

Agenda Standards Oversight and Technology Committee

May 8, 2012 | 4:45-6:00 p.m. Eastern

Westin Arlington Gateway 801 North Glebe Road Arlington, VA 22203 703-717-6200

Introductions and Chair's Remarks

NERC Antitrust Compliance Guidelines and Public Announcement

Agenda

- 1. Minutes*— Approve
 - a. February 8, 2012 Meeting
- 2. Need for Relief from Interpretation Policy* BAL-002 Discuss
- 3. Status of Standards Process Improvement Group* Discuss
- 4. Reliability Standards Status Report* Discuss
 - a. March 2010 Orders: Review Status of NERC Responses
 - b. Lower Level Facilitating Requirements-FFT Order Paragraph 81
- 5. Standards Committee Report* Information
- 6. NERC Technology Update* Information
 - a. Major 2013 Information Technology Initiatives
- 7. Standards Oversight and Technology Committee Mandate* Review

^{*}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.



Draft Minutes Standards Oversight and Technology Committee

February 8, 2012 | 9:15–10:30 a.m. Mountain

Arizona Grand Resort 8000 S. Arizona Grand Parkway Phoenix, AZ 85044 602-438-9000

Chair Ken Peterson convened a duly noticed open meeting of the Standards Oversight and Technology Committee of the North American Electric Reliability Corporation on February 8, 2012 at 9:15 a.m. local time, and a quorum was declared present. The agenda is attached as **Exhibit A**.

NERC Antitrust Compliance Guidelines

Chair Peterson directed the participants' attention to the NERC Antitrust Compliance Guidelines.

Minutes

The committee approved the November 2, 2011 meeting minutes (**Exhibit B**).

SOTC Self-Assessment Results

Chair Peterson referred to the information contained within the Agenda Package, as well as to the presentation conducted by the consultants from TalentQuest during the Corporate Governance and Human Resources Committee meeting. Chair Peterson noted the results were favorable overall but there were areas for improvement. Chair Peterson advised the committee has a lot of work to do to get to an appropriate level on the Standards area and rethink how the committee oversees the technology area.

Information Technology (IT)

Mr. Marvin Santerfeit, director information technology and services, conducted an update on NERC/ERO IT initiatives and IT developments and plans for NERC.

NERC/ERO IT Initiatives

Mr. Santerfeit reviewed several highlights:

- The Data Center relocation from Princeton to Atlanta is at 95 percent completion and should be fully completed in the near future. Mr. Santerfeit noted that the NERC Washington, DC office also relocated on December 16, 2011 with a relatively seamless transition.
- To improve the ability to gain metrics and evaluate causes of internal system issues or failures,
 the IT department has implemented a single point of contact structure within NERC. There is
 now one phone number to reach IT support, as well as one online system for submitting help
 desk tickets. This allows for centralized reporting that will provide the ability to drill down to
 the causes of failures and allow a more efficient process for corrective measures.



NERC Intranet site has been updated which allows for more user friendly access and internal
use. NERC Public Website was evaluated by Dell over a three week period to review the current
set up and the provide recommendations to NERC on how best to update the site, most
specifically in the search capability. NERC will be continuing to work with Dell, as well as
utilizing Sharepoint in the update process and hopes to have the new site operational by fourth
quarter 2012, first quarter 2013.

Progress on IT Developments and Plans for NERC

In this section Mr. Santerfeit reviewed the status of the Project Management Office (PMO) stating that the infrastructure follows best practices but some applications do not follow best practices, CRATs database an example. Within the PMO, IT will as part of a multi-year strategy be able to pull these areas together and mine data across applications. The end result of the multi-year strategy will be to have a centralized data repository. The PMO has a Team Manager, a Project Manager, and a Business Analyst.

Further, Mr. Santerfeit reviewed the CRATs database which continues to be one of IT's largest challenges. IT is managing the synchronization of the data with the Regions and currently has seven synchronized with the eighth Region to be completed by month end February 2012. The next step is to determine if the best practice is to stop and maintain the existing CRATs application while ensuring stability and then determine the business requirements for new version of CRATs since these requirements have changed over the past several years, create those functional requirements, and then forward bid proposals to vendors to rewrite the application. Compliance Committee Chair Bruce Scherr noted the Compliance Committee reviewed CRATs in their Closed Session on February 7 and are quite concerned at the data inaccuracy, cleanliness of the data, and the regional interface not working as the Committee had though. Would request that NERC look to implement an immediate effort between NERC, the Compliance Committee, and the Regions to ensure accurate data and output is received during the timeline that NERC is determining the next steps for CRATs. Mr. Santerfeit indicated that NERC is working on those solutions and will continue to update both the SOTC and the Compliance Committee.

Concluding this section, Mr. Santerfeit reported that an "Extranet" site is under development for the Regions to have easier access to information and updates on projects.

IDC Transition

Mike Walker, senior vice president and chief financial and administrative officer, reviewed NERC has been facilitating the transition of the IDC and noting NERC is not a user but has been a sponsor over the past few years. NERC will be working with IDC users on transition, to include NERC potentially remaining as the billing agent. An agreement to is being drafted and will be incorporated in the NERC budget subject to Board of Trustees and FERC approval.



Reliability Standards Policy and Guidance

Mr. Schrayshuen presented two items to the committee for policy review and discussion: Generator Operator (GO)/Transmission Operator (TO) and the COM-002 Interpretation.

Generator Operator (GO)/Transmission Operator (TO)

Mr. Schrayshuen provided a brief overview of the background to this standard. Mr. Schrayshuen stated the Ad Hoc report recommendations offers changes to 32 requirements, adding Generator Interconnection Facility to the requirements. The recommendations would affect 12 requirements in FAC-003-1, two requirements expanding applicability to GO/GOP and eight new requirements. Within the report there are also recommended changes to definitions. Mr. Schrayshuen further reported the conclusions of the Standard Drafting Team (SDT) which included:

- Certain requirements are covered by other standards
- Certain requirements will be addressed by standards to be revised or made applicable in the future
- Modifying certain standards is not in the scope of the SDT

At the conclusion of his report, Mr. Schrayshuen offered two policy questions for discussion:

- Should NERC staff hold off filing when future work, that would complete the regulatory package more fully, is pending?
- How best to resolve the question of whether the response of the SDT is complete?

Discussion amongst members in attendance ensued and at the conclusion, Chair Peterson noted the good points presented and looked forward to additional discussion during the Board meeting.

COM-002 Interpretation

Mr. Schrayshuen provided an overview of the background on the COM-002 Interpretation noting the work on the interpretation was initially delayed based on reprioritization of the total standards workload and revision by the Standards Committee's process for addressing interpretations, in April 2011, the Standards Committee Interpretation Guidelines were approved, and noting the Standards Committee initiated a plan to simultaneously address three part communication protocols through the interpretation of COM-002-2 as Project 2009-22 and through Project 2007-02 Operating Personnel Communications Protocols COM-003. Mr. Schrayshuen stated, if enacted, the Interpretation will put Operators in the position of having to change their communications approach during an emergency and the compliance concern is that it will create an unnecessary level of confusion for registered entities and compliance auditors.

Mr. Schrayshuen further reviewed that a Level 1 Appeal was received in August and a return response was provided, both the Level 1 Appeal and the response are contained within the Agenda Package. The essence of the appeal was to give immediate priority to this Interpretation and thus it's been accelerated and presented today for discussion and for approval on the Board agenda.



Mr. Schrayshuen advised that there were no specific policy questions presented before the committee but welcomed any questions or comments. Discussion amongst members in attendance ensued and at the conclusion, Chair Peterson noted the good points presented and looked forward to additional discussion during the Board meeting.

Reliability Standards Status Report

Due to timing Chair Peterson referenced the Reliability Standards Status report in the Agenda package and asked if there were any comments/questions by the committee; there were none. (**Exhibit D**).

Standards Committee Report

Mr. Mosher presented highlights from his report contained in the Agenda package. Chair Peterson asked if there were any comments/questions by the committee; there were none. (**Exhibit E**).

Closing Remarks

In closing remarks, Chair Peterson previewed an area that needs continued focus, the ability of the Standards staff to continue to respond to the insurmountable number of comments received on any one specific standards item. Current expectation by industry is for comments to not only be responded to but the response meet their satisfaction. As the number of comments continues to increase the expectation that every comment can be answered and/or satisfied is not sustainable. Chair Peterson requests that the committee, NERC staff, and industry consider applicable options that would help address this area of concern.

There being no further business, Chair Peterson adjourned the meeting at 10:30 a.m.

Submitted by,

Herb Schrayshuen

Vice President

Director of Standards and Training

Marvin Santerfeit

Director Information Technology and Services

er Stehnysluen

Need for Relief from Interpretation Policy – BAL-002

Action

Policy request – provide relief from the "strict construction" policy of November 2009 with respect to this single interpretation project.

Background

On January 17, 2012 Herb Schrayshuen, in his capacity as director of standards under the Standard Processes Manual, received a Level 1 Appeal for inaction from the ISO/RTO Council's Standards Review Committee (SRC) regarding Project 2009-19 - Northwest Power Pool's (NWPP) Reserve Sharing Group's request for an interpretation of BAL-002-0 – Disturbance Control Performance, Requirement R4.

The appeal included the following request:

The SRC requested that Project 2009-19 be given an "immediate/urgent" priority and addressed within 30 days of receiving the Level 1 Appeal alleging the subject interpretation had not been developed in accordance with the process outlined in the Standard Processes Manual. To promote resolution of the matter as a "Level 1" Appeal, the SRC requested that the Director of Standards address alleged deviations from the Standard Processes Manual.

The appeal response letter reviewed the circumstances surrounding the appeal, and did find that the standard development process had been adhered to and that the clarity requested for BAL-002-0, Requirement R4 could not be developed through an interpretation under the current framework. The response made the following recommendation:

Given the difficulty in interpreting the existing language of the standard, NERC recommends to the IRC and NWPP that they consider developing and submitting a Standard Authorization Request (SAR) to the Standards Committee to address their concern.

The appeal and the response are both posted on the Project 2009-19 webpage: http://www.nerc.com/filez/standards/Project2009-19 Interpretation BAL-002-0 NWPP.html

Discussion

The appeal was discussed during the April 11-12, 2012 meeting of the Standards Committee and that discussion led to the conclusion that this is a high priority issue from a reliability perspective and that the best course of action is to seek relief, in this one instance, from the "strict construction policy" for addressing interpretations.

BAL-002-0 was developed from Operating Policy 2 – Disturbance Control Standard. Policy 2 contained an Introduction and five "Standards". During the translation of Policy 2 into BAL-002-0, some of the content that was contained in the "Standards" sections was moved into the compliance section of the standard.

If by "strict construction" drafting teams are only allowed to use the language in the requirements of the standard to develop an interpretation, then the drafting team cannot develop an interpretation. However, if the team were allowed to apply "strict construction" to the four corners of the standard, rather than just the language in the requirements, then the drafting team can develop a clear interpretation.

Granting this relief would permit the use of the language in the compliance section of the standard and would make it clear to operators what the limits of their obligations are with respect to responses to rebalance the system after system disturbances.

In the alternative, if relief is not granted and the interpretation permitted to proceed, a SAR will be submitted to address the issue.

If trustees have questions or need additional information, they may contact Herb Schrayshuen, vice president and director of standards and training, at herb.schrayshuen@nerc.net.

MRC Standards Process Input Group (SPIG) Recommendations

Action

Discussion of Member Representatives Committee (MRC) input.

Background

In February 2012, the MRC was asked to commence a working group to provide policy input and recommendations for specific improvements to the existing NERC reliability standards development process. The Standards Process Input Group (SPIG) commenced in March and sought industry input and feedback on a variety of issues which included:

- Quality of standards, to include process and product
- Timeliness
- Efficiency and effectiveness
- Importance and significance of meeting ANSI requirements

The SPIG gathered valuable input and insight on a number of significant issues related to standards development and compiled a report consisting of five recommendations. The MRC followed by the Standards Oversight and Technology Committee (SOTC) plan to discuss, during May 8, these recommendations to determine:

- Which have merit and which need additional refinement;
- If concerns relative to production, efficiency and quality, raised by stakeholders and regulators, have been addressed;
- Whether additional changes to the governance of the standards development process are needed to supplement the SPIG's report; and
- What oversight the SOTC and Board of Trustees will want to see over how implementation issues are analyzed and ultimately proposed for endorsement, acceptance, or approval.

The MRC plans to discuss, during its May 8 meeting, these recommendations to determine which have merit and which need additional refinement. Once the SPIG has received the MRC's input it will finalize a proposal for the implementation of the recommendations before providing a package to the Board of Trustees for their endorsement and action at a later date. In some cases, changes to the Rules of Procedure may be required for final implementation, which will take additional time to develop and gain approval.

The SPIG will present the draft report and its recommendations to the MRC and Board of Trustees for additional discussion and targets the final report and recommendations for Board of Trustees approval in late May 2012.



Recommendations To Improve the NERC Standards Development Process

Member Representatives Committee (MRC) Standards Process Input Group (SPIG)

Draft — April 2012

RELIABILITY | ACCOUNTABILITY









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

Preface

Formation of the Standards Process Input Group

At its February 9, 2012 meeting, the NERC Board of Trustees (BOT) requested the assistance of the NERC Member Representatives Committee (MRC) to provide policy input, and a proposed framework, for specific improvements needed to the standards development process. The MRC Chair and Vice Chair invited several members of the MRC, two NERC Board of Trustees members, the NERC CEO, and the Standards Committee (SC) Chair to join with them as participants in the Standards Process Input Group (SPIG) in developing recommendations to improve the standards development process in the following areas:

- Clarity on the reliability objectives, technical parameters, scope, and the relative priority of the standards project.
- The drafting process (developing the specific technical content of the standard).
- Standards project management and workflow.
- Formal balloting and commenting.

To help ensure that the SPIG focused its efforts on the best areas for improvement, they began their process by gathering input from subject matter experts (SMEs), including the regions, MRC, Standard Drafting Team leaders, NERC staff, and other stakeholders by asking the following:

- What are the issues that are keeping the process from improving the reliability benefits of the standards?
- What are the impediments to improving the efficiency of completing a new standard or standard revision?
- Are stakeholder resources being used efficiently? If not, then why?

SPIG Timeline for Input

- Trades input was provided to NERC BOT in January 2012
- Outreach Survey comments received from 105 stakeholders in late February
- SPIG conference call with FERC staff and initial SPIG planning meeting conducted in early March
- SPIG provides preliminary report to MRC for input in early April
- Input from MRC received by April 13
- Additional SPIG planning meeting to consider MRC input conducted April 19-20
- Report revised, finalized, and posted with MRC agenda on April 25
- MRC discussion at MRC meeting on May 8
- Final report to NERC BOT in late May

Table of Contents

Pr	eface	i
Ex	ecutive Summary	1
Int	troduction	3
Re	commendations from the SPIG	5
	Recommendation 1: American National Standards Institute	5
	Recommendation 2: Reliability Issues Steering Committee (RISC)	6
	Recommendation 3: Interface with Regulatory and Governmental Authorities	. 10
	Recommendation 4: Standards Product	. 12
	Recommendation 5: Standards Development Process and Resources	. 14

Executive Summary

The Standards Process Input Group (SPIG) organized by the NERC Member Representatives Committee (MRC) is proposing in this report a number of changes to the way NERC develops Reliability Standards and other solutions intended to improve the priority, product and process of standards development. Inherent in these proposed changes is an effort to better understand, articulate and incorporate, into the standards development process, the appropriate accountabilities for standards development.

For example, Section 215 of the Federal Power Act creates accountability for the Federal Energy Regulatory Commission (FERC), first to certify an Electric Reliability Organization (ERO) for the purpose of establishing and enforcing reliability standards for the bulk power system, and then to approve the standards developed by the ERO. As such, FERC is accountable to the U.S. Congress, which passed the law that created Section 215.

Section 215 also creates accountability for NERC by requiring that the ERO, certified by FERC, have a demonstrated ability to develop and enforce reliability standards that provide for an adequate level of reliability of the bulk power system. This accountability extends to the NERC management to see that high quality standards are developed in an efficient and effective way and to the NERC Board of Trustees (Board) that must approve those standards before they are filed with governmental regulatory authorities in the U.S. and Canada.

Finally, the stakeholders, whose technical expertise is essential to the development of the standards, have a shared accountability with NERC and with each other to see that the right standards are developed in a fair, open, balanced and inclusive way.

One of the principal recommendations of the SPIG, is the creation of a Reliability Issues Steering Committee (RISC) that is intended to address these issues of accountability by ensuring that NERC develops the right standards, in the right way, and in a timely and efficient manner. To accomplish this, the RISC will conduct front-end, high level review of nominated reliability issues and direct the initiation of standards projects or other solutions that will address the reliability issues.

In addition to recommending the creation of the RISC, the SPIG also recommends that Reliability Standards Audit Worksheets (RSAWs) be developed concurrent with their associated standards and posted along with those standards for comment. The purpose here is to make sure that the RSAWs are aligned with the intent and wording of the standards to reduce the need for Interpretations and Compliance Application Notices.

Lastly, the SPIG is recommending a redesign of the composition and process used by Standards Drafting Teams to make more efficient and effective use of the subject matter expertise resident in the industry, and to provide those experts with additional support resources in terms of project management and facilitation, legal expertise, and technical writing support.

The recommendations also aim to strengthen consensus building, first on the need for a standard and then on the requirements themselves.

Collectively, these recommendations suggest a major revision of how decisions to develop standards are determined in the first place and, once the decision is made that a new or revised standard is needed, to see that it is developed in the most efficient, effective, and timely way, taking into account throughout the process the costs, benefits and justification for all standards.

Introduction

Priority, product and process are the three main focus areas addressed by the recommendations of the SPIG regarding their review and analysis of the NERC standards development process.

The SPIG provides five recommendations designed for action and for discussion. The analysis of feedback received throughout this project indicates that more discussion should occur around the variety of the changes, improvements, and implementation being proposed in these recommendations, as listed below and described in more detail in this report.

Recommendation 1: American National Standards Institute — NERC should continue to meet the minimum requirements of the American National Standards Institute (ANSI) process to preserve ANSI accreditation.

Recommendation 2: Reliability Issues Steering Committee — The NERC Board is encouraged to form a Reliability Issues Steering Committee (R®C) to conduct front-end, high level review of nominated reliability issues and direct the initiation of standards projects or other solutions that will address the reliability issues.

Recommendation 3: Interface with Regulatory and Governmental Authorities — The NERC Board is encouraged to task NERC management, working with a broad array of ERO resources (e.g., MRC, technical committees, Regional Entities, trade associations, etc.) to develop a strategy for improving the communication and awareness of effective reliability risk controls which increases input and alignment with state, federal, and provincial authorities.

Recommendation 4: Standards Product Issues — The NERC board is encouraged to require that the standards development process address:

- The use of results-based standards (RBS);
- Cost effectiveness of standards and standards development;
- Alignment of standards requirements/measures with Reliability Standards Audit Worksheets (RSAWs); and
- The retirement of standards no longer needed to meet an adequate level of reliability.

Recommendation 5: Standards Development Process and Resource Issues — The NERC Board is encouraged to require the standards development process to be revised to improve timely, stakeholder consensus in support of new or revised reliability standards. The Board is also encouraged to require standard development resources to achieve and address:

- Formal and consistent project management; and
- Efficient formation and composition of Standard Drafting Teams (SDTs).

These recommendations were derived from a synthesis of stakeholder responses categorized into the following three concentrated areas:

I. ANSI: Accreditation

- Preserve ANSI accreditation in order to ensure openness, transparency, consensus building, balance of interests and due process
- Ensure checks and balances of the ANSI process
- Limit application of requirements that can hinder progress
- Limit negative ballots without comment
- Consider other options if ANSI prevents efficiency gains

II. PRODUCT: Quality of Standards

- Consider the cost effectiveness (limited value justification)
- Improve clarity in terms of the reliability objective and benefit
- Ensure auditability
- Improve supporting documentation or administrative records
- Improve registered entity and auditor understanding
- Involve industry, NERC and FERC in the quality review earlier in the standards development process
- Seek clarity and technical justification upfront
- Be sensitive not to gear towards compliance risk rather than reliability risk

III. PROCESS: Efficiency, Timeliness and Effectiveness

- Address the SDT composition (need expertise in legal, technical writing, compliance, etc.)
- Improve timeliness and effectiveness in terms of commenting/balloting (need to consider the manual effort and timing associated with posting, grouping and responding)
- Manage the number of standards coming through the process at the same time (to ensure the right number can be processed efficiently)
- Seek convergence on consensus (to avoid taking too long to achieve)
- Improve efficiencies (to avoid taking too long)
- Implement a project manager and facilitator (need within the SDT and the back office of NERC)
- Improve communications and coordination between industry, NERC and FERC staff; especially in terms of the compliance/enforcement process

Recommendations from the SPIG

Recommendation 1: American National Standards Institute

Issue

Should NERC continue using the American National Standards Institute (ANSI) process for developing standards?

Recommendation

NERC should continue to meet the minimum requirements of the ANSI process to preserve ANSI accreditation.

Background

The SPIG's initial survey of the industry asked "How important are ANSI accreditation and ANSI principles (openness, transparency, consensus-building, fair balance of interests, and due process) to the NERC standards development process?" The majority of responses agreed that NERC standards development process should continue to at least meet the minimum ANSI requirements (Figure 1).

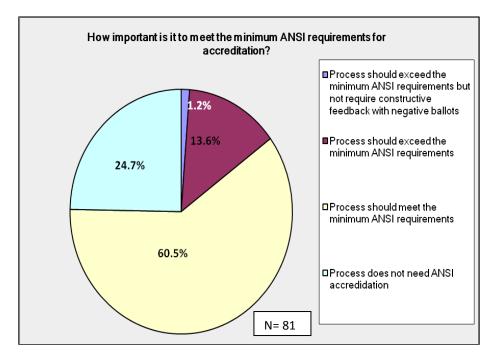


Figure 1: Results from SPIG survey of the Industry, April 2012

According to ANSI, accreditation signifies the standards developer is committed to an open, fair and time-tested consensus process that benefits stakeholders. Developers are accredited to the requirements contained in the ANSI Essential Requirements: Due Process Requirements for American National Standards. NERC staff confirms that the current standards process meets and in some cases exceeds the ANSI Essential Requirements.

Recommendation 2: Reliability Issues Steering Committee (RISC)

Issue

How should NERC determine:

- What actions are needed to address identified risks to reliability?
- Whether the development of a standard is necessary and its cost/benefit to reliability is justified?
- What should be the priority and timeline for standards development?

Recommendation

The Board is encouraged to form a Reliability Issues Steering Committee (RISC) to conduct front-end, high level review of nominated reliability issues and direct the initiation of standards projects or other solutions that will address the reliability issues.

Proposed Details

The RISC would:

- Be comprised of stakeholders including, but not limited to:
 - Chairs and vice chairs of the technical committees;
 - Select MRC members and other stakeholders;
 - Chair, approved by the Board; and
 - NERC Senior Staff member.
- Utilize a broad range of industry and other expertise.
- Analyze performance gaps, technical viability, reliability benefit, cost impact/ justification, clarity of standard's scope, etc.
- Advise the Board on key initiatives and priorities; recommends standards projects or alternatives (Figure 2).
- Report directly to Board (and not the MRC).
- Require Board review and approval of any significant new ERO initiatives or reordering of ERO strategic priorities.
- Not supersede the role of Standards Committee.
- Set milestones and timelines for standards projects.
- Conform to NERC Bylaws and Rules of Procedure.

Additional Issues to be Addressed (per the Board's Discretion) During the Implementation Phase

- Role of the RISC in three-year reliability SDP.
- Modification to existing standards including elimination of duplicative or low value standards.
- Role of RISC with respect to FERC directives.
- Communication between the RISC, Standards Committee (SC), Standards Oversight and Technology Committee, MRC and Board and its technical committees.
- Relationship with governmental authorities.

Explanation of Figure 2: Proposed Front-End Process Flow Chart

- Anyone can "nominate" a reliability/risk issue, via designated NERC staff, for consideration by the RISC. Upon verification and satisfactory completion of the nomination criteria, the RISC may decide to:
 - 1. Reject the nomination;
 - 2. Recommend alternative action other than standards; or,
 - 3. Develop a standard.
- If the nomination is rejected by the RISC, an appeals process will be available.
- Recommended alternatives to standards may include the development of guidelines, bulletins, alerts, lessons learned, best practices, technical documents, etc. If a standard is recommended, a project management "package" will be prepared by the RISC for the SC, including (as appropriate):
 - The completed list of criteria
 - Analysis of performance gaps, technical viability, reliability benefit, cost impact/ justification, clarity of standard's scope, etc.
 - Discussion
 - Timeline
 - Task list
 - Priorities
 - Other instructions
- The RISC may refer a "package" to the SC with instructions to prepare a standard. The RISC should also inform the MRC and Board of its actions.

Figure 2: Proposed Front-End Process Flowchart (pathway for the Reliability Issues Steering Committee – RISC)

2.) Entity submitting the Nomination must complete these criteria -Nomination of a reliability issue and risk Documented reliability problem and reliability risk (or reason why a current standard Anyone can "nominate" a is insufficient) Designated NERC reliability/risk issue for consideration Actual events that provide an example of the problem staff receives Sufficient technical understanding/description of the problem issue The nomination is submitted to Sufficient studies, analyses, and data necessary to support the development of a designated NERC staff standard or other action to address risk (lesson learned, alert, tech paper, etc.) Performance results required/expected by the standard or other action A proposal for how compliance would be evaluated (if a standard) At a level that is practical to solve (scope and scale are appropriate) Within the scope and jurisdiction of the ERO A proposal for reliability benefit, cost impact/justification **NERC** staff verifies completion of criteria and forwards to **Steering Group**

Entity may resubmit to step #1 or appeal to Board Reject Nomination (to include incomplete criteria) 3.) RISC analyzes the criteria, triages the nomination, and decides to reject, recommend alternatives, or develop a standard

Recommend
Development of
a Standard
(initiate SAR

Recommend Alternatives

(guidelines, bulletins, lessons learned, or other technical documents) Entity may appeal to Board

- 4.) RISC provides a "package" to the Standards Committee for preparation of a standard:
 - Completed list of criteria
 - Summary of the analysis
 - Summary of discussion
 - Prescribed timeline
 - Proposed task list
 - Priorities
 - Other instructions

Recommendation 3: Interface with Regulatory and Governmental Authorities

Issue

How can NERC improve the communication and awareness of NERC's strategic initiatives on major risks to reliability to increase alignment of NERC with the concerns of state, federal, and provincial authorities?

Recommendation

The Board is encouraged to task NERC management, working with a broad array of ERO resources (e.g., MRC, technical committees, Regional Entities, trade associations, etc.) to develop a strategy for improving the communication and awareness of effective reliability risk controls which increases input and alignment with state, federal, and provincial authorities.

Proposed Details

- Interface with governmental authorities to align priorities and timing of reliability initiatives. Establish and align priorities early on during the nomination of the reliability issue.
- Develop methods to effectively communicate progress and manage expectations.
- Promote effective rules of engagement of state, federal, and provincial regulatory staff in accordance with jurisdictional requirements.
- Following successful ballot of standard and approval by the Board, pre-filing meetings
 will be held with FERC staff and individual Commissioners to help ensure FERC approval
 without conditions; and similar efforts will apply with governmental authorities in
 Canada.

Additional Issues to be Addressed (per the Board's Discretion) During the Implementation Phase

- Responsibility for managing the details above, concerning progress and expectations.
- Encourage regulatory authorities to permit staff to submit written comments to the drafting team during informal and formal comment periods.

Background

The SPIG provides as additional reference and guidance the <u>Roles and Responsibilities:</u> <u>Standards Drafting Team Activities</u>, approved by the SC in July 2011, includes the following policy guidance, approved by the NERC Board at its October 29, 2008 meeting, to guide standard drafting teams' responses to regulatory authority staff involvement in standard drafting activities:

a. The standard drafting team has sole responsibility for drafting and approving the language in the proposed standards that are presented to the SC for ballot.

- b. NERC and the SC support the involvement of regulatory authority staff in all standards drafting team activities, where permitted by law.
- c. NERC recognizes that regulatory authority staff does not speak for the regulatory authority itself and, as such, the input they provide is considered advice.
- d. In the event regulatory authority staff does choose to participate in drafting team activities, they should be treated as any non-voting observer or participant.
- e. Standard drafting team members should seek out the opinion of regulatory authority staff, consider the regulatory staff input on its technical merits, and respond to written comments offered during a public posting period as it would seek opinions from, consider the technical merits of, and respond to comments offered by other industry stakeholders.
- f. To the extent that regulatory authority staff advice is offered to the drafting team (or members thereof) in a forum that is not public and open to all industry participants, the standard drafting team should consider the input as advice.
- g. If the team chooses to act on regulatory authority staff advice offered in a non public forum, the standard drafting team chair should either:
 - Request the regulatory authority staff to provide the advice during an open meeting or conference call of the drafting team; or,
 - Document his/her understanding of the issues or advice presented, and include the information in an open industry comment period with the accompanying changes to the proposed standards.

Recommendation 4: Standards Product

Issue

How will standards be developed to effectively achieve reliability objectives through clear, high quality Results-Based Standards (RBS) requirements in a cost effective manner?

Recommendation:

The Board is encouraged to require that the standards development process address:

- The use of RBS;
- Cost effectiveness of standards and standards development;
- Alignment of standards requirements/measures with Reliability Standards Audit Worksheets (RSAWs); and
- The retirement of standards that are no longer needed to meet an adequate level of reliability.

Proposed Details

- Utilize RBS model as the basis for all standards.
 - i. Evaluate all existing standards and revise to meet format of RBS.
 - ii. Retire any existing standards that are not chosen to be modified into a RBS format per Board approval.
 - iii. Develop all new standards in RBS format.
- Ensure cost effectiveness of standards through documentation of alternatives analysis.
- Include cost impact/reliability benefit analysis in the final standards package posted for ballot.
- Ensure clarity on reliability objectives and compliance obligations.
 - i. SDT is responsible for the development of the standard including requirements and measures.
 - ii. Compliance staff will develop RSAWs (that will be used in the auditing of compliance) in conjunction and coincident with the development of the standard.
 - iii. Post entire package for stakeholder comment, including standards and RSAWs (RSAWs are not balloted).
 - iv. Changes to RSAWS after the ballot body develops measure/standard require Board approval.
- Revise Essential Elements of the Standards Template to eliminate redundancies such as Violation Severity Levels (VSLs).
- Consider "applicability" provisions and criteria for those most impacted by implementing a standard.

Additional Issues to be Addressed (per the Board's Discretion) During the Implementation Phase

- Establish process to consider elimination of standards and standards requirements that have minimal value.
 - i. The recent FERC Find, Fix, Track and Report (FFTR) Order encourages the reduction of unnecessary requirements and a structured process needs to be developed to achieve this.
 - ii. Additional options may include a task to the RISC, Operating Committee, or Planning Committee, as determined by the Board.

Recommendation 5: Standards Development Process and Resources

Issue

How can the existing standards development process be improved upon and streamlined and how can resources be better utilized to ensure effective, efficient, and expeditious standards development?

Recommendation

The Board is encouraged to require the standards development process be revised to improve timely, stakeholder consensus in support of new or revised reliability standards. The Board is also encouraged to require standard development resources to achieve and address:

- Formal and consistent project management
- Efficient formation and composition of SDTs

Proposed Details

- The drafting team will post responses to each comment received during the *final*, formal comment period prior to the recirculation ballot. For other postings, there is no ANSI requirement to post responses to the comments.
- Modify the comment process to:
 - i. Bundle responses to comments.
 - ii. SDT will post draft standard for informal comment period of 30 days, but not be required to respond to comments.
 - iii. Promote an automated system for managing comments.
 - iv. Conduct industry webinars between successive ballots to enhance understanding of issues and facilitate consensus.
 - v. Facilitate consensus by encouraging industry collaboration and submittal of coordinated comments through Regional Entities and trade groups.
- Ballot process shall:
 - i. Use all votes cast by ballot pool member to establish quorum.
 - ii. Provide options for voting "No" with guiding choices for the answer with a comment section on the ballot.
- Formalize the use of formal, rigorous project management (i.e., trained leaders, facilitators, scribes, etc.) within SDTs to ensure greater efficiency and effectiveness of the SDTs.
- Revise formation and composition of SDTs model.
 - i. Incorporate the support of technical writers, legal, compliance and rigorous and highly trained facilitation support.

- ii. Ensure adequate representation and competencies based on complexity of the issue.
- Promote efficiency and timeliness by setting milestones and progress reports.

Additional Issues to be Addressed (per the Board's Discretion) During the Implementation Phase

- Reinforce mechanisms to add during the commenting process.
 - i. Locked list of answer options (e.g., "risk to reliability," "cost concerns," etc.).
 - ii. "Other" option for the No vote list with a comment section that requires explanation that this approach will balance input to empower the SC to conduct a more thorough balloting process.
 - iii. Consider bolding of text instructions on all ballots that emphasize the importance of clarity.
 - iv. Consider the advantage/disadvantage to establishing voting record for each participant/entity.



Reliability Standards

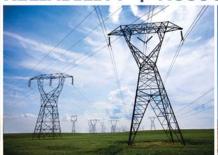
Standards Oversight and Technology Committee Status Report

May 8, 2012

RELIABILITY | ACCOUNTABILITY









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

Table of Contents

Table of Contentsii
Standards Development Forecast (Continent-wide)
Standards4
Interpretations
Outstanding Regulatory Directives-Update5
Regulatory Directives Update5
Regional Standards Group April 2012 Report
Regional Standards–2012 6
Regional Standards and Variances Adopted by the Board of Trustees and Filed by NERC with FERC:
Regional Standard Adopted by the NERC Board of Trustees with Filings Under Development for FERC and the Applicable Governmental Authorities in Canada:
Regional Standards and Variances Approved by Regional Entity Board (not included above)
Regional Standards Activities and Accomplishments-2012
Accomplishments6
Other Activities
Status of Regional UFLS Standards
Status of Efforts to Address Version 0 (Fill-In-The-Blank) Standards
Future Regional Standards 2012 8

Standards Development Forecast (Continent-wide)

Standards

Projects Forecast for Action at the August 2012 Board of Trustees (BOT) Meeting

- 2007-17 Protection System Maintenance and Testing
- 2008-06 Cyber Security Order 706
- 2009-01 Disturbance and Sabotage Reporting¹

Projects forecast for action at the November 2012 BOT meeting

- 2007-02 Operating Personnel Communications Protocols
- 2007-09 Generator Verification (partial; remainder February 2013) 1
- 2010-14.1 Phase 1 of Balancing Authority Reliability-Based Controls: Reserves (partial; remainder February 2013)2
- 2010-05.1 Phase 1 of Protection Systems: Misoperations

Projects forecast for action at the February 2013 BOT meeting

- 2006-06 Reliability Coordination (remainder)1
- 2010-14.1 Phase 1 of Balancing Authority Reliability-Based Controls: Reserves (remainder)
- 2010-07 Generator Verification (remainder)

Interpretations

Four interpretations, including two CIP interpretations and two non-CIP interpretations, being addressed through a rapid revision of the standard, are expected to require action at the August 2012 Board of Trustees meeting. One additional CIP interpretation is expected to require action at the November 2012 Board of Trustees meeting.

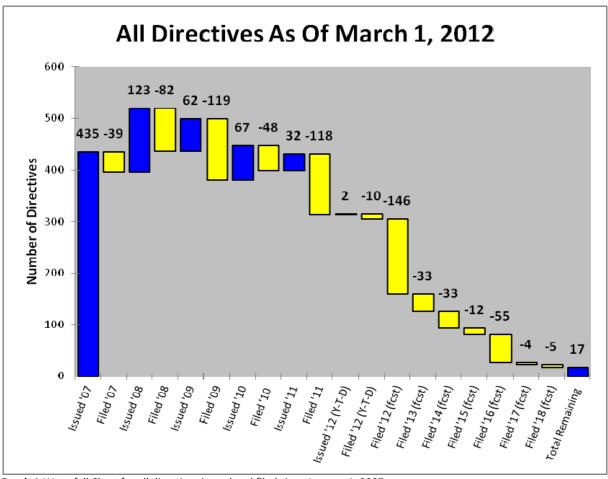
SOTC Quarterly Report-May 8, 2012

¹ This project has been intentionally delayed due to a need to hold a Successive Ballot following an unsuccessful Initial Ballot.

² Part of this project has been delayed based on a Standards Committee request to schedule a Successive Ballot to mitigate the risk of an unsuccessful Initial Ballot

Outstanding Regulatory Directives-Update

Regulatory Directives Update



Graph 1-Waterfall Chart for all directives issued and filed since January 1, 2007

As Graph 1 illustrates, the Federal Energy Regulatory Commission (FERC or Commission) has issued 50 Orders containing approximately 721³ directives related to NERC Reliability Standards. Of the approximately 721 directives issued since 2007, NERC has initiated and completed projects associated with 58 percent of these directives. We also continue to make substantial progress in addressing the remaining directives focusing first on those that have the greatest impact on reliability. NERC addressed, and filed with the Commission, 118 directives in 2011 and plans to address an additional 156 directives in 2012.

³ The number of total directives (721) is up from 655 as reported previously primarily due to the identification of 44 additional directives identified in FERC Order 706 and 9 additional directives from the FERC Order on VRFs and VLS for CIP Standards issued January 20, 2011 which was inadvertently left out of previous reports.

Regional Standards Group April 2012 Report

This report highlights the key activities of NERC and the Regional Entities in support of the Regional Standards Group (RSG) charter obligations in the year 2012.

The RSG meets on a monthly basis and has held four meetings this year, either in-person or by phone. The Regional Entities have worked with NERC staff to perform quality reviews, post Regional Standards to the NERC website, and file Regional Standards and variances with FERC. In addition, the RSG has developed a whitepaper that helps define the differences between Regional Standards and Regional Variances. The RSG also contributed input to the standards section of the Business Plan and Budget Common Assumptions for 2013. As a result of these efforts we report the following:

Regional Standards-2012

Regional Standards and Variances Adopted by the Board of Trustees and Filed by NERC with FERC:

- IRO-006-TRE-01
- PRC-006-SERC-01

Regional Standard Adopted by the NERC Board of Trustees with Filings Under Development for FERC and the Applicable Governmental Authorities in Canada:

• PRC-006-NPCC-01

Regional Standards and Variances Approved by Regional Entity Board (not included above):

- MOD-25-RFC-01 (Reliability First (RFC) has requested NERC staff to delay filing this standard with FERC until a RFC Board directed evaluation of the need for Regional Standards is completed)
- VAR-001-3-Voltage and Reactive Control (WECC Variance)

Regional Standards Activities and Accomplishments-2012

Accomplishments

- NERC Regional Standards staff working in conjunction with the RSG members have:
 - Prepared a unified schedule for all regional projects in development (see attached);
 - Processed three regional postings for comment on behalf of the regions;
 - Performed four Quality Reviews on Regional Standards and variances; and
 - Updated the NERC Regional Reliability Standards Under Development webpage.

Other Activities

- RFC proposed a revised Standard Development Procedure which was approved for filing
 with FERC by the NERC Board of Trustees in 2011. Subsequent to Board of Trustees
 approval, RFC requested the filing with FERC be held pending additional changes
 requested by RFC stakeholders. Those changes have been approved by RFC stakeholders
 and will be presented to the Board of Trustees in May.
- SERC proposed a revised Standard Development Procedure which was approved for filing with FERC by the Board of Trustees at their February 9, 2012 meeting. The revised procedure was filed with FERC on March 15, 2012.

Status of Regional UFLS Standards

On November 4, 2010, the NERC Board of Trustees adopted PRC-006-1 Automatic Underfrequency Load Shedding and directed NERC staff to file the standard with FERC. Included in PRC-006-1 are Interconnection-wide variances for Quebec and Western Electric Coordinating Council. Concurrent with the development of PRC-006-1, several Regions were developing regional underfrequency load shedding standards based on historical documents Two of those regions, SERC and Northeast Power Coordinating Council, subsequently submitted those Regional Standards for adoption by the NERC Board of Trustees. Southwest Power Pool RE has developed its Regional Standard with stakeholder consensus and is expecting to present the standard at an upcoming Regional Entity Trustees meeting for action. Both the Midwest Reliability Organization and Texas Reliability Entity have evaluated the continent-wide standard and determined that it provides sufficient reliability coverage in their respective regions. Florida Reliability Coordinating Council (FRCC) is currently performing a comparison between the NERC Board of Trustees-approved continent-wide standard and the FRCC Underfrequency Program to determine if there are any reliability gaps that would require further action in the form of a Regional Reliability Standard or a regional variance to the continent-wide standard. Finally, Reliability First Corporation (RFC) has suspended the current RFC UFLS standard drafting efforts indefinitely until such time the associated NERC standard (PRC-006-1) is enforced and effective.

Status of Efforts to Address Version 0 (Fill-In-The-Blank) Standards

The Regional Reliability Standards Working Group (RRSWG) issued a report in October 2006 establishing a systematic methodology for resolving the potential issues surrounding the existing NERC Reliability Standards that contain "fill-in-the-blank" characteristics. The report identified 31 continent-wide standards that needed to be addressed and established a workplan to meet the needs identified. Of the 31 fill-in-the-blank standards identified in that 2006 report, revisions to 10 standards have been completed, seven are scheduled to be completed in 2012, two in 2014, one in 2015, nine in 2016, and the last two in 2017.

Future Regional Standards 2012

Regional Standards Forecast for Action at the August 2012 Board of Trustees Meeting

- BAL-002-WECC-01 Contingency Reserves
- BAL-004-WECC-01 Automatic Time Error Correction

Regional Standards Forecast for Action at the November 2012 Board of Trustees Meeting

PRC-006-SPP-01 Automatic Underfrequency Load Shedding

(see table on next page)

	8	Task Name	Duration	Start	Finish	2012 2013 Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr
1	F-F	PRC-002-FRCC-1 (on hold)	0 days	Mon 1/2/12	Mon 1/2/12	
2	Ē	PRC-003-FRCC-1 (on hold)	0 days	Mon 1/2/12	Mon 1/2/12	₽ ♦ 1/2
3	Ī.	PRC-006-FRCC-1 (on hold)	0 days	Mon 1/2/12	Mon 1/2/12	2 • 1/2
4	1	PRC-024-FRCC-1 (on hold)	0 days	Mon 1/2/12	Mon 1/2/12	2 • 1/2
5	f –	PRC-006-NPCC-1	917 days	Mon 8/25/08	Tue 2/28/12	
6	Œ#	Regional standard development	805 days	Mon 8/25/08	Frt 9/23/11	Ī ,
7	<u></u>	Posting of Documents for process evaluation at NERC		Mon 10/31/11	Thu 12/15/11	
8	118	Prepare BOT Material	25 days		Wed 1/18/12	
9	11.00	Develop Initial Draft of Regulatory Filings	20 days	Wed 2/1/12	Tue 2/28/12	
	T-	PRC-012-NPCC-1 (on hold)	0 days	Mon 1/2/12	Mon 1/2/12	2 ♠ 1/2
	100	MOD-024-RFC-01 (on hold)	0 days		Mon 1/2/12	
12	F-1	MOD-025-RFC-01 (on hold)	0 days		Mon 1/2/12	
	111	PRC-002-RFC-01 (on hold)	0 days		Mon 1/2/12	
	11.0	PRC-006-RFC-1 (on hold)	0 days		Mon 1/2/12	
	173	PRC-012-RFC-1 (on hold)	0 days		Mon 1/2/12	
16		PRC-006-SPP-01	1302 days		Fri 10/26/12	•
	118	Regional standard development	1217 days		Fri 6/29/12	
	100	Posting of Documents for process evaluation at NERC	45 days		Frt 8/31/12	
	<u> </u>	Prepare BOT Material	25 days		Mon 10/8/12	
		Develop Initial Draft of Regulatory Filings	20 days		Fri 10/26/12	
21	<u> </u>	BAL-001-TRE-1	666 days		Fri 3/29/13	—
	TE	Regional standard development			Mon 7/9/12	▼
23	<u></u>	Posting of Documents for process evaluation at NERC	58.38 edays 45 edays		Thu 10/25/12	
24	H	Prepare BOT Material		Mon 12/17/12	Fri 2/1/13	
	120	Develop Initial Draft of Regulatory Filings	40 days		Fri 3/29/13	
26	-	BAL-002-WECC-1	472 days		Mon 10/1/12	
	-				Tue 1/31/12	—
	<u></u>	Regional standard development	298 days			
		Posting of Documents for process evaluation at NERC	45 edays		Mon 2/20/12	
29 30	II.	Prepare BOT Material Develop Initial Draft of Regulatory Filings	25 days		Fri 8/3/12 Mon 10/1/12	
31	7.0		20 days			
	_	BAL-004-WECC-1 Regional standard development	477 days		Mon 10/8/12 Tue 1/31/12	-
	118	Posting of Documents for process evaluation at NERC	298 days		Mon 3/12/12	
	HH		45 edays			
	<u> </u>	Prepare BOT Material	25 days		Frt 8/3/12	
	iii .	Develop Initial Draft of Regulatory Filings	20 days		Mon 10/8/12	
36	W11	VAR-001-WECC-1		Thu 10/14/10	Fr1 6/22/12	¥
	<u> </u>	Regional standard development		Thu 10/14/10		
	7 8	Posting of Documents for process evaluation at NERC	45 edays		Fri 12/16/11	
39	E .	Prepare BOT Material	25 days		Frt 4/13/12	
40	<u> </u>	Develop Initial Draft of Regulatory Filings	25 days	Mon 5/21/12	Fri 6/22/12	

March 2010 Orders: Review Status of NERC Responses

Action

Discussion

Background

On March 18, 2010, the Federal Energy Regulatory Commission (FERC) issued several orders (March 18 Orders) requiring NERC action. The attached table provides an update on NERC's response to the March 18 Orders and next steps in each proceeding.

If trustees have questions or need additional information, they may contact Herb Schrayshuen, vice president and director of standards and training, at herb.schrayshuen@nerc.net.

	STATUS OF MARCH 18, 2010 ORDERS				
FERC Issuance	Action Taken	Next Steps			
Order Directing NERC to Propose Modifications to the Electric Reliability Organization Rules of Procedure that Pertain to the Development of Reliability Standards (Docket No. RR09-6-000); FERC's Order also directed that NERC address the Order No. 693 FAC-008 directives within 90 days from the date FERC issues an Order on NERC's proposed Rules of Procedure changes. NOPR Regarding a Revision to the Electric Reliability Organization's Definition of BES to include all electric transmission facilities with a rating of 100 kV or above. (Docket No. RM09-18-000)	 Rules of Procedure: April 19, 2010: NERC filed a Request for Rehearing and Reconsideration, Motion for Stay and Request for Public Conference in response to the Order. September 16, 2010: FERC issued an Order Denying Rehearing, Denying Clarification, Denying Reconsideration and Denying Request for Stay. December 23, 2010: NERC made a compliance filing in response to the original Order containing revisions to the NERC Standard Processes Manual, which included a new Section 321 to the NERC Rules of Procedure. March 17, 2011: FERC issued an Order approving NERC's revised Section 300 of the NERC ROP. July 26, 2011: NERC filed its first Standards Report, Status and Timetable for Addressing Regulatory Directives. 	Pursuant to Section 321.6 of the NERO Rules of Procedure, NERC is committed to filing a Standards Report, Status and Timetable for Addressing Regulatory Directives each year on or before March 31. NERC filed a report on March 31, 2012 and will file every year hereafter.			
	 March 17, 2011: FERC issued an Order approving NERC's revised Section 300 of the NERC ROP. June 15, 2011: NERC filed a revised FAC-008-3 standard with FERC, responding to the Order No. 693 FAC-008 directives. November 17, 2011: FERC issued an Order Approving Reliability Standard FAC-008-3. 	Filings submitted by NERC on January			
	 May 10, 2010: NERC filed comments in response to the March 18 NOPR. November 18, 2010: Order No. 743 issued by FERC which directed NERC to revise its definition of Bulk Electric System. January 18, 2011: FERC issued an Order Granting Rehearing for Further Consideration Regarding Revision to the ERO Definition of Bulk Electric System. March 17, 2011: FERC issued Order No 743-A which denied rehearing of Order No. 743, and affirmed and clarified that the ERO revision to the BES definition should occur within the Reliability Standard Development Process to address policy and technical concerns. 	25, 2012 are pending at FERC. Phase 2 of the BES project is underway.			
	 January 25, 2011: NERC submitted two separate petitions responsive to Order No. 743 and Order No. 743-A. NERC's Petition for Approval of a Revised Definition of "Bulk 				

STATUS OF MARCH 18, 2010 ORDERS				
FERC Issuance	Action Taken	Next Steps		
	Electric System" alters the previous definition contained in the NERC Glossary of Terms Used in Reliability Standards. The Petition of NERC for Approval of Revision to its Rules of Procedure to Adopt a Bulk Electric System Exception Procedure allows for a process for requesting and receiving exceptions from the NERC definition of Bulk Electric System.			
Order Approving the Transmission Relay Loadability Reliability Standard PRC-023-1 (Order No. 733) (Docket No. RM08-13-000)	 April 19, 2010: NERC filed a Request for Clarification or Rehearing of Order No. 733, requesting an extension of time past the one year deadline set in Order No. 733. 	NERC to file Generator Relay Loadability Standard at FERC by September 30, 2013.		
	 July 16, 2010: NERC filed action plan and timetable and proposal to split the project into three phases (Transmission Relay Loadability; Generator Relay Loadability; and Stable Power Swings). 	NERC to address Stable Power Swings at FERC by end of 2014.		
	 February 17, 2011: FERC issued Order No. 733-A, which granted NERC 24 months from the date of the order to comply with the directives to respond to Phase 1 (Transmission Relay Loadability). 			
	 March 18, 2011: NERC filed a petition requesting approval of PRC-023-2 and the addition of Section 1700 to the NERC ROP, satisfying Phase I (Transmission Relay Loadability). 			
	 July 21, 2011: NERC made an informational filing addressing certain aspects of the August 14, 2003 blackout investigation relative to operation of protective relays in response to stable power swings. 			
	 November 22, 2011: NERC filed a Motion for Extension of Time until third quarter 2014 to file a new Generator Relay Loadability Standard (Phase II) in accordance with NERC's prioritization efforts. On February 15, 2012, FERC granted NERC a one-year extension, until September 30, 2013, to complete the new Generator Relay Loadability standard. 			
	 March 15, 2012: FERC approved the PRC-023-1 standard and Section 1700 to the NERC Rules of Procedure in Order No. 759. 			
Order Setting Deadline for Compliance for NERC to comply with Order No.	 April 19, 2010: NERC filed a Request for Rehearing and Motion for Stay of the Order Setting Deadline for Compliance. 	Rehearing/Clarification requests are due on FERC's April 19 remand order by May 21, 2012.		
693 Directives on TPL-002- 0 Reliability Standard (Table 1, footnote b)	 June 11, 2010: FERC issued an Order Denying Rehearing and Granting Partial Clarification, Denying Request for Stay, and Granting Extension of Time. 	NERC was directed in the April 19 Order to revise footnote b in a		
(Docket No. RM06-16-009)	 March 31, 2011: NERC filed a Petition for Approval of Four Transmission Planning System Performance Reliability Standards, including TPL-002-1b. 	manner responsive to the Commission's directives using NERC's Expedited Standards Development		

STATUS OF MARCH 18, 2010 ORDERS				
FERC Issuance	Action Taken	Next Steps		
	 May 17, 2011: FERC issued a letter of deficiency to NERC identifying eleven areas where FERC required additional information on NERC's March 31, 2011 Petition for Approval of TPL Reliability Standards. 	Process to quickly respond to the remand. NERC was also directed in the April 19		
	 June 7, 2011: NERC responded to FERC's May 17, 2011 letter and included additional information on each of the eleven areas that FERC identified. 	Order to issue a data request, pursuant to Section 1600 of the NERC Rules of Procedure, to obtain		
	 October 20, 2011: FERC issued a Notice of Proposed Rulemaking proposing to remand NERC's proposed revision to the Table 1, footnote b in the TPL standards. 	information from users, owners, and operators of the bulk-power system		
	 December 21, 2011: NERC filed comments in response to the NOPR explaining why the proposed revisions to the TPL standards satisfied Order No. 693 directives. 	to provide data on how frequently specific instances of planned interruptions of Firm Demand under		
	 April 19, 2012: FERC issued an Order remanding the proposed TPL-002-2b standard, finding that the footnote is vague, unenforceable, and not responsive to the Commission's directives. 	footnote b have been used.		
NOPR Proposing to Reject Interpretation of	May 10, 2010: NERC filed comments in response to the NOPR.	NERC examining the system protection issue. A Section 1600 data		
Reliability Standard TPL- 002-0 Requirement R1.3.10 (Docket No. RM10-6-000)	 September 15, 2011: FERC issued a Final Ruling in which FERC declined to adopt its NOPR proposal to reject the proposed interpretation, and instead approved the interpretation to Requirement R1.3.10 of TPL-002-0. The Order directed NERC to make an informational filing within six months from the date of the order explaining whether there is a further system protection issue that needs to be addressed and, if so, what forum and process should be used to address that issue and what priority it should be accorded relative to other reliability initiatives planned by NERC. 	request is being developed to gather information from the industry to conduct further analysis.		
Onder Cattle - Decality - for	March 15, 2012: NERC filed the six-month informational filing as directed.	NEDC/		
Order Setting Deadline for Compliance for NERC to comply with the Order No. 693 Directives on the BAL-003-0 Reliability Standard	 April 19, 2010: NERC filed a Request for Clarification and Rehearing of the Order. May 13, 2010: FERC issued an order granting rehearing and scheduling a technical conference, and directing NERC to submit a proposed schedule with firm deadlines for meeting compliance with the Order No. 693 directive on BAL-003-0. 	NERC's motion for extension of time to file BAL-003 standard is pending at FERC. The BAL-003 standard drafting team is continuing its work to develop a revised BAL-003 standard.		
Frequency Response (Docket No. RM06-16-010)	 September 23, 2010: FERC Technical Conference on Frequency Response. October 14, 2010: NERC filed comments in response to the technical conference; 			
	October 25, 2010: NERC made compliance filing with proposed Frequency Response Action Plan and Timeline. • December 16, 2010, FERC accepted NERC's October 25 Compliance filing and timeline			
	for developing a revised BAL-003 standard by May 2012.			

STATUS OF MARCH 18, 2010 ORDERS				
FERC Issuance	Action Taken	Next Steps		
	 March 30, 2012: NERC filed a motion for extension to file a revised BAL-003 standard until more technical analysis can be completed. 			
Notice of Proposed Rulemaking on Time Error Correction Reliability Standard BAL-004-1 (Docket No. RM09-13-000)	 April 28, 2010: FERC filed comments in response to the March 18, 2010 NOPR. August 20, 2011: NERC filed a Motion to Defer Action on the Time Error Correction Reliability Standard citing its status as currently under review by NERC stakeholders to assess its impact to reliability. February 22, 2011: NERC filed a status report on BAL-004 activities. August 11, 2011: NERC filed a Motion to Further Defer Action on the Time Error 	Discussion took place at NERC's September 2011 meeting of the Operating Committee (OC). Field work is still being done to determine the next steps for this project. Waiting for a recommendation from the OC. NERC will review that recommendation when it is received to determine next steps.		
Policy Statement on Penalty Guidelines (Docket No. PL10-4-000)	 Correction Reliability Standard, citing the need for further research and analysis filed. June 14, 2010: NERC submitted comments on the Policy Statement urging FERC not to apply the Penalty Guidelines to violations of Reliability Standards. April 15, 2010: FERC issued an order suspending policy on Penalty Guidelines. September 17, 2010: FERC issued a Revised Statement and modified Penalty Guidelines which clarified that the guidelines will apply to violations of Reliability Standards, but not to the Commission's review of notices of penalty. Modified Penalty Guidelines will base penalties on the same factors as those in existing enforcement policy statements, but will be applied with more focus by assigning specific and transparent weight to each factor. 	None.		
NOPR Proposing to Remand Regional Reliability Standard for Resource and Demand Balancing BAL-002-WECC- 1 (Docket No. RM09-15-000)	 May 24, 2010: NERC filed comments in response to the NOPR urging FERC to approve the proposed regional standard. October 21, 2010: FERC issued Order No. 740 which remanded the revised BAL-002-WECC-1 standard. 	Remanded to WECC.		

Lower Level Facilitating Requirements-FFT Order Paragraph 81

Action

Discussion

Background

In the Order Accepting with Conditions the Electric Reliability Organization's Petition Requesting Approval of New Enforcement Mechanisms and Requiring Compliance Filing (FFT Order), the Federal Energy Regulatory Commission (FERC or Commission) invited NERC to examine its standards and identify administrative requirements which may be considered for elimination. This briefing will report on the initial activities to date.

Discussion

From the FFT Order:

81. The Commission notes that NERC's FFT initiative is predicated on the view that many violations of requirements currently included in reliability standards pose lesser risk to the Bulk-Power System. If so, some current requirements likely provide little protection for Bulk-Power System reliability, or may be redundant. The Commission is interested in obtaining views on whether such requirements could be removed from the reliability standards with little effect on reliability and an increase in efficiency of the ERO compliance program. If NERC believes that specific reliability standards or specific requirements within certain standards should be revised or removed, we invite NERC to make specific proposals to the Commission identifying the Standards or requirements and setting forth in detail the technical basis for its belief. In addition, or in the alternative, we invite NERC, the Regional Entities and other interested entities to propose appropriate mechanisms to identify and remove from the commissionapproved reliability standards unnecessary or redundant requirements. We will not impose a deadline on when these comments should be submitted, but ask that, to the extent such comments are submitted, NERC, the Regional Entities and interested entities coordinate to submit their respective comments concurrently.

NERC staff has formed a cross-functional team to fulfill the intent of this paragraph. The work plan involves, at a high level, the following steps:

- Developing criteria to identify candidate standards and requirements for removal;
- Applying the proposed criteria to the existing body of continent—wide standards;
- Gathering and correlating supporting or complementary analysis, enforcement trends, Annual Plan and Actively-Monitored List analysis, events analyses, trends and previous work of the results-based standards prioritization project, among others;
- Vetting outcomes with stakeholders;

¹ 138 FERC ¶ 61,193 (March 15, 2012).

- Reporting to the Commission;
- Implementing the standard modifications in the normal course of the prioritized standards development work plan; and
- Suspending compliance monitoring and enforcement of the requirements presented to FERC in the filing for eventual retirement, using authorized discretion.

If trustees have questions or need additional information, they may contact Herb Schrayshuen, vice president and director of standards and training, at: herb.schrayshuen@nerc.net or Mike Moon, director compliance operations at: michael.moon@nerc.net.

Standards Committee Report

Since the last Board of Trustees meeting, the Standards Committee (SC) met by conference call on February 16 and March 8, and in person on April 11-12, 2012. SC meeting agendas and minutes are posted at: http://www.nerc.com/filez/scmin.html.

This report outlines major ongoing activities and policy issues under consideration by the SC and its subcommittees that may be of interest to the Standards Oversight and Technology Committee.

Improve Technical Details in Reliability Standard Audit Worksheets (RSAWs)

The SC is working with volunteers from drafting teams and Standards and Compliance Operations staff to draft a revised process for developing RSAWs using the technical input from drafting teams, and posting the RSAWs for stakeholder comment (and possible inclusion in the Violation Risk Factor (VRF)/Violation Severity Level (VSL) non-binding poll) as the standard is developed. The SC and Compliance and Certification Committee (CCC) reviewed and endorsed the draft process, and the SC and Compliance Operations are ready to support a field test. The SC expects to initiate the field test, using one or two drafting teams, beginning in the second quarter of 2012.

Formalize Rapid Revision Process

The SC used the draft "Rapid Revision" process in 2011 to successfully develop a permanent modification to a standard as an alternative to processing a request for interpretation. During the first quarter of 2012, the SC identified three additional requests for interpretation as candidates for Rapid Revision. The SC expects to use these additional projects to complete field testing of the draft procedure, and will then formalize the Rapid Revision process in the reliability standards development process.

Cost-Effectiveness Analysis

The SC Process Subcommittee has formed a small team to review the work of NPCC to consider cost effectiveness during the development of proposed regional standards. The small team is developing a procedure that will allow consideration of cost impacts associated with reliability standards during the standard development process.

Realign Quality Review to Occur Earlier in Standard Development

While the results of the Quality Review step added to the standard process have improved the overall quality of standards posted for comment, drafting teams and quality review volunteers have recommended moving the support provided by reviewers earlier in the process, before the team finalizes its initial draft of a proposed standard. The SC plans to assign additional personnel to newly-formed drafting teams to provide legal and compliance support as the initial draft of the standard is developed. This should improve efficiency in the reliability standards development process.

VRF/VSL Proposals

A team of industry stakeholders, NERC staff and Regional Entity staff have been working for some time to revise the definitions for VRFs (to ensure greater granularity by introducing "administrative" and "severe" risk categories) and to develop a set of pro forma VSLs (to ensure consistency and simplify the labor-intensive process of developing VSLs during the standards process). While there is support for the VRF proposal, project participants could not reach agreement on a VSL proposal. The SC will consider next steps at its April meeting.

Compliance Application Notice (CAN) Prioritization

The SC developed a set of criteria with associated weights for use in prioritizing the list of outstanding CANs. The SC provided the criteria and proposed weights to the compliance operations staff for use by other committees.

Project Schedule Management

The SC is working with the standards staff to ensure that the number and complexity of standards posted for comment and ballot at the same time does not exceed the ability of stakeholders to provide constructive, timely comments needed to reach technical consensus. The standards program now has 14 standards projects, plus numerous interpretation requests, under active development. During the first quarter 2012, it became apparent that a large number of projects, including CSO706, would be ready for posting for 30- and 45-day formal comment and ballot at the same time, during the March-April 2012 period. To manage this workload for stakeholders and make efficient use of drafting team and NERC staff resources, postings for some projects have been delayed by several weeks. Consequently, some projects that would otherwise be reported as "on schedule" will now be reported as "behind schedule" simply because there are too many standards ready for posting at one time.

Upcoming Activities

Reliability Standard Development Plan (RSDP) 2013-2015

Work has already begun in seeking support from the technical committees in developing the studies needed to support future standards projects. The formal process to update the RSDP for 2013-2015 will be initiated in April.

Standards and Compliance Workshop

The SC worked with the standards and compliance staffs planning the biannual standards and compliance workshop which took place April 16-18, 2012 in San Diego, CA.

Policy Input

The SC is seeking SOTC guidance on the SC's role in responding to NERC strategic and emerging technical issues, such as responses to major events (cold snap), risks (GMD) and studies by NERC technical committees (any outcomes from OC, PC, CIPC reports).

If trustees have questions or need additional information, they may contact Allen Mosher, chair of the standards committee, at amosher@publicpower.org or Herb Schrayshuen, vice president and director of standards and training, at herb.schrayshuen@nerc.net.

NERC Technology Update

Action

Information

Background

The information discussed in the document below is designed to give an update on NERC Technology. The information will provide a status on items discussed during the Standards Oversight and Technology (SOTC) meeting held in Phoenix on February 8, 2012.

If trustees have questions or need additional information, they may contact Marvin Santerfeit, director of information technology and services, at marvin.santerfeit@nerc.net.

NERC Technology Update

Technology Update

The following information is designed to give an update on the technology status at NERC. The items presented are in line with the overview given at the SOTC meeting held in Phoenix on February 8, 2012.

Princeton Office Data Center Close-Down

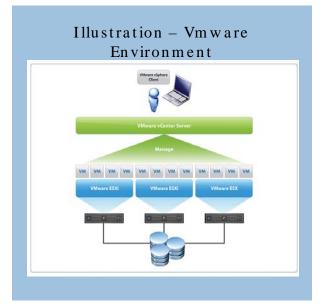
All but the bare minimum data center equipment, including Servers, Storage Area Network, associated routers, switches and firewall equipment has been removed from the Princeton office. Remaining essential equipment has been left in place to accommodate three to four headcount who will continue to work in the office until it is subleased, and all other equipment that could be re-used has been relocated to the Atlanta Data Center. One low cost Internet circuit was left in place for connectivity to resources located in the Atlanta Data Center, but more expensive point-to-point lines have been disconnected.

Development Environment

By leveraging the capability of VMware (Virtualization) discussed during the SOTC NERC technology update on February 8, 2012, Information Technology (IT) has built a development environment complete with Development, Quality Assurance (QA) and Production. The development environment will allow the IT development team to develop applications in an environment segmented from other production applications. Applications that have been developed based upon customer requirements will be moved into the QA space for rigorous

testing and validation prior to being moved into the Production (customer accessible) virtual farm.

By using the capabilities of VMware it will provide the ability to install multiple versions of the Microsoft Operating System (OS) to test backward compatibility and to run multiple instances of development and QA without having to purchase multiple pieces of hardware. Further, external vendors can be provided access to the development space in order to code pieces of an application without compromising security, or interfering with development in other parts of the development space.



SharePoint 2010

NERC purchased SharePoint 2010 licenses in January 2012 with plans to deploy the product to NERC internal users by end of Q3 2012. IT will use the capabilities of SharePoint 2010 to create applications and workflow processes in the development, QA and production environment, but the overall product will not be rolled out until Q3. The rationale to hold deployment until Q3 is driven by a desire to use the same style guide, design scheme, etc., being developed by Dell for the NERC public website. Upon completion of the public website redesign and deployment, pieces of the redesign will be used to implement SharePoint 2010 for the internal NERC Intranet site and individual department SharePoint 2010 sites for a consistent look and feel across the organization.

NERC Public Facing Website

Dell conducted an assessment of the NERC public facing website in January 2012 and a brief overview of their findings was presented during the Phoenix SOTC meeting. Since the Phoenix SOTC meeting subsequent sessions have been held with Dell to better understand the scope of the proposed redesign effort. As a brief recap, the planned redesign of the public website would occur over the course of an 18-week timeframe with the majority of the effort focused on creation of metadata (search criteria) for NERC documentation. The website redesign effort would not be inclusive of any application redesign in Phase I.

As a result of further discussion with Dell effort has started on redesign of the NERC public facing website for a planned deployment at the end of Q3 2012. The redesign of the website has substantial scope and will leverage the resources of both Dell and internal NERC resources to create a governance framework for document publishing to the external website, and for ongoing archival and review processes. A further update will be presented at the next SOTC meeting.

Major 2013 Information Technology Initiatives

Action

Information

Background

The information discussed in the document below is designed to give an update on the NERC 2013 Information Technology initiatives. It is informational only and will provide an overview of multi-year strategic initiatives that will require investment in software, hardware and consulting resources to design and deploy a centralized ERO data repository.

If trustees have questions or need additional information, they may contact Marvin Santerfeit, director of information technology and services, at marvin.santerfeit@nerc.net.

Major 2013 Information Technology Initiatives

Introduction

The mission of Information Technology (IT) and Services is to plan, design, implement and operate technology that will support NERC's charter to ensure reliability of the bulk power system (BPS). An important component of this mission involves the implementation of a centralized data repository with the necessary infrastructure to accept inbound data and catalog in one location for access across the Electric Reliability Organization (ERO). The resulting data repository would provide the necessary visibility to information required by NERC and the Regional Entities in order to gain better data intelligence and collaboration across the ERO.

The ERO has many methods by which to obtain data required to ensure the reliability of the BPS. However, there is no one single location in which to capture and mine data across the ERO to give broad spectrum visibility across multiple disciplines: Compliance Operations, Critical Infrastructure, Standards and Reliability Risk Management. Implementation of a single data repository designed to capture information across disciplines within the ERO sets the stage for improved reporting, consistent data, improved efficiency and adherence to regulatory requirements.

The NERC's proposed 2013 IT budget sets the framework to begin implementation of a single data repository. Proposed contract, consulting, and operations and maintenance (O&M) budget amounts are tailored to ensure the building blocks are in place to continue strategic ERO initiatives started in 2012. Set forth below are the specific goals that will be supported by the proposed expenditures for data storage hardware, network equipment and consulting resources needed for design and implementation of phase I of a multi-year effort to centralize data into a single ERO data repository.

Goals

NERC IT has two main strategic goals for 2013 that are part of a multi-year strategy to consolidate applications and databases to provide visibility and collaboration across the ERO.

- With the Regional Entities and the continued assistance of external consulting support, deploy a common, enterprise-wide technology platform that embraces the requirements of the Regions and stakeholders for reliable, secure, efficient and costeffective systems and services.
- 2) Design a Data Warehouse capability with a single repository of data designed to provide a reliable, stable, and secure environment for reporting across multiple-program areas.

In order to achieve the two strategic IT initiatives outlined in 2013, IT has proposed a number of items in the 2013 budget tailored to achieve the aforementioned initiatives. Specific items targeted in 2013 as part of the multi-year strategy to align ERO applications include:

- Compliance Reporting and Tracking System (CRATS)
- Reliability Assessment Database
- Event Analysis
- Bulk Electric System Definition
- ES-ISAC
- TADS, GADS, DADS

Implementation

To deliver on these strategic initiatives outlined in the 2013 draft budget, IT will augment existing technology staff to include Project Management Office (PMO) with contract resources that will increase the IT component of NERC's Contract and Consulting budget in 2013 compared to 2012. The ERO PMO, following established procedures, will competitively procure vendor resources to support database design and implementation. These design and implementation services will be targeted toward development of a single data repository in order to capture the multiple streams of data required to support ERO applications noted above.

The next phase of implementation will leverage tools such as Microsoft SharePoint 2010 in addition to other business intelligence tools to create applications for both NERC and the Regions for a single, holistic look at data across the ERO. The resulting single repository of data will be much more efficient across NERC and the Regions, coupled with lower resource utilization required for supporting the current multi-database, multi-application infrastructure.

The implementation is targeted as a multi-year strategy designed to provide a much more seamless access to data across the ERO.

Summary

NERC, in partnership with the Regional Entities, has developed this multi-year strategy to substantially improve visibility to data across the ERO. The strategy will require an increase in contract and consultants, along with infrastructure to create a single data repository, along with applications to mine data, improve access and collaboration and ultimately achieve better visibility to potential impacts to the BPS.



Standards Oversight and Technology Committee Mandate Approved by Board of Trustees: November 4, 2010

- 1. The Standards Oversight and Technology Committee (SOTC) shall be composed of not less than three and not more than six Trustees.
- 2. The members of the SOTC shall be appointed or reappointed by the Board at the regular Meeting of the Board immediately following each Annual Meeting of the Member Representatives Committee. Each member of the SOTC shall continue to be a member thereof until his/her successor is appointed, unless he/she shall resign or be removed or shall cease to be a Trustee of the Corporation. Where a vacancy occurs at any time in the membership of the SOTC, it may be filled by the Board of Trustees.
- 3. The Board of Trustees or, in the event of their failure to do so, the members of the SOTC, shall appoint a Chair from among their members. The SOTC shall also appoint a Secretary who need not be a Trustee.
- 4. The place of meeting of the SOTC and the procedures at such meeting shall be the same as for regular Board meetings of the Corporation, or as determined by the members of the SOTC, provided that:
 - (a) A quorum for meetings shall be a majority of the number of members of the SOTC.
 - (b) The SOTC shall meet as required and at least twice a year.
- 5. The objectives of the SOTC are as follows:
 - (a) To provide the board with a thorough evaluation of and recommendations for action on proposed NERC projects that employ new technology. Such projects could include, but not be limited to: real-time system monitoring and visualization tools, reliability performance analysis tools, information and data exchange networks, reliability performance data bases, etc.
 - (b) To provide the board and the NERC Standards Committee with a thorough evaluation of and recommendations for action regarding the strategic direction of NERC's standards development program.



- (c) To provide advice and recommendations to the board on any technical or standards issue referred to it by the board.
- 7. To achieve its objectives, the SOTC shall:
 - (a) Review all projects that employ new technology that may be proposed from time to time by the Corporation's staff or one of the Corporation's committees;
 - (b) Thoroughly evaluate all such proposals from both technical and financial standpoints;
 - (c) Make recommendations, as appropriate, to the board, including recommendations to include such projects in the NERC business plan and budget;
 - (d) Respond to the board's requests for advice and recommendations on any technical issues referred to it by the board;
 - (e) Review with management the corporation's computer systems, including procedures to keep the systems secure and contingency plans developed to deal with possible computer failures;
 - (f) Provide oversight of NERC's implementation of the North American SynchroPhasor Project;
 - (g) Identify strategic priorities for reliability standards development and provide feedback to NERC Standards Committee and board on annual work plan;
 - (h) Monitor overall results, including quality and timeliness of standards development work, and make recommendations to NERC Standards Committee and board regarding needed improvements;
 - (i) Assess emerging reliability risks affecting standards and make recommendations as appropriate;
 - (j) Monitor progress in addressing regulatory mandates and directives related to standards:
 - (k) Serve as the Level 2 Appeals Panel as set forth in the NERC Standards Process Manual, Appendix 3A to the NERC Rules of Procedure;
 - (I) Periodically review NERC's status with the American National Standards Institute;
 - (m) Respond to the board's requests for advice and recommendations on any technical issues referred to it by the board;



- (n) Review this mandate on an annual basis and recommend to the board Corporate Governance and Human Resources Committee any changes to it that the SOTC considers advisable;
- (o) Complete a self-assessment annually to determine how effectively the SOTC is meeting its responsibilities; and
- (p) Perform such other functions as may be delegated from time to time by the board.