NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Agenda
Member Representatives Committee

May 8, 2012 | 1:00-4:30 p.m. Eastern

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

Introductions and Chair's Remarks

NERC Antitrust Compliance Guidelines and Public Meeting Notice

Consent Agenda

1. **Minutes* – Approve**
   a. March 29, 2012 Conference Call
   b. February 8, 2012 Meeting
2. **Future Meetings* – Information**
3. **Remarks from Gerry Cauley, NERC President and CEO**
4. **Nominations***
   a. Recommend Slate of MRC Members to Serve on the Board of Trustees Nominating Committee
   b. Nominate Slate for the Electricity Sub-Sector Coordinating Council (ESCC)
5. **2013 NERC Business Plan and Budget – Information**
6. Additional Discussion of MRC Informational Session Items, May 1* **– Discussion**
   a. Bulk Electric System (BES) Definition, Phase 2
   b. Definition of Adequate Level of Reliability (ALR)
   c. Risk-Based Compliance Monitoring and Entity Assessments
   d. Compliance Enforcement Initiatives
7. **Status of Current Standards Projects – Discussion**
   a. Status of Regional Standards Development Programs*
   b. Status of Underfrequency Load Shedding (UFLS) Activities*
   c. Status of Operating Communications Protocols*
   d. Standards for Board of Trustees Adoption, May 9 [Reference: Board of Trustees Agenda Item 6]

8. **2012 State of Reliability Report* – Information**
9. **Recommendations from the 2011 Southwest Outage* – Information**
10. **Culture of Reliability Excellence*** – Tom Bowe, PJM **– Discussion**
11. **Regulatory Update* – Information**
12. **Recommendations of the Standards Process Input Group (SPIG)* – Discussion**
    a. **Further Discussion on Recommendations of the SPIG in Standards Oversight and Technology Committee Meeting (to follow MRC Meeting)**

*Background materials included.

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Antitrust Compliance Guidelines

I. General

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

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

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

II. Prohibited Activities

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

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

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

III. Activities That Are Permitted

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

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

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

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

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

- Reliability matters relating to the bulk power system, including operation and planning matters such as establishing or revising reliability standards, special operating procedures, operating transfer capabilities, and plans for new facilities.
- Matters relating to the impact of reliability standards for the bulk power system on electricity markets, and the impact of electricity market operations on the reliability of the bulk power system.
- Proposed filings or other communications with state or federal regulatory authorities or other governmental entities.

Matters relating to the internal governance, management and operation of NERC, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meetings.

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

DRAFT Minutes
Member Representatives Committee
Pre-Meeting Conference Call

March 29, 2012 | 3:00 p.m. Eastern
Dial in: 800-743-4304
No pass code necessary

Chair Scott Helyer convened a duly-noticed open meeting by conference call of the North American Electric Reliability Corporation's Member Representatives Committee (MRC) on March 29, 2012 at 3:00 p.m. Eastern. The meeting announcement, agenda, and list of attendees are attached as **Exhibits A, B,** and **C**, respectively. MRC membership attendance/roll call was not necessary since no quorum was required.

NERC Antitrust Compliance Guidelines and Public Meeting Notice

Holly Mann, assistant to the NERC president and ceo, and committee secretary, directed the participants' attention to the NERC Antitrust Compliance Guidelines and the public meeting notice.

Review of May 8, 2012 Draft MRC Agenda

Chair Helyer reviewed the preliminary agenda for the upcoming May 8, 2012 MRC meeting in Arlington, VA **(Exhibit D)**.

- Topics for discussion will include: regional standards development, underfrequency load shedding, operating communications (COM-002, COM-003, technical guidance), Rules of Procedure changes, 2011 Southwest Outage, and the progress of the Standards Process Input Group (SPIG).
- The Standards Oversight and Technology Committee will meet immediately following the MRC on May 8 to provide additional discussion of the recommendations of the SPIG.
- Tom Bowe, executive director, reliability and compliance, PJM Interconnection, will present on the Culture of Reliability Excellence.
- Additional time will be given to discuss the May 1 MRC Informational Session, which will include: Bulk Electric System (BES) and Adequate Level of Reliability (ALR) definitions, entity assessments, demand response availability, summer assessment conclusions, and Find, Fix, Track and Report (FFT) initiative.

Review of May 9, 2012 Draft Board of Trustees (Board) Agenda
Chair Helyer reviewed the preliminary agenda for the May 9, 2012 BOT meeting in Arlington, VA (**Exhibit E**).

The MRC was reminded of the Board's upcoming request to provide policy input on several emerging issues. A letter requesting policy input from the MRC will be distributed on April 6.

Schedule of Events for Upcoming Meetings
Chair Helyer reviewed the schedule of events for the upcoming MRC, Board, and Board Committees meetings (**Exhibit H**). MRC members were encouraged to review all materials for the MRC, Board, and Board committee meetings and attend as many of these meetings as possible, in advance of the MRC's discussion on May 8.

Committee Nominations
Holly Mann announced two upcoming nomination processes:

1. MRC members for the Board Nominating Committee
2. CEO executive slate for the Electricity Sub-Sector Coordinating Council (ESCC)

MRC members were informed that they will receive additional information prior to the May 8 meeting regarding these nomination processes.

Meeting Adjourned
There being no further business, the call was terminated at 4:00 p.m. Eastern.

Submitted by,

Holly Mann,
Committee Secretary

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Draft Minutes
Member Representatives Committee (MRC)

February 8, 2012 | 1:00–5:00 p.m. Mountain
Arizona Grand Resort
8000 S. Arizona Grand Parkway
Phoenix, AZ 85044

Chair Scott Helyer called to order the North American Electric Reliability Corporation (NERC) Member Representatives Committee (MRC) meeting on February 8, 2012 at 1:00 p.m., MT. The meeting announcement, agenda, and list of attendees are attached as **Exhibits A**, **B**, and **C**, respectively.

NERC Antitrust Compliance Guidelines and Public Meeting Notice

Chair Helyer called attention to the NERC Antitrust Compliance Guidelines and the public meeting notice. Any questions regarding these guidelines or notice should be addressed to NERC's General Counsel, David Cook.

Introductions and Chair's Remarks

Chair Helyer declared a quorum present with the following recognized proxies:

- Tom Bowe for Terry Boston – ISO/RTO
- Bill Gallagher for Terry Huval – Transmission Dependent Utility
- Jodi Jerich for Charles Acquard – Small End-Use Customer
- Del Smith for Robin Lunt – State Government
- Linda Campbell for Gordon Gillette – Regional Entity (non-voting)
- Gilbert Neveu for Jean-Paul Théorêt – Canadian Provincial (non-voting)

Chair Helyer acknowledged and welcomed Vice Chair Carol Chinn, six new members to the MRC, and attending staff from the Federal Energy Regulatory Commission (FERC). Chair Helyer also recognized the policy input provided by the MRC and stakeholders at the request of John Q. Anderson, chair of the NERC Board of Trustees.

Minutes

The MRC approved the draft minutes of its November 2, 2011 meeting and January 12, 2012 pre-meeting conference call (**Exhibits D and E**).

Election of Board of Trustees (BOT)

Dave Goulding, chair of the nominating committee, provided a report and recommendation for the re-election of three NERC BOT members for the class of 2015. Chair Helyer called for a vote of the MRC for the re-election of Ken Peterson, Bruce Scherr and Jan Schori. Chair Helyer confirmed a two-thirds affirmative vote from eligible members and congratulated the returning members of the NERC BOT.

Welcome to Phoenix

Dave Areghini, retired associate general manager for Salt River Project, welcomed participants to Phoenix and provided opening remarks regarding the advancement of the ERO Enterprise concept for the purpose of strengthening reliability. Mr. Areghini shared that he believes the greatest deficiency facing the ERO is the inability to successfully quantify progress, use appropriate metrics, and leverage resources that exist among the industry. NERC and the Regions are encouraged to reach out to the industry and promote training and practice that reinforce our culture of reliability.

Remarks from Gerry Cauley, NERC President and CEO

Mr. Cauley recognized the policy input received by the BOT and shared his appreciation for the continued opportunities for dialogue with the MRC and industry. There were a number of accomplishments by NERC and the ERO Enterprise in 2011 which utilized support from the industry; these included the filing of the Bulk Electric System (BES) definition with FERC, continued prioritization of standards, completion of GridEx, and progression of the Find, Fix, Track and Report (FFT) initiative. Additional investment in the event analysis process and procedure also proved successful for 2011.

Update on ERO Enterprise Strategic Planning and Corporate Goals

The current ERO Enterprise Strategic Plan (2012-2015) includes goals that span three major focus areas:

1. Standards and compliance
2. Risks to reliability
3. Coordination and collaboration

The 2012 goals are structured around achieving efficiency and effectiveness, a risk-management focus, and accomplishable outcomes and results. NERC's standards need to be results-based with effective compliance monitoring and internal controls.

NERC is in the process of confirming weights for each of the three focus areas and the multiple corporate performance metrics associated with each since they are not all equal in the eyes of NERC, the Regions, industry or FERC. The goals, objectives and measures will continue to be scaled over the upcoming weeks based on importance, relevance, and timeliness of each. A more refined version is expected to be delivered to the BOT Corporate Governance and Human Resources Committee by the end of the month.

Mr. Cauley also recognized opportunities exist to collaborate with registered entities and the forums to analyze data and align risks and cause codes. The forums and others among the industry could also take on the responsibility of identifying risks and analyzing data to determine trends and patterns. As the ERO, NERC is obligated to identify and prioritize certain risks and patterns, between identifying risks and fixing them there is a lot of work to be done.

Mr. Cauley confirmed NERC's intent to be more transparent in its corporate year-end report for 2012.

Standards Development Process Improvements

Mr. Cauley wants to introduce, in 2012, another opportunity to seek clarification on the overall structure and timeliness of the standards development process to ensure greater efficiency and quality of results. The ERO must equally consider the weight of compliance on those entities that have to implement and meet the requirements of standards.

In the past, additional time has been allocated to address improvements to the administrative processing, balloting, etc. It is now the time to address several additional issues in the upcoming year:

1. **Process** – Determining how to address the efficiency of the process by breaking the existing mold for how we develop standards. Are there other options and alternatives for developing a successful development cycle that will improve a timely standards process?
2. **Resources** – Maximizing the use of appropriate resources. Protecting the right of all stakeholders involved while deriving the necessary talents to comprise the drafting team and ensuring the correct legal, writing, and enforcement support for standards development.
3. **Governance** – Determining if sustainable governance is in place to produce adequate reliability through standards development. Encouraging the ERO Enterprise to continue identifying risks and setting the priorities and timeline for producing a standard through the use of an improved process.

Chair Helyer recognized the MRC has a role to support and advise the BOT on the issue of standards development. Various comments were received in writing prior to the meeting, but the following comments were provided by the MRC members regarding this topic:

- The current process lacks a clear scope and facilitation framework for the drafting team.
  - There need to be clear rules for everyone who participates in a standard drafting team (SDT), including NERC and FERC staff.
  - The team structure currently lacks sufficient policy advisors and technical writers.
  - NERC should serve in a guiding role for the team, as a facilitator to address the scope, manage the schedule, and to maintain specific issues.

- Concerns were raised about the need to have the industry included in the governance of the standards development.
- NERC is not the only organization that has tried to master the development of standards. NERC should benchmark its process against other organizations that set standards. MRC should take a role in leading the effort to revise the standards development process. The BOT relies on the MRC for this involvement.
- The MRC should ensure that input from stakeholders remains at the forefront and be careful to remember the international collaboration and policy input from Canadian Electricity Association (CEA).
- Attention should be given to the comments and recommendations of the trades. There needs to be a senior group of leaders to consider other process optimization, such as American National Standards Institute (ANSI's) process, as well keeping the industry input.
- The development of the FFT process has been a success and should be trusted.

Suggestions were made for the MRC to form a small steering group to provide policy input to the BOT regarding improvements to the standards development process. Chair Helyer suggested the MRC form a small steering group under the invitation of Chair Anderson and the BOT. Participants may include MRC members, a Canadian representative, Chair of the Standards Committee, representative from the trades and/or forums, NERC staff, BOT members, and others. Projected milestones would include:

- **April 1** – an initial progress report from the steering group to the full MRC
- **MRC Informational Webinar** – a preview of the presentation intended for the BOT meeting in May
- **May meeting** – the full presentation and discussion to the BOT

Rules of Procedure (ROP) Updates

Rebecca Michael, associate general counsel, NERC, reviewed a number of substantive changes to the ROP that are scheduled to be presented to the BOT for approval on February 9.

The substantive changes also include a proposal to delete appendices 3C and 6. There are currently agreements and memoranda of understandings in place between NERC and its international partners that warrant the retirement of the current Appendix 3C. Appendix 6 contains minor administrative details that no longer warrant inclusion in the ROP.

Future action regarding the ROP includes:

- Edits to Appendix 8 following the implementation of the event analysis process document; addressing the roles of situational awareness staffing in the ES-ISAC.
- Section 511, interventions in regional transmission organizations (RTOs)/ independent system operators' (ISOs) enforcement matters. Action on this section was deferred to the BOT meeting on February 23, 2012.

The following comments were provided by the MRC members regarding this topic:

- The BOT is asked to delay their decision/approval of the proposed updates and deletions to the ROP in an effort to give the MRC and industry ample time to review and provide final inputs to the changes discussed today.
- Some are concerned about changes to Section 400 that grant an appeals process to the Regional Entity (RE) if a ruling from the hearing body is not considered favorable or desirable. Is there an added concern for circumstances involving REs that select/appoint the hearing body?
- Some are in support of the RE acquiring the ability to appeal the decision of the hearing body. This change to the ROP is considered a positive parallel to the existing language that currently limits appeals to the RE.
- There is large support for the removal of Appendix 8 from this cycle of changes to the ROP. Future changes to Appendix 8 should be presented to the MRC as a package submission, in conjunction with other applicable areas of the ROP.
- It is unclear what warrants the MRC's discussion or policy input regarding changes to NERC's bylaws. A stakeholder would have to garner support from 50 entities across two segments or acquire a NERC officer to champion their proposal for a change to NERC's bylaws.
- The proposed change to the certification of entities is not a minor change. A reliability business case is needed for this proposed change to determine the impact across Industry and the benefit to reliability.

Event Analysis Update and Reliability Risk Trends

Earl Shockley, director of reliability risk management, NERC, summarized the event analysis field trial that resulted in the finalization of an ERO event analysis process document scheduled to be presented to the BOT for approval on February 9.

The following comments were provided by the MRC members regarding this topic:

- Members would like to receive additional details regarding the industry alert expected to be issued for the purpose of identifying change management events.

- There is little known about the timeframes that are targeted by NERC to issue reports from event analysis and lessons learned. How will the industry know when to expect these reports to be issued and available for peer-reference and use?

NERC confirmed it will ensure there is no breach in confidentiality, for those entities or regions involved in the event analysis process, through the release of these lessons learned and reports.

Generator Owners and Operators That Own and Operate Transmission Facilities

Mike Moon, director of compliance, NERC, presented an update on the status of draft compliance guidance and directive concerning the registration of Generator Owner/Operators (GO/GOPs) as Transmission Owner/Operators (TO/TOPs).

The following comments were provided by the MRC members regarding this topic:

- It is important to support the work invested by the standard drafting team (SDT) and recognize the potential for benefit to the industry. There is continued encouragement to utilize the SDT, NERC staff, the Regions, etc. and the standards development process that is currently in place to address any concerns that may arise around this issue.
- The full package of four standards (FAC-001, FAC-003, PRC-004 and PRC-005) might be remanded to the SDT to allow time to resolve the issue and objection of FAC-003 and return for MRC input during the May meeting. PRC-005 will also be balloted before the May meeting.
- There may be some facilities that are so complex that they require additional standards to be applied. A one size fits all approach may not be sufficient for this issue.
- The SDTs and NERC staff need to ensure all gaps are addressed with this set of standards before the package is submitted to FERC.
- Is there a list of requirements that are still a concern for NERC staff? Based on the presentation from the BOT Standards Oversight and Technology Committee (SOTC), it is not clear which standards NERC staff believes should be within scope of this current project.
- Complexities surrounding issues, such as this one, ultimately limit the timeliness involved with the standards development process.

NERC staff agreed to provide a review of the technical details that can support the SDT and provide a full picture regarding “completeness” of this initiative.

COM-002 Interpretation

The MRC provided the following input on the interpretation from the SDT on COM-002 regarding three-part communications during emergency circumstances:

- The interpretation of the COM-002 standard is the industry's opinion via the SDT.
- Nothing in the standard prevents using three-part communications during normal, non-emergency conditions and there is no penalty described in the standard for using three-part communications during non-emergency conditions.
- A concern was raised that the standard interpretation appears that we are backing away from reliability. Also, what is the risk between now and when the standard interpretation is approved?
- If three-part communications is used on a routine basis, can we determine when the emergency actually occurred?
- Three-part communications will not necessarily solve all dilemmas surrounding the exchange of information between entities. Many entities strive to use three-part communications most of the time while clearly recognizing that during emergencies it is required. Pursuing entities in terms of compliance should only be done if there is failure during emergency circumstances. If allocating resources to hunt down every time we fail to use three-part communications, even in routine operations, then we are not focusing ourselves on the risks that are most important.
- Industry has been surprised with how the standard has been enforced, based on how we want it to read or say and not by what it actually does read/say.
- The enforcement issue implies there may need to be a review of the language within the standard itself and not necessarily the interpretation of that standard that we are faced with today.
- It is hard to demonstrate that an entity has participated in three-part communications 100 percent of the time. Is it a violation with a penalty process if one sample is found where three-part communications was not used, during non-emergency times? We need to focus on making a reliability difference.
- Is this interpretation following the strict construction-approach of the standard?

The MRC concluded that the interpretation does follow the strict intent of the standard, during emergency conditions. The way the standard was being applied ultimately leads to the need for an interpretation.

Definition of Adequate Level of Reliability (ALR)*

The ALR task force is re-evaluating the existing ALR definition and determining objectives that will be measurable along with cost benefits, load loss distinctions, and an accompanying definition of "cascading". Ongoing efforts include the development of a white paper on the management of social impacts and risks to reliable BES operations. The schedule for industry comment is March 2012.

The MRC requested an update during their May informational session prior to the next face-to-face meeting in Arlington, Virginia. The BOT is expected to receive a final presentation in November 2012.

Bulk Electric System (BES) Definition — Filing of Phase 1 and Preparations for Phase 2

Herb Schrayshuen, vice president of standards and training, NERC, recognized the success of Phase 1 and confirmed the petition was filed with FERC in January 2012. Phase 2 is underway to finalize the Standards Authorization Request (SAR), develop the technical justification, and provide clarification from Phase 1. The schedule for industry comment is March 2012.

The MRC requested an update during their May informational session prior to the next face-to-face meeting in Arlington, Virginia.

Geomagnetic Disturbance Task Force (GMDTF) Update

Mark Lauby, vice president of reliability assessment and performance analysis, NERC, provided an update on the GMDTF's interim report. The major conclusions include loss of reactive power, challenge to maintain supply, and damage to certain transformers. The task force continues to work with industry to develop open source coding, create source tools for modeling, simulation, and measurement, and to review NERC Reliability Standards for opportunities for enhancement. The BOT is expected to receive the interim report for acceptance and endorsement of the recommendations during the February 23 meeting. An embargoed copy will be shared with various entities following BOT acceptance and endorsement.

The following comments were provided by the MRC members regarding this topic:

- This is a positive demonstration on how technical reports should be developed based on accurate data. Industry provided world class experts to support this task force initiative with NERC. This is how NERC is intended to work and operate.
- Members want to ensure this good work and the recommendations are continually shared with FERC, Congress and other entities.
- A parallel communication effort should be established with the Electricity Sub-Sector Coordinating Council (ESCC) regarding the release and socialization of this report.

Compliance Enforcement Initiative (CEI) Update

Ken Lotterhos, director of enforcement, NERC, confirmed NERC is preparing for the six-month status report to submit to FERC during March 2012 and is seeking comments from industry by February 23. The following comments were provided by the MRC members regarding this topic:

- A question was asked about the difference in timelines between processing the FFT violations versus the full Notice of Penalty (NOP) violations.
- Many regions initiated the FFT process with a majority of under-processed cases and immediately noticed efficiencies. As more cases enter the FFT process, efficiencies are expected to continue.
- A plan needs to be in place with a schedule for how auditors will accomplish all the steps necessary to reach Phase 2.
- The MRC is interested in knowing how FERC will address FFT.

FERC staff acknowledged the MRC's interest to receive more information once it becomes available.

NERC confirmed its intent to provide more data for the FFT and NOP processes so issues such as timelines are clearer to the industry.

Culture of Reliability Excellence

Eric Ruskamp, standards and compliance manager, Lincoln Electric System, provided a presentation on the subject matter expertise of its personnel who are cross trained to address NERC standards, compliance, and enforcement (**Exhibit G**)

Tom Bowe, executive director of reliability and compliance, PJM Interconnection, is scheduled to provide a presentation during the May 2012 meeting.

November 2011 FERC Technical Conference on Reliability

There were no MRC comments regarding this FERC Technical Conference.

May 8, 2012 Meeting and Future Meetings

The following are future MRC meeting dates and locations:

- May 8–9, 2012 – Arlington, VA
- August 15–16, 2012 – Quebec City, Canada
- November 6–7, 2012 – New Orleans, LA
- February 6–7, 2013 – San Diego, CA
- May 8–9, 2013 – Philadelphia, PA

- August 14–15, 2013 – Montreal, Canada
- November 6–7, 2013 – Atlanta, GA
- February 5–6, 2014 – Phoenix, AZ

Update on Regulatory Matters

Chair Helyer invited MRC members with questions or concerns regarding additional regulatory matters to meet with David Cook, senior vice president and general counsel, NERC at the conclusion of the meeting.

Adjournment

There being no further business, the meeting terminated at 5:30 p.m. MT.

Submitted by,

Holly Mann
Secretary

Future Meetings

Action
None

Background
Below are the future meetings as approved by the board on May 11, 2011.

2012 Dates

May 8–9	Arlington, VA
August 15–16	Quebec City, Canada
November 6–7	New Orleans, LA

2013 Dates

February 6–7	San Diego, CA
May 8–9	Philadelphia, PA
August 14–15	Montreal, Canada
November 6–7	Atlanta, GA

2014 Dates

February 5–6	Phoenix, AZ

Agenda Item 4a
MRC Meeting
May 8, 2012

Recommend Slate of MRC Members to Serve on the Board of Trustees Nominating Committee

Action

Establish the recommended slate of five Member Representatives Committee (MRC) members.

Background

Chair Scott Helyer will invite MRC members to volunteer to serve on the Board of Trustees Nominating Committee. In 2012, Jan Schori will chair the Nominating Committee.

Agenda Item 4b
MRC Meeting
May 8, 2012

Nominate Slate for the Electricity Sub-Sector Coordinating Council (ESCC)

Action

Discussion — Slate of CEO-level membership to the Electricity Sub-Sector Coordinating Council (ESCC).

Background

The ESCC, which fosters and facilitates the coordination of sector-wide activities and initiatives to improve the security of the nation's critical infrastructure and requires the participation of CEO-level members who serve for staggered two year terms.

In accordance with the ESCC Charter, the MRC is responsible for the solicitation of nominations and approval of the proposed slate of five executive level members. Nominations are requested annually by the MRC and received no later than June 21 for new members, as well as members who wish to be re-elected for subsequent terms on the ESCC.

Agenda Item 6a
MRC Meeting
May 8, 2012

Bulk Electric System (BES) Definition, Phase 2

Action
Discussion

Background
Phase 1 of Project 2010-17, Definition of Bulk Electric System (DBES), concluded on November 21, 2011 with stakeholder approval of a revised definition of BES and an application form titled "*Detailed Information to Support an Exception Request"* referenced in the Rules of Procedure Exception Process. The Board of Trustees unanimously adopted in January 2012 the Definition, Exception Process, and Rules of Procedure modifications, which has been filed with FERC for approval.

Phase 2 of the project is being initiated to develop appropriate technical justification to support refinements to the definition that were suggested by stakeholders during Phase 1. The DBES Standard Drafting Team is actively working with the NERC Technical Committees (Operating and Planning Committees) to collect and analyze information needed to support revisions to the DBES developed in Phase 1 of this project. The goal is to provide a technically justifiable definition that identifies the appropriate electrical components necessary for the reliable operation of the interconnected transmission network. The development may include other improvements to the definition as deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing a high quality and technically sound DBES.

If trustees have questions or need additional information, they may contact Pete Heidrich, manager of reliability standards, FRCC and chair of the DBES SDT at pheidrich@frcc.com or Herb Schrayshuen, vice president and director of standards and training, at herb.schrayshuen@nerc.net.

Agenda Item 6b
MRC Meeting
May 8, 2012

Definition of Adequate Level of Reliability (ALR)

Action
Discussion

Background
The Adequate Level of Reliability Task Force (ALRTF) was formed in May 2011 under the auspices of the NERC Standing Committees Coordinating Group (SCCG), which comprises the chairs and vice chairs of NERC's standing committees[1], to address concerns expressed by the NERC Board of Trustees (BOT), the Member Representatives Committee (MRC), and stakeholders that NERC's current definition of Adequate Level of Reliability (ALR) needs reassessment to ensure that the definition supports and helps to define NERC's mission to ensure reliable operation of the bulk power system.

At the end of April 2012, the ALRTF completed a draft definition document, a draft technical document, a discussion paper on risk tolerance, and a mapping document that compares the proposed ALR objectives with NERC's reliability principles. These documents are posted and available for a 60-day industry comment period (http://www.nerc.com/filez/alrtf.html). The ALRTF will meet at the end of June to review comments and make corresponding changes, with the goal of presenting a definition and supporting documents to the BOT by the end of the calendar year.

Allen Mosher, chair of the ALRTF and chair of the NERC Standards Committee, will present and discuss the status of this initiative.

[1] Operating Committee, Planning Committee, Critical Infrastructure Protection Committee, Standards Committee, and Compliance and Certification Committee.

Agenda Item 6c
MRC Meeting
May 8, 2012

Risk-Based Compliance Monitoring and Entity Assessments

Action

Discussion

Background

The purpose of this update is to provide a comprehensive overview for the Risk-Based Compliance Monitoring Initiative (CEI). The webinar slide presentation will address NERC's purpose for the initiative, what success would look like, and the NERC projects that support the initiative. A discussion paper, Risk-Based Reliability Compliance Monitoring, is attached (Attachment 1).

The initiative, which is being implemented through the projects listed below, integrates the concept of risk, to a greater degree, into ERO compliance and enforcement activities. Identification of risk allows for resources of the ERO, Regional Entities, and registered entities to be focused on those issues that pose the greatest potential risk to the reliability of the bulk power system (BPS). The initiative also provides for a paradigm shift from one of backward-looking compliance monitoring to one of empowering registered entities to be forward-looking and more successful in their compliance assurance activities.

This initiative integrates the evaluation of risk throughout the process at the program level, the registered entity level and in the enforcement processing level, as follows:

Program Level

- Annual Implementation Plan
- Actively Monitored List

Registered Entity Level

- Entity Assessment – The assessment (or evaluation) will, among other objectives, determine scope and frequency of compliance monitoring for each registered entity
- Compliance Monitoring - Integration of verification of internal controls into the compliance monitoring to determine the due diligence a Compliance Enforcement Authority (CEA) is to use (the amount of evidence to review) to obtain reasonable assurance the registered entity is compliant

Enforcement Processing Level

- Resolution of non-compliance based on risk (CEI)
  - Find, Fix and Track - Lower Risk Possible Violations
  - Notice of Penalty

Summary

This initiative is designed to:

- Allow for focus of resources on reliability issues
- Empower registered entities to be forward-looking and successful in their compliance activities

The major change elements of this initiative are assessing the frequency and scope of an entity's compliance monitoring based on the individual entity's potential impact on the reliability of the BPS, the integration of formal audit principles into compliance monitoring, including assessing internal controls, and the implementation of CEI Phase Two, where discretion is applied in the field.

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Attachment 1

Risk-Based Reliability Compliance Monitoring

April 20, 2012

As the Electric Reliability Organization (ERO) continues to evolve, greater emphasis has been placed on incorporating risk-based concepts in all endeavors to more efficiently utilize resources and focus on the significant risks of the electrical sector. From the ERO Enterprise Strategic Plan 2012-2015 approved in February of 2012, the following vision is detailed:

> "To be the trusted leadership that ensures and continuously improves the reliability of the North American bulk power system (BPS) by implementing relevant standards; promoting effective collaboration, cooperation, and communication around important risks to reliability; and utilizing expertise from the industry to produce outcomes that improve reliability."

Within the strategic plan, the four Pillars for Success clearly articulate the critical components that will be emphasized to achieve this vision:

- ***Reliability*** – to address events and identifiable risks, thereby improving the reliability of the BPS.
- ***Assurance*** – to provide assurance to the public, industry, and government for the reliable performance of the BPS.
- ***Learning*** – to promote learning and continuous improvement of operations and adapt to lessons learned for improvement of BPS reliability.
- ***Risk-Based Approach*** – to focus attention, resources and actions on issues most important to BPS reliability.

The purpose of this paper is to provide a comprehensive overview of the Risk-Based Compliance Monitoring Initiative and its components; the initiative's background; the necessity of making compliance a tool that supports reliability; an articulation of success; and the criticality of greater consideration of internal controls; as well as to identify potential Rules of Procedure (ROP) changes. The NERC corporate goals for 2012 firmly direct these efforts, specifically within Goal No. 1 for Standards and Compliance, performance objective c: *Promote a culture of compliance with mandatory reliability standards across the industry.* Successful implementation of the performance objective will be, in part, determined by the following measures:

- 11 – Educate industry on effective compliance programs and effective reliability risk controls.
- 12 – Develop risk-based compliance monitoring approaches to maximize reliability benefits and improve efficiencies, and to encourage effective internal controls at registered entities.

Additionally, the ERO will support the industry by identifying procedures, practices and controls to address reliability risks resulting from noncompliance.

Overview

In late 2010 and early 2011, industry and NERC staff began discussions of risk-based compliance monitoring with a goal of refining compliance and enforcement efforts to support reliability efforts. Initial efforts between industry and NERC staff included greater analysis to support development of the Annual Implementation Plan and Actively Monitored List (AML); discussion of refined compliance monitoring concepts to include appropriately scoped audits and spot checks; a white paper developed by Tom Burgess; and the NERC Compliance and Certification Committee (CCC) Work Group's effort to refine issues and develop options for future direction.

Ultimately success for both the ERO and the industry will be based on a clear set of concepts that include an emphasis on reliability and less compliance bureaucracy; compliance programs designed to support reliability on a forward-looking basis with greater reliance on internal controls; an industry that monitors, finds, fixes, tracks, and reports (FFT) issues; and refocused resources to allow us to address high-risk reliability issues. The Risk-Based Compliance Monitoring Initiative will manifest these concepts in:

- Registered entities that are empowered to be in control of monitoring their own compliance activities and have successful compliance programs.
- ERO and industry resources being focused on reliability.
- The successful implementation of a risk-based approach to compliance monitoring.

There must be greater emphasis on reliability and less on compliance and enforcement bureaucracy. While the requirements are enforceable, shifting to greater consideration of the intent and purpose of the standard will provide greater opportunity for industry collaboration and information sharing to meet reliability obligations.

The ERO compliance monitoring program and registered entities' compliance programs should be designed to support reliability on a forward-looking basis with greater consideration and reliance on internal controls. The current construct is focused on the rearward-looking process of reviewing potentially significant amounts of evidence over the entire audit period. Further, all violations, regardless of the risk created to the reliability of the BPS or when the violation occurred, must be processed. This rearward-looking approach to compliance monitoring provides little to no confidence that the entities have the ability to make judgments about their future state of reliability.

An emphasis on internal controls and how an entity manages its own compliance programs is forward-looking. Internal controls are proactive and, coupled with a solid internal compliance program, will

demonstrate an entity's commitment to manage compliance with a focus on reliability until the next compliance monitoring effort. The industry has already demonstrated a commitment to compliance as evidenced by the high numbers of self-identified possible violations (PVs); 69 percent in 2011 and 68 percent over the entire enforceable period (2007-present). Self-identified violations include four of the eight compliance monitoring program discovery methods: self reports, self certifications, data submittals and exception reporting. This is a significant factor in the reasoning for the Compliance Enforcement Initiative (CEI) and the FFT mechanism. The industry has demonstrated that it does indeed monitor, FFT compliance issues and PVs.

With this proactive and responsible compliance mentality, both the ERO and industry can focus more resources on high-risk reliability issues and less on compliance. Registered entities will be able to deploy and utilize resources to improve reliability as opposed to managing compliance risk and the volumes of data required to demonstrate compliance on a rearward-looking basis.

Consideration of internal controls and internal compliance programs are basic auditing concepts and principles designed to be forward-looking. These concepts are articulated in detail in the "Yellow Book" or Government Auditing Standards, which were most recently revised in December 2011.[1] Other auditing organizations and references include the Committee of Sponsoring Organizations (COSO) of the Treadway Commission Framework[2,3] and the Public Company Accounting Oversight Board (PCAOB)[4]

Key components of auditing include rigorous planning and preparation, appropriate field work, and reporting to communicate the audit team's results. Planning and preparation must include an assessment of the organization to be audited and a consideration of the internal controls. The finding of the audit must be based on the auditor's professional judgment in obtaining reasonable assurance of compliance. Based on the level of the performed audit, an auditor may not have sufficient knowledge to determine that an entity is compliant; only that there was not a finding of non-compliance. Finally, reporting must communicate the results for the intended purpose of the program.

Reasonable Assurance as discussed in the International Federation of Accountants (IFAC) / The International Auditing and Assurance Standards Board (IAASB)'s International Standards on Auditing #200[5], Introduction is:

> *"Reasonable assurance is a high level of assurance. It is obtained when the auditor has obtained sufficient appropriate audit evidence to reduce audit risk . . . to an acceptably low level. However, reasonable assurance is not an absolute level of assurance, because there are inherent limitations of an audit which result in most of the audit evidence on*

[1] Available at: http://www.gao.gov/products/GAO-12-331G, April 2012.
[2] http://www.coso.org/
[3] Members include American Accounting Association, American Institute of CPAs, Financial Executives International, The Association for Accountants and Financial Professionals in Business, and the Institute of Internal Auditors
[4] http://pcaobus.org/Pages/default.aspx
[5] Available at: http://www.ifac.org/sites/default/files/downloads/a008-2010-iaasb-handbook-isa-200.pdf, April 2012.

which the auditor draws conclusions and bases the auditor's opinion being persuasive rather than conclusive."

Professional Judgment from GAGAS Section 6.03 is detailed as:

> *"Objectives for performance audits range from narrow to broad and involve varying types and quality of evidence. In some engagements, sufficient, appropriate evidence is available, but in others, information may have limitations.* ***Professional judgment*** *assists auditors in determining the audit scope and methodology needed to address the audit objectives, and in evaluating whether sufficient, appropriate evidence has been obtained to address the audit objectives."* [emphasis added]

Components of the Risk-Based Compliance Monitoring Initiative

As NERC moves towards greater consideration and utilization of risk-based concepts and methods in the Compliance Monitoring and Enforcement Program (CMEP)[6], the following levels have been identified for focus: the program level, specifically the Annual Implementation Plan and AML; the registered entity level, where development of the entity assessment is critical; and the compliance issue or violation level.

The Program Level

At the program level the Risk-Based Compliance Monitoring Initiative focuses in two areas: the development of the AML and communication of compliance assessment approaches, specifically through the Reliability Standard Audit Worksheets (RSAWs).

The AML

The AML will identify the highest priority standards for compliance monitoring. These standards will establish the baseline or starting point for the Regional Entity (RE) in developing an appropriate scope of compliance monitoring for an individual registered entity, based upon the results of the Entity Impact Evaluation (see discussion on appropriately scoping compliance monitoring below). The highest priority Reliability Standards and associated Requirements populating this list are determined annually through a review of the following:

- ERO High-Risk Priorities
- FERC Orders and Guidance
- Compliance History and Culture
- Input from NERC Staff including Compliance Operations, Critical Infrastructure Protection, Enforcement, Events Analysis and Investigations, Legal, Reliability Assessments and Performance Analysis, and Standards

[6] Available at: http://www.nerc.com/files/Appendix4C_Uniform_CMEP_20110101.pdf

- Future Considerations

Communication of Compliance Assessment Approaches through the RSAWs

To clearly communicate compliance assessment approaches, NERC has begun to update the RSAWs by integrating the standard drafting team's intent, obtaining broader industry input and resolving compliance monitoring approaches. The objective of obtaining this input is to reduce any gap between the drafting team's intent for the standard and compliance expectations. Compliance and enforcement will continue to own the RSAWs to ensure Compliance Enforcement Authorities (CEAs) appropriately and consistently monitor compliance; however it is expected that this integration effort will, as RSAWs are modified, prevent spikes in the number of violations when standards become enforceable and prevent unnecessary violations for existing standards. Further, this effort will, to the extent possible, consolidate compliance guidance documents into one location, where CEAs and registered entities can easily access all relevant information. It is anticipated that the improved understanding that comes along with the updated RSAWs will reduce the number of requests for standard interpretations and compliance application notices (CANs).

NERC is also beginning to introduce formal auditing principles[7], including the assessment of internal controls, into the RSAWs.[8] As discussed above, this widely accepted auditing practice provides auditors an opportunity to assess whether a registered entity has control over its own compliance activities and the ability to use that assessment to determine the level of due diligence that will be required during the audit. Using this method, the auditor has the ability to monitor the entity's internal controls, which are not subject to compliance, and use the entity's evidence of compliance activities to verify the effectiveness of the internal controls. The updated RSAWs introduce these concepts with a discussion of the purpose for assessing internal controls during an audit and a reminder for an entity to provide an auditor or CEA with its internal controls (see discussion on incorporating internal controls into compliance monitoring below).

The Entity Level

At the entity level the Risk-Based Compliance Monitoring Initiative focuses on two areas: the implementation of Entity Impact Evaluations, and inclusion of auditing principles, specifically internal controls, into compliance monitoring.

Entity Impact Evaluations

An open and transparent Entity Impact Evaluation will provide a consistent method for Regional Entities (Res) to determine appropriately scoped, or customized, compliance monitoring for each registered entity. The Entity Impact Evaluation will be a non-public evaluation that, in the successful

[7] Utilized in Generally Accepted Government Auditing Standards (GAGAS) and outlined in the Committee of Sponsoring Organizations of the Treadway Commission's (COSO) model; members of COSO include the American Accounting Association, American Institute of CPAs, Financial Executives International, The Association for Accountants and Financial Professionals in Business, and the Institute of Internal Auditors.

[8] The location of internal control information will be determined based on industry preference, but may be located either in each individual RSAW or in an overarching RSAW document that may also contain other information pertaining to multiple RSAWs.

implementation of the Risk-Based Compliance Monitoring Initiative, will be initially performed by the registered entity and completed in collaboration with the RE.

The results of an entity's Entity Impact Evaluation will determine the frequency of future compliance monitoring, the methods of compliance monitoring, and the number of standards that will be included in a registered entity's appropriately scoped compliance monitoring. The Entity Impact Evaluation will consist of four elements:

- The entity's internal controls, Internal Compliance Program and regional considerations;
- The entity's technical factual information (such as the number of transmission miles, etc);
- The entity's performance in each of its registered functions; and
- The entity's compliance history story.

All entities will have the ability, and are encouraged, to influence the amount of compliance monitoring that it will receive by managing their above four elements. An entity may not be able to change its technical facts; however an entity may have the ability to alter its performance metrics, the story behind its compliance history or its internal controls and internal compliance program. In the vision of success, the majority, if not all, entities will manage the four elements of their Entity Impact Evaluation and will qualify for less compliance monitoring.

There criteria to be considered in a review of the entity's internal controls and internal compliance program are interwoven. The internal compliance program elements are outlined in a series of FERC orders[9] and include the original 13 questions as well as the four hallmarks. The COSO model[10] is used as a guideline for evaluating the internal controls; it provides a framework consisting of five elements. Three of the five elements are considered in the Entity Impact Evaluation – the Control Environment, the Risk Assessment, and Information and Communication. The remaining two elements, Internal Control Activities and Monitoring Internal Controls, are verified during compliance monitoring. Internal controls are not subject to compliance but will affect the level of due diligence an auditor will conduct for evidence that is subject to compliance.

For example, an entity that may have more impact to the BPS from a technical perspective may have demonstrated good performance, a positive story behind its compliance history and strong internal

[9] Policy Statement on Enforcement *(13 questions) Docket No. PL06-1-000, 113 FERC ¶ 61,068 (October 20, 2005;* Revised Policy Statement on Enforcement *Docket No. PL08-3-000, 123 FERC ¶ 61,156 (May 18, 2008);* Policy Statement on Compliance *(4 Hallmarks) Docket No. PL09-1-000,125 FERC ¶ 61,058 (October 16, 2008;* Policy Statement on Penalty Guidelines *Docket No. PL10-4-000, 130 FERC ¶ 61,220 (March 18, 2010); suspended on April 15, 2010;* Revised Policy Statement on Penalty Guidelines *(Additional criteria during a FERC 1.b investigation) Docket No. PL10-4-000,132 FERC ¶ 61,216 (September 17, 2010)*

[10] This procedure is based on the *Internal Control – Integrated Framework (1992)* COSO model and subsequent *Guidance on Monitoring Internal Control Systems (2009),* which emphasizes the monitoring element of the 1992 model.

controls. The positive elements of the Entity Impact Evaluation may offset the potential high impact to the grid, qualifying the entity for less compliance monitoring.

In another example, a registered entity may have effective internal controls and an effective internal compliance program, non-impactful technical factual information, a good compliance history story and perform well in all its registered functions, except one. That entity may qualify for less compliance monitoring with some spot checking in the area with a need for improvement.

There are currently activities for the development of the Entity Impact Evaluation template underway — one is a broad-based working group under the CCC, and the second is a series of focus groups that will provide feedback to the CCC working group. The focus groups will provide input regarding performance metrics that would provide a fair and accurate representation of a specific function within one entity. These two efforts, along with input from the REs, will be combined into one draft and will be posted for industry comment in early summer 2012. It is a NERC goal to have the completed template posted on the NERC website for use by the end of 2012. The REs may begin using the Entity Impact Evaluation template in 2013; however it is anticipated that the Entity Impact Evaluation will be implemented slowly over the next few years.

Inclusion of Auditing Principles, Specifically Internal Controls, into Compliance Monitoring

The inclusion of internal controls into compliance monitoring represents a paradigm shift from rearward-looking monitoring of compliance over the entire audit period to forward-looking monitoring of an entity's internal controls, which will determine the amount of due diligence required for an auditor to assess compliance – i.e., the amount of evidence that is necessary to review.

The amount of due diligence required will be based on whether the entity's internal controls are effective. In this context, being effective means that the registered entity's internal controls are finding any human drift in performance or any non-compliance at potential failure points in their compliance activities; the entity is fixing the drift or non-compliance; the entity is tracking the mitigation of the drift or non-compliance as well as any future occurrences; and if the entity determines there has been a PV, it is reporting the PV to the applicable RE. Under this method, the entity may assess and remediate issues using the FFT mechanism so lesser or minimal-risk issues do not detract from moderate and high-risk issues.

Where an entity has effective internal controls, a CEA will pull a reduced sampling from recent activity to verify that the entity's internal controls are working. If the sampling demonstrates that the entity's internal controls are working, the CEA will determine there is reasonable assurance of compliance. This provides a forward-looking approach to compliance monitoring, as effective internal controls is an indication of future compliance performance. If the sampling demonstrates that the entity's internal controls are not working, the CEA will be required to conduct more due diligence to determine if the entity has any non-compliance. In either case the CEA will sample recent activity and will not seek to

verify whether there has been any historical non-compliance over the entire audit period, unless there are specific concerns or reasons to do so. The results of this verification of the entity's internal controls will be used to update the Entity Impact Evaluation.

COM-002, specifically three-part communication, may be used as an example of internal controls. For this example, the compliance activity is the act of conducting the three-part communication. The internal controls for the entity consists of its supervisor pulling and reviewing 30 minutes of recorded tapes each week, plus listening to several live conversations per week. This allows the supervisor to identify any human drift away from compliance with reliability standards before a PV occurs.

Another entity separates their internal controls for this same standard into two categories: preventative controls and detective controls. Its preventive controls are comprised of processes, procedures, tools and signage, including its: Accident Prevention Manual; Annual Directive Training (Energy Control Center (ECC) Operators); Reliability Coordinator (RC) Directive Format (ECC Document); Guideline for Proper Communications (ECC Procedure); Safety Stand Down Presentations (Fossil Plants); Module in the "Conduct of Shift Operations & Maintenance Training" (Fossil Plants); Fossil Plant training "3-Way Communication Human Performance Tool"; and three-way communication signs in control rooms of fossil power plants. This entity's detective controls include random monitoring of calls by ECC Supervisors and supervisors on the floor in the ECC observations.

In summary, implementing auditing principles, including Internal Controls, offers many benefits:

- Internal controls are not enforceable, so provide an opportunity for entities to demonstrate forward-looking capabilities without being subject to compliance.
- Internal controls provide the maximum flexibility for entities to demonstrate their control over compliance activities.
- Internal controls provide an opportunity for entities to FFT any non-compliance or identify and correct human drift prior to having a PV.
- Provides an opportunity for additional auditor training to assess internal controls and emphasize as a means for greater reliability benefit.
- Provides less emphasis on auditors reviewing mountains of evidence.
- Provides greater emphasis on forward-looking compliance monitoring.

The Enforcement Processing Risk Level

The FFT Violation Processing Methodology

In 2011, the ERO began processing lesser- and minimal-risk violations through the FFT process. The process was designed to expedite processing for lesser or minimal risk PVs by making a rapid determination of the risk, verifying that the non-compliance had been mitigated, and then resolving the

issue without the need for extensive evidence and paperwork. The process has been met with great success and, with some stipulations, approval from FERC in the March 15, 2012 order. Front-end work to determine whether a PV qualifies for FFT treatment will diminish as the process matures, auditors are trained, and FFT determinations are made in the field.

How Do We Get There?

It bears repeating that success for both the ERO and the industry ultimately will be based on a clear set of concepts that include an emphasis on reliability with less compliance bureaucracy; compliance programs designed to support reliability on a forward-looking basis with greater reliance on internal controls; an industry that monitors, FFTs issues; and refocused resources to allow industry and the ERO to address high-risk reliability issues. The Risk-Based Compliance Monitoring Initiative will manifest these concepts in:

- Registered entities that are empowered to be in control of monitoring their own compliance activities and that have successful compliance activities.
- ERO and industry resources being focused on reliability.
- The successful implementation of a risk-based approach to compliance monitoring.

Getting there will require a paradigm change in the ERO and industry's approach to compliance monitoring and enforcement. "Consistency" will take on a new meaning; rather than all registered entities being monitored for compliance in the same manner, consistency will mean that registered entities' impact to the bulk power system will be evaluated in the same manner. This evaluation will result in each registered entity having an appropriately scoped compliance monitoring program that has been customized with the frequency, methods, scope (number of standards) and depth (level of due diligence) of compliance monitoring adjusted in totality or in specific functional areas.

The ERO's path to this end goal involves several processes, as defined below.

The Program Risk Level – the AML and RSAWs

The AML will continue to exist in order to provide a basic framework of standards as a starting point for a REs determination for appropriately scoped compliance monitoring for a specific entity. RSAWs will evolve as they become aligned with the standards drafting teams' intentions and are communicated to FERC, or the appropriate regulatory body, during the standard's regulatory approval. This evolution will occur as the RSAWs are developed for new or changing standards, or as the RSAWs are revised for currently existing standards.

The AMLs will be created each year based on risk profiling, and the RSAWs will begin to be aligned with the standard drafting teams' intent for compliance monitoring.

The First Entity Risk Level – Entity Impact Evaluation

Entities will have the ability to influence the amount of compliance monitoring that they will receive based on the factors considered in the Entity Impact Evaluation. In a successful implementation of the Risk-based Compliance Monitoring Initiative, entities would conduct their own Entity Impact Evaluation using the four criteria:

- The entity's internal controls, Internal Compliance Program and regional considerations;
- The entity's technical factual information (such as the number of transmission miles, etc);
- The entity's performance in each of its registered functions; and
- The entity's compliance history story.

Further, a registered entity will provide their self-conducted Entity Impact Evaluation with their RE and collaborate on the evaluation. In the vision of success, the majority, if not all entities will manage their Entity Impact Evaluation and will qualify for less compliance monitoring.

Thus, another step to a successful implementation of the Risk-Based Compliance Monitoring Initiative is for registered entities to conduct their own Entity Impact Evaluations, assume control of monitoring their compliance activities using internal controls and work with their RE.

The Second Entity Risk Level – Internal Controls in Compliance Monitoring

The second level of risk assessment at the entity level occurs during the compliance monitoring, with the implementation of generally accepted auditing principles. Two aspects of internal controls, Internal Control Activities and Monitoring Internal Controls, are verified during compliance monitoring and will determine the level of due diligence a CEA will be required to perform to obtain reasonable assurance that there isn't any non-compliance, as discussed above. This verification of the entity's internal controls will be included in the next update of the Entity Impact Evaluation.

Thus, another step toward successful implementation of the Risk-Based Compliance Monitoring Initiative is for registered entities to create or identify internal controls that may be evaluated, but are not subject to compliance, during compliance monitoring activities. In the event that a registered entity does not have internal controls, traditional or status quo compliance monitoring will be conducted unless the CEA determines that increased due diligence is required.

The Enforcement Processing Risk Level – the Find, Fix and Track (FFT) Violation Processing Methodology

As discussed above, this processing method has been met with great success and, with some stipulations, approval from FERC in the March 15, 2012 order. However, there are still advancements for efficiency that can and should be made to complete the successful implementation of risk-based compliance monitoring.

These advancements include:

- Identifying criteria for a lesser or minimal risk PV (FERC restricted FFT candidates to lesser or minimal-risk PVs for the foreseeable future);
- Train auditors to readily identify FFT violations in the field in order to gain efficiencies on the front end of the processing cycle;
- Provide auditors with the authority to determine whether a non-compliance or PV qualifies for FFT processing;
- Obtain consistency in application across RE enforcement and auditing staff;;
- Pursue regulatory approval for the REs to track the FFT PVs without submission to the applicable regulatory body; and
- Obtain regulatory approval for moderate-risk PVs to be considered in the FFT process.

Changes to the ROP

While the ERO has the authority to implement the Risk-Based Compliance Monitoring Initiative under the current ROP, there are two sections that may require removal or modification to provide flexibility for establishing an appropriately scoped compliance monitoring program. The two sections in the Compliance Monitoring and Enforcement Program (CMEP) are:

- Section 3.1.4.2, Period Covered; and
- Section 11 Compliance Audits of BPS Owners, Operators, and Users.

Section 3.1.4.2 addresses the CEA requiring evidence of compliance over the entire audit period. It provides, in pertinent part:

- Section 3.1.4.2, Period Covered

  > "…However, if a Reliability Standard specifies a document retention period that does not cover the entire period described above, the registered entity will not be found in non-compliance solely on the basis of the lack of specific information that has rightfully not been retained based on the retention period specified in the Reliability Standard. However, in such cases, the Compliance Enforcement Authority will require the registered entity to demonstrate compliance through other means."

Section 11 addresses the minimum frequency of audits for Balancing Authorities (BA), RCs or Transmission Operators (TOP). It provides, in pertinent part:

- Section 11 Compliance Audits of BPS Owners, Operators and Users

  . . .

  11.1 For an entity registered as a Balancing Authority, RC, or TOP, the Compliance Audit will be performed at least once every three years.

Therefore, another step to the successful implementation of the Risk-Based Compliance Monitoring Initiative is for the ERO to modify the ROP CMEP to allow flexibility for establishing an appropriately scoped compliance monitoring program that is unique to each entity and to focus on current compliance activity.

Lastly, the ERO and industry must continuously evaluate if the program is achieving its goal to increase the focus on reliability and course correct as necessary.

Summary

This shift in the approach to compliance monitoring has two main purposes:

- To empower registered entities to be in control of monitoring their own compliance activities and to enable entities to have successful compliance activities.
- Focus ERO and industry resources on reliability.

The use of risk-based compliance monitoring with an emphasis on internal controls can provide a model for assessing compliance that:

- Is forward-looking:
  - Rather than gathering evidence for the entire audit period (backward-looking), evidence of recent activities will be used to verify effectiveness of internal controls (forward-looking).
- Appropriately scopes compliance monitoring for each entity:
  - Frequency of compliance monitoring.
  - Method of compliance monitoring.
  - Number of standards or requirements or both included in compliance monitoring.
  - Level of due diligence required during compliance monitoring activities.
- Removes issues surrounding data retention beyond what is required by the standard:
  - Although entities are encouraged to keep data, this approach removes compliance concerns for entities regarding data retention beyond what is required by the standard.

- Provides incentive for industry to take control of compliance monitoring and compliance activities as compliance monitoring is focused, as appropriate, on internal controls that are not subject to compliance:
  - Effective internal controls will detect human drift before non-compliance occurs, providing the entity an opportunity for course correction.
  - Shift from a number consideration or discussion such as whether zero tolerance is appropriate for each standard or requirement. This is not the correct consideration as the number of non-compliance actions frequently doesn't equate to risk.
  - In the event of a PV, the entity may, for lesser or minimal-risk violations, use the FFT (find, fix, and track) processing method after reporting the non-compliance to its registered entity.
- Will ensure compliance as a necessary component of reliability. The emphasis is for the entity to self-monitor and self-report any non-compliance; however, CEAs will be looking to verify that an entity's internal controls are effective. If an auditor discovers a non-compliance that wasn't self-reported, additional due diligence will be required to determine a reasonable assurance of compliance.
- Focuses on issues that provide potential for the greatest impact to the reliability of the BPS.
- Encourages focus on reliability and associated risks.

Not all registered entities are the same; each is unique in its strengths and weaknesses, and each represents different levels of potential impact to the BPS. Similarly, different acts of non-compliance (whether a PV or a Violation) represent different levels of risk to the reliability of the BPS. The ERO is challenged to evaluate the potential impacts to the reliability to the BPS with the same criteria, but address each according to the associated risk.

The Risk-Based Compliance Monitoring Initiative provides the framework for such customization and focus. Its successful implementation will enable entities to monitor their own compliance activities and be successful in those endeavors; it supports the more efficient FFT method of reporting lesser or minimal-risk violations and, in turn, will allow resources to address issues that create a higher risk to the reliability of the BPS.

Compliance Enforcement Initiatives

Action

Additional discussion.

Summary

NERC continues to process violations through the streamlined Spreadsheet Notice of Penalty (SNOP) and the Find, Fix, Track and Report (FFT) informational filing. Since the initial Compliance Enforcement Initiative (CEI) filing on September 30, 2011, NERC will have made eight SNOP filings and eight FFT filings with the Federal Energy Regulatory Commission (FERC) through the end of April 2012. The Commission has issued orders of no further review on the SNOP and NOP filings submitted through the end of February.[1]

On March 15, FERC issued an order on the CEI filing. The Order provided:

- All six FFT filings, through February 2012, were accepted;
- Violations are final 60 days after submittal unless there is cause to open for review;
- Prospectively, violations must be of minimal risk to the bulk power system; this condition may be revisited after the one-year status report filing;
- Registered Entities must certify that violations are remediated;
- Registered Entities must be identified in filings, except for cases of critical infrastructure protection violations;
- FERC will conduct random surveys each year to gauge program performance; and
- NERC, Regional Entities and interested entities may propose mechanisms to identify and remove unnecessary or redundant requirements from Commission-approved reliability standards.

The March 15 Order requires NERC to make a compliance filing in addition to its six-month status report; both due on May 14, 2012. NERC's compliance filing will explain how NERC and the Regional Entities will evaluate a registered entity's compliance history when deciding if FFT treatment is warranted and will provide additional information on how NERC will continue to implement the FFT program. Extension of the ability to identify and process FFTs to compliance monitoring personnel will be a key part of the compliance filing and NERC's efforts over the next several months.

As part of its six-month status report to the Commission, NERC will describe the experience gained and the results from implementation of the CEI to date. Specifically, the six-month report will address and provide context for the CEI processing statistics, discuss the benefits obtained from the program from a broad perspective (NERC, Regional Entity and industry), and how NERC is addressing them. In preparation for this filing, NERC will be working with the Regional Entities to ensure their input is incorporated into the filing.

[1] Action on the March 30, 2012 filing is expected by April 30, 2012.

To date, the CEI has received significant support from the Regional Entities and the industry. NERC anticipates the FFT process will continue to enable better alignment with and substantially greater resources and attention to be devoted to matters that pose a more serious risk to the reliability of the bulk power system. NERC will be working collaboratively with the Regional Entity compliance and enforcement staffs as well as the industry throughout 2012 to continue to implement and improve the CEI.

Agenda Item 7a
MRC Meeting
May 8, 2012

Status of Regional Standards Development Programs

Action
Discussion

Background
Points of Agreement Among the Regions
All Regions advocate continent-wide standards/solutions where possible.
No Region anticipates a large amount of new future work on regional standards.

When Are Regional Standards Appropriate?
Regional standards are appropriate to address reliability issues in two circumstances. First, regional standards may have more stringent requirements than those in a NERC Standard (including matters not addressed by a NERC Standard) and second regional standards may address a regional difference necessitated by a physical difference in the Bulk Power System (BPS). Below is the language from FERC Order 693:

> While uniformity is the goal with respect to Reliability Standards, we recognize that it may not be achievable overnight. Over time, we would expect that the regional differences will decline and uniform and best practices will develop. In Order No. 672, the Commission identified two instances where regional differences may be permitted, i.e., regional differences that are more stringent than continent-wide Reliability Standards (including those that address matters not addressed by a continent-wide Reliability Standard), and a regional difference necessitated by a physical difference in the Bulk Power System.

Current Standards Activity
Regional standards, like NERC Standards are developed by stakeholders. To a certain extent, the standards activity for each Regional Entity is influenced by the regional stakeholders' interest in developing regional standards.

Florida Reliability Coordinating Council (FRCC), Reliability*First* (RFC), and Midwest Reliability Organization (MRO) have standards on hold or have suspended development, primarily to allow for NERC development of standards addressing the same reliability issue to be prepared. Once that happens, the need for a particular regional standard would be reassessed to determine the best course of action (i.e., continue regional standard development, develop a Regional Variance or terminate the project if the NERC Standard appropriately addresses the reliability risks)

SERC Reliability Corporation (SERC), Northeast Power Coordinating Council (NPCC), Southwest Power Pool, RE (SPP), Texas Reliability Entity (TRE), and Western Electricity Coordinating

Council (WECC) each have Standards under active development. As contained in the NERC 2012-2014 Reliability Standards Development Plan, the total number of regional standards is 13. Of the 13, 2 (SERC UFLS and NPCC UFLS) are already NERC approved and awaiting FERC action.

WECC also has a Regional Variance under development.

Future Regional Standards Activity
No future regional standards beyond those referenced above are currently proposed and no regional standards are anticipated being proposed by any Region, although WECC may seek to make minor revisions to one of its already FERC-approved regional standards.

All Regions believe their collective work with NERC should focus primarily on continent-wide standards, improving the existing standards and eliminating unneeded requirements of minimal reliability benefit. However, in some instances, regional standards are needed in addition to the continent-wide standards. These regional standards add specificity, further stringency and or augment the continent-wide standard's reliability requirements as well as enhancing reliability and facilitate compliance within the Region.

Why are some Regions developing Regional Standards?
Some Regions were concerned that there may be reliability gaps posed by the fill-in-the-blank standards that had to be addressed and determined the best way to address the risk was to put a regional solution in place until NERC developed a continent-wide standard. This was primarily driven by the concern that the many competing priorities NERC faces in its standards program may prevent development of necessary continent-wide standards in an acceptable time frame.

Some Regions developed regional standards in response to the fill-in-the-blank standards to improve, replace or supplement existing reliability criteria or address a lack of criteria. Other Regions were very comfortable that their existing reliability criteria adequately addressed concerns in the fill-in-the-blank standards.

Some Regions believe that it is beneficial at this time to drive higher levels of reliability initially on a "smaller" footprint. Until such time as NERC can address a methodology to consider costs as compared with the benefits of moving a more stringent reliability standard forward, it may be better for reliability to enable standards to be written to smaller portions of the system especially where critical load pockets exist. A strict adoption of a "one-size fits all" strategy may degrade reliability in some areas.

In some cases, a NERC continent-wide standard cannot be developed or the industry does not support development of a continent-wide reliability standard to address an identified reliability gap that exists in a given Region. The recourse in such circumstances is that a Region may be

forced to pursue a Regional Variance to a continent-wide reliability standard or initiate development of a regional reliability standard in order to address the reliability risk posed.

The nature of the BPS within a given Region—its load diversity and density, level of interconnectivity, size and location of critical load centers, and electrical characteristics—results in differing levels of risk to reliability and at times, a greater or lesser need for a regional standard.

Why are some Regions not developing Regional Standards?
Some Regions believe the primary focus of standards development, within the ERO enterprise, should be on continent-wide standards, improving the existing standards and eliminating requirements with little reliability benefit. These Regions are also concerned that the fill-in-the-blank standards, over time, could be institutionalized as regional differences potentially resulting in an additional layer of standards complexity. These Regions see the fill-in-the-blank standards as more of a compliance enforceability gap, rather than a reliability gap since Regions developed procedures to address these matters as the legacy "Regional Reliability Organizations". In addition, increased specificity in regional standards could be seen as crossing the line between the regulated and the regulator and potentially confusing the technical responsibility for reliability.

MRO staff respectfully submits supplemental thoughts to the Regions' collective response to the question: **"Why are some Regions not developing Regional Standards?"**

To begin with, MRO believes that more consistency in operating and planning the BPS is needed across North America and within the Eastern Interconnection. In this regard, Order No. 672 recognized the benefits of greater uniformity and consistency in the development of reliability standards while providing the flexibility for technical differences where necessary. Specifically, the Commission stated there "**that uniformity of reliability standards should be the goal and the practice, the rule rather than the exception.** Greater uniformity will encourage best practices, thereby enhancing reliability and benefiting consumers and the economy. Congress envisioned greater uniformity in adopting section 215 and a broad cross-section of the industry supports this goal." (Emphasis added.)

Furthermore, more uniformity, where possible, will help simplify operations and reduce compliance burdens, thus, lowering costs and, more importantly, improving reliability. This, of course, needs to be balanced with diversity of resources and technologies to ensure a robust, resilient and secure system.

As a separate matter, MRO is concerned that efforts to develop regional standards, which to date have focused in part on addressing fill-in-the-blank standards[1], will preempt or dilute

[1] As background, each Region, as the legacy Regional Reliability Organization (RRO), had procedures to address the fill-in-the-blank requirements. However, the Region could not enforce the standards under Section 215 because they pointed to the legacy RRO (which in turn pointed to "members" of the RRO.) Therefore, the fill-in-the-blank standards lacked *line of sight* enforceability to all owners, users, or operators of the bulk electric system. While some Regions began to develop regional standards in response to the fill-in-the-blank standards, each Region had existing reliability criteria to address the fill-in-the-blank standards, albeit only enforceable through voluntary means as "good utility practice".

resources on NERC's efforts to seek continent-wide solutions for those standards. Additionally, once regional standards (for the fill-in-the-blank standards) are in place under Section 215, they will be difficult to sunset and the opportunity to pursue the objective of more consistency will be diminished by institutionalizing regional differences. The unfortunate result will be an additional layer of standards and increased complexity for the Registered Entities to comply with those standards. While MRO does not object to the development of regional standards or variances, MRO believes the collective work of the Regions and NERC should focus primarily on continent-wide standards, *improving* the existing standards and *eliminating* unneeded requirements. Along these lines, as the Commission itself recently recognized in the FFTR order, we should be reviewing the application of the standards to see whether unnecessary or redundant requirements can be removed in order to improve the efficiency of compliance.

For all of these reasons, MRO has suspended its regional standards development in order to focus on improving the technical application of standards and focus its resources on continent-wide standards efforts. MRO further supports NERC's efforts to expedite the fill-in-the-blank standards into continent-wide standards, because the fill-in-the-blank standards should be replaced by continent-wide or interconnection-wide standards wherever possible.

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

Commission Order 693-A acknowledges that an "enforceability" gap under Section 215 has resulted from these fill-in-the-blank standards, but, again, the industry and Regions have a long history of procedures in place to address these reliability matters (as "good utility practice" and enforceable via voluntary means). The Regional Entities have assumed the responsibility for maintaining the legacy fill-in-the-blank procedures until suitable standards are established under Section 215 in the United States. This is consistent with Commission Orders 693 and 693-A. as well as NERC directions.

Agenda Item 7b
MRC Meeting
May 8, 2012

Status of Underfrequency Load Shedding (UFLS) Activities

Action
Discussion

Request
At the February 2012 NERC Board of Trustees (BOT) meeting, the trustees requested a summary of the status of the PRC-006 (UFLS) standard implementation in North America and, in particular, a discussion on the efforts of those Regions developing or pursuing regional UFLS standards, which support or augment the implementation of the continent-wide underfrequency load shedding PRC-006-1 standard.

General Overview
The NERC Rules of Procedure Sections 311-312 give the Regional Entities the ability to, at their discretion, implement regional standards. The design of the PRC-006 Reliability Standard recognized the effectiveness of a number of pre-existing UFLS programs currently in place within the Regions. This is evidenced by the inclusion of variances for the Quebec Interconnection and the Western Electricity Coordinating Council (WECC) in the continent-wide standard. Other Regions have decided that developing a regional standard would provide the best approach to addressing regional UFLS programs, while others have decided to withhold standards development activity (in some cases pending FERC approval of the PRC-006-1 standard). SERC and Northeast Power Coordinating Council (NPCC) have taken the approach of developing a regional UFLS standard that is consistent with the NERC standard, but augments it with more specificity to their respective regions.

North American Standard PRC-006-1
Reliability Standard PRC-006-1 establishes design and documentation requirements for automatic underfrequency load shedding programs to arrest declining frequency, assist recovery of frequency following under-frequency events and provide last resort system preservation measures. The standard contains BOT-approved Regional Variances for WECC and the Quebec Interconnection, which resides within the NPCC footprint. The Regional Variances preserve certain aspects of the UFLS programs within those regions. The standard improves reliability by establishing common performance characteristics that all UFLS programs must meet by assigning responsibility for the development and assessment of UFLS programs to the Planning Coordinator (PC).

In Order No. 693, FERC did not approve or remand the proposed reliability standard PRC-006-0, noting that it is a fill-in-the-blank standard requiring the then Regional Reliability Organizations (RRO) to develop the details of their UFLS programs. However, FERC directed NERC to

eliminate the use of the RRO as a responsible entity and transition these responsibilities to the Regional Entity or to one or more registered entities. The PRC-006-1 standard addresses this directive in an equally efficient and effective manner by assigning responsibility to the PC for establishing UFLS programs, consistent with the expectations for that function in the NERC Functional Model Version 5.

The drafting team also determined that in some areas, the Transmission Owners (TOs) are responsible for implementing UFLS, and their approach is consistent with the current standard. The team did not identify a meaningful way to incorporate criteria that reaches beyond Bulk Electric System (BES)-connected generators for purposes of modeling.

Because the PC, as explained in the NERC functional model, has a "wide area" view of the BES, the drafters of the PRC-006-1 Standard, with stakeholder concurrence, determined that the PC is the logical entity to replace the RRO in the NERC PRC-006-1 Standard. FERC has not yet issued an order on the PRC-006-1 standard. For Regions that only have a small number of PC's in their footprints, e.g., Reliability*First* Corporation (RFC) with two large PCs and Texas Reliability Entity (TRE) with one PC, an effort by the PCs to coordinate their UFLS programs are relatively easy to achieve. For Regions with many PCs in their footprint, the coordination of UFLS programs could possibly become difficult to achieve without direction from the Region. In those instances, the establishment of a regional standard may be appropriate.

A link to the North American standard project history and files is included here for reference: http://www.nerc.com/filez/standards/Underfrequency_Load_Shedding.html

Florida Reliability Coordinating Council (FRCC)

The FRCC Regional Standard PRC-006-FRCC-1 FRCC Automatic Underfrequency Load Shedding Program was developed and has been approved by the FRCC Registered Ballot Body and the FRCC Board of Directors. Based on concerns identified by NERC standards staff and the pending Commission (FERC) approval of the NERC Continent-Wide Reliability Standard PRC-006-1 Automatic Underfrequency Load Shedding and associated regional variances, the regional project has been placed on "hold". FRCC has since revised regional criteria documents (FRCC Automatic Underfrequency Load Shedding Program, revision date: April 7, 2011) to ensure its procedures comply with the requirements of BOT adopted NERC Reliability Standard, PRC-006-1—Automatic Underfrequency Load Shedding. The FRCC System Protection and Controls Subcommittee (SPCS) and FRCC Standards Staff is currently comparing the NERC Board approved continent-wide standard and the FRCC Underfrequency Program to determine if further action is required in support of a Regional Reliability Standard or a regional variance to the continent-wide standard.

Project information may be found at:
https://www.frcc.com/Standards/Lists/Standard%20Announcements/DispForm.aspx?ID=52&Source=https%3A%2F%2Fwww%2Efrcc%2Ecom%2FStandards%2Fdefault%2Easpx

Midwest Reliability Organization (MRO)

When the NERC PRC-006-1 standard is approved, MRO believes there will be no reliability gaps that need to be addressed in an MRO Regional UFLS standard and therefore does not intend to pursue one. MRO believes that because there are very few PCs in the region, no further guidance other than what is contained in the North American Standard is necessary to implement effective UFLS programs.

Northeast Power Coordinating Council (NPCC)

UFLS requirements have been in place in NPCC for many years prior to implementation of NERC Reliability Standards. If approved by FERC, the NPCC regional UFLS standard will apply to portions of NPCC that are both synchronous and asynchronous to the Eastern Interconnection. Control areas that are asynchronous, e.g., Quebec, may develop UFLS parameters with a different technical basis, if required. Also, the Quebec Interconnection portion of NPCC has had an interconnection wide UFLS program consistent with the NPCC legacy UFLS program for many years. A variance to address the Quebec interconnection was integrated into the PRC-006-1 standard when it was developed and approved by the BOT in November 2010.

The PRC-006-NPCC Standard provides measures to automatically assure system preservation by implementing an automatic underfrequency load shedding program to respond to system underfrequency events. The Standard will also emphasize the need for coordination among the NPCC areas, including the Quebec Interconnection and those areas outside of the NPCC footprint, and provide direction for refinements of underfrequency systems already in place. In addition, the NPCC standard includes more specificity to such issues as compliance for small entities, compensatory load shedding for older generators that do not meet performance characteristics, and the clear identification of what entities must do in order to contribute to an effective UFLS program within the NPCC region.

The PRC-006-NPCC standard was approved by the NERC BOT in February 2012 and is being prepared for a second quarter filing with FERC.

Project information may be found at:
https://www.npcc.org/Standards/SitePages/DevStandardDetail.aspx?DevDocumentId=4

Reliability*First* Corporation (RFC)

On February 23, 2012, the RFC Board of Directors suspended the current RFC UFLS standard drafting efforts indefinitely until the associated continent-wide PRC-006-1 standard is enforced and becomes effective. RFC staff will actively monitor the progress of the associated NERC standard efforts and promote them on a continent-wide basis. If RFC determines that reliability gaps arise or are identified within the RFC footprint, RFC will take appropriate action, i.e., request its board to reinstate such drafting efforts or submit a new Standards Authorization Request (SAR) to be moved through the standards process. To fill the gap in the time between when the NERC standard becomes enforceable and effective, RFC has legacy UFLS requirements which are enforceable based upon the current, FERC-approved PRC-007-0 Reliability Standard. When the NERC PRC-006-1 standard is approved by FERC and RFC determines that it addressed the reliability gaps, it is anticipated that the RFC legacy UFLS documents will be retired accordingly.

The RFC Board of Directors' decision to suspend the regional UFLS efforts was partially based on an independent RFC Staff assessment and recommendation. Based on the current NERC PRC-006-1 draft standard, RFC staff believes there are no reliability gaps. The NERC Project 2007-01-Under-frequency Load Shedding project focused on developing a NERC continent-wide UFLS Standard, which requires the PC to develop a UFLS program for their respected areas, with UFLS entities required to provide automatic tripping of load in accordance with the PCs' UFLS program design and schedule. This replaces the fill-in-the-blank requirement for the Regions to develop such UFLS program. With RFC having two large PCs spanning multiple Regions, RFC staff believes it is appropriate for the PCs to perform the analysis and develop such UFLS program for their respected areas.

Project information may be found at:
https://rsvp.rfirst.org/PRC006RFC01/default.aspx

SERC Reliability Corporation (SERC)

The SERC UFLS Standard was approved by the BOT at its November 2011 meeting and filed with FERC in February 2012. The standard was developed to provide regional UFLS requirements to entities in SERC. UFLS requirements have been in place at a continent-wide level and within SERC for many years prior to implementation of federally mandated reliability compliance standards in 2007.

In 2008, SERC commenced work on PRC-006-SERC-01. NERC also began work on revising PRC-006-0 at a continent-wide level. The SERC standard was developed to be consistent with the NERC UFLS standard.

PRC-006-SERC-01 clearly defines the roles and responsibilities of parties to whom the standard applies. The standard identifies the PC as the entity responsible for developing UFLS schemes

within its PC area. The regional standard adds specificity not contained in the NERC standard for development and implementation of a UFLS scheme in the SERC Region. Specifically, R2 provides minimum requirements for set points, time delays and steps for underfrequency load shedding. Other requirements address implementation tolerances for both large and small (less than 100 MW) entities; and specify implementation timelines.

Project information may be found at:
http://serc.centraldesktop.com/standardhomepage/doc/10467819/w-RegionalUflsStandard

Southwest Power Pool (SPP)

SPP is actively working on its seventh draft of the regional standard for its UFLS program. This standards development program intends to use the proven high performance characteristics of the existing SPP UFLS program and refine its requirements and coordination procedures through an open process as described in the SPP Standard Development Process Manual.

In January 2012, the SPP System Protection and Control Working Group (SPCWG), which served as the UFLS Standard Drafting Team (SDT), asked the Markets and Operations Policy Committee (MOPC) for an advisory vote on SPP UFLS Standard (PRC-006-SPP-1). The MOPC concurred with the standard with a 76.7percent roll call vote. Also in January, the SPP Members Committee endorsed the SDT's recommendation to concur with the standard. The Board of Directors did not endorse PRC-006-SPP-1.

The standard will be presented to the Regional Entity Trustees for action at their April 23, 2012 meeting. The Trustees can either 1) Recommend NERC approve the standard through the NERC process, 2) Remand PRC-006-SPP-1 to the SDT through MOPC with comments and instructions, or 3) Determine there is no need for the standard and terminate future activity.

Under the draft regional standard, UFLS program performance will be measured based on the entity's planning values and not the one-minute average of the entity's load prior to the first underfrequency relay action. This is a change from the currently used SPP Criteria.

Project information may be found at: http://www.spp.org/section.asp?pageID=101

Texas Reliability Entity (TRE)

TRE does not intend to develop a regional UFLS standard at this time. In April of 2008 a SAR (SAR-002) was approved in TRE initiating the development of a regional UFLS standard (PRC-006-TRE-1). Based on the concurrent, continent-wide development of PRC-006-1, the TRE SDT decided to suspended active development work and to monitor the progress of the NERC UFLS Project. Upon completion of PRC-006-1, the SDT recommended terminating the regional UFLS project. On October 5, 2011, the TRE Regional Standards Committee approved the withdrawal of the SAR and disbanding the standard drafting team in view of the contents of the continent-wide UFLS standard. Note that there is only one Planning Coordinator in the ERCOT Interconnection, and there are ERCOT rules regarding UFLS that supplement the NERC standard.

Project information may be found at:
http://www.texasre.org/standards_rules/standardsdev/rsc/sar002/Pages/Default.aspx

Western Electricity Coordinating Council (WECC)

WECC has a long standing UFLS program and has integrated its current UFLS program administration needs in the WECC region into the approved North American Standard as a regional variance.

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.

Agenda Item 7c
MRC Meeting
May 8, 2012

Status of Operating Communications Protocols

Action
Discussion

Discussion
Below is a report on the status of the plan related to the approval of the COM-002 interpretation by the board at its February 2012 meeting in Phoenix. The board requested an update on the activities related to COM-002 to be provided at its May 2012 meeting.

Summary
During the discussion at the February 2012 meeting in which the board approved the COM-002 interpretation, the board recognized that better practices are needed for the communication of directed changes to the state of the Bulk Power System. With the interpretation of the COM-002 standard (which provides that the COM-002 standard only applies when a directive is issued to address a real-time emergency situation and not to routine instructions issued during normal operations) there now exists a reliability gap that must be addressed on an expedited basis.

The actions being taken in response to this need are as follows:

- Revision of the RSAW for COM-002;
- Development of a guidance document for operators, outlining best practices (should be issued by the time of the BOT meeting);
- Guidance to the regions for interim compliance decisions; and
- Expediting the development of the COM-003 standard.

The status of each of these efforts will be reported at the May 2012 meetings.

A link to the project history and files for COM-002 is included here for reference:
http://www.nerc.com/filez/standards/Project2009-22_RFI_COM-002-2_R2_IRC.html

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

Agenda Item 8
MRC Meeting
May 8, 2012

2012 State of Reliability Report

Action
Information

Background
The *2012 State of Reliability* report represents NERC's independent view of ongoing bulk power system reliability trends and objectively analyzes the state of reliability based on metrics information and provides an integrated view of reliability performance. The key findings and recommendations serve as technical input to NERC's Reliability Standards and project prioritization, compliance process improvement, event analysis, reliability assessment, and critical infrastructure protection. This analysis of bulk power system performance not only provides an industry reference for historical bulk power system reliability, it also offers analytical insights towards industry action, and enables the discovery and prioritization of specific actionable risk control steps.

The report is posted and available with the agenda materials for the NERC Board of Trustees meeting on May 9, 2012. [include link].

Agenda Item 9
MRC Meeting
May 8, 2012

Recommendations from the 2011 Southwest Outage Inquiry

Action
None

Summary
The Federal Energy Regulatory Commission (FERC) and NERC are in the process of finalizing a report on the results of their joint inquiry of the September 8, 2011 Southwestern outage. This event was one of the more complex electrical events that have occurred in North America. It involved multiple entities, each with complicated communication, coordination, and institutional relationships with other entities, as well as the performance of hundreds of interconnected electrical components and systems.

The joint inquiry devoted substantial time and resources to determine and study the causes of the event and develop meaningful recommendations for the entire industry with the goal of preventing similar events in the future. The team's analysis was extensive, involving the review of high quality data from affected entities and simulations of the event using sophisticated computer models.

The joint inquiry included several teams. Drawing on the unique expertise of its members, and coordinating with the inquiry team as a whole, each team conducted a rigorous analysis of a key issue or issues involved in the event. Each team not only examined its own subject area to determine what may have contributed to the event, but considered lessons learned and potential recommendations for preventing such events in the future.

- *Sequence of Events* – developed a precise and accurate sequence of events (SOE) to provide a foundation for root cause analysis, computer model simulations, and other analytical aspects of the inquiry.
- *System Modeling and Simulation* – developed an accurate system modeling case, benchmarked the case to actual conditions at critical times, replicated system conditions leading up to and during the outage, and simulated alternate "what if" scenarios.
- *Root Cause and Human Performance Analysis* – engaged in a systematic evaluation of the root causes and contributing factors and identified areas requiring further inquiry.
- *Operations Tools, SCADA/EMS, Communications, and Operations Planning* – considered all aspects of the blackout related to operator and reliability coordinator knowledge of system conditions, actions or inactions, and communications, particularly the observability of the electric system and effectiveness of operational reliability assessment tools.

- *Frequency/ACE Analysis* – reviewed potential frequency anomalies related to the blackout, and analyzed underfrequency generator, load, and tie line tripping. *System Planning, Design, and Studies* – analyzed factors used in setting SOLs and actual limits in effect on the day of the blackout, determined whether those *limits were exceeded, and analyzed* the extent to which actual system conditions varied from the assumptions used in setting the SOLs.
- *Transmission and Generation Performance, Protection, Control, Maintenance, and Damage* – analyzed the causes of automatic facility operations and generator trips, analyzed transmission and generation facility maintenance practices, and identified equipment damage.
- *Restoration Review* – reviewed the appropriateness and effectiveness of the restoration plans implemented, as well as the effectiveness of the coordination of these plans among the impacted entities and WECC Reliability Coordinator (RC).

Described below in summary form are the primary steps the joint inquiry team took to complete its analysis.

Data Gathering

The inquiry team received and reviewed more than 20 gigabytes of data from approximately 500 data requests sent to entities in and around the affected areas.[1] On September 19, 2011, the inquiry team also began site visits with various entities involved in the outages, including entities with responsibility for balancing load and generation, transmission operation, and reliability coordination. During the site visits, the inquiry team toured control centers, conducted dozens of interviews and depositions, and viewed equipment involved in the event. These visits and depositions allowed the inquiry team to learn about control room operations and practices, entities' system status and conditions on the day of the event, entities' operating procedures, entities' planning, operations, and real-time tools, and entities' restoration planning and procedures. The inquiry team also conducted dozens of follow-up meetings and issued follow-up data requests.

Of particular use to the joint inquiry were phasor measurement unit (PMU) records. PMUs are complex, multi-functional, high resolution recording devices installed widely throughout the interconnections in North America. PMUs provide continuous records of system conditions, including frequency, voltage, and phase angle relations. The continuous nature of the data available through the PMUs, as well as their wide distribution throughout the power system, proved especially valuable to the joint inquiry team in forming an accurate picture of the state of the system at particular points in time.

[1] The joint inquiry is particularly grateful to CFE for its willingness to share data and information to assist the inquiry in developing the most accurate conclusions and recommendations.

SOE Methodology

More than 100 notable events occurred in less than 11 minutes on September 8, 2011. The joint inquiry's SOE team established a precise and accurate sequence of outage-related events to form a critical building block for the other parts of the inquiry. It provided, for example, a foundation for the root cause analysis, computer-based simulations, and other event analyses. Although entities time-stamp much of the data related to specific events, their time-stamping methodologies vary, and not all of the time-stamps were synchronized to the National Institute of Standards and Technology (NIST) standard clock in Boulder, CO. Validating the precise timing of specific events became a large, important, and sometimes difficult task. The availability of detailed time synchronized PMU data on frequency, voltage, and related angle made this task much easier than in previous inquiries.

To develop the SOE, the SOE team started by resolving discrepancies between the multiple sources of data, sign convention inconsistencies, and incorrect data. The SOE team then developed an events database starting with all known events and times. Initial sources for the development of the database included preliminary reports filed by the impacted entities as well as initial responses to data requests. The team then examined each record in the database to verify event times using available Supervisory Control and Data Acquisition (SCADA) and PMU data. As the frequency, line flow, or voltage data suggested that additional events might have occurred on the system, the team added other possible events and verified them through additional data requests.

The SOE team developed multiple iterations of an SOE narrative document based on the database and the available SCADA and PMU data. Some iterations of the SOE narrative required that more data be requested of impacted entities, and ultimately multiple data requests were sent to each entity. After the team completed the SOE narrative, the joint inquiry's Modeling and Simulation team verified the SOE. The SOE narrative is included in this report at Section III.

Power Flow and Dynamics Analysis

The joint inquiry's Modeling and Simulation team conducted power flow and dynamic stability analyses to simulate the event, validate the SOE, and consider "what if" scenarios. Power flow analyses study power systems under quasi-steady-state conditions by matching load and generation to obtain voltage magnitude and angle at each bus and the real and reactive power flowing through each transmission facility. Dynamic stability analyses study the impact of disturbances on frequency, voltage, and rotor angle stability, and determine whether transients in the power system are stable, thus allowing the power system to return to a quasi-steady-state operating condition following a disturbance.[2]

As the first step in performing power flow and dynamic stability analyses, the Modeling and Simulation team developed and benchmarked a modeling case of system conditions prior to the event. The inquiry team started with the Summer base case and made adjustments based on State Estimator snapshots, EMS data, actual generation and schedules, PMU data, and a base case prepared by a separate team that studied the event. The Modeling and Simulation

[2] Transient stability refers to the ability of synchronous generators to move to a new steady-state operating point while remaining in synchronism after subjecting the system to a disturbance.

team also used SCADA and PMU data to further adjust and benchmark the base case to match the system conditions for the entire event. The team devoted considerable time and efforts to resolving discrepancies between the various sources of data to best calibrate the modeling case to actual measured data.

After developing and benchmarking a valid case, the Modeling and Simulation team simulated the entire SOE using both power flow and dynamic simulations. This replication of the SOE established the validity of the model and enabled meaningful simulation of several alternative scenarios, developed to answer "what if" questions regarding the event. For example, the inquiry team considered what would have happened if some of the impacted entities had dispatched generation at certain locations during the event.

Outreach Sessions

After developing a list of preliminary findings and recommendations, joint inquiry team members conducted outreach meetings with various industry associations and groups, including CAISO, WECC, the American Public Power Association (APPA), the North American Transmission Forum (NATF), the Edison Electric Institute (EEI), and the National Rural Electric Cooperative Association (NRECA). Team members shared the joint inquiry's preliminary findings and recommendations on a non-public basis with members of these organizations in order to obtain feedback and, with respect to the recommendations, input as to their practicality and feasibility. The inquiry considered the feedback and input provided by these organizations and, in a number of instances, such feedback and input is reflected in the findings and recommendations included in this report.

Final Report

The final report is expected to be released prior to the MRC meeting. Dave Nevius, NERC senior vice president, who is representing NERC on the FERC/NERC joint inquiry, and Heather Polzin, FERC Office of Enforcement, who is representing FERC, will present and discuss with the MRC the report's principal findings and recommendations.

Agenda Item 10
MRC Meeting
May 8, 2012

Culture of Reliability Excellence

Action
Presentation

Background
The Member Representatives Committee is continuing with its series of presentations on the "Culture of Reliability Excellence."

Tom Bowe, Executive Director, Reliability and Compliance, PJM Interconnection, will present on this topic.

Agenda Item 11
MRC Meeting
May 8, 2012

Regulatory Update
(As of April 17, 2012)

Action
Informational

Regulatory Matters in Canada

1. Negotiation of the second agreement among NERC, the Régie and Northeast Power Coordinating Council (NPCC) regarding implementation of mandatory standards in Québec has been tentatively concluded and the agreement is under consideration by the provincial government. The Régie has issued a preliminary decision regarding adoption of mandatory standards for Québec.
2. Adoption of NERC Reliability Standards ongoing in Alberta.
3. Implementing regulations have been adopted in Manitoba.
4. Implementing regulations being developed in British Columbia.
5. Quarterly filings to request approval of FERC approved Reliability Standards in Nova Scotia.

FERC Orders Issued Since the Last Update

1. January 27, 2012 – FERC issued an Order stating that it would not further review, on its own motion, the following Notices of Penalty in Docket Nos. *NP12-6-000* Jersey Central Power & Light Company; *NP12-7-000* West Penn Power Company, Monongahela Power Company, and The Potomac Edison Company, formerly d/b/a Allegheny Power; *NP12-8-000* Sacramento Municipal Utility District; *NP12-9-000* Unidentified Registered Entity and *NP12-10-000* Spreadsheet Notice of Penalty.
2. January 31, 2012 - FERC issued an Order Approving Amendments to the Rules of Procedure. On November 29, 2011, NERC proposed revisions to Sections 100 through 1600 of the Rules of Procedure and Appendices 3A, 3B, 3C, 3D, 4A, 4B, 4C, 4D, 4E, 5A, 5B, 6 and 8 and a new Appendix 2. The proposed revisions included: (1) placing all definitions of defined terms used anywhere in the Rules of Procedure in a single, readily-accessible location within Appendix 2; (2) capitalizing defined terms throughout the Rules of Procedure where such terms are used within their defined meanings; and (3) lowercasing currently undefined capitalized terms in the Rules of Procedure. *Docket No. RR12-3-000*
3. February 3, 2012 – FERC issued a Final Rule in which it approves an interpretation to Requirement R1 of Commission-approved Reliability Standard PRC-005-1. FERC also directs NERC to develop modifications to the PRC-005-1 Reliability Standard through its Reliability Standards development process to address gaps in the Protection System maintenance and testing standard that were highlighted by the proposed interpretation. Docket No. RM10-5-000; Order No. 758

4. February 3, 2012 – FERC issued a letter order in which it approves NERC proposed modification to the definition of Protection System in the NERC Glossary of Terms Used in NERC Reliability Standards. Docket No. RD11-13-000
5. February 15, 2012 – FERC granted NERC a two-year extension of time to and including September 30, 2014 to complete the project pursuant to the Commission's Order No. 742 to consider whether personnel that support EMS applications should be included in mandatory training. Docket No. RM09-25-000
6. February 15, 2012 – FERC granted NERC a one-year extension of time to and including September 30, 2013 to complete the a new generator relay loadability standard, pursuant to the Commission's Order No. 733. Docket No. RM08-13-001
7. February 15, 2012 – On February 3, 2012, FERC Commissioner Philip Moeller requested comments on a set of questions and other text concerning gas-electric interdependence. For purposes of administrative convenience and facilitating public access to any submissions filed in response, FERC issues a notice assigning a docket number to this request and revises the process for filing submissions in response to this request. Docket No. AD12-12-000
8. February 23, 2012 – FERC issues a notice providing for reply comments regarding the Availability of E-Tag Information to Commission Staff. Docket No. RM11-12-000
9. March 1, 2012 – FERC issued an Order stating that it would not further review, on its own motion, the following Notices of Penalty in Docket Nos. NP12-11-000 Unidentified Registered Entity; NP12-12-000 Spreadsheet Notice of Penalty; and NP12-13-000 American Transmission Co. LLC.
10. March 1, 2012 – FERC issued a Letter Order approving NERC's November 7, 2011 Compliance Filing to restore Section 402.1.3.2 of the NERC Rules of Procedure. Docket No. RR10-11-004
11. March 15, 2012 – FERC issued an order in which it approves Reliability Standard PRC-023-2 (Transmission Relay Loadability) and also approves NERC Rules of Procedure Section 1700 – Challenges to Determinations, which provides registered entities a means to challenge determinations made by planning coordinators under Reliability Standard PRC-023. Docket No. RM11-16-000; Order No. 759
12. March 15, 2012 - FERC issued an Order Accepting with Conditions Petition Requesting Approval of New Enforcement Mechanisms and Requiring Compliance Filing. The Order approves the FFT filings and requires to submit a compliance filing within 60 days of the order and to submit two informational filings. Docket Nos. RC11-6-000, RC12-1-000, RC12-2-000, RC12-6-000, RC12-7-000 and RC12-8-000
13. March 30, 2012 – FERC issued an Order stating that it would not further review, on its own motion, the following Notices of Penalty in Docket Nos. NP12-14-000 Commonwealth Chesapeake Company, LLC; NP12-15-000 KCPL – Greater Missouri

Operations; NP12-16-000 Unidentified Registered Entity; NP12-17-000 Unidentified Registered Entity and NP12-18-000 Spreadsheet NOP.

NERC Filings Since the Last Update

1. January 23, 2012 – Supplemental informational filing regarding the December 30, 2011 Sacramento Municipal Utility District Notice of Penalty filing. *Docket No. NP12-8-000*
2. January 25, 2012 – Petition for Approval of a Revised Definition of "Bulk Electric System" in the NERC Glossary of Terms Used in Reliability Standards. *Docket No. RM12-6-000*
3. January 25, 2012 – Petition for Approval of revisions to NERC's Rules of Procedure ("ROP") for the purpose of adopting a procedure for requesting and receiving exceptions from the NERC definition of Bulk Electric System ("BES Exception Procedure"), as directed by the Commission in Order No. 743.2. *Docket No. RM12-7-000*
4. January 31, 2012 – Notices of Penalty regarding the following entities in *Docket Nos. NP12-11-000* Unidentified Registered Entity; *NP12-12-000* Spreadsheet Notice of Penalty; and *NP12-13-000* American Transmission Co. LLC.
5. January 31, 2012 – January Find, Fix and Track report filing. *Docket No. RC12-7-000*
6. January 31, 2012 – Informational report on the analysis of NERC Standards Process Results for the Fourth Quarter 2011 in compliance with an order issued by FERC on January 18, 2007 and a subsequent order on September 16, 2010. *Docket Nos. RR06-1-000 and RR09-7-000*
7. February 1, 2012 – Petition for Approval of proposed Regional Reliability Standard, PRC-006-SERC-01 – Automatic Underfrequency Load Shedding Requirements. This standard provides regional underfrequency load shedding ("UFLS") requirements for registered entities in the SERC Region. *Docket No. RD12-2-000*
8. February 1, 2012 – Petition for Approval of Regional Reliability Standard IRO-006-TRE-1 IROL and SOL Mitigation in the ERCOT Interconnection. This standard was developed to provide and execute transmission loading relief procedures that can be used to avoid and mitigate System Operating Limits ("SOL") or Interconnection Reliability Operating Limits ("IROL") exceedences for the purpose of maintaining the reliable operation of the bulk electric system in the ERCOT region. *Docket No. RD12-1-000*
9. February 22, 2012 – Petition for Approval of proposed amendments to NERC's Delegation Agreement with the Florida Reliability Coordinating Council (FRCC) including approval of amendments to FRCC's Bylaws (included in Exhibit B to the Delegation Agreement) as a "Regional Entity Rule." *Docket No. RR12-4-000*
10. February 27, 2012 –Notice of Proposed Rulemaking Comments in response to FERC's December 16, 2011 NOPR regarding the Filing of Privileged Materials and Answers to Motions. *Docket No. RM12-2-000*

11. February 29, 2012 – Comments on behalf of itself and the eight Regional Entities on the Staff White Paper on the Commission's Role Regarding Environmental Protection Agency's Mercury and Air Toxics Standards ("MATS"). *Docket No. AD12-1-000*
12. February 29, 2012 – Quarterly informational filing regarding the timeframe to restore power to the auxiliary power systems of U.S. nuclear power plants following a blackout as determined during simulations and drills of system restoration plans. This filing contains the referenced material pertaining to the Fourth Quarter 2011. *Docket No. RM06-16-000*
13. February 29, 2012 – Notices of Penalty regarding the following entities in *Docket Nos. NP12-14-000* Commonwealth Chesapeake Company; *NP12-15-000* KCPL – Greater Missouri Operations; *NP12-16-000* Unidentified Registered Entity; *NP12-17-000* Unidentified Registered Entity; and *NP12-18-000* Spreadsheet Notice of Penalty.
14. February 29, 2012 – February Find, Fix and Track report filing. *Docket No. RC12-8-000*
15. March 15, 2012 – Petition for Approval of Amendments to SERC Reliability Corporation's Delegation Agreement, specifically to the SERC's Bylaws and Regional Standards Development Procedure. *Docket No. RR12-5-000*
16. March 15, 2012 – Informational Filing in response to Order No. 754 that includes a report on the reliability issues concerning system protection associated with the Commission-approved interpretation of Requirement R1.3.10 of Reliability Standard TPL-002-0. *Docket No. RM10-6-000*
17. March 16, 2012 – Errata filing changing the term "Cascading Outages" in the FERC-approved NERC Glossary of Terms definition of Interconnection Reliability Operating Limit (IROL) to "Cascading outages." *Docket No. RM06-16-000*
18. March 23, 2012 –Comments in response to the Notice of Proposed Rulemaking on Standards for Business Practices for Interstate Natural Gas Pipelines and in support of the modified Wholesale Gas Quandrant's ("WGQ") Standard 0.3.14, which changes the parties to whom pipelines are required to provide notification of operational flow orders and other critical notices. *Docket No. RM96-1-037*
19. March 30, 2012 – Motion for an Extension of Time to comply with directives from Order No. 693 with respect to BAL-003 (Resource and Demand Balancing Reliability Standard on Frequency Response and Frequency Bias). *Docket No. RM06-16-000*
20. March 30, 2012 – Comments in response to FERC's Notice Assigning Docket No. and Requesting Comments on the Coordination Between Natural Gas and Electricity Markets and FERC Commissioner Philip Moeller's request for comments on a set of questions concerning gas-electric interdependence. *Docket No. AD12-12-000*
21. March 30, 2012 – Second Annual Standards Report, Status, and Timetable for Addressing Regulatory Directives summarizing the progress made and plans for addressing the standards-related directives. *Docket Nos. RR12-6-000* and *RR09-6-003*

22. March 30, 2012 – Notices of Penalty regarding the following entities in *Docket Nos. NP12-19-000* American Electric Power Service Corp. as agent for Public Svc. Co. of Oklahoma & SW Electric Power Co.; *NP12-20-000* Unidentified Registered Entity; *NP12-21-000* Sunflower Electric Power Corporation; and *NP12-22-000* Spreadsheet Notice of Penalty.
23. March 30, 2012 – March Find, Fix and Track report filing. *Docket No. RC12-10-000*
24. April 12, 2012 – Informational Filing in Response to FERC Order No. 758. NERC submitted a schedule regarding the development of certain technical documents including the identification of devices that are designed to sense or take action against any abnormal system condition that will affect reliable operation and a schedule for the development of the changes to the standard that NERC stated it would propose as a result of the above-referenced documents. *Docket No. RM10-5-000*
25. April 16, 2012 – Limited Request for Clarification, or in the alternative Rehearing of the March 15, 2012 Order issued by FERC regarding the Find, Fix, and Track report filings. *Docket No. RC11-6-001*

Anticipated NERC Filings

1. April 30, 2012 – NERC must submit quarterly reports within 30 days of the end of each quarterly period, beginning with the fourth quarter of 2010, through and including the fourth quarter of 2013, on voting results in the Reliability Standards Development Process (*see* P 85 of the September 16, 2010 Order on the Three-Year Performance Assessment) *Docket Nos. RR09-7-000 and AD10-14-000*
2. May 2012 – NERC must submit a revised BAL-003 Standard (*See* October 25, 2010 NERC Filing). *Docket No. RM06-16-011*
3. May 1, 2012 – Comments due in response to Non-RTO/ISO Performance Metrics – Commission Staff Request Comments on Performance Metrics for Regions Outside of RTOs and ISOs. *Docket No. AD12-8-000*
4. May 14, 2012 – Compliance Filing in response to the FFT Order that was issued on March 15, 2012. *Docket Nos. RC11-6-000, et al.*
5. May 14, 2012 – Six Month report to FERC on the Compliance Enforcement Initiative Experience
6. May 16, 2012 – Reply Comments due in response to May 1, 2012 Comments that were submitted in response to the Non-RTO/ISO Performance Metrics – Commission Staff Request Comments on Performance Metrics for Regions Outside of RTOs and ISOs. *Docket No. AD12-8-000*
7. May 22, 2012 –NERC and WECC will submit a revised Standard that includes the Violation Severity Levels associated with each requirement of the revised BAL-004-WECC-1 Standard (*See* May 21, 2009 Order) (*See* November 22, 2010 NERC submittal). *Docket No. RM08-12-000*

8. May 31, 2012 – NERC's true-up filing for the business plans and budgets.
9. May 31, 2012 – Quarterly NUC filing in response to Paragraph 629 of Order No. 693. *Docket No. RM06-16-000.*
10. July 30, 2012 – Compliance Filing in response to P 27 of Order No. 758, a status report on PRC-005-2 including project schedule for addressing reclosing relays in PRC-005-3. . *Docket No. RM10-5-000*
11. July 31, 2012 – NERC must submit quarterly reports within 30 days of the end of each quarterly period, beginning with the fourth quarter of 2010, through and including the fourth quarter of 2013, on voting results in the Reliability Standards Development Process (*see* P 85 of the September 16, 2010 Order on the Three-Year Performance Assessment) *Docket Nos. RR09-7-000 and AD10-14-000*
12. August 23, 2012 – NERC must address Order No. 693 Directives to consider if Energy Management System application support personnel should be included in training Reliability Standard. *Docket No. RM09-25-000*
13. August 31, 2012 – Quarterly NUC filing in response to Paragraph 629 of Order No. 693. *Docket No. RM06-16-000.*
14. September 15, 2012 – Six Month Report in response to the FFT Order that was issued on March 15, 2012. *Docket Nos. RC11-6-000, et al.*
15. October 1, 2012 – One Year report to FERC on the Compliance Enforcement Initiative Experience
16. October 31, 2012 – NERC must submit quarterly reports within 30 days of the end of each quarterly period, beginning with the fourth quarter of 2010, through and including the fourth quarter of 2013, on voting results in the Reliability Standards Development Process (*see* P 85 of the September 16, 2010 Order on the Three-Year Performance Assessment) *Docket Nos. RR09-7-000 and AD10-14-000*
17. November 30, 2012 – Quarterly NUC filing in response to Paragraph 629 of Order No. 693. *Docket No. RM06-16-000.*

Agenda Item 12
MRC Meeting
May 8, 2012

Recommendations of the Standards Process Input Group

Action

Discuss and provide input on the SPIG's recommendations.

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, May 8, these recommendations at their respective meetings 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.

Once the SPIG has received the MRC's and SOTC'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.

Attachment 2

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

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

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 (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.

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).

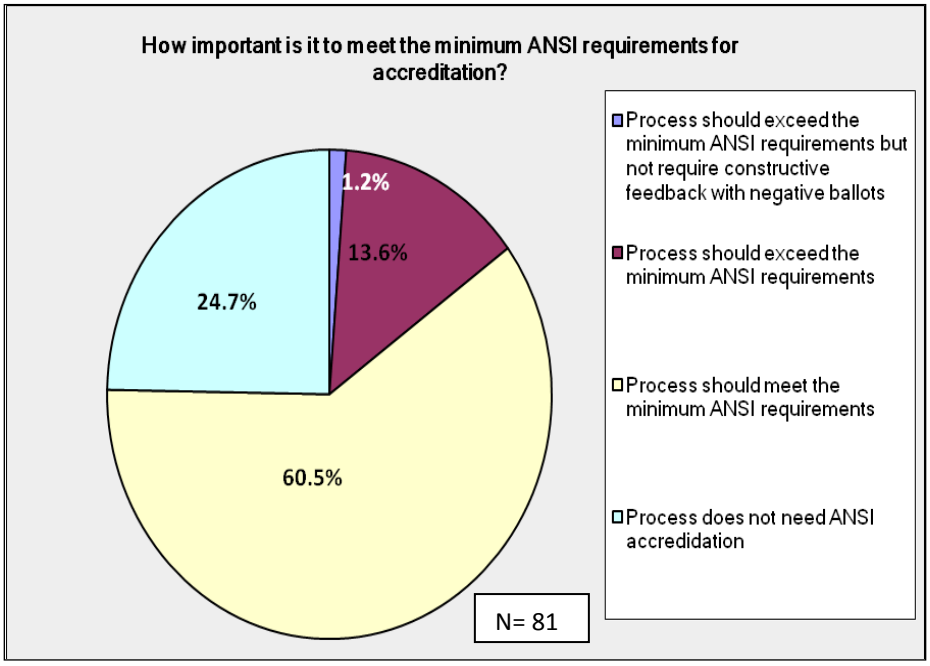


Figure 1: Results from SPIG survey of the Industry, April 2012

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.

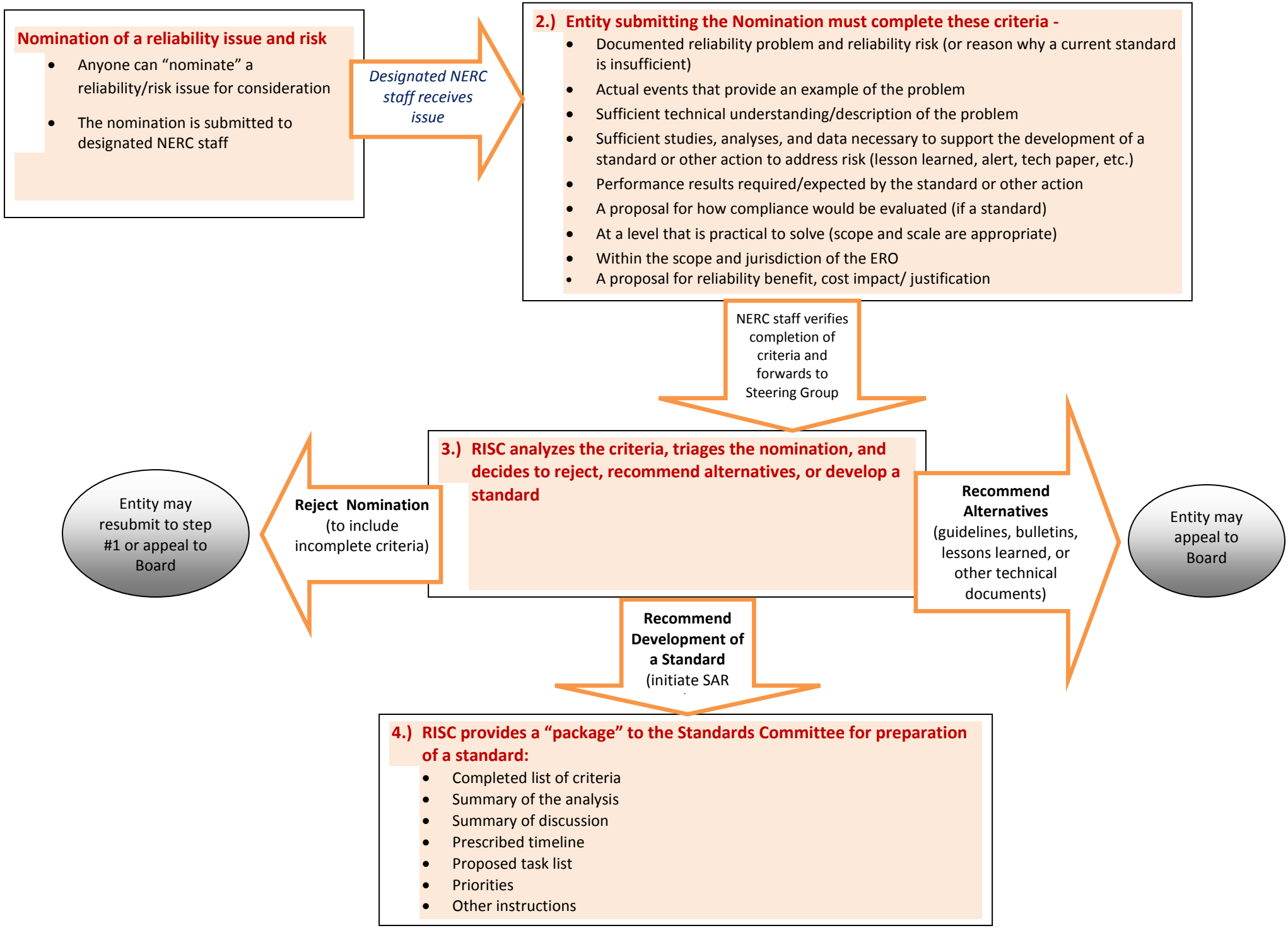
Additional Issues to be Addressed (per the Board's Discretion) During the Implementation Phase

- 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)



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 *Roles and Responsibilities: Standards Drafting Team Activities*, 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.