 Small End-Use Electricity Customer Representatives

DATE: **October 22, 2019**

SUBJECT: Small End-Use Sector (9) Response to Request for Policy Input to the NERC Board of Trustees

The representatives to the NERC Member Representatives Committee for the Small End-Use Customer Sector (9) appreciate the opportunity to provide these comments in response to the request in your letter to Mr. Greg Ford dated October 2, 2019.

The Board requested MRC policy input on the following questions regarding the proposed Stakeholder Engagement Team (SET) recommendations to improve the effectiveness and efficiency of how stakeholders engage with NERC to advance its critical reliability and security mission. The BoT requested input on the following four questions:

1. The revised proposal to replace the NERC Critical Infrastructure Protection Committee, Operating Committee, and Planning Committee with the RSTC.

Yes the Small End-Use Sector (9) supports the proposal to replace the NERC Critical Infrastructure Protection Committee, Operating Committee, and Planning Committee with the RSTC to primarily oversee development and implementation of risk mitigating technical solutions through the work of the subcommittees, working groups, and task forces.

Recommendation: At some future date after implementation of the RSTC, the BoT should review the role of the RISC and identify whether the prioritization and identification of emerging BPS reliability risk prioritization functions of the RISC can or should be rolled into the Charter of the RSTC.

2. The proposed participation model of the RSTC.

Yes, the Small End-Use Sector (9) supports the proposed initial seating and participation model of the RSTC.

Clarification request: The SET Report states that the Nomination Subcommittee (NS) of the RSTC will consider sector size when allocating At-Large

representatives. A specific statement regarding the metrics to be used to assess sector size should be provided at some early point in the transition process.

Will the metric be investment in electric delivery assets for instance? If so, this choice would disadvantage end-use and other sectors in serving in at-large roles. It is important to note that the end-use sectors have tremendous amounts of investment in assets which depend on bulk power electricity delivery system to maintain its functionality for sake of the North American economies and society in general. The metric to be used for allocating at-large RSTC members in relation to “sector size” is unclear in the proposal. We note that the reference to sector size is in the SET report, but not mentioned in the RSTC charter as it relates to the NS. We ask that the BoT reconcile this difference upon approval and clarify the intent of sector size and the metric to be used for allocating At Large positions..

3. The proposed RSTC Charter.

Yes, the Small End-Use Sector (9) supports the proposed RSTC Charter with the qualifications and concerns previously noted.

Comment: The Small End-Use Sector (9) notes that there is no explicit provision for remote participation in the RSTC meetings within the RSTC proposed Charter. With a 34 member panel, it may be necessary to offer the option of remote (WebEx) participation in and remote observation of the RSTC proceedings. This step would be in concert with NERC’s openness policies. We note that the RISC, SC and other NERC Committees have open meetings which are available for observation remotely by the public.

4. The RSTC transition plan and timeline.

Yes, the Small End-Use Sector (9) supports the proposed transition plan and timeline and also appreciates the recognition that the original plan for a January 2020 roll-out was too ambitious to be successful.

MEMORANDUM

TO: Roy Thilly, Chair
NERC Board of Trustees

FROM: Carol Chinn
William J. Gallagher
Roy Jones
John Twitty

DATE: October 22, 2019

SUBJECT: Response to Request for Policy Input to NERC Board of Trustees

The Sector 2 and 5 members of the NERC Member Representatives Committee (MRC), representing State/Municipal and Transmission Dependent Utilities (SM-TDUs), appreciate the opportunity to respond to the October 2, 2019 letter to Mr. Greg Ford, Chair of the MRC.

We appreciate the invitation for MRC member sectors to provide input on an important policy and governance matter that is intended to improve the efficiency and effectiveness of NERC and the stakeholder process: the proposal to replace the NERC Critical Infrastructure Protection Committee (CIPC), Operating Committee (OC) and Planning Committee (PC) with the Reliability and Security Technical Committee (RSTC). Herein, the SM-TDUs provide policy input on the proposal and charter.

We look forward to discussing the proposal, along with other agenda package items at the upcoming meetings of the Board of Trustees (BOT), Board committees, and the MRC on November 5, 2019 in Atlanta.

Summary of Comments on Proposal to Restructure NERC Technical Committees

- **Maintaining utility technical expertise will be paramount to the RSTC's success.**
- **SM-TDUs believe the following changes to the proposal will help facilitate maintaining utility expertise and improve the proposal:**
 - **Structured engagement of the OC, PC and CIPC is needed.**
 - **RSTC nominations, selections, and election results need sufficient transparency.**
 - **The two and three-year nomination process needs clarity.**
 - **Timeline dates, such as the sector nomination date need to be revised.**

SM-TDU Comments on the NERC Board of Trustee's Request for Policy Input

The SM-TDUs support NERC's objective to improve effectiveness and encourage NERC to maintain the technical expertise that the three stakeholder committees have long brought to NERC. Stakeholders and their organizations make a significant commitment to participate in technical decisions that affect industry reliability and security. Maintaining that commitment will require that utility organizations continue to see value in the NERC process during the transition to the Reliability and Security Technical Committee (RSTC). Loss of the valuable commitment and connection, even for a brief period, could harm security and reliability.

The SM-TDUs appreciate NERC's consideration of the comments that it received in August on the initial Stakeholder Engagement Team (SET) proposal resulting in the current, *Reliability and Security Technical Committee Proposal*. The current SET proposal incorporates several stakeholder comments to improve the potential effectiveness of the original proposal. Moreover, the current proposal recognizes points made in comments that will require further consideration as the proposal advances.

In the August policy input, the SM-TDUs provided their support for Option 1. SM-TDUs believe that Option 2 has potential value but capturing that potential value of Option 2 will be dependent on taking steps to ensure a measured transition to Option 2 that will maintain the engagement of utility technical experts. SM-TDUs saw value in Option 1 because, under that option, it is clear how utility technical expertise will be maintained. SM-TDUs see the potential value in the Option 2 concept and understand how, with proper implementation, Option 2 may be successful. Therefore, the SM-TDUs believe a measured and effective transition will be required to preserve the appropriate level of stakeholder technical expertise engagement. Maintaining that engagement will ensure the success of Option 2.

The current schedule laid out in the proposal is admirable and SM-TDUs can appreciate the need for expediency and the desire to get the RSTC up and running. However, much as the SM-TDUs have expressed more broadly about efficiency and effectiveness, both qualities are needed, and one cannot undermine the other. Lower costs and speed can be efficient. However, inexpensive and quick does not always lead to efforts that are effective and successful.

The SM-TDUs provide the following observations and suggestions - that we believe are needed to preserve the engagement of industry technical expertise and for Option 2 to be effective.

Engaging the Standing Committees in the Transition

On March 4, 2020 the RSTC is slated to meet for its inaugural meeting to establish the Nomination Subcommittee (NS) and Executive Committee (EC). Moreover, the current proposal states that in March 2020, OC, PC, and CIPC meetings will be held as scheduled and the RSTC will be "encouraged to attend one or more sessions." While it is a positive step to have the RSTC and the OC, PC, and CIPC in the same venue and encouraged to meet, the SM-TDUs believe that the proposal should contain more structure for the RSTC and existing committees to come together on the technical issues and facilitate an effective hand-off of responsibilities. Such structure will preserve the appropriate transition to RSTC and minimize the potential for gaps in coverage.

It is logical to place some structure around the March sessions, and this should be done by OC, PC, and CIPC experts. These groups best know what projects need completion and what is

outstanding. The RSTC will have February to review the OC, PC, and CIPC agendas and request any additional items they would want reports on (or not). It is incumbent upon the SET proposal and NERC's approval, that the proposal offer some structure around the March meetings. Doing so will demonstrate that NERC respects the valuable contributions to the organization that the OC, PC, and CIPC have made.

The OC, PC, and CIPC meetings will offer to the RSTC a pool of technical experts that they will want to select from to work on reliability and security issues going forward. The current proposal, while deferential to the OC, PC, and CIPC March meeting time, does not recognize that the SET and NERC can reach out to the OC, PC and CIPC to facilitate more structure around collaboration that will facilitate a seamless transition. We therefore encourage the SET and NERC to engage with the three current technical committees.

The current SET proposal states that the OC, PC, and CIPC will meet for final work plan approvals and to complete any other approvals in June of 2020. The SM-TDUs believe this is a proper step but will only work if more detail and structure is set out for the March meeting. Also, at the June meetings, the SET proposal states that the OC, PC, and CIPC will be disbanded.

The SM-TDUs believe there is an important step missing in the March to June timeline. There is no readiness assessment. No evaluation is being made to determine if it is indeed time to take the next step in the transition. The RSTC is assembled in 3 months; decides its work in the next 3 months, and the OC, PC, and CIPC are dissolved. The Align project had an expedient timeline that needed to be amended when it was determined that the project was not ready to go live. SM-TDUs admire the expediency of the timeline goals for the RSTC, but believe the effort needs a readiness assessment. Only with such an assessment can it be determined if the transition to the RSTC is indeed complete and ready to move onto the next step on the timeline.

Nominations, Selections, and Election Results Require Sufficient Transparency

The SM-TDUs support the selection of Greg Ford and David Zwergel as the initial RSTC Chair and Vice Chair. In doing so, we would like to offer a procedural recommendation that will establish a best practice seeking to promote transparency as the RTSC moves forward. In the initial selection phase of the RSTC, stakeholders should have access to the full slate of Chair and Vice Chair candidates. Doing so will provide important information to stakeholders as nominations are prepared for the upcoming Sector election and At-Large positions. While it can be assumed that these individuals will likely be nominated as Sector, or as At-Large candidates, knowing that these candidates have been recognized by their peers as potential Chair and Vice Chair candidates provides useful information as stakeholders get ready to elect candidates to serve on the committee.

Similarly, going forward the full slate of nominations that the NS considers for RSTC positions should be posted, as should all nominations and election results.

RSTC Nominations and the Two & Three-year Nominees

For continuity, the proposal describes that member terms for both Sector and At Large representatives will initially be split between two- and three-year terms, which will require Sector and At Large nominees be nominated for the respective term. The NS will resolve any conflicts in terms to ensure staggered terms.

Knowing the service duration for prospective nominees, before posting nominations will be critical in achieving the RSTC diversity regarding technical expertise, region, and sector representation. While the SM-TDUs recognize that the utility that employs the nominee clearly

will have primary say on the nominees' service duration, the company will not typically be the nominating entity. Therefore, we propose that the nomination form require the person making the nomination determine that the person being nominated can serve for either the two- or three-year term. The term being requested, should be on the nomination form.

Generally, the staggered two and three-year terms for RSTC nominees will benefit by providing greater clarity than the level that is provided is in the current proposal and charter.

Nomination Process Start Date

In Appendix D, the proposal timeline states that the NERC BOT will consider approving the Proposal, Charter and Transition plan on November 5, 2019. Following that BOT approval, the Open Sector nomination period opens the next day, on November 6, 2019. This timeline does not leave sufficient time to incorporate any changes to the proposal that may come out of the November BOT meeting or other administrative matters that may require more than a day to address.

The nomination process can best begin when the process around the nominations is clear and posted as final. Therefore, the SM-TDUs recommend delaying the November 6 Open Sector Nomination start date by a week to November 13, to provide time for completion of the final approved proposal as well as allow for resolution of other details that might affect the Open Sector Nomination process, among other things. This will also require pushing out the end of the election process by a week.

Thank you for the opportunity to provide this policy input. We look forward to the discussion at the meetings.

Stakeholder Engagement Team General Themes

The following are the main general themes from the industry comment period
July 12-August 15, 2019

1. The draft suggests the importance of "enhancing stakeholder engagement through the three technical committees" and "achieve a higher level of industry participation". Please explain how eliminating the three technical committees and replacing those with a much smaller (by over 66%) new oversight entity would improve stakeholder engagement.

Response: The SET clarifies that achieving a *higher level of industry participation* refers to the enhancements that the RSC will provide for more senior operators, planners, and security leaders to be involved in a single technical council that oversees the body of technical work. The SET is not proposing reduction in stakeholder engagement opportunity. All of the subcommittees, task forces, and working groups are maintained in the SET's proposal. The SET envisions that RSC meetings will continue to be open, just as OC, PC and CIPC meetings are today. The SET believes the restructuring proposal will provide more effective participation on the critical issues. **Note:** **Need to clarify introduction section of proposal to address this.**

2. In the NERC announcement, NERC says it will seek country diversity. Can you elaborate what is meant by country diversity? Will Canada, United States of American and Mexico all have equal representation in the new oversight committee? Will representation be based on other technical factors? How will country diversity be measured? The RSC should also seek to achieve gender and other forms of diversity. Please explain whether and how these and other such diversity and inclusion goals would be taken into account in the RSC formation.

Response: The SET intends for the RSC to use the representation requirements outlined in the OC and PC Charters regarding Canadian representation based on NEL. "To ensure adequate Canadian representation, the membership to the committee may be increased so that the number of Canadian voting members is equal to the percentage of the net energy for load (NEL) of Canada to the total NEL of the United States and Canada, times the total number of voting members on the committee, rounded to the next whole number." Additionally, the at-large membership provisions, fulfilled using a nominating committee, will support the RSC in maintaining a diverse stakeholder body. The nominating committee can propose at-large members for approval by the NERC board that provide balance in terms of expertise, stakeholder group, region, interconnection, or other factor. The participation model (i.e., sector and at-large composition) and selection processes have been revised to address stakeholder feedback.

3. One member per sector seems inadequate. Moreover, such an approach would eliminate any consistency of leadership between terms, etc., which currently exists under the two year term

duration permitting at least one member with experience to participate at a time. There should be at least two members per sector for continuity and range of expertise. Each sector should be able to choose its own representation.

Response: The participation model (i.e., sector and at-large composition) and selection processes have been revised to address stakeholder feedback. Highlights of the changes include:

- Sector representation has been increased from one to two members for each sector. Each sector elects their own members.
 - A nominating committee appointed by the RSC will fill 10 at-large candidates.
 - If a sector fails to fill their two positions, the open position(s) will become at-large positions and will be filled through the nominating committee process (similar to CCC process – need to update the proposal to reflect different NC).
 - Need to clarify qualifications for members in our proposal document. Could get this from CCC document.
4. RSC Membership definition chart indicates 20 At Large voting members, almost twice the amount of the sector representation. Given that these At Large members have no sector requirements, it is possible that these additional votes may be largely coming from one or two sector

Response: The participation model (i.e., sector and at-large composition) and selection processes have been revised to address stakeholder feedback. Highlights of the changes include:

- Sector representation has been increased from one to two members for each sector. Each sector elects their own members.
 - A nominating committee appointed by the RSC will fill 10 at-large candidates.
 - If a sector fails to fill their two positions, the open position(s) will become at-large positions and will be filled through the nominating committee process
5. Publish the meeting minutes from the meeting where this decision was arrived (trust those are indeed available, if not there is a bigger problem). Conduct additional open and well published meeting dates for industry participation in continued SET discussion.

Response: The SET will create a web page linked from the MRC web page that has all meeting agenda packages and meeting notes.

6. Please explain what is meant by blurring and provide some examples of where this has occurred, so we can better gauge if this is a wide spread problem or if it is isolated.

Response: The RSC Proposal addresses the reality that reliability issues cross boundaries that exist in current technical group scopes, such as BPS planning and BPS operations. For example, inverter-based resources (IBR) can present operating and planning reliability issues, and can even cross scope boundaries within a these broad categories (i.e., within the PC, more than one subcommittee is involved with IBR.) Similarly, GMD and the emerging work on EMP can involve operations, planning and cyber.

7. Membership of the RSC would no longer include a Regional Entity Representative (Sector 11). This Regional Entity Representative may be an RE employee or someone else from a registered entity in a particular RE. The RE Representative provides a regional perspective for the RE that may not be captured by the proposed structure. Footnote 5 indicates that Sector 11 would be non-voting participants at the RSC meetings.

Response: The SET supports maintaining diverse regional perspective in the proposed RSC and believes the proposed participation model, with the enhancements in the revised RSC Proposal document will provide it. The SET is not aware of concerns from Regional Entities (REs) with the absence of an RE voting sector in the proposed participation model.

8. I worry that at-large membership selection will be skewed towards large IOU's. The mechanism proposed does not set a minimum number for representative groups - each sector and each area of expertise.

Response: The participation model (i.e., sector and at-large composition) and selection processes have been revised to address stakeholder feedback. Highlights of the changes include:

- Sector representation has been increased from one to two members for each sector. Each sector elects their own members.
 - A nominating committee appointed by the RSC will fill 10 at-large candidates.
 - If a sector fails to fill their two positions, the open position(s) will become at-large positions and will be filled through the nominating committee process
9. A robust and systematic selection process must be developed and used to ensure the Reliability and Security Council is staffed only by individuals possessing a high level of the appropriate subject matter expertise.

Response: The SET agrees with this comment. For initial membership, the SET will develop a draft skills/knowledge matrix to aid in selecting at-large candidates that bring diverse technical expertise to the RSC. Once established, the RSC membership will develop its own nominating committee for at-large members and will put forth nominees that meet the RSC's criteria in an on-going basis.

10. BPA would like for NERC to implement appropriate metrics in order to measure over a period of time, duration to be determined, the efficiencies and effectiveness gained that would ultimately results to cost savings.

Response: The RSC, as part of the NERC structure, should evaluate the effectiveness and efficiency of the transition to the new council and make any necessary adjustments. The SET will recommend that the RSC review the implementation and evaluate progress toward meeting objectives about one year after inception and develop course corrections where needed. Currently, the OC performs an annual evaluation of its structure and this can be included in the RSC Charter.

11. It is our recommendation that chair and vice chair of each technical committees to be part of initial RSC membership. This will also allow for a more speedy transition after Board approval of the RSC, and it will avoid creation of a gap between the e existing committees disband and when

the new RSC is seated to ensure that review and approval of subcommittee, working group, and task force work products continues without interruption.

Response: The SET agrees that steps should be taken to ensure a smooth transition following Board approval of the proposed restructuring. Current chair and vice chairs of the technical committees can be nominated to be part of initial RSC membership.

12. One of the reasons for the proposal is to reduce costs. This could be accomplished in other ways, such as reducing the number of meetings from 4 to 3. Another option would be to combine the OC/PC and leave the CIPC intact. Over the past few years the OC/PC have been working together more often, and there would be some benefit to be one committee for those topics.

Response: The SET believes the restructuring will provide cost savings for the ERO Enterprise and stakeholders, however cost reduction is not the primary rationale for the proposed restructuring. The restructuring is intended to enhance ERO effectiveness by involving senior operators, planners, and security leaders in a single council that oversees the body of technical work.

13. Will the attendance count be limited? Folks who used to attend past OC, PC, and/or CIPC meetings may all want to attend the RSC meetings. Hence, there could be a potential to have 120+ people in the room at the RSC meetings.

Response: We do not anticipate limiting attendance.

14. The assignment of appropriate, knowledgeable support personnel is essential to the success of any advisory council and associated subcommittees, work groups, and task forces.

Response: The SET concurs. The at-large membership provisions, fulfilled using a nominating committee, will support the RSC in maintaining required knowledge and skills. The nominating committee can propose at-large members for approval by the NERC board that provide balance in terms of expertise, stakeholder group, region, interconnection, or other factor. The participation model (i.e., sector and at-large composition) and selection processes have been revised to address stakeholder feedback.

15. Because the consolidated oversight responsibilities of the RSC will address three major areas of expertise, GSOC recommends that NERC consider expanding sector representation to 2 representatives per sector and reducing the amount of At-Large representatives.

Response: The SET has revised the participation model to include 2 representatives per sector.

16. Add criteria to ensure "balanced representation and expertise" within the RSC. Example criteria language is provided below: sector/At-Large representation shall be balanced through membership of 3 or 4 representatives with operational experience, 3 or 4 representatives with security experience, and 3 or 4 representatives with planning experience; or No more than 25% of the Sector or At-Large representation shall have the same experience-type, e.g., operating, planning, or security. At-Large representation shall be balanced amongst the sectors by ensuring that no more than 4 representatives from one (1) sector occupy seats in concurrent or overlapping terms.

Response: The SET agrees with this concept. For initial membership election/selection, the SET will develop a draft skills/knowledge matrix to aid in maintaining balance. The RSC membership will develop its own nominating committee and will put forth nominees that meet the criteria in an on-going basis.

17. GSOC recommends additional clarification regarding the membership of sectors in the Executive Committee on page 14. Without additional information and/or details, it is unable to evaluate whether there are appropriate controls to ensure balanced sector representation. For example, can the Chair and Vice-Chair be from the same sector? Must the 4 represented sectors differ from the sectors of the Chair and Vice-Chair?

Response: This will be specified in the RSC Charter and will mirror the current OC Charter language.

18. GSOC recommends that clear and consistent voting procedures be defined for the RSC and its associated subcommittees, working groups, and task forces and to ensure that representation is appropriate and balanced.

Response: This will be specified in the RSC Charter and will mirror the current OC/PC Charter language.

19. RSC membership should have a term limit.

Response: The SET has modified the participation model for the RSC, to include increased number of sector-elected representatives. The SET does not believe term limits should be specified.

20. The Membership Selection portion of the proposal should require that the RSC consider inclusion of owners/operators from each region.

Response: The RSC proposal includes consideration of geographic and interconnection diversity for membership. The revised participation model provides for increased sector-elected positions, and a process for selecting at-large members through a nominating committee that seeks to balance the council in terms of expertise, stakeholder group, region, interconnection, or other factor.

21. It would be beneficial to clarify that the RSC meetings will be open for Registered Entity attendance, and not would not be limited to the proposed 30 members.

Response: The SET concurs. The RSC proposal indicates that the meetings will be open.

22. Clarify how the RSC meetings will incorporate the information sharing and awareness that current occurs at CIPC (e.g. through readouts from associated entities; National Labs; EISAC)

Response: The SET anticipates that RSC meetings will include subcommittee reports, Lessons Learned, emerging issues, and other topics as selected by the RSC Executive Committee with RSC and stakeholder input. This is similar to the current practice of the technical committees. The RSC will have authority to develop, coordinate, and schedule agenda topics within their scope, to include information sharing and awareness topics with pertinent stakeholders.

23. If the RSC is pursued in lieu of Option 1, consider an emphasis on technical capabilities of the membership that will collectively address the wide array of issues to be vetted.

Response: For initial membership, the SET will develop a draft skills/knowledge matrix to aid in selecting at-large candidates that bring diverse technical expertise to the RSC. Once established, the RSC membership will develop its own nominating committee for at-large members and will put forth nominees that meet the RSC's criteria in an on-going basis.

24. GTC does not support the SET's recommendation for Option 2 in the proposal. The SET should consider that reducing the three technical committees to a single and much smaller committee will certainly reduce the input of the electric industry at the NERC committee level which will have a negative impact on future new and revised reliability standards. Other Regional Entities' efforts to improve efficiency, at least in SERC's case, resulted in keeping three technical committees. An alternate to Option 2 may be to only combine the PC and OC as many items in these committees overlap, but cyber security rarely overlaps with planning and operations.

Response: Thank you for your comment. The SET believes the proposed restructuring will provide for more senior operators, planners, and security leaders to be involved in a single technical council that oversees the body of technical work. The SET is not proposing reduction in stakeholder engagement opportunity. All of the subcommittees, task forces, and working groups are maintained in the SET's proposal. The SET envisions that RSC meetings will continue to be open, just as OC, PC and CIPC meetings are today. The SET believes the restructuring proposal will provide more effective participation on the critical issues. The overall industry feedback has been supportive of the change.

25. GTC recommends to wait for NERC BOT approval prior to offering input on a transition plan. Whatever plan is approved, NERC should focus on industry engagement as there appears to be less and less actual engagement.

Response: The SET will propose an implementation plan for approval by the Board along with the council charter. The SET is not proposing reduction in stakeholder engagement opportunity. All of the subcommittees, task forces, and working groups are maintained in the SET's proposal. The SET envisions that RSC meetings will continue to be open, just as OC, PC and CIPC meetings are today. The SET believes the restructuring proposal will provide more effective participation on the critical issues.

26. As the current chair of the Supply Chain Working Group (SCWG), the skill set of individuals for each of the current committees is too diverse to expect one individual to understand and stay current in the three major areas of the current committees (OC, PC and CIPC).

Response: The SET does not envision any one individual to possess all of the necessary skills. The participation model and selection process are expected to provide for filling the RSC with a diverse group of industry participants possessing broad skills and knowledge. The subcommittee, working group and task force structure of the existing OC, PC and CIPC will be largely retained.

27. Additionally, and in particular to CIPC, notably absent from the discussion thus far has been any mention of the impact to, or involvement with, the E-ISAC. Their voice should be louder in the

potential loss of stakeholder engagement due to the proposed retirement of the CIPC and their 500+ followers.

Response: See Bill's comments.

28. If the RSC Option 2 proposal is accepted by the BOT, GRE would support a proposal to codify mandatory minimum numbers of operations, planning, and security representatives within the Sector and At Large membership groups. If the sectors are allowed to self-nominate, as proposed by some earlier commenters, this will put additional pressure on the At Large seats to fill any subject matter expertise gaps. The RSC charter must address how these gaps will be identified and addressed.

Response: The participation model and selection process are expected to provide for filling the RSC with a diverse group of industry participants possessing broad skills and knowledge. For initial membership, the SET will develop a draft skills/knowledge matrix to aid in selecting at-large candidates that bring diverse technical expertise to the RSC. Once established, the RSC membership will develop its own nominating committee for at-large members and will put forth nominees that meet the RSC's criteria in an on-going basis.

29. GRE would like to specifically request that stakeholder "forums" be included in the final proposal to replace the concentrated dialog that is an intangible benefit to observers of the quarterly technical committee meetings. The proposed expanded meeting space at the Atlanta offices would make for a cost-effective option for hosting these events.

Response: The SET anticipates that RSC meetings will include subcommittee reports, Lessons Learned, emerging issues, and discussion and forum topics as selected by the RSC Executive Committee with RSC and stakeholder input. This is similar to the current practice of the technical committees. The RSC will have authority to develop, coordinate, and schedule agenda topics within their scope, to include information sharing and awareness topics with pertinent stakeholders. (See above response on agenda setting as well as Bill's comments)

30. Suggest we have OC, PC and CIPC evaluate existing subcommittees and provide a report to RSC in March with recommendations for any structural/topic changes.

Response: The RSC will evaluate the subcommittee structure during the transition period per the implementation plan.

31. The SET should consider proposing how the RSC will coordinate with these other committees. Alternatively, provide background on how coordination has been deficient under the current structure so the RSC can develop mechanisms to enhance coordination in future. Also, given that industry members also participate on non-NERC stakeholder groups (e.g., NATF, GATF, trade associations), the SET should propose that the RSC recognize these other groups and explicitly consider and address potential overlaps.

Response: The RSC proposal document includes a discussion and figures showing the proposed organization of the RSC and technical groups, and relationships within the ERO organization. Relationships with non-NERC stakeholder groups including the NATF and NAGF should be similar to existing relationships that the OC, PC, and CIPC have. The OC currently has standing agenda

items for NAGF and NATF and these groups provide quarterly updates. The RSC will be responsible for coordinating with these groups.

32. It is important that this change doesn't result in less stakeholder involvement or reduces stakeholder benefits. In order to accomplish this it is important that the benefits stakeholders receive from information sharing with national labs, technical reports, security briefings, lessons learned, cyber reports, training, etc. are important and need to continue.

Response: The SET anticipates that RSC meetings will include subcommittee reports, Lessons Learned, emerging issues, and discussion and forum topics as selected by the RSC Executive Committee with RSC and stakeholder input. This is similar to the current practice of the technical committees. The RSC will have authority to develop, coordinate, and schedule agenda topics within their scope, to include information sharing and awareness topics with pertinent stakeholders.

33. With the proposed structure of the RSC to include Subject Matter Experts (SMEs) from differing sectors, regions, and twenty (20) at-large seats, there is a potential for non-subject matter experts to vote on, and affect, RSC issues outside of the SME's area of expertise. SPP encourages the SET to consider an assurance into their process, that the BOT be aware of dissenting votes, and minority positions, on RSC endorsed initiatives.

Response: The draft RSC Charter being developed by the SET for approval by the NERC Board will include voting processes and procedures that are similar to those of the current technical committees. Once established, the RSC can develop revisions to the charter, which could include provisions for voting and reporting dissenting votes.

34. Extend the proposed January 2020 implementation date to ensure details in the implementation plan and charter are addressed in a methodical and transparent manner that allows sufficient time for effective change management.

Response: The SET considered the concerns of the implementation date. A transition period will occur through May, 2020 with a three month overlap of parallel operations between the RSC, OC, PC, and CIPC.

DRAFT Agenda**Reliability and Security Technical Committee**

XXXXXXXXXXXX Y, 2020 | 1:00 – 5:00 p.m. Eastern Time

XXXXXXXXXXXX Z, 2020 | 8:00 a.m. – 12:00 p.m. Eastern Time

Hotel TBD

Address TBD

City TBD

Call to Order**NERC Antitrust Compliance Guidelines and Public Announcement****Introductions and Chair's Remarks****1. Administrative items**

- a. Arrangements
 - i. Safety Briefing and Identification of Exits (Hotel Staff)
- b. Announcement of Quorum
- c. Background Information
- d. Reliability and Security Technical Committee (RSTC) Membership 2020-2023*
 - i. [RSTC Roster*](#)
 - ii. [RSTC Organization](#)
 - iii. [RSTC Charter](#)
 - iv. Parliamentary Procedures*
 - v. [Participant Conduct Policy](#)
- e. Future Meetings

2020 Meeting Dates	Time	Location	Hotel
June 10, 2020	1:00 to 5:00 p.m.	TBD	TBD
June 11, 2020	8:00 a.m. to 5:00 p.m.		
September 15, 2020	1:00 to 5:00 p.m.	TBD	TBD
September 16, 2020	8:00 a.m. to 5:00 p.m.		
December 15, 2020	1:00 to 5:00 p.m.	TBD	TBD
December 16, 2020	8:00 a.m. to 5:00 p.m.		

Consent Agenda – Approve

2. Minutes and other documents*

- a. Meeting minutes/date
- b. Revised Reliability Guidelines/Reference Documents
- c. Revised Scope documents
- d. Revised Strategic Plan
- e. Other

Regular Agenda

3. Remarks and Reports

- a. Remarks - Greg Ford, RSTC Chair
- b. Report of most recent Member Representatives Committee (MRC) Meeting and Board Meeting – Chair Ford

4. RSTC Action Items Review* - Information – Vice Chair Zwergel

5. RISC Profile Updates – February, 2018 and November, 2019 reports (combine common profiles)

- a. List each RISC Report Risk Profile with subcategories:
 - i. Operations
 - ii. Planning
 - iii. Cyber Security
 - iv. Physical Security

6. Subcommittee Status Reports – Select each subcommittee to provide a complete update twice per year? Stagger the meetings for these. (*Half at June/December, Half at March/September*)

- a. Operating Reliability Subcommittee (ORS)*
- b. Resources Subcommittee (RS)
- c. Event Analysis Subcommittee (EAS)
 - i. EMS Working Group
- d. Personnel Subcommittee (PS)
- e. Reliability Assessment Subcommittee (RAS)
- f. Electric-Gas Working Group (EGWG)
- g. Geomagnetic Disturbance Task Force (GMDTF)
- h. Inverter-Based Resource Performance Task Force (IRPTF)
- i. Performance Analysis Subcommittee (PAS)

- i. Demand Response Availability Data System Working Group (DADSWG)
 - ii. Generating Availability Data System Working Group (GADSWG)
 - iii. Misoperation Information Data Analysis System Working Group (MIDASWG)
 - iv. Transmission Availability Data System Working Group (TADSWG)
 - j. Reliability Assessment Subcommittee (RAS)
 - i. Probabilistic Assessment Working Group (PAWG)
 - k. System Analysis and Modeling Subcommittee (SAMS)
 - i. Load Modeling Task Force (LMTF)
 - ii. Power Plant Modeling and Verification Task Force (PPMVTF)
 - l. System Protection and Control Subcommittee (SPCS)
 - m. Synchronized Measurement Subcommittee (SMS)
 - n. System Planning Impacts from Distributed Energy Resources Working Group (SPIDERWG)
 - o. Security Training Working Group (STWG)
 - p. Grid Exercise Working Group (GEWG)
 - q. Supply Chain Working Group (SCWG)
 - r. Physical Security Working Group (PSWG)
 - s. Compliance Input Working Group (CIWG)
7. **2020 Subcommittee Work Plans – Combine this with RISC Profiles?**
8. **Reliability Issues Steering Committee (RISC) Status Report** – Information – Chair Zwergel
9. **EAS Annual Update of Events, Cause Codes and Trends** - Information (*December meeting*)
10. **RSTC Strategic Plan Review Team*** – Approval – Vice Chair Zwergel
11. **Standards Update** – Information – NERC Staff
12. **Task Force Updates**
- a. Inverter-based Resources Task Force – Information – Allen Schriver, IRPTF Chair
 - b. System Planning Impacts from Distributed Energy Resources Working Group (SPIDERWG) Information – Ryan Quint, NERC Staff
 - c. Others?
13. **Forum and Group Reports - Information**
- a. North American Generator Forum – Allen Schriver
 - b. North American Transmission Forum – Ken Keels
14. **Chair’s Closing Remarks**

15. Adjournment

*Background materials included.

Reliability and Security Technical Committee 2020 Calendar

February, 2020

- February 5-6 MRC/BOT meetings; RSTC Appointed
- February 18 - OC/PC/CIPC/RSTC Agendas posted

March, 2020

- March 3 – OC/PC/CIPC Reception and RSTC dinner
- March 4 – Full RSCT meeting, 1-5 PM – Atlanta
- March 24 (1-5 p.m.) – 25 (8 a.m.-Noon) – Meeting/Debrief (Atlanta) with Executive Committee on RSTC meeting; transition plan and June meeting planning
- Late March – Develop BOT Report

April, 2020

- April 18 (8 a.m. – 2 p.m.) – Meeting/Webex (Atlanta) with Executive Committee to discuss transition plan, work plan/establish June 10-11 meeting agenda

May, 2020

- May 12 (9 -11 a.m.) – Meeting/Webex (Washington, DC) with Executive Committee/subcommittee leadership to discuss work plan/establish June 10-11 meeting agenda
- May 13-14 – MRC/BOT meetings
- May 27 – RSTC Agenda posted

June, 2020

- June 10 – Executive Committee / subcommittee leadership meeting 8 - 10 am;
Learning/Informational Session 10 am – 12 pm
- June 10-11 – Full committee meeting – TBD
- Late June – Develop BOT Report

July, 2020

- July 16, 8 a.m. – 2 p.m. – Meeting/Webex (Atlanta) with Executive Committee/subcommittee leadership to discuss work plan/establish September 15-16 meeting agenda

August, 2020

- August 20, 1-5 p.m. – Meeting/Webex (Vancouver) with Executive Committee/subcommittee leadership to discuss work plan/establish September 15-16 meeting agenda
- August 19-20 – MRC/BOT meetings

September, 2020

- September 1 – RSTC Agenda posted
- September 15 – Executive Committee / subcommittee leadership meeting 8 - 10 am;
Learning/Informational Session 10 am – 12 pm

- September 15-16– Full committee meeting – TBD
- Late September – Develop RSTC Board Report

October, 2020

- October 14, 8 a.m. – 2 p.m. – Meeting/ Webex (Atlanta) with Executive Committee/subcommittee leadership to discuss work plan/establish December 15-16 meeting agenda

November, 2020

- November 4-5 – MRC/BOT Meetings
- November 5, 1-5 p.m. – Meeting/Webex (Atlanta) with Executive Committee/subcommittee leadership to discuss work plan/establish December 15-16 meeting agenda

December, 2020

- December 1 – RSTC Agenda posted
- December 15 – Executive Committee / subcommittee leadership meeting 8 - 10 am;
Learning/Informational Session 10 am – 12 pm
- December 15-16 – Full committee meeting – TBD