

Conference Call Agenda System Protection and Control Subcommittee

July 26, 2016 | 1:00 p.m.-3:00 p.m. Eastern

Conference Dial-in Information:

Phone: 1-866-740-1260 | Access Code: 5506033 | Security Code: 072616

Register for Webinar access here: ReadyTalk

Administrative

1. Introductions and Chair's Remarks - Richard Quest

2. NERC Antitrust Compliance Guidelines and Public Announcement* - Katherine Street

Agenda Items

- 1. Agenda (Approve) Richard Quest
- 2. February 2016 Meeting Minutes* (Approve) Richard Quest
- 3. Review SPCS library of Documents for potential inclusion in NERC library and/or updating*

 Phil Winston
- 4. Review of Reliability Standards of Interest Under Development (Discuss)
 - a. 2007-06.2 Phase 2 of System Protection Coordination PER-006-1, Retirement of PRC-001
 - b. 2015-10 Single Points of Failure TPL-001
- 6. **Review of Actions/Assignments** Katherine Street
- 7. Future Meetings

TBD

8. Adjourn

^{*}Background materials are 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.



Public Announcements

Conference call:

Participants are reminded that this conference call is public. The access number was posted on the NERC website and widely distributed. Speakers on the call should keep in mind that the listening audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.



Draft Meeting Minutes

System Protection and Control Subcommittee

February 17, 2016 | 8:00 a.m.-5:00 p.m. Central February 18, 2016 | 8:00 a.m.-12:00 p.m. Central

Oncor Electric Delivery 115 W 7th Street Room 3156 Ft Worth, Texas 76102

Conference Dial-in Information:

Phone: 1-866-740-1260 | Access Code: 5506033 | Security Code: 021716

Introductions and Chair's Remarks

Phil Winston brought the meeting to order on February 17, 2016 at 8:00 a.m. CT. P. Winston welcomed the attendees, and offered the opportunity for the attendees to introduce themselves. P. Winston also notified the attendees that he will complete his term as Chair of the SPCS as of June 2016, and that those interested in the Vice Chair position may contact himself or Richard Quest for further information.

Host Arrangements and Safety

Sam Francis welcomed the attendees, and provided notification of emergency egress and first aid plans.

NERC Antitrust Compliance Guidelines and Public Announcement

Katherine Street reviewed the NERC Antitrust Compliance Guidelines and announced that the meeting was public.

Agenda Items

1. Review and Approval of Agenda

P. Winston reviewed the Agenda Items, the Agenda Items were approved, with the addition of an Agenda Item to discuss reporting of capacitor bank neutral unbalance protection system operations and misoperations, as proposed by George Wegh.

2. Approval of November 11-12, 2015 Meeting Minutes

The meeting minutes from the November 11-12, 2015 SPCS meeting were approved, with a revision to reflect Joe Uchiyama's meeting attendance.

3. Unit Auxiliary Transformer Protection

¹ For a list of meeting attendees, see Attachment 1.



The System Protection and Control Subcommittee (SPCS) requested Planning Committee volunteers to review of the NERC SPCS Unit Auxiliary Transformer Overcurrent Relay Loadability During a Transmission Depressed Voltage Condition report (UAT Report). Brian Evans-Mongeon, Carl Turner, Gary Brownfield, and Herb Schrayshuen reviewed the UAT Report and provided comments for SPCS consideration. During the meeting, the SPCS considered and addressed the comments submitted by the reviewers. The SPCS revised the UAT report draft as appropriate, and created a comment response document that consolidates the comments received, along with the SPCS responses to those comments, to include document revisions. The SPCS is planning to submit the UAT report to the Planning Committee for approval in March 2016.

4. Review SPCS library of Documents for potential inclusion in NERC library and/or updating

Bob Cummings led a discussion reviewing documents produced by the SPCS to evaluate the potential for including those documents in a planned NERC library of technical documents. To facilitate the discussion and review, NERC staff drafted a spreadsheet which lists the SPCS documents currently posted on the NERC SPCS website. K. Street will distribute the spreadsheet to the SPCS subteam tasked for initial review and recommendations (Phil Winston, Jonathan Sykes, Bill Miller, and Sam Francis) with a request that they provide comments and/or suggested revisions if needed following the meeting. K. Street will document and compile any responses received, and distribute to the SPCS for further review.

5. Review of PRC Standards Under Development

The SPCS discussed Reliability Standards Development Projects that are addressing PRC-001 and PRC-027. The complete retirement of PRC-00-1.1(ii) is contingent upon the approval of both PRC-027-1 from Phase 1 (Project 2007-06) and PER-006-1 from Phase 2 (Project 2007-06.2). The Standards Drafting Team held an industry technical conference on February 9, 2016 resulting in attendee consensus that a new personnel standard (i.e., PER-006-1) should be created to address the specific training objective of PRC-001-1.1(ii), Requirement R1.

6. Protection philosophy for devices such as synchronous condensers, SVCs, STATCOMS, etc.

D. Till initiated a discussion of the protection philosophy for devices such as synchronous condensers, SVCs, STATCOMS, etc. During the discussion it was noted that users of these devices need to be knowledgeable as to how the manufacturer-supplied protection schemes operate. Also, by an example presentation, it was noted that the primary and secondary station services sources to these devices needs to consider the impact of the loss of a source.

7. Reporting of Capacitor Bank Neutral Unbalance Protection System Operations/Misoperations²

G. Wegh of Eversource (NPCC Region), initiated a discussion of the issue of Reporting of Capacitor Bank Neutral Unbalance Protection System Operations/Misoperations. The SPCS reviewed a request from G. Wegh to provide interpretation regarding the proper reporting of Capacitor Bank Neutral Unbalance Protection System Operations and Misoperations to NERC, noting that there has been some confusion

² Agenda item 7 added during meeting discussion of Agenda Item 1.



within the various regions as to whether operation of this type of protection system is reportable. The specific issue is whether capacitor bank unbalance protection is considered Bulk Electric System (BES) protection since its primary purpose is equipment protection and not isolation of a fault. The SPCS noted that the NERC glossary definition of a protection system generally includes "protective relays that respond to electrical quantities" and does not limit to fault sensing relays. By this definition, BES capacitor bank unbalance protection operations and misoperations should be reported to NERC as part of the normal quarterly reporting. This guidance is also consistent with guidance previously provided by NERC staff and in the template instructions.

8. Future Meetings

- a. In-Person Meeting:
- Next in-person meeting planned for summer 2016, month to-be-determined.
- b. Interim Conference Calls:
- None planned

9. Adjourn

P. Winston thanked members for their participation and adjourned the meeting.



Attachment 1	
Participant	Entity
Philip B Winston (Chair)	Southern Company
Richard P. Quest (Vice Chair)	Midwest Reliability Organization
Samuel Francis	Oncor Electric Delivery
Mark Gutzmann	Xcel Energy, Inc.
George Wegh	Eversource Energy
William J. Miller	Exelon Corporation
Miroslav Kostic	Hydro One Networks, Inc.
Forrest Brock	Western Farmers Electric Coop.
William T Crossland	ReliabilityFirst
David Greene	SERC Reliability Corporation
Hai Quoc Le	Northeast Power Coordinating Council
David P Penney	Texas Reliability Entity, Inc.
Jonathan Sykes	Pacific Gas and Electric Company
Joe T. Uchiyama	U.S. Bureau of Reclamation
Jeffrey Iler	American Electric Power
Matthew Pacobit	Associated Electric Cooperative, Inc.
Thomas Teafatiller	Southwest Power Pool RE
Katherine Street (NERC Staff Coordinator)	NERC
David Till (NERC Staff)	NERC



Participant	Entity
Brad Gordon(NERC Staff)	NERC
Bob Cummings (NERC Staff)	NERC
Rich Bauer (NERC Staff)	NERC
Tom Bradish (FERC Staff)	FERC
Syed Ahmad (FERC Staff)	FERC