NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Agenda
Member Representatives Committee

November 4, 2009 | 12–3:00 p.m.
The Ritz Carlton
181 Peachtree Street, Northeast
Atlanta, GA
404-659-0400

INFORMATION SESSION (12–1 p.m.)

a. Preview of 2009/2010 Winter Reliability Assessment
b. Status of Reliability Impacts of Climate Change Initiatives (RICCI)
c. Status of High Impact Low Frequency (HILF) Initiative (attach roster and charter)
d. NERC Comments on TIER Report

REGULAR SESSION (1–3 p.m.)

Introductions and Chairman's Remarks

- Welcome New Member(s) and Announce Proxies

Antitrust Compliance Guidelines

Policy Input to NERC Board of Trustees – letter from John Q. Anderson

Consent Agenda — Approve

*1. **Minutes**

- **August 4, 2009 MRC Minutes**
- **October 5, 2009 MRC Conference Call Draft Minutes**

*2. **Future Meetings**

Regular Agenda

*3. **Terry Bundy Resolution of Appreciation**

*4. **MRC Officer Elections**

*5. **Status of MRC Member Nominations and Elections**

*6. **Plans for Implementing Specific NERC Actions from Three-Year ERO Performance Assessment**

*7. **Action Plan for Completing Event Analysis Reports and Providing Feedback to the Industry**

*8. **Project to Develop Results-Based Standards**

*9. **Role of NERC Staff in Standards Development Process**

*10. **Discussion on Formation of a Generator Owners and Operators Forum**

INFORMATION ONLY

*11. **Status of 2009 Goals and Objectives**

*12. **Status of NERC Secure Alert System**

*13. **Status of Generator Requirements at the Transmission Interface Ad Hoc Group**

*14. **Regulatory Update**

NOTICE

An open workshop to discuss revisions to the NERC Regional Delegation Agreements will be held from 3:30–5:30 pm following the MRC Meeting.

* Background material included

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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.

Preview of 2009/2010 Winter Reliability Assessment

Action Required
None

Information

NERC has begun the process to prepare its 2009/2010 Winter Reliability Assessment, with a targeted release of mid-November. The Regions submitted data, information, and Regional self-assessments to NERC in early October. After the Reliability Assessment Subcommittee's peer review is completed in mid-October, the NERC Planning Committee will review a draft in late October, with the final draft submitted to the Board of Trustees for approval on November 19, 2009.

The report will cover the three winter months (December – February) and assess the adequacy and reliability of the bulk power systems in North America for the coming winter season. This winter's report will reflect enhancements, including increased granularity of available capacity, demand response resources, fuel-quality consideration of unconventional natural gas, and greater attention to the impacts of wind generation on Reserve Margins.

Mark Lauby will present the preliminary findings of NERC's 2009/2010 Winter Assessment at the information session preceding the regular MRC meeting.

Status of Reliability Impacts of Climate Change Initiatives Draft Report

Action Required

None

Background

Climate change initiatives promulgated by government and industry organizations are expected to result in a potentially wide array of variables and potential reliability consequences. The prevailing themes center around Green-House Gas (GHG) reduction mandates that would result in supply resource mix changes, as well as mandates for Demand-Side Management and Renewable Portfolio Standards. The aggressiveness or pace of these mandates/targets could lead to different near-term and long-term outcomes, as well as diverse response patterns with supply-demand of fuel commodities, technology deployments, and financial-capital cost considerations. This report illuminates resulting bulk power system reliability considerations.

To further address reliability considerations of climate change initiatives, NERC's Planning and Operating Committees created the Reliability Impacts of Climate Change Initiatives Task Force (RICCITF), which is charged with assessing the reliability considerations of climate change initiatives, supply resources responses, and associated technologies deployed, ranging from large scale integration of smart grids, fuel mix changes, integration of renewables, nuclear generation and energy storage.

Current Status

A contractor was engaged by NERC, and the RICCITF and Advisory Panel have meet through multiple conference calls and face-to-face meetings to review the progress and develop a draft report. This draft report is now under review by the Operating and Planning Committees, with endorsement being sought at their December 2009 meetings.

Mark Lauby will provide a high-level overview of the findings from this draft report. As the report has not received final endorsement from the Operation/Planning committees and is subject to change, these findings should not be considered final or conclusive.

Status of High Impact Low Frequency Risk Initiative

Action Required
None

Background
NERC staff is co-sponsoring a workshop with the U.S. Department of Energy (DOE) and will be responsible for the logistics and planning. The Steering Committee will report their planned approach to the Electricity Sector Steering Group (ESSG) for guidance and concurrence, while informing and receiving guidance from the officers of the NERC technical committees.

NERC and DOE are seeking U.S. and Canadian government and industry subject matter experts willing to participate in a joint industry/government steering committee to evaluate the risks from High Impact Low Frequency (HILF) events to the bulk power system in North America. HILF events risks whose likelihood of occurrence are uncertain relative to other threats, but could significantly impact the system, were they to occur. HILF events include electromagnetic pulse events, geomagnetic storms, pandemic influenza, and coordinated cyber attacks.

Current Status
The HILF Steering Committee will focus its efforts in five areas: influenza pandemic, geomagnetically induced currents caused by space weather, coordinated terrorist physical attack, cyber attack, and electromagnetic pulse. The Steering Committee held its inaugural conference call September 11, 2009 to review its charter (**Attachment 1**) and begin discussing key elements of the workshop. The Steering Committee has since met twice by conference call to define workshop deliverables, further discuss meeting format and architecture, and outreach to speakers and invitees. A roster of the Steering Committee members is attached as (**Attachment 2**).

A 2-day workshop is planned for November 9–10, 2009 at the Hyatt Regency Washington on Capitol Hill. The planned workshop format consists of three concurrent tracks covering pandemic, EMP and geomagnetic, and coordinated physical and cyber attack, beginning with a general overview setting the stage for discussion of grid reliability and risk from HILF events. Experts leading these tracks are as follows:

EMP Track:
John Kappenman – Geomagnetic Storms
Bill Radasky – EMP/Intentional EMP and RF weapons (intentional EMI))

Pandemic Track:
Julie Palin

Physical and Cyber Track:
Bob Stephan
Gerry Dixon

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Charter

High Impact Low Frequency Event Workshop Steering Committee

September 1, 2009

Background

HILF events present the potential for significant disruptions to bulk power system reliability, and related disruptions to sectors upon which the bulk power system depends. Many HILF events could result in the destruction of portions of the bulk power system or its critical elements, as well as of other critical infrastructures, including railroads, pipelines, and telecommunications systems.

An event with sufficient scope, severity, or duration could intensify the overall impacts to these critical systems and greatly complicate or delay their recovery. Depending on the nature of the event, the consequences could include a mixture of any of the following: substantial infrastructure damage, inability to maintain or repair the system, disruption of control systems, or inadequacy of fuel, fuel delivery, or telecommunications systems. In addition to significant effects on the bulk power system, there could be extensive, long-duration loss of load to end-use customers. The interdependence of the electric power system, from fuel source to end-user as well as across all industries and aspects of society, requires a comprehensive view to understand the myriad prevention, preparedness, mitigation, response, and recovery measures involved, and to identify possible steps that the electricity utility industry might take to address HILF events. Accordingly, a multi-disciplined approach is needed to adequately assess the impacts of HILF events and identify appropriate roles for the North American Electric Reliability Corporation (NERC) and the U.S. Department of Energy before, during, and after such an event.

Purpose and Deliverables

The purpose of the Steering Committee (SC) is to review the impacts of high-impact, low-frequency (HILF) events on the bulk power system and oversee planning and management of a November 2009 conference on that subject. Particular emphasis should be given to identifying future activities on the issues, including the respective roles of DOE and the NERC for addressing HILF events.

Exhibit A lists potential HILF events. The HILF SC will focus its efforts in five areas: influenza pandemic, geomagnetically induced currents caused by space weather, coordinated terrorist physical attack, cyber attack, and electromagnetic pulse. After reaching a consensus on the scope of a conference, the SC will:

- Develop a detailed agenda for the conference,
- Invite industry experts to present information or contribute to discussion at the workshop,
- Present a preliminary status report on HILF issues to the NERC Planning, Operating, and Critical Infrastructure Protection Committees, and to both NERC and DOE,

- Assist DOE and NERC staff in coordinating planning and management of the workshop, and
- Write a summary report on the workshop.

To guide the discussion of HILF events and the DOE and NERC roles, the SC will review and discuss the framework developed for assessing the multifaceted nature of these events. The framework will include the characteristics of causation and consequence and provide tools to summarize possible prevention, preparedness, mitigation, response, and recovery measures. NERC and DOE staff will provide input and share current work products to facilitate the framework development process.

Approach and Milestones

The SC will establish a liaison to facilitate a two-way advisory relationship with the NERC Critical Infrastructure Protection Committee (CIPC), the NERC Planning Committee (PC) and the NERC Operating Committee (OC).

The SC will report to DOE and NERC (with oversight from the Electricity Sector Steering Group – ESSG) as the executive sponsors of the workshop.

The draft schedule for the 2009 conference:

- August – Form a HILF Steering Committee
- September – Develop purpose and scope of workshop, begin inviting speakers
- Early October – Complete detailed agenda, finalize speaker attendance plan
- November – Conference in Washington, D.C
- December -- Submit a preliminary draft report for comments at the NERC PC/OC/CIPC meetings and to a specially-convened meeting of the ESSG
- Receive final approval of the report by February 2010 by the NERC Board of Trustees and DOE sponsors.

Membership

NERC's Electric Sector Steering Group will provide executive guidance to the Steering Committee from an industry perspective. The leadership of NERC's Planning, Operating, and Critical Infrastructure Protection Committees will also receive periodic updates on the Steering Committee's activities and the opportunity to provide input and perspective to the group through the NERC sponsoring executive.

Members will be selected by NERC and DOE, in coordination with NERC's ESSG and Planning, Operating, and Critical Infrastructure Protection Committee leadership. Members must be willing to commit their time to participate in SC discussions, assist in conference planning, and contribute to writing the summary report. The SC will consist of two co-chairs, ten members, and two sponsoring executives.

Each member may designate one alternate to ensure availability. The organization of the initial SC is;

- Executive Sponsors (2)
  - NERC
  - DOE
- Co-Chairs (2)
  - Industry Representative
  - Risk Representative
- Members (10)
  - Industry Participants (Including U.S. and Canada) (5)
  - Risk Subject Matter Experts (5)
- Liaisons – May be consulted on specific matters, invited to attend the sessions, though participation in discussions is expected to be limited
  - U.S. and Canadian government agencies
  - Energy sector representation (oil, natural gas industries, gasoline delivery)
  - Railroads
  - Telecommunications
  - Computer hardware and software manufacturers
  - Public safety (police, fire, and other emergency services)
  - State utility regulatory and emergency services agencies
- Observers
  - Limited to listen-only participation
  - Open to other interested participants from government and industry

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Exhibit A – Potential HILF Events (focus topics underlined)

1. Health-related Crisis
    - **a. Influenza Pandemic (1918 Pandemic, H1N1 "Swine Flu" 2009-present)**
    - b. Severe Acute Respiratory Syndrome (SARS, 2002-2003)
2. Natural Disaster
    - a. Hurricane (South, Southeast)
    - b. Extreme Winter Weather (Northern U.S.)
    - c. Flood (South, Midwest)
    - d. Earthquake (Western and Midwest U.S.)
    - e. Volcano (Northwestern U.S.)
    - f. Space Weather
        - **i. Geomagnetically Induced Currents (GIC)**
        - ii. Satellite Losses
            1. Global Positioning System (GPS) constellation
            2. Telecommunications
    - g. Fire (West, Southwest)
    - h. Drought
3. Man-Made Disaster
    - **a. Terrorism (physical attack)**
        - i. General infrastructure attack
        - **ii. Coordinated attack on the Bulk Power System**
    - **b. Cyber-Attack**
        - i. General system attack (terrestrial and satellite systems and elements)
        - **ii. Coordinated attack on the Bulk Power System**
    - c. Nation-State Unconventional Attack
        - i. Nuclear
        - ii. Chemical, Biological
        - **iii. Electromagnetic Pulse (EMP)**
            1. High-Altitude Electromagnetic Pulse (HEMP)
            2. Non-nuclear electromagnetic pulse (NNEMP)
        - iv. Satellite Attack
            1. Global Positioning System (GPS) constellation
            2. Telecommunications
    - d. Other
        - i. Human error
        - ii. Maintenance failure
        - iii. Technical glitch
        - iv. Major supply chain disruption
        - v. Common-mode failure

Roster

High Impact Low Frequency Event Workshop Steering Committee

As of September 9, 2009

Executive Sponsors		
William Bryan Contact: Kenneth Friedman	Deputy Assistant Secretary	U.S. Department of Energy
Michael Assante	VP and Chief Security Officer	NERC
Chairs		
Scott Moore	Vice President of Transmission	American Electric Power
Robert Stephan	Former Assistant Secretary for Infrastructure Protection in the National Protection and Programs Directorate	U.S. Department of Homeland Security
Members		
Stuart Brindley	Manager – Operational Excellence	Independent Electricity System Operator (IESO Ontario)
Tom Bowe	Executive Director, Reliability Integration	PJM Interconnection
Hardev S. Juj	Acting VP, Planning & Asset Management	Bonneville Power Administration
Tom Burgess	Director, FERC Policy & Compliance	FirstEnergy
Robert McClanahan	Vice President, Information Technology	Arkansas Electric Cooperative
Jerry Dixon	Director of Analysis	Team Cymru Research
Michael Frankel	Member	EMP Commission
Julie Palin	Partner	Business Recovery Solutions LLC
William Radasky	President and Managing Engineer	Metatech Corp.
John Kappenman		Storm Analysis Consultants

Information Session Item d.
MRC Meeting
November 4, 2009

NERC Comments on TIER Report

Action Required
None

NERC expects to file comments by October 28, 2009 with the Federal Energy Regulatory Commission on the Preliminary Report — "Topological and Impedance Element Ranking (TIER) of the Bulk-Power System," August 2009. Time permitting, the MRC will discuss this report and the comments filed by NERC and other organizations.

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John Q. Anderson, Chairman
NERC Board of Trustees

October 16, 2009

Mr. Steven T. Naumann, Chairman
NERC Member Representatives Committee
Vice President, Wholesale Market Development
Exelon Corporation
Chase Tower
10 S. Dearborn Street – 53rd Floor
Chicago, IL 60603

Dear Steve:

Policy Input to NERC Board of Trustees

The NERC Board of Trustees invites the Member Representatives Committee (MRC) to discuss and provide policy input to the board on the following issues at its November 4, 2009 meeting, which board members will attend:

Three Year Performance Assessment — Rick Sergel described in his September 17, 2009 letter to NERC Stakeholders NERC's plan for implementing actions from the Three-Year ERO Performance Assessment. Dave Nevius, who has been appointed to lead and be the single point of contact for this project, will be presenting to the board for approval at its November 5 meeting a project plan for implementing these actions. Your input on this plan, as it will be described in the MRC and board agenda background materials, both at the MRC meeting and as this project moves forward, will be essential to the success of this effort to improve the performance of the ERO.

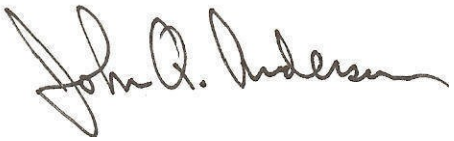
Project to Develop Results-Based Standards — The MRC will hear a presentation of plans to improve the NERC reliability standards to be more focused on reliability performance, with a greater concentration on requirements having a direct impact on reliability of the bulk power system. The board will be interested in the MRC's reaction to this initiative, which is intended to address stakeholder comments received during the preparation of the Three-Year ERO Performance Assessment.

Other Opportunities for MRC Input — In addition to discussion of these items at the MRC meeting itself, MRC members will have an opportunity to provide input during the technical conference to discuss standards interpretations (11 a.m. – noon) and the workshop to discuss Regional Delegation Agreements (3:30 – 5:30 p.m.)

116-390 Village Blvd.
Princeton, NJ 08540
609.452.8060 | www.nerc.com

The board values highly and benefits greatly from the open discussions at MRC meetings, and the full range of opinions expressed. To the extent that members of the committee can submit written comments in advance of the meeting on any or all of the above topics, it will further help the board. Written comments should be submitted to Dave Nevius, committee secretary (dave.nevius@nerc.net) by October 30, 2009 if possible.

Thank you,



John Q. Anderson
NERC Chairman

cc: Board of Trustees
Member Representatives Committee

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Draft Minutes
Member Representatives Committee

August 4, 2009 | 1 – 3:30 p.m.
The Delta Hotel
350 St. Mary Avenue
Winnipeg, Manitoba
204-942-0551

Member Representatives Committee Chairman Steven Naumann called to order a duly noticed meeting of the North American Electric Reliability Corporation Member Representatives Committee on August 4, 2009 at 1 p.m., local time, and a quorum was declared present. The meeting announcement, agenda, and list of attendees are attached as **Exhibits A**, **B**, and **C**, respectively. Those on the phone are listed in Exhibit C.

NERC Antitrust Compliance Guidelines

David Nevius, senior vice president and committee secretary, called attention to the NERC Antitrust Compliance Guidelines distributed with the agenda.

Introductions and Chairman's Remarks

Chairman Steven Naumann welcomed and introduced new committee member Terry Huval, director, Lafayette Utilities System, representing the transmission dependent utilities segment. He also announced the following proxies: David Mohre for John Prescott (cooperative utility), Murray Margolis for Trent Carlson (electricity marketer), Sarah Rogers for John Giddens (Regional Entity – Non Voting); Gilbert Neveu for Jean-Paul Theoret (Canadian Provincial – Non Voting), and Bob Modray for Tab Gangopadhyay (Canadian Federal – Non Voting).

Minutes

The Member Representatives Committee approved the draft minutes of the May 5, 2009 meeting and the June 29, 2009 and July 13, 2009 conference call meetings (**Exhibits D, E and F**).

Future Meetings

The Member Representatives Committee approved August 4, 2010 in Toronto, Ontario Canada as a future meeting date and location.

Amendment to NERC Bylaws Regarding Additional Independent Trustee

Ken Peterson, chairman of the Board of Trustees Nominating Committee, explained the basis for the Nominating Committee's recommendation to amend the NERC bylaws to provide the flexibility to add one additional independent trustee to the NERC board, as described in more detail in the agenda background material.

Following discussion by the MRC, on motion made and duly seconded, the members of the MRC voted in favor of amending the bylaws as recommended, with two abstentions.

Status of Efforts in Canada

David Cook, vice president and general counsel, reported on the status of efforts in Canada to obtain recognition as the ERO, approval of reliability standards, and enforcement of those standards. Details of the province-by-province status were included in the agenda background material.

2009 Long-Term Reliability Assessment

Mark Lauby, director of reliability assessment and performance analysis, presented the preliminary key findings, emerging and standing issues, and a preview of the scenario analysis being developed for inclusion in the 2009 Long-Term Reliability Assessment (**Exhibit G**). Mr. Lauby emphasized that these findings and issues have not yet been reviewed, vetted or approved by NERC management or its technical committees and are subject to change.

Herb Schrayshuen, chairman of the NERC Reliability Metrics Working Group, presented a preliminary report on performance trends in operating reliability and adequacy and the reliability metrics currently under review (**Exhibit H**). Tom Burgess, chairman of the NERC Planning Committee, noted that the goal of the reliability metrics initiative, under the auspices of the Planning and Operating Committees, is to establish credible metrics to judge reliability improvement.

Critical Infrastructure Protection Program Activities

Michael Assante, NERC vice president and chief security officer, presented the highlights of several on-going activities and initiatives in the critical infrastructure protection area, as detailed in the agenda background material (**Exhibit I**). These included: cyber risk preparedness assessment; Secure Grid '09 Joint Wargame; the NERC Secure Alert System Deployment Plan; and Congressional hearing on electric grid security.

Mr. Assante commented that he expected to see the U.S. and Canadian governments coordinate closely on critical infrastructure protection issues. He also noted that NERC was keenly aware of the heightened interest of Congress and the U.S. Department of Defense regarding the potential threat and impacts of Electro-Magnetic Pulse attack on bulk power system infrastructure, especially solid state devices, and that NERC was considering this issue and a response.

Mr. Assante also responded to questions and concerns about NERC's supplemental survey to gather information on the progress of registered entities in achieving compliance with standard CIP-002 on Critical Cyber Asset Identification. He explained that the use of Section 1600 of the Rules of Procedure (Requests for Data or Information) was ruled out as the appropriate mechanism to gather this information because Section 1600 specifically states that it "… shall not apply to requirements contained in any Reliability Standard" and the self-certification was part of the implementation plan approved along with the standards.

He added that given the multiple requests for guidance on the issue it was clear that some registered entities were struggling with implementing CIP-002. As a result, the ERO needed to understand if there are problems ahead of the audit schedule, which would take over six years to assemble. In addition, Mr. Assante noted that there is currently a void of information that might demonstrate whether or not a reliability risk exists, plus there are important standards compliance and development activities that would greatly benefit from analysis of the information requested by the survey. This includes the drafting of guidance specifically for the identification of critical assets and also providing input to the CIP drafting team that is working on improvements to this standard.

Mr. Assante reported that the survey results will be analyzed jointly by NERC and the Regional Entities, working with industry representatives and associations.

Finally, Mr. Assante reported that NERC is arranging for a third-party provider to conduct an on-going educational effort on all CIP standards. Workshops and webinars are planned to begin in Fall 2009 and continue into early 2010.

Chairman Naumann commented that the board may wish to delay action on approving changes to the charter of the Critical Infrastructure Protection Committee (CIPC) related to CIPC serving as an advisory panel to the Electricity Sector Steering Group (ESSG) until after the ESSG and CIPC meet to discuss this change. CEO Sergel suggested taking the CIPC Charter off the Board consent agenda so the changes could be discussed.

MRC Officer Elections and MRC Nominations

Chairman Naumann announced the following schedule for the nomination and election of MRC members and officers for 2010.

MRC Member Nominations and Elections
September 14 – nomination period opens
November 13 – nomination period closes
December 14 – election begins
December 23 – election ends

MRC Officer Elections
September 1 – nomination period opens
October 1 – nomination period closes

November 4 – election of officers for following year by current MRC members

Chairman Naumann also announced that MRC vice chairman Ed Tymofichuk is willing and able to serve as Chairman starting in Feb. 2010 and that in accordance with prior practice, he will be 'retiring' from the MRC.

Update on CEO Search

Board member Janice Case, on behalf of search committee co-chair Fred Gorbet, reported that Russell Reynolds had been selected to lead the search and that the entire board will be serving as the search committee for a new CEO. Ms. Case thanked the MRC members for their input on the job description and reported that copies would be available as part of NERC's announcement to the industry and invitation for recommendations. She noted that recommendations would be accepted through August 19, with the full board scheduled to meet in mid-October to review recommendations. Interviews will be held in early November with the new CEO selected and on board by year end.

Ms. Case thanked Rick Sergel for his four years of service to NERC and his willingness to provide the necessary overlap with the new CEO. She also noted the considerable accomplishments NERC has achieved during Mr. Sergel's tenure, as identified in the Three-Year ERO Performance Assessment.

Event Analysis and Information Exchange

Bob Cummings, NERC director of event analysis and information exchange, presented an overview of the efforts to improve dissemination of lessons learned and alerts based on event analyses (**Exhibit J**). Chairman Naumann noted that event analysis reports are very important to the industry to improve reliability and that we need to find ways to get information and lessons learned out to the industry sooner.

Comments by Observers

EEI (Jim Fama) – written comments submitted in advance of meeting. Encourage NERC to put together a plan for the Regional Delegation Agreement renegotiation process to ensure that the revised agreements are strong. Need to clarify and strengthen role of ESSG, especially regarding how it relates to the CIPC and the CIPC Executive Committee.

CEA (Pierre Guimond) – Lingering concern on program activities beyond the scope of the ERO mandate.

NRECA (David Mohre) – Appreciate recent NERC efforts to take stakeholder inputs into account, with thanks to Rick Sergel and Steve Naumann.

APPA (Allen Mosher) – Tough tasks ahead of us and all are fully committed to making NERC work. Regarding current reliability standards, need longer term project to clean up and refocus standards. Compliance committee needs to address major backlog. Need new processes for communications to help NERC speed up the process.

Adjournment

Chairman Naumann thanked Ed Tymofichuk and Manitoba Hydro for helping to host the meeting and arranging for tours of its new building and other facilities.

There being no further business, Chairman Naumann adjourned the meeting at 3:30 p.m.

Submitted by,

David R. Nevius
Secretary

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Conference Call Draft Minutes
Member Representatives Committee

October 5, 2009 | 1–2 p.m.

Chairman Steve Naumann convened a duly-noticed open meeting by conference call of the North American Electric Reliability Corporation's Member Representatives Committee (MRC) on October 5, 2009 at 1 p.m. EDT. The meeting announcement, agenda, and list of attendees are attached as **Exhibits A**, **B**, and **C**, respectively. A roll call was not taken since there were no action items on the agenda and no quorum was required.

NERC Antitrust Compliance Guidelines
David Nevius, committee secretary, directed the participants' attention to the NERC Antitrust Compliance Guidelines.

MRC Officer Election, MRC Member Nominations, and Elections
Chairman Naumann reminded committee members of the schedule for MRC officer and member nominations and elections, as shown in the agenda. MRC Officer elections will take place at the MRC meeting in Atlanta on November 4, 2009, for which a quorum is required.

Review of MRC November 4, 2009 Draft Agenda
Chairman Naumann reviewed the preliminary agenda for the upcoming November 4, 2009 MRC meeting in Atlanta (**Exhibit D**). He noted that there will be three items that will be discussed in the noon–1 p.m. information session: preview of the 2009/2010 Winter Reliability Assessment; status of the Reliability Impacts of Climate Change Initiatives; and status of High Impact/Low Frequency initiative.

Chairman Naumann then reviewed the regular MRC agenda. One major item of discussion was the plan to implement NERC's actions from the Three-Year ERO Performance Assessment.

Mr. William Gallagher noted there may be a conflict with the approved dates for the May 2010 MRC meeting. Dave Nevius agreed to look into this issue.

Mr. Naumann noted that two letters that were sent to the committee; the first was from NERC Chairman John Q. Anderson to the stakeholders regarding NERC's plan for implementing actions from the Three-Year ERO Performance Assessment and the second was from NERC President and CEO Rick Sergel regarding NERC Board of Trustees Process for Consideration of Interpretations of Standards. Both letters have been forwarded to the committee via e-mail.

Mike Smith raised a question regarding NERC's response to the FERC technical conference on the TIER report. An item will be added to the information session of the MRC agenda

(November 4, 2009 — noon – 1 p.m.) for discussion of NERC's comments on the report, which will be filed by October 28.

Mr. Naumann announced that there will be an additional item on the MRC agenda; a Resolution of Appreciation for Terry Bundy, a former member of the MRC, who lost his fight with cancer earlier this year. He will be missed by all.

Board of Trustees Agenda

Chairman Naumann reviewed the preliminary agenda for the November 5, 2009 Board of Trustees meeting (**Exhibit E**). Mr. Naumann indicated that there will be an update on the 2010 Business Plan and Budget filing with FERC, for information only. David Goulding, NPCC Chairman, inquired about the CEO search and if there were any viable candidates at this time. Mr. Naumann stated that there will be a report from Fred Gorbet and Janice Case, the Search Committee co-chairs, on the status of the search.

Other Board Committees

Chairman Naumann reviewed the schedules for the upcoming board committee conference calls and scheduled meetings. Phil Fedora, Assistant Vice President, Reliability at NPCC requested a timeline be sent to the committee. Mr. Nevius e-mailed the schedule to MRC members.

Technical Conference on Interpretations

Chairman Naumann reviewed the letter sent from Rick Sergel regarding NERC Board of Trustees Process for Consideration of Interpretations of Standards. He reminded MRC members of the deadline for submitting written comments on the process as well as the specific interpretations. The technical conference will be held from 11 a.m. – 12 noon on November 4.

Workshop on Revisions to Regional Delegation Agreements

Chairman Naumann noted that there will be a workshop on November 4, 2009 from 3:30–5:30 p.m. to review the process for revising the Regional Delegation Agreements and to gather stakeholder input for this process.

Additional Issues any Sector(s) Want Discussed at the MRC Meeting

Chairman Naumann stated that Dave Nevius will send a letter from John Q. Anderson to MRC members requesting policy input on specific items. MRC Vice Chairman Ed Tymofichuk informed the MRC that the largest union in Manitoba is on strike, picketers are active and negotiations have been on going.

Meeting Adjourned

There being no further business, the call was terminated at 2:15 p.m. EDT.

Submitted by,

David R. Nevius

Committee Secretary

Future Meetings

MRC Action Required

Approve November 3–4, 2010 (W – TH) in Atlanta as a future meeting date and location.

Information

The MRC has approved the following future meeting dates and locations:

- February 15 – 16, 2010 — Phoenix, Arizona (M–Tue)
- May 11 – 12, 2010 — Washington, DC (Tue–W)
- August 4 – 5, 2010 — Toronto (W–Th)

Terry Bundy Resolution of Appreciation

Action Required

Approve

The MRC is asked to approve the attached resolution of appreciation **(Attachment 1)** for Terry Bundy, recognizing his contributions to the MRC, to NERC, and to the industry in general. NERC will send a copy of the approved resolution to Terry's family.

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

November 4, 2009

NERC Member Representatives Committee
Resolution of Appreciation

WHEREAS, Terry Bundy first became officially involved with the predecessor of the North American Electric Reliability Corporation (NERC) in 1992 and served for five years as a member of the NERC Engineering Committee (now the Planning Committee); and

WHEREAS, Terry continued to follow NERC activities through his activities within the MAPP region and then rejoined NERC officially in 2007 as a member of its Member Representatives Committee representing the MRO in the Regional Entity sector and later the Transmission Dependent Utilities sector; and

WHEREAS, Terry was a strong supporter and friend of NERC for many years, and made invaluable contributions to the industry, especially in the area of bulk power system reliability;

THEREFORE BE IT RESOLVED, that the Member Representatives Committee of NERC hereby expresses its most sincere and heartfelt appreciation to Terry's family for his many years of dedication to the electricity industry, in particular in support of NERC's bulk power system reliability mission, and extends its deepest sympathies for your loss.

116-390 Village Blvd.
Princeton, NJ 08540
609.452.8060 | www.nerc.com

MRC Officer Elections

Action Required
Elect Officers for 2010

Background
Article VIII, Section 5 of the NERC Bylaws addresses election of the chairman and vice chairman of the Member Representatives Committee. It states:

Section 5 — Officers of the Member Representatives Committee — At the initial meeting of the Member Representatives Committee, and annually thereafter prior to the annual election of representatives to the Member Representatives Committee, the Member Representatives Committee shall select a chairman and vice chairman from among its voting members by majority vote of the members of the Member Representatives Committee to serve as chairman and vice chairman of the Member Representatives Committee during the upcoming year; provided, that the incumbent chairman and vice chairman shall not vote or otherwise participate in the selection of the incoming chairman and vice-chairman. The newly selected chairman and vice chairman shall not have been representatives of the same sector. Selection of the chairman and vice chairman shall not be subject to approval of the board. The chairman and vice chairman, upon assuming such positions, shall cease to act as representatives of the sectors that elected them as representatives to the Member Representatives Committee and shall thereafter be responsible for acting in the best interests of the members as a whole.

The nominating period for the two officer positions of the Member Representatives Committee for 2010 opened on September 1, 2009 for a 30-day nominating period that closed October 1, 2009. [Note that the election of officers at this meeting and the currently open nominating period for sector members for 2010–2011 allows the ability to fill vacancies resulting from a member being elected to an officer position. The nominating period for sector members continues through November 13, 2009.]

The nominees for chairman and vice chairman for 2010 are:

Chairman – Ed Tymofichuk
Vice Chairman – William J. Gallagher

Agenda Item 5
MRC Meeting
November 4, 2009

Status of MRC Member Nominations

Action Required

None

The nomination period for sector representatives to the MRC to fill terms that will expire February 2010 is September 14, 2009 to November 13, 2009, with elections scheduled to occur between December 14 and 23, 2009.

As of October 20, 2009, all sectors have nominated representatives to serve two-year terms expiring February 2012 except Sector 7 (Electricity Marketers).

Agenda Item 6
MRC Meeting
November 4, 2009

Plans for Implementing Specific NERC Actions from Three-Year ERO Performance Assessment

Action Required
Discussion

Background
On July 20, 2009, NERC filed its Three-Year Electric Reliability Organization (ERO) Performance Assessment with the Federal Energy Regulatory Commission in the United States and with governmental authorities across Canada. This assessment describes NERC's efforts over the last three years to establish the ERO, and identifies actions, goals, and commitments designed to address issues raised by industry stakeholders during the development of the assessment.

In his September 17, 2009 letter to NERC stakeholders, NERC President and CEO, Rick Sergel, described NERC's approach to developing and implementing a project plan for implementing the *Specific NERC Actions* included in the assessment (**Attachment 1**).

Dave Nevius, project manager for implementing the actions from the assessment will present for information and feedback NERC's preliminary plans.

Preliminary Project Plan
As indicated in the assessment, NERC will develop in the coming months the schedules, dates, budgets and resource allocations, and the tracking mechanisms that will be necessary to implement the *Specific NERC Actions*. Taken together, these actions will represent a detailed work plan for NERC over the next several years that can and will be modified as necessary to take into account stakeholder inputs, Commission directives in response to the filed assessment, feedback from appropriate governmental authorities in Canada, and resource requirements and availability.

Given the significant number and scope of the *Specific NERC Actions*, successful completion of them will not be a trivial task and will not be accomplished overnight, and may in fact span several years. Substantial time, resources and policy direction will be required initially and during the next several years to prioritize and successfully implement these actions to ensure that maximum value is obtained from the resources and efforts expended by NERC, Regional Entities, and industry volunteers. Given current and projected resources the project plan will require very clear deliberate prioritization and an acknowledgement that progress will be degraded if priorities shift for perceived short term gains or requirements.

While all of the *Specific NERC Actions* included in the Assessment are deemed important to fulfilling NERC's ERO reliability responsibilities, a majority of the comments received from stakeholders which led to these actions focused on changes and improvements in the Standards and Compliance areas. Given this, in the initial stages of the project plan, primary attention is being given to actions related to these two programs. As this project evolves, the actions related to other areas will be incorporated into the plan.

Priority Levels

For purposes of assigning Priority Levels to each action or group of actions, the following preliminary definitions are suggested:

Priority 1 – Essential to addressing key issues raised by stakeholders and making marked improvements in the effective and efficient performance of NERC's ERO reliability improvement responsibilities.

Priority 2 – Required to maintain and steadily improve the current level of ERO performance over the longer term to improve reliability.

Priority 3 – Absorb into current program activities and procedures to maintain the continuity of NERC/ERO operations. Consequences of not accomplishing these *Specific NERC Actions* may not be felt in the short term, but will eventually result in reduced overall effectiveness and efficiency in the performance of ERO reliability responsibilities.

Tracking, Monitoring and Reporting

Maintaining oversight and management control of the implementation of the *Specific NERC Actions* will require assigning responsibility for each action or group of actions, establishing schedules and timelines, determining estimated resource requirements, and implementing a system for tracking and reporting on the status of work on at least a quarterly basis. This too will not be a trivial undertaking. Quarterly reports will be timed to coincide with regular NERC board meetings to keep the board apprised of progress during the year, with an annual year-end summary prepared for the board for consideration at its regular February meetings. In addition, NERC committed in its September 18, 2009 filing with FERC to provide comprehensive status reports on progress in implementing the specific actions six months, 12 months, and 24 months following the date of the order concluding this proceeding.

Relationship with Crowe Audit, Regional Delegation Agreements and Rules of Procedure

There is a strong relationship between this project to implement the *Specific NERC Actions* from the assessment and the initiatives to revise the Regional Delegation Agreements (RDAs) and make conforming changes to the Rules of Procedure. In addition, the results of the recent Crowe audit of the Compliance Monitoring and Enforcement Program, initiated by NERC, identifies a number of other actions that will influence changes to both the RDAs and the Rules of Procedure. One way to think of these interrelated efforts is to view the *Specific NERC Actions* from the assessment and the results of the Crowe audit as the "what" that needs to be done, and the RDAs and Rules of Procedure as the "how." As a result, the project to implement the actions from the assessment will work closely and coordinate fully with the other initiatives.

Specific NERC Actions Related to Reliability Standards Development

There were 26 Specific NERC Actions identified in the assessment related to reliability standards development. These individual actions have been grouped into 17 tasks, which have been further organized under the following five headings:

- Identification & Prioritization of New Projects
- Standards Process
- Drafting Teams
- Stakeholder Outreach & Communications
- Coordination of Policy Issues

As shown in the attached table (**Attachment 2**), each task, comprising one or more of the 26 *Specific NERC Actions* that are identified by number, has a designated responsible party, a status and proposed schedule, required approvals, additional resources needed, a description of the "return on investment" and the assigned Priority Level. More work still needs to be done to determine the type and amount of additional resources needed to complete those tasks that indicate the need for additional resources.

Of the 17 tasks identified in Attachment 2, only two have been assigned a Priority Level 1:

- Review the RSDP (Standards Process) against ANSI essential requirements and other ANSI-accredited processes to identify, propose, and implement opportunities for improvement.
- Gain regulatory support for retiring lower level administrative/facilitating requirements.

Specific NERC Actions Related to Compliance Monitoring and Enforcement

There are a total of 62 *Specific NERC Actions* related to the Compliance Monitoring and Enforcement program. A number of these specific actions, while related to the CMEP will require actions by departments outside of Compliance within NERC (e.g. Training and Education). These have been divided into two categories: 36 for action and 26 for information/communications (i.e. items we are actually already doing and working on.) For the information items we are looking at potentially doing a webex/webinar – especially in the area of Registration and Certification to get the word out on what is currently ongoing. We will do a webex/webinar for Enforcement and Mitigation as well concerning the templates and processing recommendations.

We are also mapping the Crowe Audit recommendations to the three-year assessment. The Crowe audit of the Compliance program includes recommendations from Crowe Audits of RFC and SERC. The Crowe audit will be finalized in the next two weeks and made public, after presentation to the Board Compliance Committee and the Compliance and Certification Committee.

From the assessment and the Crowe Audits of the NERC Compliance program, RFC and SERC, we have assembled a master list of approximately 50 recommended changes to the Rules of Procedure. We are also using assumptions and goals from the 2010 Business Plan and Budget, corporate goals, and department goals to refine our priorities for these changes to the Rules of Procedure. After reconciling and analyzing the assessment, Crowe Audit and the recommended changes to the Rules of Procedure we will break out all of the action items by quarter for 2010.

The absolute highest priority is the renegotiation of the Regional Delegation Agreements. This single action will inform almost all other recommendations and actions from the assessment and the Crowe Audit. Many of the recommended actions must be considered and where applicable specifically addressed in some manner in the delegation agreements. This collaborative process will then naturally follow to the resolution of the issues, recommendations and actions as listed in the assessment and audit.

The initial priorities are based on the most significant compliance issues:

- C.6. Provide more uniformity and consistency in audits between Regional Entities and between different audit teams.
- C.2 Eliminate the backlog of audit reports and compliance violations so more precedents are available to industry.

- C.9. Compliance violation investigations take too long.
- B.4. Provide process for single registration for entities doing business in more than one Regional Entity.

Initial Priorities for 1st Qtr 2010:

- C.6.d. Amend the delegation agreements and ERO Rules of Procedure as necessary to implement or accommodate the proposed actions. *Draft Delegation Agreement due January 15, NERC Action, Joel deJesus compliance department lead*
- C.2.a. Continue to develop and expand the uniform set of forms, templates and detailed set of processing steps, including "example" documents, which Regional Entities must follow. *Tim Kucey, compliance department lead, work with NERC legal.*
- C.2.g. Continue development of a common, centralized platform for collection and maintenance of compliance information by NERC and the Regional Entities. *Mike Moon compliance department lead.*
- C.9.c. Disseminate preliminary lessons learned from CVIs to the industry as soon as practicable. *Earl Shockley compliance department lead.*
- B.4.a. Continue and complete development of the MRRE processes and procedures; initial draft by July 2009. *Craig Lawrence compliance department lead.*

Appendix A

List of Specific NERC Actions in Response to Stakeholder and Regional Entity Comments and Recommendations

Appendix A is a consolidated listing of the specific actions that NERC, partly in response to stakeholder and Regional Entity comments and partly on its own initiative, is taking or intends to take to improve its programs. These actions are described throughout **(Attachment 1**). In the coming months, NERC will develop the schedules, budgets and resource allocations, and the tracking mechanisms that will be necessary to implement these actions. NERC expects a number of these action items will flow through to the business plans and budgets of NERC and the Regional Entities in the coming years. NERC expects these action items may be modified as a result of Commission action in response to this performance assessment, as well as in response to feedback NERC receives from applicable governmental authorities in Canada.

In the following list, each numbered, bold-faced item is a summary statement of an issue raised by stakeholders and/or Regional Entities, and the list denoted by “a”, “b” etc. under each numbered item are the actions NERC is taking or intends to take in connection with that issue.

A. Reliability Standards Development

1. Focus existing reliability standards and reliability standards development on areas that will lead to the greatest improvement in bulk power system reliability.

a. Continue to utilize the annual Reliability Standards Development Plan to prioritize and guide reliability standards development activities.
b. Continue outreach efforts to obtain feedback from industry stakeholders as well as from the NERC program areas, especially compliance monitoring and enforcement, reliability assessment and performance analysis, and event analysis, for use as input into the 2010–2012 version of the Reliability Standards Development Plan, which is to be considered for approval by the board in November 2009, and in subsequent versions of the Development Plan.
c. Complete the Standards Committee activity to identify administrative requirements in the current set of reliability standards and provide these as input (as candidates to be removed from the reliability standards) to the 2010–2012 version of the Reliability Standards Development Plan.
d. Develop and begin implementing a plan that includes engagement of the regulatory authorities to convert the existing set of reliability standards and requirements to a smaller set of critical performance-based reliability standards. [Ongoing]
e. Develop a list of all outstanding FERC reliability standards directives and a prioritization process for reliability standards development that strikes a balance between regulatory directives, industry input, and feedback on reliability performance from the event analysis, reliability assessment, and compliance programs. [by December 31, 2009]
f. Continue to use more broad-based initiative approaches, like the System Protection Initiative and NERC's efforts to address in reliability standards development the issues identified by the Commission in Order No. 706 to protect the critical electric infrastructure from malicious cyber attack, to identify and address requirements for improving bulk power system reliability that would be pursued in projects to develop new or revised reliability standards. [Ongoing]
g. Conduct a technical conference with invited subject matter experts to assess conformance of existing reliability standards to the stated reliability principles and to the definition of Adequate Level of Reliability [by June 30, 2010].

2. Accelerate the reliability standards development process.

a. SARs
    i. For narrowly focused requests, post SARs without a comment period or for a single 15-day comment period without a requirement for the requester to respond to all comments individually.
    ii. For proposed reliability standards implementing new technical concepts, require a technical foundation document (e.g., a research paper) be developed before a SAR is accepted, not concurrent with or after acceptance.
    iii. Provide the option for a requestor to submit a draft reliability standard along with the request to develop a new or revised reliability standard.

b. Informal Comment Periods
   i. Permit standard drafting teams to use "informal" comment periods for feedback on concepts or information used to develop reliability standards requirements (but not for comments on proposed requirements) where they are not required to respond to the individual comments. [Changes to Section 300 of the NERC ROP and/or Appendix 3A — Reliability Standards Development Procedure may be necessary or desirable.]

c. Requirements
   i. Reinforce with the standards drafting teams the need to fully address regulatory directives during development activities such that subsequent modifications to the standards are not necessary, thereby reducing future workload. [Ongoing]

d. Ballots
   i. Permit multiple initial ballots without the need for multiple 30-day pre-ballot review periods. Permit modification to the balloted reliability standard between these multiple initial ballot periods if the ballot results and associated comments indicate such modifications will provide for continuous improvement to the reliability standard without lowering the thresholds for performance needed to support reliability [Changes to Section 300 of the NERC ROP and/or Appendix 3A — Reliability Standards Development Procedure may be necessary or desirable.].

e. Process Administration
   i. Give the NERC Standards Committee the option to appoint a single standard drafting team that is responsible for both SAR and reliability standard drafting development.
   ii. Review the reliability standards development process to identify, eliminate, and/or modify steps that are not explicitly required by ANSI to maintain accreditation — by December 31, 2009. [Changes to Section 300 of the NERC ROP and/or Appendix 3A — Reliability Standards Development Procedure may be necessary or desirable.]
   iii. Implement a streamlined single topic development process to correct a narrowly focused reliability standard deficiency without obligating a follow-up reliability standards development activity — by June 30, 2010. This process could be used for making conforming changes to reliability standards as a result of interpretations, etc. [Changes to Section 300 of the NERC ROP and/or Appendix 3A — Reliability Standards Development Procedure may be necessary or desirable.]
   iv. Explore how other ANSI standard development organizations implement their standard development processes to identify possible improvements to NERC's process, including the supermajority voting structure — by October 1, 2009.

f. Training and Support
   i. Conduct a detailed pre-kickoff session between NERC staff, standard drafting team chairs and vice-chairs, subject matter experts, and regulatory authority staff (if regulatory directives for improvement are involved) to discuss more fully the technical expectations of a reliability standard project and roles and responsibilities of the participants. [Ongoing]

ii. Provide training for NERC staff coordinators in team-building, facilitation, and consensus-building skills — by October 1, 2009.
iii. Provide enhanced training to the standard drafting team chairs and vice-chairs to ensure that they convey their expectations clearly and effectively to drafting team members.
iv. Assign technical writers, regulatory specialists, or have legal support available as focused resources for standard drafting teams dealing with challenging requirements or directives.
v. At the discretion of the standard drafting team chair, permit a NERC-assigned legal or technical writer to draft reliability standard language based on the standard drafting team's discussion and direction.
vi. With permission of the standard drafting team chair, allow NERC staff coordinator to provide a straw man draft reliability standard in advance of the first standard drafting team meeting to optimize effective team discussion.

3. Promote, encourage, and facilitate participation by smaller entities.

a. Encourage active participation by industry trade groups, especially APPA, NRECA, and EPSA in the reliability standards development process to foster outreach to and solicit increased participation by smaller entities and/or representatives of their interests. [Ongoing]
b. Develop increased project communications to enable all stakeholders to understand the changes to reliability standards and the expectations therein for registered entities. [Ongoing]
c. Schedule meetings at more centralized locations to minimize the overall time burden from required travel and continue to conduct over half of standard drafting team activities by conference call or Web-based meetings. [Ongoing]

4. Role of Regulatory and NERC staff in reliability standards development.

a. NERC board to direct changes to the *Roles and Responsibilities* document (approved by the Standards Committee in March 2009) in order for that document to incorporate the board's expectation that NERC staff will provide the board with its technical evaluations of reliability standards proposed for adoption by the board, including assurance that the reliability standards can be complied with and are auditable.
b. Reinforce to standard drafting teams that they must develop an approach consistent with regulatory authority directives or, in the alternative, an equal and effective approach to that identified in the regulatory authority directives; if different than a FERC directive, the team must thoroughly document their technical rationale for doing so. [Immediately]
c. Conduct discussions with FERC staff upon issuance of a Notice of Proposed Rulemaking concerning adoption of a proposed reliability standard or group of reliability standards to ensure an understanding of the Commission's intent before issuance of a final order.
d. Develop a focused process to obtain feedback from the industry stakeholders regarding newly-issued orders and rulings on proposed reliability standards to determine if filing a request for rehearing or clarification is appropriate within the 30-day window.

5. Better align functional categories with current industry/market structure.

a. The Functional Model Working Group (FMWG) will complete its Version 5 revisions that address key areas such as the planning function, the load serving entity, distribution provider function, and the interchange function, of which the changes will be incorporated into NERC reliability standard applicability. The target date for completion of Version 5 is October 2009. Projects for implementing the changes related to the FMWG Version 5 activity into the reliability standards will be incorporated into the next three-year Reliability Standards Development Plan.
b. Implement the recommendations from the Ad Hoc Group for Generator Requirements at the Transmission Interface. The group is scheduled to complete its work by the end of 2009.

6. Provide clear measures for each standard requirement.

a. Work with the compliance program to ensure that measures (1) directly correspond to each requirement of each standard describing what an entity has to do to comply, (2) include examples of acceptable evidence without being overly restrictive, and (3) identify what documents are necessary to maintain and produce to demonstrate compliance. These expectations should be conveyed to stakeholders in the Reliability Standard Audit Worksheets (RSAWs) or through other suitable approaches.

7. Enhance Stakeholder Communications.

a. Continue to conduct open Webcasts to present and obtain feedback on proposed concepts; for example, to stakeholders as reliability standards are being developed.
b. Provide the industry stakeholders with a NERC forum or blog to enable them to communicate with regard to reliability standards under development and on reliability standards activities in general. Target to provide is 2010.

8. Expedite completion of "fill-in-the-blank" reliability standards.

a. Address the "fill-in-the-blank" reliability standards as part of NERC's three-year Reliability Standards Development Plan.

B. Organization Registration and Certification

1. Raise threshold criteria for requiring entities to be registered.

a. Review existing registration criteria with NERC technical staff for possible changes.
b. Request comments from stakeholders on the existing criteria through the Organization Registration and Certification Subcommittee (ORCS) of the Compliance and Certification Committee (CCC), as well as from NERC's Planning and Operating Committees.
c. Request comments on the existing criteria from the Regional Entities through the Registration Working Group (RWG).

d. Review data from registered entities surveys currently being administered by the RWG with NERC oversight for criteria application issues.
e. Support Regional Entities working through existing procedures; continue the process of responding to specific issues related to registration criteria on a case-by-case basis.
f. Reinforce to Regional Entities that they can remove entities from the Compliance Registry, but the Regional Entity must determine that removal of the entity creates no material impact to bulk power system reliability before the entity is removed from the Compliance Registry.
g. If an event analysis finds entities that meet the criteria for inclusion in the NERC Compliance Registry that were not on the Compliance Registry when they were involved in a disturbance, these entities will be immediately added to the registry for all applicable functions. If an event analysis finds entities that do not meet the criteria for inclusion in the Compliance Registry, but were involved in a disturbance, the event analysis team can recommend to the applicable Regional Entity that these entities be added to the Compliance Registry.

2. Allow registration by requirement.

a. NERC will continue to promote the use of JRO agreements.
b. NERC will attempt to identify other solutions short of "registration by requirement" that will address the concerns expressed by stakeholders.

3. Improve consistency across Regional Entities.

a. On an ongoing basis, review with the Regional Entities current practices for organization registration and provide additional guidance, as necessary, to improve consistency.
b. Complete the project for updating registered entity information [by late summer 2009].
c. Complete the specific NERC actions listed in Organization Registration Issue #1.

4. Provide process for single registration for entities doing business in more than one Regional Entity.

a. Continue and complete development of the MRRE processes and procedures (initial draft by July 2009).
b. Amend the delegation agreements and ERO Rules of Procedure as necessary to include or accommodate such processes and procedures.

5. Improve joint registration procedures.

a. NERC will continue, in conjunction with the Regional Entities, to review the joint registration process for possible improvement.
b. NERC will revise presentations used at Regional Entity conferences and workshops to include more detailed information on JRO registration process and procedures.
c. NERC will review the JRO process with the NERC legal department and develop, as applicable, guidelines for JRO registration, including a suggested template for JRO agreements.

C. Compliance Monitoring and Enforcement

1. Put more emphasis on training, education, and assistance regarding what it takes to comply with, and to demonstrate compliance with, reliability standards.

a. Develop a proposed process or processes by which registered entities can submit hypothetical or proposed means of complying and demonstrating compliance with particular reliability standards for review and guidance by NERC. The implementation of any such processes must take into account the impacts on NERC and Regional Entity time and resource constraints.
b. Evaluate and implement ways to make registered entities more aware of means currently available to them to obtain guidance on how to comply with reliability standards and how to demonstrate compliance.
c. Promote more assistance by others, including third-party providers and industry trade associations. Consider partnering with industry trade associations where appropriate.
d. Increase the offerings of programs and information by the NERC training and education program focused on appropriate means of complying and demonstrating compliance with particular reliability standards.
e. Get more compliance cases processed through the system as one mean of providing guidance on what is leading to violations.

2. Eliminate the backlog of audit reports and compliance violations so more precedents are available to industry.

a. Continue to develop and expand the uniform set of forms, templates and detailed set of processing steps, including "example" documents, which Regional Entities must follow.
b. Establish a more extensive training program for Regional Entity compliance personnel.
c. Continue to develop simplified, streamlined options for processing violations, including various forms of "pro forma" settlements, for certain frequently occurring violations that pose a lower risk to the bulk power system (e.g., missing documentation and other administrative, low-risk violations) by establishing standard penalties and mitigation plan elements that can be processed more expeditiously.
d. Continue to identify and implement improvements to the management plan for the compliance enforcement program, including the delegated functions.
e. Provide the option for Regional Entities to ask for help and advice in advance of issuing Notices of Alleged Violation and Proposed Penalty or Sanction, or proffering a settlement offer, to a registered entity.
f. Continue to increase NERC and Regional Entity staffing and other resources dedicated to the Compliance programs, including processing Notices of Alleged Violation, settlements, and mitigation plans.
g. Continue development of a common, centralized platform for collection and maintenance of compliance information by NERC and the Regional Entities.
h. Continue to study NERC and Regional Entity compliance processes to identify and implement ways to eliminate duplication and overlap and streamline and shorten those processes.

i. Amend the delegation agreements and ERO Rules of Procedure as necessary to implement or accommodate the proposed actions.

3. Provide more guidance on mitigation plans and process proposed plans more quickly.

a. Continue to monitor the process for review, acceptance, and approval of mitigation plans to ensure timely processing.
b. Develop templates and/or lists of "pre-approved" appropriate mitigation steps for particular types of violations.

4. There is no incentive for registered entities to self-report violations because there is no apparent benefit or advantage to self-reporting.

a. Continue to offer the pro forma settlement approach (as revised) for self-certified or self-reported minor violations and those of an administrative nature.
b. At such time as a significant sample of enforcement actions have been completed, evaluate such actions overall for the impact on self-reporting.

5. Focus audits on whether the registered entity's actual performance demonstrates compliance rather than on documentation and provide recommendations for improvement.

a. Continue to revise the RSAWS to improve their quality and usefulness.
b. Continuously review compliance audit processes and post-audit questionnaires to verify the audit team provided the registered entity with adequate opportunity to explain and demonstrate how the registered entity has complied with the applicable requirements.

6. Provide more uniformity and consistency in audits between Regional Entities and between different audit teams.

a. In conjunction with the Training and Education Program, review the need for additional auditor training, including remedial training or counseling in cases where specific problems are identified.
b. Review existing templates or instructions for compliance audit reports to ensure they require specific discussion of how compliance was demonstrated by the registered entity and what evidence was lacking in determinations of non-compliance.
c. Continue to monitor the Regional Entities' implementation of their compliance programs, including audits, through the NERC Regional Operations Group.
d. Amend the delegation agreements and NERC ROP as appropriate to accommodate and support the proposed changes to ensure consistent implementation of the CMEP processes across Regional Entities.

7. Improve the efficiency and effectiveness of the compliance audit process.

a. NERC will continue to review the results of compliance violation results and event analyses to select reliability standards and requirements for active monitoring in order to focus attention on those areas where reliability could be most improved.

b. NERC will consider splitting the 3-year or 6-year audits into a series of audits that cover fewer reliability standards in each audit but that in the aggregate will cover all the required reliability standards within the 3- or 6-year window.
c. NERC will continue to solicit feedback from registered entities on their audit experience (including through reviewing registered entities' responses to post-audit questionnaire), and consider the information gained and observations from participation by NERC personnel in Regional Entity audits, to identify areas for improvement in audit processes and training auditors.
d. NERC will consider revising the audit process (as specified in the uniform CMEP, Appendix 4C to the NERC ROP) to provide more time prior to audits to complete RSAWs. Some Regional Entities have already taken this action.

8. Improve the quality and value of the RSAWs.

a. Work with Regional Entities to update the CIP RSAWs.
b. On a going-forward basis, in conjunction with Regional Entities, and based on feedback from registered entity post-audit questionnaires, continue to improve the quality and usefulness of the RSAWs.
c. Formalize the RSAW development and maintenance process in the NERC ROP and delegation agreements.

9. Compliance violation investigations take too long.

a. Continue to review compliance violation investigation processes, procedures, and training for streamlining and improvement.
b. In conjunction with event analysis, review the process for coordinating the initiation of CVIs and event analyses. [See also specific NERC action D.6.a.]
c. Disseminate preliminary lessons learned from CVIs to the industry as soon as practicable.

10. Basis for penalty determinations needs to be more transparent.

a. Conduct a policy-level review of the Sanction Guidelines and address improvements in the penalty determination process.
b. Implement the option for Regional Entities to request earlier NERC involvement in the development of Notices of Alleged Violation and Proposed Penalty or Sanction, or of settlement offers to be proffered to registered entities, prior to issuing those notices and offers to registered entities.

11. Improve system for submitting compliance information.

a. Complete the development and implementation of the new database entry and query system.
b. Complete implementation of common report forms within the Regional Entities and common input specifications.
c. Amend the delegation agreements as appropriate to accommodate and support the proposed changes regarding common report forms and common input specifications.

12. Data retention requirements in compliance audit scopes conflict with those in reliability standards.

a. Identify which reliability standards contain provisions related to document retention that are inconsistent with the CMEP and Rules of Procedure and initiate revisions to those reliability standards.
b. In conjunction with the Regional Entities, communicate with registered entities the provisions contained in Compliance Process Bulletin #2009-005: "Current In-Force Document Data Retention requirements for Registered Entities."

13. Maintaining compliance with CIP reliability standards while providing critical energy infrastructure documentation to compliance teams.

a. Complete the development of a formal procedure describing how compliance audit teams will treat critical energy infrastructure information.
b. Continue evaluation of a secure portal at NERC for receiving critical energy infrastructure information from registered entities.

D. Event Analysis and Information Exchange

1. Backlog of final event analysis reports delays dissemination of lessons learned to the industry; consider interim reports.

a. Revise the event analysis process to include interim reports for detailed event analyses that are expected to take more than 3 months to complete.
b. Revise the event analysis process to issue alerts as they are developed during the course of the analyses as circumstances warrant.
c. Complete hiring to fill open budgeted positions.

2. Establish threshold criteria for which events will be analyzed.

a. Review existing threshold criteria for possible revision. [By July 2009]

3. Use root-cause analysis experts (staff or consultants) to expedite analyses.

a. Use contractors for root-cause analysis in event analyses, as needed and as budget allows.
b. Include a budget item in the 2010 budget for root-cause analysis training of NERC and Regional Entity event analysis staff.

4. Some recommendations to industry assume that the cause of an individual event represents a general practice.

a. Make clear in alerts whether the basis for an alert is derived from a single event, trends seen in multiple events, technical findings from analyses, or generic equipment problems.

5. Include more detail in alerts.

a. Additional detail will be added to alerts, where warranted, through hot links in the alert to controlled access portals in the new Secure Alerts System to avoid compromising critical infrastructure information.

6. Separate event analyses from CVIs to eliminate the prosecutorial presumption of violation aspects from event analyses.

a. Review and expand existing procedures to clarify the interface between event analyses and CVIs with the objective of preserving and promoting, in event analyses, the open exchange of information necessary for feedback to the industry for purposes of reliability improvement.

E. Reliability Assessment

1. Assessment reports need to avoid taking policy advocacy positions and include more support from well-researched information.

a. Investigate and validate assumptions, data, and conclusions in future reliability assessments to ensure that they line-up with data or information provided by the Regional Entities and/or Planning Committee and its subgroups.
b. NERC will avoid taking policy advocacy positions in its reliability assessments.

2. Improve reliability assessment metrics including their definition, calculations, and granularity, along with the transparency and process used to incorporate NERC comments into Regional self assessments.

a. Reorganize its Long-Term Reliability Assessment (LTRA) to better reflect the interconnections while respecting the boundaries of the NERC Regions.
b. Refine NERC's peer review process, ensuring that comments of NERC and other Regional representatives are reflected in reliability assessments. Ensure industry representatives will have ample opportunity to voice their comments on the entire report.
c. Engage NERC's Reliability Metrics Working Group, to vet, validate, and improve the metrics used in reliability assessment reports.

3. Recognize state-mandated capacity procurement requirements in assessments.

a. Consider including, in NERC's Reliability Assessment Guidebook, that Regional self-assessments acknowledge the existence of state/provincial mandated capacity requirements, where they exist, as well as address reliability issues beyond the current ten-year assessment horizon.

4. Expand the long term assessment beyond the present 10-year horizon.

a. With the NERC Planning Committee and the Reliability Assessment Subcommittee, study the suggestion of increasing the horizon of the LTRA beyond 10 years in light of increased interest in reducing greenhouse gases through renewable portfolio standards, other climate change initiatives, and related state, provincial, and national policies that are driving change in the industry.
b. The special task force which studied the issue of accommodating high levels of variable generation is also a vehicle to study and make recommendations on issues that involve these longer-time horizon issues.
c. Other matters requiring a longer view will be reviewed on a case-by-case basis.

5. *Expand NERC's data gathering to include more bulk power system entities for a more complete set of interconnection information: also reduce amount of data being collected.*

a. Staff will engage Regional stakeholder working groups as they develop the Regional assessments.
b. Coordinate with EIA and FERC to minimize or eliminate duplicative reporting and data collection requirements.
c. Form a high-level industry group (Data Coordination Subcommittee), under the direction of NERC's Planning Committee to focus on data collection, coordination, and substantiation.

6. Share reliability and adequacy assessments through Web-based tools.

a. Expand NERC's use of Webinars and other Web-based approaches to more effectively share the results and gather input from stakeholders of NERC's reliability assessment reports.

7. Conduct "scenario assessments" for NERC's LTRA.

a. Continue with the processes outlined in the reliability assessment improvement plan.

F. Performance Analysis and Metrics

1. Improve process for data collection.

a. Develop a centralized automated data collection, reporting and validation process, and calculation tools to support reliability metrics.

2. Develop only those metrics critical to bulk power system reliability.

a. Calculate metrics identified as key indicators of bulk power system reliability, measured against the six characteristics of the ALR.

b. Vet metric development, collection, and analysis with industry stakeholders through the Reliability Metrics Working Group.

3. Consider what metrics Independent System Operators (ISOs) and Regional Transmission Organizations (RTOs) already have developed.

a. Continue to call for metrics submittals from NERC's committees and subgroups and all NERC stakeholders.
b. Submitted metrics will be assessed by the RMWG on an ongoing basis as a vehicle for continuous improvement of the metric development, deployment, and retirement process.

4. More dissemination of metrics to industry.

a. NERC will work with the RMWG to issue the first annual reliability performance report in 2010 for the 2007–2009 timeframe and share metric analysis results through its quarterly updates on NERC's website, NERC News, and via Webinars.

G. Critical Infrastructure Protection

1. Centralize direction for implementation of Critical Infrastructure Protection (CIP) reliability standards at NERC rather than allowing Regional Entities to engage in their own efforts.

a. Develop and deliver the CIP fundamentals course to NERC and Regional Entity compliance auditors. This will help provide a cross-Regional and NERC-wide level base of understanding of both CIP's fundamentals and the auditor responsibilities.
b. Develop CIP fundamentals educational material for industry participants. This effort targets the individuals within the industry who are responsible for implementing the CIP standards and will lead to a more uniform understanding of implementation issues.
c. Develop and deliver advanced skills training for auditors to improve their performance, including CIP knowledge and soft-skills applications. This more advanced training will again help ensure uniformity across all NERC Regions in the auditing role.

2. More timely guidance on implementation of CIP reliability standards, especially for the identification of Critical Cyber Assets using risk-based methodologies; place greater reliance on technical committees.

a. NERC CIP and standards staff is taking aggressive efforts and providing specialized support to the Project 2008-06 Cyber Security Order 706 standard drafting team. This is a multiple-phase project in which NERC staff will work closely with the Cyber Security Order 706 standard drafting team to expeditiously complete work on revisions to CIP-002 through 009 reliability standards.
    - The first phase (Phase I) of the project proposes Version 2 CIP-002 thru CIP-009 reliability standards to primarily address the FERC directive to remove the phrase "reasonable business judgment," but it also includes a number of other revisions

to the same set of reliability standards. The revised CIP standards resulting from Phase I were adopted by the NERC Board of Trustees on May 6, 2009, and filed with the Commission for approval on May 22, 2009.

- The second phase (Phase II) of the project will be much more complex and will involve drafting Version 3 CIP-002 thru CIP-009 reliability standards; proposing how to best address the other directives in FERC Order No. 706. Consideration will be given to the applicable features of the NIST standard framework described in NIST 800-53 as well as the identification of what cyber equipment should be addressed by the CIP reliability standards.

b. Work with the Critical Infrastructure Protection Committee (CIPC) to expeditiously finalize the development and issuance of guidelines on the implementation of CIP reliability standards, especially for the identification of Critical Assets and Critical Cyber Assets using risk-based methodologies.

CIPC's Security Guideline Working Group (SCWG) document on identification of Critical Assets was presented at the March 2009 CIPC meeting and was unanimously approved for posting to solicit industry comments. The SCWG is currently reviewing the comments received on the posted draft and plans to develop a revised document for consideration for approval by CIPC in September 2009. SCWG's document on identification of Critical Cyber Assets has been sent to CIPC for comment. It will also be posted for industry comment and is expected to CIPC for approval in December 2009. Following approval by CIPC, these guidelines will be submitted to the NERC Standards Committee for posting as a reference document associated with CIP standards. NERC will continue to participate with the guideline standard drafting team to resolve any industry comments received during this markup process and support the CIPC in completing the guideline development and approval process.

3. Need for Technical Feasibility Exceptions (TFEs).

a. Finalize "Procedure for Requesting and Receiving Technical Feasibility Exception to NERC Critical Infrastructure Protection Standards" based on a review of comments to the posting, and submit it to the NERC Board of Trustees and FERC for approval as amendments to the NERC ROP.

4. Need a fast-track process for interpretation requests for CIP reliability standards

a. Work with the reliability standards and compliance monitoring and enforcement programs to consider how to "fast-track" the development of interpretations to CIP reliability standards.
b. Evaluate the possibility of, and if determined to be appropriate, implement, a CIP reliability standards hotline or other assistance function similar to the assistance functions provided by other regulatory and self-regulatory organizations (e.g., NRC, FINRA, etc.) to address CIP reliability standards questions.

5. Cyber security alerts insufficiently targeted and lack detail.

a. Complete the implementation of the NSANS that will give the ES-ISAC/NERC the power to alert and notify registered entities of the bulk power system, and other utilities of the electricity sector, of vulnerabilities, threats, and/or abnormal events/conditions, or other significant events that may impact the bulk power system.
b. Continue to develop the Hydra group and functionality and its use on emerging cyber security assessments.
c. Utilize the personnel targeting features of the NSANS to eliminate the burden applied to the compliance point of contact.

H. Situation Awareness

1. Real-time situation awareness is outside of NERC's scope.

a. NERC will continue to develop its SA to meet obligations set forth in its ERO certification application and in NERC's ROP, Section 1000. In carrying out its responsibilities and obligations as the ES-ISAC, NERC will work to provide SA and facilitate emergency preparedness and response exchanges between the industry and governmental authorities as appropriate. NERC will better communicate to the industry the need for, and measure the value of SA efforts to include, the SAFNR program.
b. NERC will continue to support and improve its ability to efficiently and effectively develop and manage existing and future reliability tools.

2. Define acceptable communications protocols for use during system events.

a. NERC will continue to work with the ESSG, the ES-ISAC, and NERC technical committees to develop and improve upon communications protocols for use during system events.

I. Training, Education, and Personnel Certification

1. Broaden the operator certification program to include credentials for more functions and revise the criteria for qualifying activities.

a. Research the feasibility of offering an advanced system operator credential as well as credentials for generator operators and Regional dispatchers.
b. The PCGC will consider including more qualifying activities in the requirements used to maintain a credential.

2. Improve the current system used by system operators and training providers for tracking continuing education hours (CEH) to maintain a credential.

a. Continue to improve the database used by the program, including additional functionality to allow persons designated by a certified person to view full course records that are not sensitive or confidential.

3. Offer more targeted and timely education programs.

a. Add a resource to the 2010 budget to provide more targeted and timely information for stakeholders about upcoming changes to reliability standards and their compliance requirements, etc.
b. Research a platform on which to establish an "open source" system for providing information to the industry.
c. Work in cooperation and coordination with the Regional Entities and industry associations to determine what Webinar topics would be most beneficial for bulk power system owners, operators, and users in an effort to provide useful feedback for improving reliability.

4. Requirements for training programs and training providers.

a. Expand NERC's role in establishing accreditation criteria for training programs by releasing a white paper for comment in late 2009.

J. Finance and Controls

1. Reflecting stakeholder comments in budgets.

a. NERC will continue to strive to improve its business plan and budget development processes and presentations.

2. Provide executive-level summary graphs and tables in future business plans and budgets.

a. In the 2010 Business Plan and Budget, NERC will review the content of the introduction and consider providing additional graphs and tables to summarize information contained in the body of the document.

3. Develop multi-year business plans for NERC.

a. Consider including in future business plans and budgets discussions of possible future programs, or anticipated expansions of or increases in resources needed by existing programs, and their cost and resource requirements.

4. Responding to FERC on business plan and budget submittals.

None.

5. Allocation of budget costs.

a. In conjunction with future annual business plans and budgets, review the rationale for continued use of NEL as the sole basis for allocating costs.
b. Consider in developing the basis for cost allocation to Canadian entities those costs associated with FERC-specific requirements.

6. Request NEL information directly from load-serving entities.

a. Review with Regional Entities the mechanism for collecting NEL data and evaluate if there is any advantage in terms of accuracy, efficiency, or cost-effectiveness to having NERC collect these data directly from load-serving entities, rather than the Regional Entities collecting the data.

7. Amend the budget templates.

None.

8. Apply standard language for reliability standards development and compliance in NERC and Regional Entity business plans and budgets.

a. Utilize the common goals, objectives, and assumptions in the 2010 planning cycle.

9. Change the timing of the budget process.

None.

10. NERC and the Regional Entities should update annually their rolling three-year goals.

a. Discuss the proposal with the REBG to identify whether it is generally supported and what steps would be required to implement it.

11. Share best practices and tools.

a. Discuss proposal with the REBG to identify overall level of acceptance and possible implementation steps.

12. Consider a "shared reserve" among Regional Entities and NERC.

a. Continue discussion with Regional Entities concerning this concept as future budgets are developed.

13. Standardize language and expectations on components of indirect costs.

a. In conjunction with the Regional Entities, complete development of a common definition of, and procedures for recording and budgeting, indirect costs.
b. Consider revisions to the delegation agreements to address this issue as appropriate.

14. Implement a uniform budgeting tool.

a. Discuss concept with the REBG to evaluate if there is consensus to pursue development of such a tool.

15. Adopt uniform budget metrics.

a. Continue efforts in the 2010 budget cycle.

16. NERC and Regional Entities should use generally accepted accounting principles.

a. Continue implementation in the 2010 and future year budgets and in the 2009 and future year reporting of actual costs

K. Stakeholder Communications and Public Relations

1. NERC Website functionality and ease of use.

a. NERC will continue to conduct regular surveys of the users of the NERC Website and develop tools to track and measure usability of its Website based on the survey results. The most recent survey has been completed.
b. NERC will implement improvements to the Website based on these results.
c. Add a standard "Approvals" box in the footer of each standard to indicate NERC board and FERC approval dates along with a link to the table of "Effective Dates for Mandatory Standards."
d. Display more prominently and obviously on the NERC Website the listing of "Effective Dates for Mandatory Standards" and change the title to "List of FERC-Approved Standards and Effective Dates."
e. Provide better access to frequently used information, including where to find information about balloting.

2. Outreach to non-traditional and smaller entities.

a. NERC will seek input from industry associations on improving outreach to non-traditional and smaller entities.
b. NERC will work to implement specific suggestions received as a result of these discussions.

Proposed Resolution of Standards Action Items from Performance Assessment						
Activity	**Responsibility**	**Status Schedule**	**Approvals Required**	**Additional Resources**	**Return on Investment**	**#**
Identification & Prioritization of New Projects - David Taylor						
Update RSDP (Work Plan) and use to guide new projects, including resolution of "fill-in-the-blank" standards; continued focus on results-based requirements; changes identified from Ad Hoc GO TO group; and elimination of administrative requirements (1a) (1c) (5b) (8a)	David Taylor Stephanie Monzon (8a)	Updated annually Plan for 2010-2012 approved in Oct by SC; BOT approval November, 2009	Standards Committee BOT	Not significant	High – provides a focused plan for communication and planning Resolving "fill-in-the-blank" issues will close some gaps in enforceable standards Resolving TO GO issues will resolve some registration issues	2
Continue to expand involvement in new project identification to all NERC program areas & more stakeholders (1b) (3a)	David Taylor	Ongoing	VPs of NERC Program Areas	Funding for travel to meet with stakeholder groups	High – focuses efforts on activities with a measurable impact to reliability Improved coordination of work between NERC Programs Improved technical justification for standards-related work	2
Use broad-based initiatives (focus groups and conferences) to identify need for new/revised requirements and/or research to support new /revised standards (1f) (1g)	Gerry Adamski Maureen Long	First session by June 30, 2010		Funding for meeting facilities and meeting facilitators	High – focuses efforts on activities with a measurable impact to reliability Improved coordination of work between NERC Programs and Standing Committees Improved technical justification for standards-related work	2
Update & prioritize list of outstanding FERC directives and links to projects (1e)	David Taylor	Ongoing List updated by Dec 31, 2009; Linked to existing	BOT FERC	Not significant	High – need information to respond to stakeholder and FERC staff questions Ensures coordination and	3

Proposed Resolution of Standards Action Items from Performance Assessment						
Activity	**Responsibility**	**Status Schedule**	**Approvals Required**	**Additional Resources**	**Return on Investment**	**#**
		projects by Mar 31, 2010; Proposal for resolving directives through alternate means by Jun 30, 2010			understanding of regulatory directives between NERC staff and regulatory staff.	
Incorporate changes from Functional Model V5 into 2011-2013 plan (5a)	David Taylor Stephen Crutchfield	Submit Functional Model V5 to SC for approval in Jan 2010 Incorporate into 2011-2013 version of Reliability Standards Development Plan	Standards Committee	Not significant	Low – The Functional Model is a useful reference, but is not "needed" to develop standards or to establish compliance registration criteria.	3
Standards Process – Maureen Long						
Review the RSDP (Standards Process) against ANSI essential requirements and other ANSI-accredited processes to identify, propose, and implement opportunities for improvement (2ai) (2aii) (2aiii) (2bi) (2ci) (2di) (2ei) (2eii) (2eiii) (2eiv) (2fiv) (2fv) (2fvi)	Maureen Long	Proposal for changes to SC in January, 2010 Post manual for comment (Jan-Feb, 2010) Respond to comments (Mar 2010) Post revised manual (Apr) Ballot (May) BOT approval (May)	Ballot Pool BOT FERC	Will need to revise the balloting and registration software.	High – Existing process is more cumbersome than needed, placing burdens on limited resources without improving quality when compared to other processes – existing process makes inefficient use of subject matter experts and takes longer than needed	1

Proposed Resolution of Standards Action Items from Performance Assessment						
Activity	**Responsibility**	**Status Schedule**	**Approvals Required**	**Additional Resources**	**Return on Investment**	**#**
Improve alignment between measures with RSAWs (6a)	Maureen Long Joel DeJesus	Update Drafting Team Guidelines by December, 2010 Ongoing - Use drafting team expertise, as needed, to assist in drafting RSAWs	Standards Committee Compliance Program	Change to DT Guidelines	High – Improves stakeholder understanding of "how to comply"	2
Drafting Teams						
Conduct kick-off meetings to set expectations amongst key players, including review of roles and responsibilities document; role in responding to regulatory authority involvement; responsibility in responding to directives (2c) (2fi) (4b)	David Taylor Maureen Long	Ongoing	None	Not significant	High - Clearer expectations of key players	2
Provide training for team leadership (2c) (2fiii) (4b)	Training Staff	TBD	None	Resources to develop and deliver training	Medium – Clearer expectations of key players	2
Provide facilitation training for coordinators (2fii)	Andy Rodriquez	March, 31, 2009	None	Resources to develop, deliver and participate in training	Medium – Improved skills should lead to improved project progress	2
Conduct meetings in centralized locations; continue to use conference calls & web ex (3c)	Drafting teams; coordinators	Ongoing	None	Increases costs to NERC as utilities are hosting most drafting team meetings	Low - None to NERC; reduces some costs to drafting team members	3
Keep stakeholders informed of proposed standards (7a)	Drafting teams; coordinators	Ongoing	VP	Increases IT costs to NERC	Medium – Clearer expectations of key players	2

Proposed Resolution of Standards Action Items from Performance Assessment						
Activity	**Responsibility**	**Status Schedule**	**Approvals Required**	**Additional Resources**	**Return on Investment**	**#**
	Training Staff					
Stakeholder Outreach & Communications						
Develop improved outreach to stakeholders, (especially trade groups) to improve participation in the standards process – including more webcasts and a stakeholder forum or blog; provide guidance on new/revised standards (3a) (3b)(7a) (7b)	Corporate communications IT Drafting teams; coordinators Training staff	Ongoing	VP	Funding to develop communications, travel to trade group meetings; funding to set up and monitor a blog of forum; funding to develop training/communication on new/revised standards	High – Enables smaller entities with limited resources to participate in the standards process Essential to provide stakeholders with information needed to comply with new/revised standards	2
Develop a process for meeting with FERC staff to discuss NOPRs (4c)	Laurel Heacock	Ongoing; Formalize process by December, 2009	VP	Not significant	Medium - Clearer expectations of key players	2
Develop a process for involving stakeholders in Orders and Rulings as input to decision to file for rehearing/clarification (4d)	Laurel Heacock	Ongoing; Formalize process by December, 2009	VP	Not significant	Medium - Clearer expectations of key players	2
Coordination of Policy Issues - Gerry Adamski						
Gain regulatory support for retiring lower level administrative/facilitating requirements (1d)	Gerry Adamski		FERC	Not significant	High – Eliminating requirements that are measured elsewhere doesn't degrade reliability but minimizes evidence retention burden & compliance audit burden Several standards revision projects underway and the results-based project cannot be successful without regulatory support in retiring lower level/administrative	1

Proposed Resolution of Standards Action Items from Performance Assessment						
Activity	**Responsibility**	**Status Schedule**	**Approvals Required**	**Additional Resources**	**Return on Investment**	**#**
					requirements	
Obtain BOT clarification of its expectations of staff input when asked to act on standards products (4a)	Standards Committee	November, 2009	Standards Committee BOT	Not significant	Medium - Clearer expectations of key players	2

Action Plan for Completing Event Analysis Reports and Providing Feedback to Industry

Action Required

None

Events Analysis and Information Exchange

Bob Cummings, Director of Event Analysis and Information Exchange will present an action plan for sharing the details of event analysis reports among industry participants (across North America) to provide a higher level of "lessons learned" feedback to the Industry.

He will also highlight Event Analysis trends and findings.

New Senior Engineer of Reliability Performance and Event Analysis

Philip Tatro joined Event Analysis on October 1st as a senior engineer of reliability performance and event analysis. Philip will lead technical teams in the analysis of large-scale blackouts, disturbances, near misses, and other off-normal events on the bulk power system to determine their root causes and prepare reports documenting the findings and recommendations of these analyses. He will also take over as the Staff Coordinator for the System Protection and Control Subcommittee (SPCS).

Phil comes to NERC after working 23 years at National Grid, most recently as a transmission planning consulting engineer. He was a lead member of the dynamics analysis team for the 2003 blackout. This solidifies the technical abilities of the Event Analysis staff at NERC, reassembling the core of the analysis capabilities of the 2003 blackout analysis.

New NERC Secure Alert System

NERC is in the process of rolling out a new Secure Alert System to replace the manual e-mail alert system. The new system will provide a secure alert distribution and response system to track potential reliability threats to the bulk power system. Through the new system, users will be able to: view and read alerts, submit controlled response acknowledgments to an alert when necessary, and create and submit responses for their organization.

The system is in the process of training users and shaking down the new system. Additional information on the status of the Secure Alerts System is provided in agenda item 11.

Revisions to Event Analysis Website

The Event Analysis section of the NERC website is in the process of being revised to offer an additional lessons learned section organized by subject matter. Presentations to the Engineering and Operating Committees will be made at their meetings in December.

Trends in Event Analysis

The Event Analysis group continues its movement into the new database system, resulting in improving insights into the elements that cause and contribute to system disturbances. The following is the current top ten list of disturbance elements occurring in the events analyzed by NERC.

Top Ten Disturbance Elements	Number of Occurrences
Protection system misoperations	43
Generation vs transmission protection miscoordination	12
Protection equipment failures	6
Lack of redundancy	5
Design Errors / Misapplications	4
Wiring errors	4
Relay settings (including drifting)	4
Logic Errors	2
Communications Failure	1
Other misoperations	3
Unexpected generator turbine control action	33
Transmission equipment failures (most initiating of disturbances)	22
Human Error	17
Voltage sensitivity of generation auxiliary power systems	13
Near-term load forecasting errors	6
Wiring errors	6
Relay loadability	5
Inter-area oscillations	5
Disturbances during abnormal configurations (new)	5

The updated metrics directly highlight the growing trend of miscoordination between transmission and generation protection systems. The System Protection and Control Subcommittee (SPCS) is preparing a Technical Reference paper on this issue that will be going to the Planning Committee in September its their approval. That paper will be forwarded to the standards drafting team that is in the process of revising Standard PRC-001 – System Protection Coordination.

Event Classifications Updates

NERC Staff and the Event Analysis Coordinating Group continue to refine the classifications for events. The following is the latest version that went into effect in the Event Analysis triage process on October 1st.

The NERC Event Analysis program divides events into two general classifications: Operating Reliability Events and Resource Adequacy Events. Each event is categorized during the triage process to help NERC and regional Event Analysis staff determine an appropriate level of analysis or review.

Events initiated by natural phenomena such as earthquakes, tornadoes, hurricanes, ice storms, etc., will not be analyzed although the resulting outages are encompassed by the Events Analysis categories. However, those events will be triaged to determine if there are any abnormal system behaviors or performance exhibited that warrant further analysis.

Operating Reliability Events

Operating reliability events are those that significantly affect the integrity of interconnected system operations. They are divided into 5 categories to take into account their different system

impacts and help to determine the level of analysis that is warranted. *The highest category that characterizes an event shall be used.*

Category 1: An event results in any or combination of the following actions:

a. The loss of a bulk power transmission component beyond recognized criteria, i.e. single-phase line-to-ground fault with delayed clearing, line tripping due to growing trees, etc.
b. Frequency below the Low Frequency Trigger Limit (FTL) more than 5 minutes.
c. Frequency above the High FTL more than 5 minutes.
d. Partial loss of dc converter station (mono-polar operation).
e. "Clear-Sky" Inter-area oscillations.
f. Intended and controlled system separation by proper SPS/RAS action of Alberta from the Western Interconnection, New Brunswick from New England, or Florida from the Eastern Interconnection.
g. Unintended system separation resulting in an island of a combination of load and generation of 20 MW to 300 MW.
h. Proper SPS/RAS actuation resulting in load loss of 100 MW to 500 MW.

Category 2: An event results in any or combination of the following actions:

a. Complete loss of dc converter station.
b. The loss of multiple bulk power transmission components.
c. The loss of an entire switching station (all lines, 100 kV or above).
d. The loss of an entire generation station of five or more generators (aggregate stations of 75 MW or higher).
e. Loss of off-site power (LOOP) to a nuclear generating station.
f. The loss of load of 300 MW to 500 MW (excluding SPS/RAS, UFLS, or UVLS actuation).
g. Proper SPS/RAS, UFLS, or UVLS actuation that results in loss of load of 500 MW or greater.
h. The loss of generation (between 1,000 and 2,000 MW in the Eastern Interconnection or Western Interconnection and between 500 MW and 1,000 MW in the Texas or Québec Interconnections).
i. The planned automatic rejection of generation through special protection schemes (SPS) or remedial action schemes (RAS) of less than 3,000 MW in the Western Interconnection, or less than 1,500 MW in the Eastern, Texas, and Québec Interconnections.
j. Unintended system separation resulting in an island of a combination of load and generation of 301 MW to 5,000 MW.
k. SPS/RAS misoperation.

Category 3: An event results in any or combination of the following actions:

a. The loss of load from 500 MW to 1,000 MW (excluding SPS/RAS, UFLS, or UVLS actuation).
b. The unplanned loss of generation (excluding automatic rejection of generation through SPS/RAS) of 2,000 MW or more in the Eastern Interconnection or Western Interconnection, and 1,000 MW or more in the Texas or Québec Interconnections.
c. Unintended system separation resulting in an island of a combination of load and generation of 5,001 MW to 10,000 MW.

Category 4: An event results in any or combination of the following actions:

a. The loss of load from 1,000 MW to 9,999 MW (excluding SPS/RAS, UFLS, or UVLS actuation).
b. Unintended system separation resulting in an island of a combination of load and generation of more than 10,000 MW.

Category 5: An event results in any or combination of the following actions:

a. The loss of load of 10,000 MW or more.
b. The loss of generation of 10,000 MW or more.

Resource Adequacy Events

Adequacy events are divided into three categories based on Standard EOP-002-0 (Capacity and Energy Emergencies).

Category A1: No disturbance events and all available resources in use.
a. Required Operating Reserves can not be sustained.
b. Non-firm wholesale energy sales have been curtailed.

Category A2: Load management procedures in effect.
a. Public appeals to reduce demand.
b. Voltage reduction.
c. Interruption of non-firm end-use customer load per contracts.
d. Demand-side management.
e. Utility load conservation measures.

Category A3: Firm load interruption imminent or in progress.

Event Metrics

2009 YTD Events – 77
2009 YTD Active Events – 46
2009 YTD Events Closed – 31
2008 Active Events – 3

One Detailed Analysis Team is underway for a system separation in MRO.

Events Analysis Category Metrics for 2009

Category 1 – 27
Category 2 – 30
Category 3 – 2
Category 4 – 0
Category 5 – 0
Category A2 – 18

Events Tracking System
As of October 15, 2009

The current NERC Events Tracking System as of October 15, 2009 is attached.

Not listed for brevity:

- There are 26 additional EA reports in final review by the NERC Event Analysis Group, with lessons learned being documented for the NERC alert system and trending being recorded for benchmarking. This backlog is subject
- There are 17 events on hold for further analysis.
- Closed analyses.

Events Under Analysis or Review

Event ID	Region	ISO/RTO/ Company	Description	Event Class	NERC Lead	Status	Target Completion
2009-10-15	Unknown	Unknown	**FTL on the Eastern Interconnection**	1	Mercurio	Triage	November 2009
2009-10-14	SPP	LEPA	**LEPA EEA 3**	A2	Mercurio	Triage	November 2009
2009-10-13	WECC	WAPA -RMR	**Archer Bus Fault & Load Dump** 115-kV main bus tripped on differential (icing). 101 MW load shed.	1	Mercurio	Triage	November 2009
2009-10-10	Unknown	Unknown	**FTL on the Eastern Interconnection**	1	Mercurio	Triage	November 2009
2009-10-08	SPP	LEPA	**LEPA EEA 3**	A2	Mercurio	Triage	November 2009
2009-10-07	NPCC	CHG&E	**Loss of Primary & Back-up EMS** Battery back-up failure caused single point of failure primary & back-up EMS.	2	Mercurio	Triage	November 2009
2009-10-07	SPP	LAFA	**LAFA EEA 3**	A2	Mercurio	Triage	November 2009
2009-10-07	SPP	LEPA	**LEPA EEA 3**	A2	Mercurio	Triage	November 2009
2009-10-06	SPP	LEPA	**LEPA EEA 3** Issued at 12:00 and 16:00hrs.	A2	Mercurio	Triage	November 2009
2009-10-05	SPP	LEPA	**LEPA EEA 3**	A2	Mercurio	Triage	November 2009
2009-10-03	SPP	LEPA	**LEPA EEA 3**	A2	Mercurio	Triage	November 2009
2009-10-01	RFC	MISO	**FTL on the Eastern Interconnection**	1	Cummings	Triage	November 2009

Events Under Analysis or Review

Event ID	Region	ISO/RTO/ Company	Description	Event Class	NERC Lead	Status	Target Completion
2009-09-26	RFC	MISO	**MISO Unit Trip/Low Frequency Event** Details requested from MISO	1	Cummings	In-Progress	November 2009
2009-09-12	SERC	MISO	**MISO Ameren Newton Unit Trip/Low Frequency Event** Midwest ISO experienced the loss of two units that were generating a total of 1,200 MW. This loss contributed to the low frequency at 13:30.	2	Cummings	In-Progress	November 2009
2009-09-03	WECC	BPA	**BPA Switchgear Damage** Damaged 13.2-kV switchgear on Alvey 500/230-kV Power System XFMR #5. This led to isolation of the two line 500-kV bus and affected one of the station service sources.	2	Cummings	NERC EA final review of Oral Report presented at WECC OPS meeting.	November 2009
2009-09-02-003	RFC	DPL	**DPL Disturbance** Bath – Foster 345-kV tie, Stuart – Clinton 345-kV line, Greene – Clinton 345-kV line and Clinton 345/69-kV transformer (Clinton – Wilmington 69 kV line was open-ended) tripped/locked out on unknown cause.	2	Tatro	In-Progress	November 2009

Events Under Analysis or Review

Event ID	Region	ISO/RTO/ Company	Description	Event Class	NERC Lead	Status	Target Completion
2009-08-29	MRO	WAUE	**Oahe Islanding Event** Trip of Oahe-Sully 230-kV line and reclosure caused multiple line trips and islanding Parts of Nebraska and South Dakota.	2*	Allen / Tatro	MRO has requested an Abbreviated Report from the involved parties, but the analysis is expanding to more closely resemble a Detailed Report. EA received preliminary event SOE from WAUE 9-25-09. MRO Study Teams formed.	4th Quarter 2009
2009-08-19	SPP	Westar	**Wolf Creek Loss of Off-Site Power** A lightning strike hit the Wolf Creek-LaCygne 345-kV line. Second line tripped on relay scheme misoperation and a third line tripped on overload resulting in LOOP.	2	Cummings	In-Progress	November 2009
2009-08-17	SPP	LAFA	**LAFA EEA3** Insufficient capacity to serve load due to forced outage on Rodemacher U2.	A2	Mercurio	Triage	November 2009
2009-08-14	RFC	IPL	**IPL Disturbance** Static wire on the Petersburg – Thompson 345-kV line came down onto the insulator string on a 345-kV tower just outside Thompson substation.	2	Mercurio	In-Progress.	4th Quarter 2009

Events Under Analysis or Review

Event ID	Region	ISO/RTO/ Company	Description	Event Class	NERC Lead	Status	Target Completion
2009-08-07	TRE	ERCOT	**ExxonMobil Generator Trip** Multiple single phase faults on 138-kV Center Point 03 & 66 lines caused under-voltage conditions and eventual tripping of generator (loss of 140 MW).	1	Mercurio	In-Progress.	November 2009
2009-08-05-002	SPP	LEPA	**LEPA EEA 3** TLR 5 called by SPP RC with loss of HMA #16 resulted in issuance of an EEA3.	A2	Mercurio	Triage	November 2009
2009-07-30-002	MRO	Manitoba Hydro	**Laverendrye Cap Bank Failure** The Dorsey – Forbes 500-kV Line tripped during 138-kV cap bank at Laverendrye. This required a HVDC runback of 1,647 MW. To maintain export limits within System Operating Limits, a TLR-5b was called until the 500-kV Line was returned to service.	2	Cummings	In Progress – Initial Abbreviated report due from Xcel Energy, Manitoba Hydro, and Minnesota Power by 9-30-09. Received draft report from MRO w/e 10-9-09.	4th Quarter 2009
2009-07-30-001	MRO	Manitoba Hydro	**Rosser Bus Fault** Rosser Station 115-kV Main Bus Fault occurred due to wildlife contact, isolating Rosser Station from the bulk power system, the Dorsey – Forbes 500-kV Line tripped resulting in HVDC reduction (SPS) Dorsey System Undervoltage. Protection operated resulting in HVDC reduction (SPS).	2	Cummings	In Progress – Initial Abbreviated Report received from Energy, Manitoba Hydro.	4th Quarter 2009

Events Under Analysis or Review

Event ID	Region	ISO/RTO/ Company	Description	Event Class	NERC Lead	Status	Target Completion
2009-07-28	WECC	PacifiCorp	**PacifiCorp Capacitor Bank Failure** A 138-kV cap bank failed at Mid Valley Substation causing a low voltage spike which initiated loss of approximately 316 MW of industrial load.	2	Cummings	NERC EA final review of WECC. Oral report/SOE presented at 9-17-09 WECC OPS meeting.	November 2009
2009-07-12	RFC	Exelon	**Oyster Creek Trip – LOOP** Startup Transformers "SA" and "SB" were deenergized due to the loss of the 34.5-kV power distribution lines (offsite power).	2	Mercurio / Cummings	In-Progress.	4th Quarter 2009
2009-07-06	SERC	Santee Cooper	**SERC 230-kV Breaker Failure at Cross Switchyard** 230-kV breaker failure of one of the phase interrupters occurred during clearance switching of Cross Unit 4 for maintenance. A fault on isolation switch resulted in isolating and tripping other three operating units at Cross (~1700 MW).	2	Cummings / Allen	NERC EA reviewing Abbreviated Report NERC Review Report being prepared.	4th Quarter 2009
2009-06-19	SERC	Entergy	**SERC Acadiana Import Constraint** Loss of Nine Mile natural gas unit has caused transfer problems into the Acadiana area of South Louisiana. TLR-5s and possible load shedding could result.	A2	Mercurio	NERC EA reviewing Abbreviated Report on event from SERC & SPP.	4th Quarter 2009

Events Under Analysis or Review

Event ID	Region	ISO/RTO/ Company	Description	Event Class	NERC Lead	Status	Target Completion
2009-06-17	SPP	Kansas City Power & Light	**SPP KCPL Disturbance** Loss of 258 MW load and 80 MW generation in St. Joseph MO upon trip of 161-kV line due to tree contact. One of the other two lines in area was out for testing. Remaining line tripped on over-current.	2	Allen	NERC EA reviewing Abbreviated Report SPP received initial report. Sent back to KCPL for improvement. NERC received Abbrev.	4th Quarter 2009
2009-06-14	NPCC	NYISO	**NYISO New Scotland** – New Scotland 345-kV bus 77K tripped open-ending Four-345-kV lines and a 345/115-kV transformer. Two other 345-kV lines attached to the 99K bus also tripped. Cause unknown.	2	Cummings	NERC EA reviewing NPCC Abbreviated Reports from National Grid and NYISO.	4th Quarter 2009
2009-05-29	SERC	BREC	**BREC Disturbance** – A 50 MVAR-161-kV capacitor failure resulted in a partial loss of the Reid 161-kV switchyard. Two generators at Green River and HMP&L Station 2 tripped (742 MW total) and 350 MW of direct-service industrial load (ALCAN Aluminum) were outaged.	2	Cummings	In Progress – Abbreviated Report prepared by BREC is being reviewed by SERC.	4th Quarter 2009
2009-04-23-2	WECC	SCE	**SCE Valley Disturbance** – During relay testing for construction, an incorrect 500-kV breaker was tripped, dropping 512 MW of load connected to Valley Substation. Although initially thought to be human error, it was later found to be caused by a wiring error.	3	Cummings	NERC EA final review of SCE reports. An Oral report was presented at the May 09 WECC OPS meeting. Second oral report presented and approved at the September 2009 meeting.	4th Quarter 2009

Events Under Analysis or Review

Event ID	Region	ISO/RTO/ Company	Description	Event Class	NERC Lead	Status	Target Completion
2009-04-23-1	WECC	Puget Sound Energy, Inc.	**PSEI Disturbance** – A transformer trip, a 3-phase fault on a 115-kV transmission line, and a 115-kV line car-pole accident occurred in a 19 minute period while 3 planned construction outages were underway. This resulted in the loss of 93,000 customers on Widbey Island and in Skagit County.	2	Cummings / Tatro	NERC EA final review of Abbreviated Report by PSEI, presented at the September 2009 WECC OPS	4th Quarter 2009
2009-04-06	SPP	KCPL	**Midwest Frequency Excursion** Loss of 600 MW joint owned unit in KCPL region resulted in freq drop of 70mHZ. Upon recovery, second freq. excursion occurred.	1	Cummings	In-Progress	4th Quarter 2009
2009-03-26	SERC	TVA	**Sequoyah Trip** – Both Sequoyah nuclear units tripped due to common auxiliary transformer trip.	2	Cummings	NERC EA final review of information from TVA report received 9-3-2009.	4th Quarter 2009
2009-03-04	RFC	Allegheny Power System	**APS Disturbance** – A fault occurred on Allegheny Power's Harrison – Pruntytown 500-kV line and the Pruntytown – Quiet Dell 138-kV Line. During the clearing of the fault, Ft. Martin Units 1 and 2 tripped off line.	2	Cummings	NERC EA final review of APS/PJM/RFC.	4th Quarter 2009

Events Under Analysis or Review

Event ID	Region	ISO/RTO/ Company	Description	Event Class	NERC Lead	Status	Target Completion
2009-03-01	WECC	El Paso Electric	**EPE Disturbance** – After a car struck a pole on the Ascarate – Rio Bosque 69-kV line, transmission line breakers at Rio Bosque Substation operated correctly however the breaker at Ascarate Substation failed to open. This resulted in a continuation of the fault until the breakers at Ascarate cleared the entire bus about 11 seconds after the initial fault. During the fault, EPE experienced a severe voltage depression in the east, central and west areas of El Paso. EPE's undervoltage relays operated correctly to mitigate the voltage decay. About 250 MW of load was lost.	2	Cummings	An oral report was requested for the September 2009 WECC OPS meeting. Awaiting additional information from EPE.	4th Quarter 2009
2009-02-18	SERC	TVA	**TVA Browns Ferry** Loss of Browns Ferry unit due to turbine trip caused by generator load imbalance.	2	Cummings	Information requested from TVA.	4th Quarter 2009
2009-01-08	FRCC	FKEC	**FKEC Disturbance** Breaker malfunction resulted in multiple line trips.	2	Cummings	In-Progress	4th Quarter 2009

Events Under Analysis or Review

Event ID	Region	ISO/RTO/ Company	Description	Event Class	NERC Lead	Status	Target Completion
2008-12-06	TRE	ERCOT	**FPLE Forney Gen. Trip**– At 06:31 CDT on 12/06/08, Forney Block 1 tripped with a load of 797 MW due to a fuel gas control valve malfunction. At 07:37 CDT, Forney Block 2 tripped with a load of 550 MW due to a fuel gas block valve response. No equipment damage occurred as a result of the trip. The total loss of generation was 1,347 MW.	3	Cummings	NERC EA reviewing available information.	4th Quarter 2009
2008-11-07	WECC	CAISO/SCE	**CAISO Load Shedding** – Transmission emergency declared by CAISO after manually opening Imperial Valley – Miguel 500-kV line due to series capacitor fire at Imperial Valley. SCE manually shed 50 MW interruptible and 200 MW firm load at request of CAISO due to numerous path overloads.	3	Cummings	NERC EA final review of Abbreviated Report presented at the September 2009 WECC OPS meeting.	3rd Quarter 2009
2008-10-14	RFC	Allegheny Power Company	**APS Disturbance** – A fault was initiated on Allegheny Power's Ft Martin – Ronco 500-kV line which also initiated tripping of the Hatfield – Ronco 500-kV line. After the fault cleared, Units #1 and #2 at Ft. Martin Power Station tripped off line.	2	Cummings	NERC EA final review abbreviated report by APS. Additional protection questions resulted from preliminary report.	4th Quarter 2009

Project to Develop Results-Based Standards

Action Required

Discussion

The report of the ad hoc team on results-based standards is attached for review and discussion (**Attachment 1**). The purpose of the initiative is to develop recommendations to ensure that NERC's reliability standards can have the greatest possible positive effect on the reliability of the bulk power system.

Proposal to Develop Results-Based Reliability Standards

October 16, 2009

Background

In Attachment 2 of the ERO Three-Year Assessment, stakeholders recommend that the industry should "focus existing reliability standards and reliability standards development on areas that will lead to the greatest improvement in bulk power system reliability." Stakeholder suggestions include: (i) focus the development of new reliability standards on those that will lead to the greatest improvement in reliability; i.e., address the greatest risks of wide-area cascading outages; (ii) reduce the number of existing reliability standards to just those that have a critical impact on reliability of the bulk power system and convert the remaining reliability standards to guidelines; and (iii) develop a more systematic process for prioritizing new reliability standards development projects based on risks to the bulk power system.

Beyond the strain of the standards development work itself, the first two years of experience with mandatory reliability standards tell us that the number and quality of standards have a profound downstream impact on the level of effort required to implement effective, comprehensive compliance programs (Figure 1). Many entities believe they are diverting resources to documenting compliance with administrative or prescriptive requirements when these resources would be better invested in verifying compliance with requirements having a more direct impact on the reliability of the bulk power system.

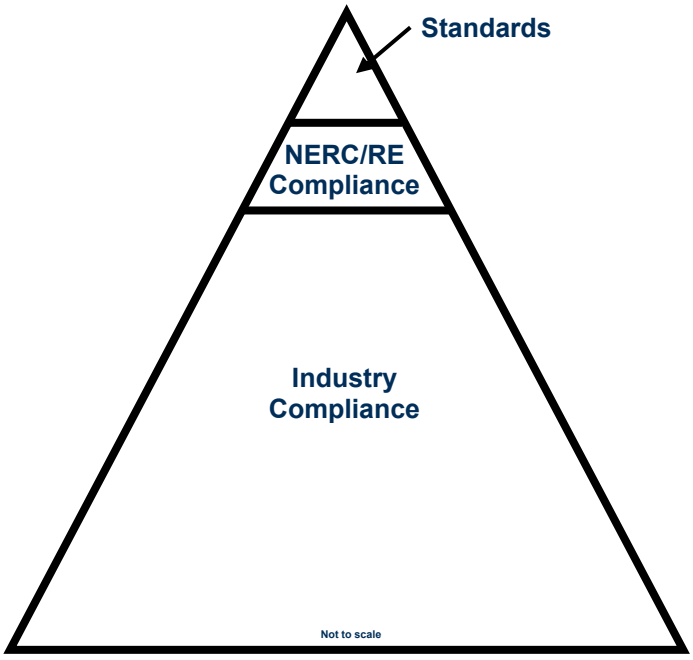


Figure 1 – Impact of Standards on Compliance

In its three-year assessment as the ERO, NERC acknowledged these stakeholder comments and committed to resolving the issues by: i) addressing quality issues to ensure each reliability standard has a clear statement of purpose, and has outcome-focused requirements that are clear and measurable; and ii) eliminating requirements that do not have an impact on bulk power system reliability.

Purpose and Description of Ad Hoc Initiative

This report describes the results of an initiative by an ad hoc group representing industry and NERC and regional staffs (see the roster of the ad hoc group in Exhibit A). The purpose of the

initiative is to develop recommendations to ensure that NERC's reliability standards can have the greatest possible positive effect on the reliability of the bulk power system.

The group's report outlines a guiding set of principles based on performance and risk-based methods and presents specific recommendations for improving the development and format of reliability standards. Most of these recommendations can be adopted without revising NERC's Reliability Standards Development Procedure or other rules of procedure – they deal simply with improving the style and quality of the performance requirements themselves. However, a few proposed changes to the format of a reliability standard would require regulatory approvals.

The ad hoc group has been proactive in seeking industry input on the recommendations and the feedback has been positive. The concepts were presented to the NERC standing committees on September 15, 2009, in a standards development plan webinar on September 17, and in a NERC standards workshop on October 15. The concepts have also been reviewed in several regional forums.

The activities undertaken by the ad hoc group in developing this report are summarized as follows (see Exhibit B for a more detailed outline of the project milestones):

- Document a design philosophy for developing performance requirements that are focused on reliability outcomes.
- Develop criteria to test the effectiveness of reliability requirements using a 'scorecard' approach.
- Using the scorecard, evaluate the existing board-approved performance requirements to prepare a gap analysis.
- Develop guidelines, tools, and examples for drafting teams to use in developing results-based requirements.
- Propose modifications to improve the reliability standards template.
- Communicate with and seek inputs from reliability stakeholders.
- Deliver the project results to the Standards Committee for implementation.

It should be noted that, at the time of the project, substantial improvements to reliability standards were already underway. The guidelines and recommendations from this report should be adopted into ongoing standards development projects, preserving and building upon the many improvements that were already underway with existing drafting teams.

Overview of Performance-Based Methods

Performance-based methods have been applied for several decades in the development of standards and in personnel training. Performance-based methods were recognized and widely used as early as the 1970's in the U.S. military. Today they are widely used as the basis for systematic approaches to training and standards-setting in various industries worldwide. For example, the U.S. nuclear industry has extensive experience in applying performance-based methods in its rulemakings and inspections and has achieved admirable improvements in nuclear performance and safety. Some uses of performance-based methods include:

- U.S. military procedures, training, and standards (over 4 decades)
- Systematic approach to training design (over 4 decades)

- Nuclear regulations, guidelines, procedures, and training (over 3 decades)
- American Society of Mechanical Engineers standards development

In its simplest form, a performance-based standard has four components: *who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome*?

As applied to the bulk power system, a performance-based standard should define a particular reliability objective or outcome to be achieved. Ideally, this outcome should be observable and measurable on the bulk power system. If the standard is met, there should be an observable effect on the reliability of the bulk power system, i.e. an effect that can be measured using power system data or trends. Good examples of such requirements are the Control Performance Standard (CPS) and Disturbance Control Standard that have long been part of the NERC reliability policy. These requirements set specific performance outcomes for the bulk power system, they have a technical basis in reliable interconnected operations, and they are readily measurable and reportable.

Bulk power system performance-based standards can be beneficial because they focus requirements on achieving a specific reliability outcome. The purpose and benefit is clear because the reliable outcome itself is what is being directly measured. Performance-based standards can also establish a bright line of expected reliability performance, thus guiding entities to take actions to avoid approaching or exceeding these bulk power system performance criteria. Additionally, a performance-based standard does not prescribe how a particular outcome is to be achieved and therefore allows for innovation and efficiency.

Effective methods for measuring outcomes of performance-based reliability standards include:

- Evaluate bulk power system performance data, reportable periodically or by sampling.
- Evaluate bulk power system performance data, post event.
- System testing and simulation.

Risk-Based Methods – Necessary When Failure Consequences Are High

One challenge of using a purely performance-based approach, however, is that the reliability of the bulk power system is so critical to the public interest and safety that standards based solely on reliable outcomes are not sufficient. In other words, it is insufficient to have standards that simply say 'avoid cascading failures'. The analogy in airline safety would be a performance-based requirement to avoid plane crashes. The cost of failure is too high to rely solely on enforcing compliance after such a failure. Like airline safety, <u>bulk power system reliability requires additional, preventive requirements to reduce the risks of failure to acceptable tolerance levels.</u>

Using a similar model as the performance-based approach, a risk-based reliability standard should be framed as: *who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome <u>that reduces a stated risk to the reliability of the bulk power system</u>?*

Unlike a performance-based requirement, however, a risk-based requirement is unlikely to be directly measurable on the bulk power system itself, since risks represent possible but not actual outcomes. The measures are more likely to be determined by evaluating a particular

product or outcome resulting from the required actions, or by monitoring performance of the entity. Examples of risk-based requirements in the current standards include requirements to maintain and test relays, perform vegetation management in right of ways, and operate within defined system operating limits. There is an assumption that if the observed results satisfy the stated risk objective, then risk has been mitigated as desired. Sample methods for measuring risk-based reliability standards include:

- Evaluate records/logs of performance.
- Observe defined risk targets/deliverables were achieved
- Interview personnel regarding performance.
- Observe bulk power system performance trends

Independent of monitoring conformance to the risk-based standards themselves, monitoring overall bulk power system performance over time to see if the standards are effective will help to correlate the risk-based standards more directly to system performance. NERC's current initiative to develop bulk power system reliability metrics is a key enabler for measuring the impact of risk-based reliability standards over time.

Capability-Based Requirements

A third type of requirement that is useful in reliability standards is a capability requirement. Such a requirement defines a minimum set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. This might include tools, communications, control systems, analysis capabilities, back up capabilities, etc. Another way to think about these requirements is that they would serve as the basis for certifying an entity or attesting that the entity has the capability to plan and operate a reliable bulk power system. Once again, it is key that the capability that is expected be one that is defined to be measurable and demonstrable. Examples of possible measures include:

- Observe/test tools, functionality, communications, other capabilities.
- Evaluate documentation of capabilities.
- Interview personnel regarding capabilities.

Blended Approach for Reliability Standards

To achieve an adequate level of reliability, a blended approach using all three types of requirements described above is needed. The premier category of requirements within the standards should be those that directly establish a measurable reliability outcome on the bulk power system. Satisfactory achievement of the requirement results in a reliable bulk power system and the result is measurable. Avoiding cascading failures, loss of firm load, and other attributes, as defined in an adequate level of reliability, should serve as the basis for these requirements. Outcome based standards that are measurable through bulk power system reliability performance should shape the foundation of the reliability standards, should be utilized to the maximum extent possible, and are preferred relative to the other kinds of requirements.

Recognizing the need to not only perform reliably, but also to minimize risks leading to unreliable performance, a second category of risk-based requirements is necessary. These risk-based requirements should establish minimum 'reliable outcomes' necessary to provide a reliable bulk power system. These outcomes result from actions taken by an organization to

minimize the risk of adverse impacts to the bulk power system. Examples include coordinating relay settings or maintaining and testing relays. To be effective, these requirements should be stated such that there is a clear definition of the reliability objective being achieved and the outcomes must be measurable. Preferably, the risk mitigation objective or outcome is explicitly stated within the requirement itself, to make it clearer how success will be measured.

Finally, the third type of requirement used in effective standards should be capability or competency-based requirements. These ensure the entity is equipped, qualified, and prepared to plan or operate a reliable bulk power system and to effectively manage and respond to risks associated with reliable operation.

A good foundation for developing results-based standards is NERC's definition of "Adequate Level of Reliability", which was filed with the Federal Energy Regulatory Commission and applicable Canadian government authorities on May 5, 2008. A results-based reliability requirement should withstand the test of meeting at least one of the six goals of an Adequate Level of Reliability. If it is determined that there are gaps between the definition of an adequate level of reliability and existing performance-based standards, then a concerted effort should be made to define additional performance-based requirements to ensure each attribute of a reliable bulk power system is addressed to the extent such outcomes can be defined and measured.

Other Types of Requirements to Be Minimized

Another type of requirement that is common in the NERC standards is a prescriptive requirement, which defines how a particular action should be performed. To the extent possible, prescriptive requirements should be minimized. Prescriptive requirements within reliability standards inhibit innovation and alternative solutions to solve a problem. Instead, the performance expectation should be set in a requirement that defines a performance outcome. Procedures on how to perform an action, unless it is essential that the actions be performed in a common manner to preserve reliability, should be moved to supporting references or guides.

Another common type of requirement is a requirement to document something. It is much preferred to state a performance outcome or a risk to be mitigated and relegate the need to document something to the measures used to demonstrate compliance. A distinction should be made here that producing a document containing specific content necessary for reliability, such as a system restoration procedure, can be an effective requirement used to minimize risk. However, documentation that does not stand on its own as a result necessary for reliability should not be made into a requirement. Such documentation requirements should either be eliminated or moved to an administrative, informational section of the standards. An example of a weak requirement is "the Responsible Entity shall document the implementation of security patches". The requirement that directly contributes to a risk reduction outcome is to implement applicable cyber security patches. Documentation of the implementation is simply a vehicle for demonstrating compliance.

Finally, reliability standards should not prescribe commercial business practices which do not contribute directly to reliability.

Defense-in-Depth Strategy

Reliability standards should not be viewed as a body of unrelated requirements, but rather should be viewed as part of a portfolio of requirements designed to achieve an overall defense-

in-depth strategy. Modern history tells us that major accidents and catastrophic failures, regardless of the industry, are the result of multiple underlying causes, each of which could have been prevented but was allowed to exist. All that is missing is the triggering event and major failure is set in motion. A defense-in-depth strategy for reliability standards should recognize that each requirement in the NERC standards, like the blocks in the walls in Figure 2, has a role in preventing system failures, and that these roles are complementary and reinforcing. These prevention measures should be arranged in defensive layers or walls, as depicted in the figure. No single defensive layer provides complete protection from failure by itself, as suggested by the irregular shapes of the walls and the holes in each wall. But taken together, with well-designed layers including competency-based, risk-based, and performance-based requirements, a defense-in-depth approach can be very effective in preventing future large scale power system failures.

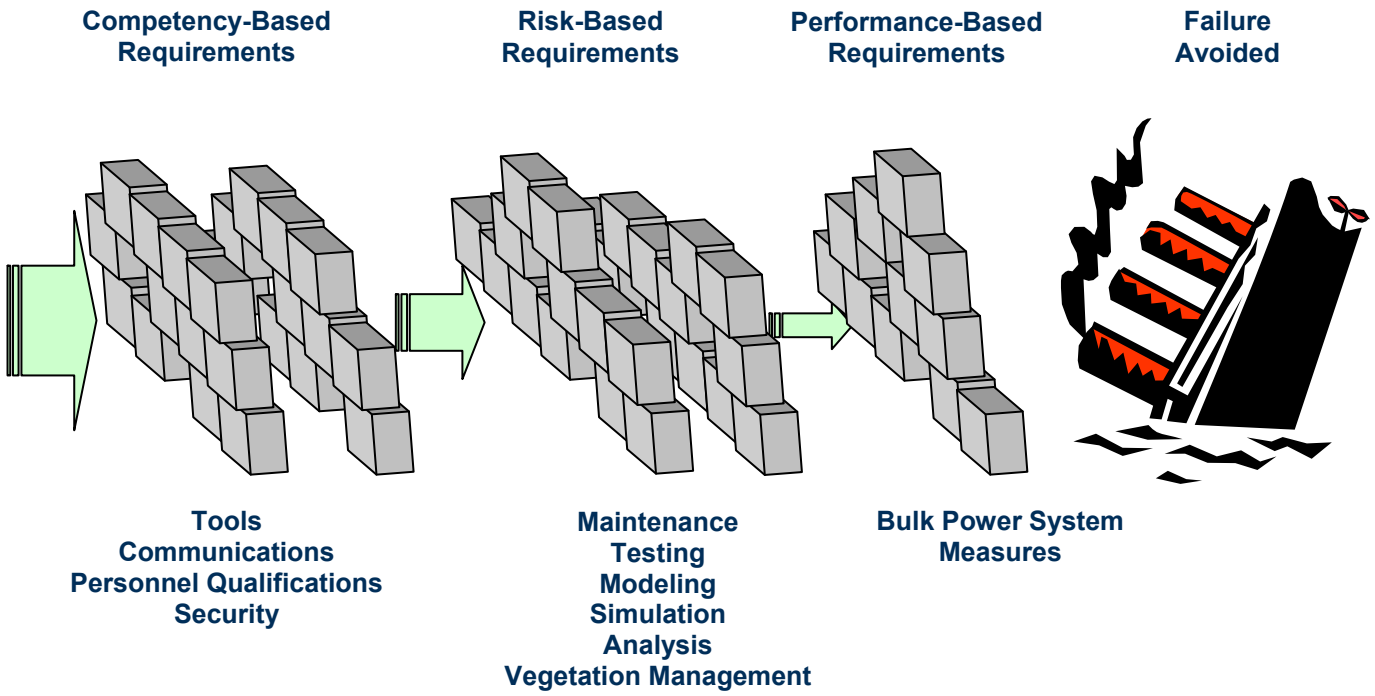


Figure 2 – Defense in Depth Strategy for Reliability Requirements

Risk Management Approach to Standards Development

On a longer-term basis as risk-based approaches mature at NERC, there will be an opportunity to apply NERC's bulk power system reliability metrics and lessons learned from event analyses to determining risk management objectives that feed into reliability standards. This concept is shown in Figure 3.

System events, performance trends, and compliance results are analyzed to determine causal relationships that can then be formulated into risk mitigation strategies to guide development of mandatory requirements as well as lessons learned, voluntary guides, and best practices. Of particular importance in this conceptual framework are the 'small signal' events that occur all the time on the system. Multiple element outages caused by relay misoperation or human error are but two examples of minor events that can be used to develop strategies for avoiding larger

events. Corrective actions determined from analyzing small events can have a profound impact on preventing larger events. This conceptual framework also allows for consideration of new threats that may arise from time to time.

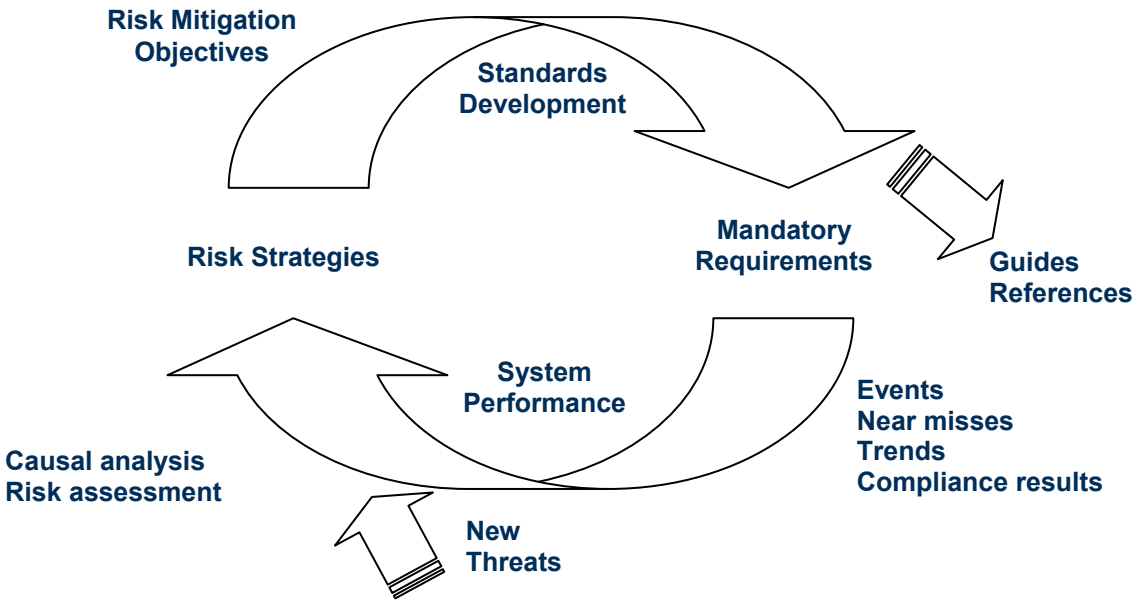


Figure 3 – Risk-Based Approach to Standards Development

Scorecard for Evaluation of Effectiveness of Reliability Requirements

The ad hoc team used the results-based concepts outlined above and developed a scorecard to evaluate the existing NERC reliability requirements based. The scorecard used the following questions:

Table 1 – Evaluation Criteria in Scorecard Tool

Question	Possible Responses
1. This requirement is:	Performance-based (specifies a bulk power system outcome).
	Risk-based (reduces risk).
	Capability-based (provides necessary capability).
	Prescriptive (explains how to).
	Administrative (requires only documenting/reporting something).
2. The reliability objective (or risk mitigation) achieved by this requirement is:	A bulk power system result that is clear in the requirement.
	A risk mitigation objective that is clear in the requirement.
	Is implied but not explicitly stated in the requirement.
	Is unclear.
	No reliability benefit is provided by the requirement.

3. The most effective way to measure this requirement is:	Evaluating bulk power system performance, data, or results.
	Evaluating a product or result (can be written such as a restoration procedure).
	Evaluating performance of an activity or a record/log of that activity.
	Evaluating capabilities, such as tools, systems, training records, etc.
	Can only be measured through documentation.
4. This requirement addresses the following goals associated with an adequate level of reliability (select all that apply):	The bulk power system is controlled to stay within acceptable limits during normal conditions.
	The bulk power system performs acceptably after credible contingencies.
	The bulk power system limits the impact and scope of instability and cascading outages when they occur.
	Bulk power system facilities are protected from unacceptable damage by operating them within facility ratings.
	The bulk power system's integrity can be restored promptly if it is lost.
	The bulk power system has the ability to supply the aggregate electric power and energy requirements of electricity consumers at all times, taking into account scheduled and reasonably expected unscheduled outages of system components.
5. The time horizon to which this requirement applies is:	Real-time or current hour
	Same-day
	Operations planning: day-ahead up to one year
	Planning: one year and longer

These questions were incorporated into an electronic spreadsheet tool and all existing board-approved North American reliability standards were loaded into the tool. Members of the ad hoc team then conducted assessments of the existing requirements and recorded their responses. Regional standards approved by the board were excluded from the analysis, and when the board had approved multiple versions of a standard, only the most recent version was used.

It should be noted that there was no attempt to assess current drafts of standards still in the hands of drafting teams. It would be expected that the results from those requirements would be substantially improved, as concerted efforts have been underway to improve the quality and effectiveness of the standards.

One useful byproduct of this work is that the scorecard tool itself can be made available in the future for drafting teams to perform their own self-assessments of proposed requirements and the tool could be used to seek industry input on the potential effectiveness of each proposed requirement in the standards by including the questions above in the public comment forms.

Analysis Results

The team analyzed 1360 unique reliability requirements that had been approved by the board. The results are summarized at a high level in the charts that follow.

The first chart in Figure 4 summarizes the categories of existing reliability requirements. The chart indicates that 45% of existing requirements are deemed to be prescriptive and 20% are deemed by the reviewers to by administrative. That leaves a total of 35% that are performance-based (6%), risk-based (23%), or competency-based (6%).

Although it should be expected that there will be a portfolio of requirement types, there certainly appears to be a significant opportunity to shift a substantial number of prescriptive and documentation-only requirements to informational guides or to rework these requirements to state explicit performance or risk-based outcomes.

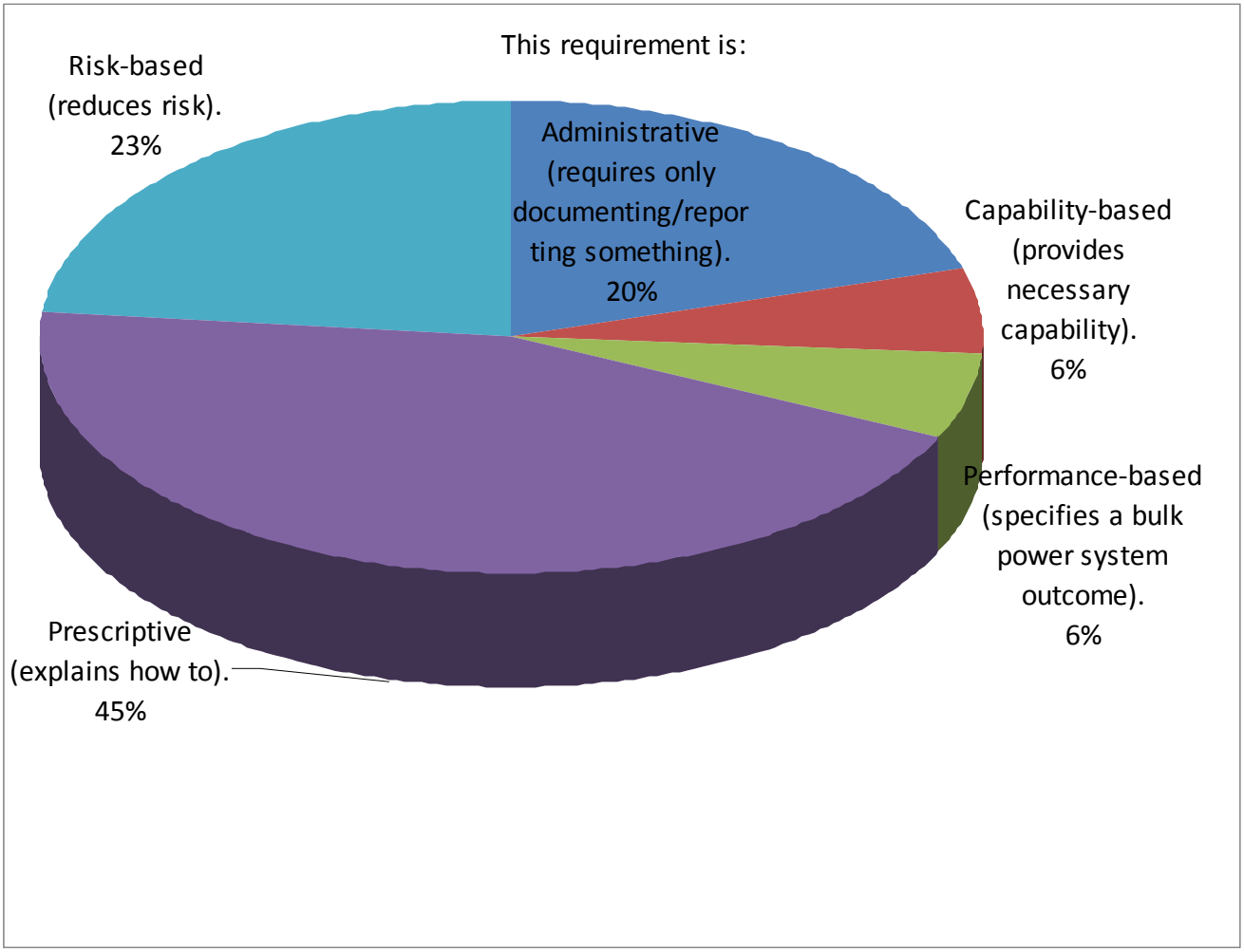


Figure 5 – Summary of Types of Existing Requirements

Figure 6 shows how the existing requirements are rated with respect to the clarity of the reliability objective within the requirement itself. It should be noted that stating a reliability

objective within a requirement was not previously expected of drafting teams, as it was thought that the purpose statement of the standard would be sufficient. However, as indicated in this report, a results-based approach would lend preference toward stating an explicit reliability objective or outcome in the requirement itself. For 32% of the existing requirements there either does not appear to be a reliability objective (6%) or the objective is not clear from reading the requirement (26%). For 48% of the requirements there is an implied reliability objective that is reasonably understood, but not explicitly stated. Finally, 20% of the requirements appear to provide an explicit bulk power system performance objective (6%) or an explicit risk mitigation objective (14%).

This distribution could once again be improved in future revisions of these requirements to ensure each reliability objective is clearly stated within the requirement, or by removing requirements that are verified to not provide a reliability benefit.

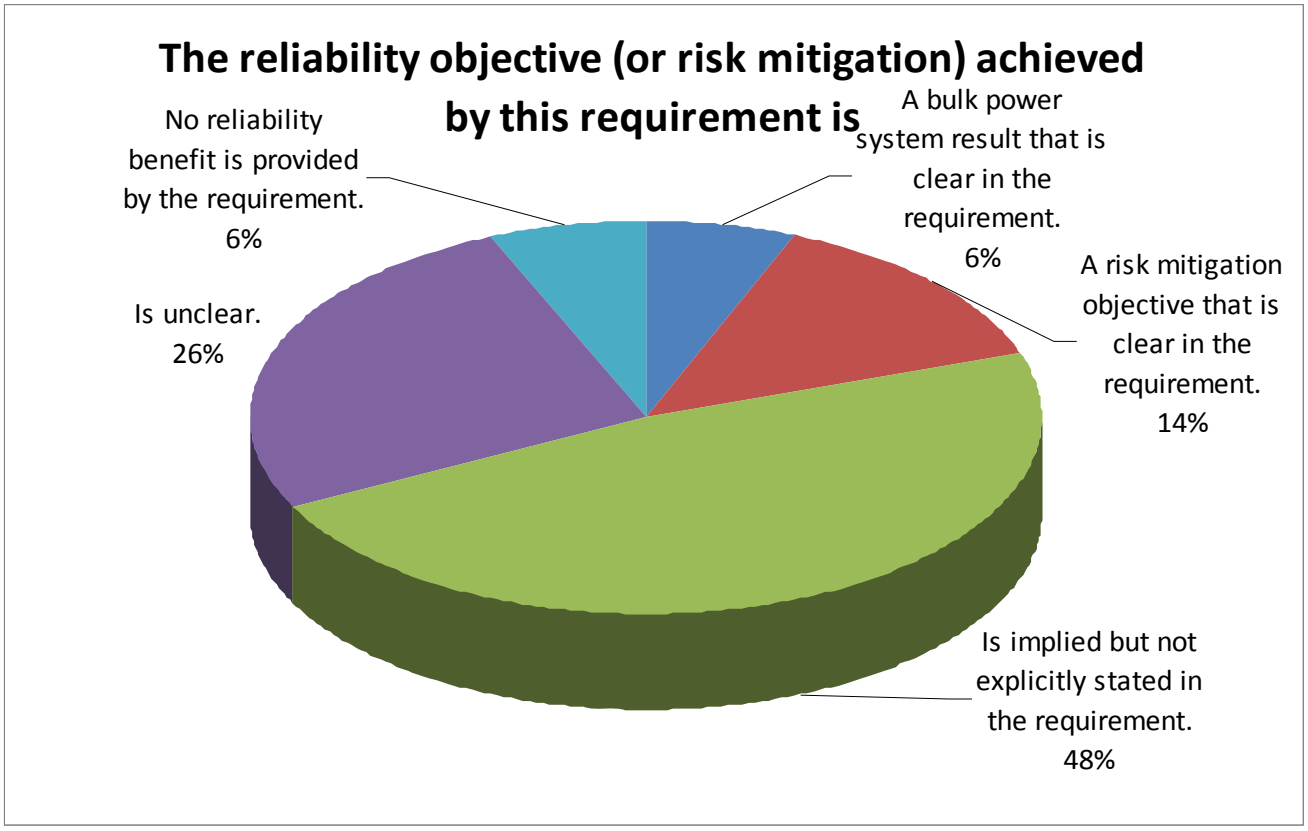


Figure 6 – Summary of Clarity of Reliability Objectives in Existing Requirements

The next chart in Figure 7 reinforces the conclusions from the first two charts. Of the 1360 existing board-approved requirements, 44% are judged to be best measured by documentation only. Evaluating a product or result accounts for 23% of the requirements and evaluating performance of an activity record or log accounts for another 23%. Evaluating capabilities or competencies is the best method for measuring compliance with 7% of the requirements and 3% are best measured by looking at bulk power system data.

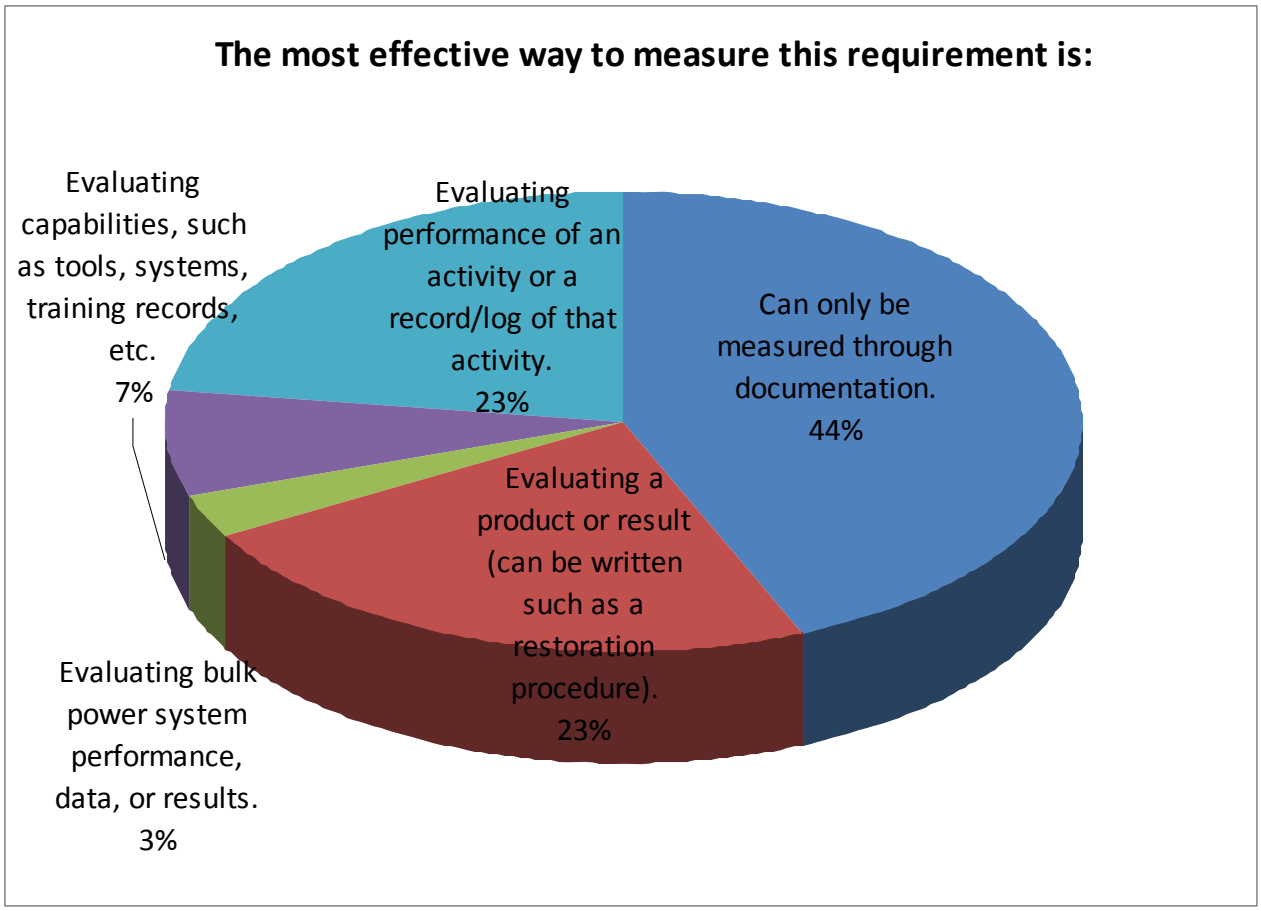


Figure 7 – Effective Measures for Existing Requirements

The team also evaluated correlations between the scorecard questions and verified that the requirements that are deemed to be performance-based or risk-based also score much better with respect to having clear reliability objectives stated within the requirement (74% of the performance and risk-based requirements had clearly articulated reliability objectives compared to 20% of the entire population of requirements). Nearly all (99%) of performance-based and risk-based requirements were also determined to be most effectively measured using methods other than documentation-only.

The team performed similar analyses on each topical cluster of standards, such as BAL, COM, FAC, etc. These results will be made available to the various drafting teams for consideration.

The team performed dozens of other cross-relational tests on the requirements and the results are consistent with the main conclusions described above. The most powerful outcome of this analysis is not the specific ratings from this exercise, but establishment of a tool for drafting teams and industry to better understand and rate the effectiveness of performance requirements using the results-based methods described in this report.

Role of the Standards Committee

On October 7, 2009, the NERC Standards Committee endorsed the concepts presented in this report and indicated its commitment to reinforce these principles and recommendations in the

standards development program and guidance provided to the drafting teams. The Standards Committee has provided guidance in the past that drafting teams should focus on developing performance requirements with clearer reliability objectives. However, historically the Standards Committee has interpreted its role as guardian of the ANSI-accredited process and not the quality of the standards themselves. The NERC Rules of Procedure 302.3, 302.4, and 302.5, however, respectively state that:

> Each reliability standard shall state one or more performance requirements, which if achieved by the applicable entities, will provide for a reliable bulk power system, consistent with good utility practices and the public interest. Each requirement is not a "lowest common denominator" compromise, but instead achieves an objective that is the best approach for bulk power system reliability, taking account of the costs and benefits of implementing the proposal.
>
> Each performance requirement shall be stated so as to be objectively measurable by a third party with knowledge or expertise in the area addressed by that requirement. Each performance requirement shall have one or more associated measures used to objectively evaluate compliance with the requirement. If performance can be practically measured quantitatively, metrics shall be provided to determine satisfactory performance.
>
> Each reliability standard shall be based upon sound engineering and operating judgment, analysis, or experience, as determined by expert practitioners in that particular field.

These statements, along with the other Essential Attributes of Technically Excellent Reliability Standards, suggest that the oversight provided by the Standards Committee does include oversight of the quality aspects of standards. The ad hoc team believes that the quality of NERC reliability standards will improve over time if the scope of the Standards Committee is expanded to include the responsibility for ensuring the standards meet the essential quality attributes established by the Rules of Procedure. This oversight role should be further guided by the results-based principles outlined in this report. In exercising this responsibility, it would be important for the Standards Committee to focus on quality attributes, without prejudice regarding the specific content of each standard.

Recommendations

Based on the research and analysis conducted in the development of this report, the ad hoc team offers the following recommendations for consideration in the development of NERC reliability standards going forward. These recommendations should be implemented through the ANSI-accredited standards development process under the oversight of the Standards Committee:

1. Strive to achieve a portfolio of performance, risk, and competency-based mandatory reliability requirements that provide an effective defense-in-depth strategy for achieving adequate reliability of the bulk power system.
2. Each performance requirement in the standards should identify a clear and measurable expected outcome, such as: i) a stated level of reliability performance, ii) a reduction in a specified reliability risk, or iii) a necessary competency.

3. Each performance requirement in the standards should be structured in the form of *who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome (that reduces a stated risk to the reliability of the bulk power system).*
4. Provide instructions, training, and job aids to drafting teams to reinforce the results-based approach and structuring of requirements in this manner.
5. Provide the evaluation tool and criteria developed in this project to drafting teams and encourage use of the four questions outlined in Exhibit D throughout the drafting and commenting process.
6. Strive to minimize prescriptive, administrative (document something), and commercial requirements within the reliability standards.
7. Reduce the number of sub-requirements by incorporating essential components into the main body of the requirement statement for the purpose of reducing the compliance administration burden of numerous separate sub-requirements.
8. Provide increased focus in describing the applicability of each requirement by identifying not only the specific functional entities, but also any specific assets and conditions to which the requirement should apply to achieve the necessary reliability objective.
9. Provide active participation of compliance personnel in the development of standards to ensure performance requirements can be effectively measured in the field.
10. Evaluate the current three-year standards development plan and adjust priorities going forward to achieve the most reliability benefit using the principles outlined in this report.
11. Modify the standard template to distinguish elements that are mandatory for registered entities from elements that are informational or used to administer compliance (a sample template for a reliability standard is provided in Exhibit C).
    a. Mandatory and enforceable sections of the standard should include: i) applicability, ii) performance requirements, iii) measures, and iv) data/record retention (plus any regional variations if applicable).
    b. Informational sections for the administration and application of the standards should include: i) compliance administration information, ii) procedures, and iii) guidelines or supporting information.
12. Revise the Standards Committee charter to clearly indicate that the committee is responsible not only for the integrity of the standards process, but also the essential quality attributes of the reliability standards in accordance with the ERO Rules of Procedure, as guided by the results-based principles outlined in this report, and without prejudice regarding the specific content of each standard.
13. In the longer-term, NERC should develop a robust standards information management system based on relational database methods.

Exhibit A – Ad Hoc Group on Results-Based Reliability Standards

Gerry Adamski, NERC
Terry Bilke*, Midwest ISO
Gerry Cauley, SERC Reliability Corporation
Carter Edge, SERC Reliability Corporation
C Hajovski, RRI Energy
Pete Heidrich, Florida Reliability Coordinating Council
Pat Huntley, SERC Reliability Corporation
Ben Li*, Consultant – (formerly IESO)
Allen Mosher*, American Public Power Association
Eric Rollison, NERC
Steve Rueckert*, Western Electricity Coordinating Council
Dave Taylor, NERC

* Members of NERC Standards Committee

Exhibit B – Ad Hoc Project Summary

The following is a list of project milestones and target dates:

Milestone/Deliverable	Due Date	Status
Kickoff meeting and discussion of scope and participation.	8/7/09	Completed
Develop startup work plan.	8/14/09	Completed
Distribute prior documents on related efforts to improve standards.	8/14/09	Completed
Evaluate alternatives and draft a written design philosophy for reliability standards.	8/21/09	Completed
Develop criteria/attributes for review of existing standards.	8/21/09	Completed
Develop "scorecard" based on criteria above and evaluate each existing requirement based on these criteria.	9/11/09	Completed
Perform gap analysis of existing standards compared to criteria.	9/30/09	Completed
Communicate to stakeholders Standards Committee conference call Standing committees joint presentation Standards three-year plan webinar Standards Committee presentation Standards workshop WIRAB	 9/3/09 9/15/09 9/17/09 10/7/09 10/15/09 10/20/09	 Completed Completed Completed Completed Completed
Develop improved construct/format of a reliability standard, including supporting documents; reference SCPS's prior effort.	9/30/09	Completed
Develop several examples of model performance-based standards focused on reliability objectives.	10/16/09	Completed
Develop a roadmap and high-level work plan for implementing modified approach to standards development.	10/16/09	Completed
Present to NERC Standards Committee for endorsement	10/7/09	Completed
Present report to NERC MRC and board.	11/4/09	
Sunset ad hoc group and transition ownership to Standards Committee.	12/3/09	

Exhibit C – Proposed Revised Template for a Reliability Standard

Mandatory and Enforceable Sections of Standard

A. Introduction
    1. Title
    2. Number
    3. Purpose
    4. Effective Date
B. Requirements
    1. R1
    2. R2
C. Measures
    1. M1
    2. M2
D. Records Retention

Informational Sections of the Standard

E. Application Information
    1. Application Guidelines
    2. Procedures
F. Compliance Information
    1. Compliance Monitoring Process
    2. Levels of Non-Compliance
    3. Additional Compliance Information

Exhibit D – Questionnaire for Evaluating Effectiveness of Performance Requirements

Question	Possible Responses
1. This requirement is:	Performance-based (specifies a bulk power system outcome).
	Risk-based (reduces risk).
	Capability-based (provides necessary capability).
	Prescriptive (explains how to).
	Administrative (requires only documenting/reporting something).
2. The reliability objective (or risk mitigation) achieved by this requirement is:	A bulk power system result that is clear in the requirement.
	A risk mitigation objective that is clear in the requirement.
	Is implied but not explicitly stated in the requirement.
	Is unclear.
	No reliability benefit is provided by the requirement.
3. The most effective way to measure this requirement is:	Evaluating bulk power system performance, data, or results.
	Evaluating a product or result (can be written such as a restoration procedure).
	Evaluating performance of an activity or a record/log of that activity.
	Evaluating capabilities, such as tools, systems, training records, etc.
	Can only be measured through documentation.
4. This requirement addresses the following goals associated with an adequate level of reliability (select all that apply):	The bulk power system is controlled to stay within acceptable limits during normal conditions.
	The bulk power system performs acceptably after credible contingencies.
	The bulk power system limits the impact and scope of instability and cascading outages when they occur.
	Bulk power system facilities are protected from unacceptable damage by operating them within facility ratings.
	The bulk power system's integrity can be restored promptly if it is lost.
	The bulk power system has the ability to supply the aggregate electric power and energy requirements of electricity consumers at all times, taking into account scheduled and reasonably expected unscheduled outages of system components.

Role of NERC Staff in Standards Development Process

Action Required

Discussion

Attached is a letter **(Attachment 1)** from Mr. John Q. Anderson, Chairman of NERC's Board of Trustees, to the Standards Committee directing modifications to the Roles and Responsibilities: Standard Drafting Team Activities document **(Attachment 2)** regarding NERC staff's role.

As explained the letter, this directive is in response to one of the specific NERC Actions included in the Three-Year ERO Performance Assessment.

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

John Q. Anderson, Chairman
NERC Board of Trustees

October 1, 2009

TO: NERC Standards Committee

RE: Role of NERC Staff in the Standards Development Process

The Corporate Governance and Human Resources Committee (CGHR), in addressing the standards mandate issues assigned to it by the NERC board, discussed the role of NERC staff in the standards development process. However, it did not bring forward to the board a resolution or proposed policy position on this issue. As stated in the February 2009 board minutes, I reported: "The remaining issues and questions posed in the mandate were judged to already be within the scope of the Standards Committee, its Standards Process Subcommittee, or NERC staff, so the committee concluded that there was no need for it to provide policy guidance for these issues and questions."

The Standards Committee did incorporate into its *Roles and Responsibilities* document the policy guidance on the role of FERC staff in reliability standards development, as recommended by the CGHR and approved by the board in October 2008, but did not address fully the role of NERC staff. As a result, NERC included in Attachment 2 of its Three-Year ERO Performance Assessment the following discussion and Specific NERC Action on the role of NERC staff in reliability standards development:

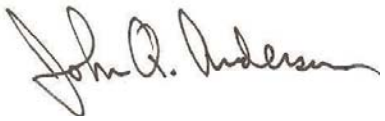
> **Discussion of Comments**
>
> "The board's CGHR committee has also discussed the appropriate role of NERC staff in the standards development process, including the role of NERC staff when standards approved by the industry ballot pool are presented to the NERC board for adoption. The CGHR did not make specific recommendations to the board on this issue, but deferred to the Standards Committee to address this issue in the *Roles and Responsibilities* document. Because the board believes it is important to have NERC staff provide the board a technical evaluation of standards presented for adoption, including assurance that the proposed standards can be complied with and are auditable, and since this point presently is not addressed in the *Roles and Responsibilities* document, the board will direct the Standards Committee to address this issue in a further revision to the document."
>
> **Specific NERC Actions**
>
> a. "NERC board to direct changes to the *Roles and Responsibilities* document (approved by the Standards Committee in March 2009) in order for that document to incorporate the board's expectation that NERC staff will provide the board with its technical evaluations of reliability standards proposed for adoption by the board, including assurance that the reliability standards can be complied with and are auditable."

116-390 Village Blvd.
Princeton, NJ 08540
609.452.8060 | www.nerc.com

In order to expedite resolution of this issue, and to carry out one of the Specific NERC Actions in the Three-Year Assessment, I am asking the Standards Committee carry out the action identified above and to report to the board at its November 5, 2009 meeting its plan and timetable for doing so.

If you have any questions about the details of this request, you may contact Dave Nevius who facilitated the CGHR's work on all the standards mandate issues and has been assigned to manage the implementation of the Three-Year Assessment actions.

Sincerely,



John Q. Anderson, Chairman
NERC Board of Trustees

cc: NERC Board of Trustees
NERC Management

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Roles and Responsibilities: Standards Drafting Team Activities

(Approved by Standards Committee: March 2009)

Standards are developed by industry stakeholders, facilitated by NERC staff, following the process (hereafter referred to as the "standard development process") outlined in the Reliability Standards Development Procedure ("RSDP") that is managed by the NERC Standards Committee. This standard development process is accredited by the American National Standards Institute (ANSI) as fair, balanced, open, inclusive, and conducted with due process. The standard development process requires consensus of industry stakeholders first on the need for a proposed standard and then on the standard itself. The RSDP is approved by stakeholders and adopted by the NERC Board of Trustees, and is incorporated in Section 300 of the ERO Rules of Procedure by reference as Appendix 3A.

This document supplements the RSDP and provides additional clarity with respect to roles and responsibilities of drafting teams, team leaders, NERC staff, and the Standards Committee with the expectation that all participants in NERC's standard development process will adhere to the principles embodied herein. The document also provides guidance to the drafting teams regarding involvement from regulatory authority staff[1] in the standards development process[2].

Roles and Responsibilities of the Standards Committee

The Standards Committee manages the NERC standard development process for North American continent-wide reliability standards. The Standards Committee members are volunteers elected by stakeholders to protect the integrity and credibility of the standard development process. The Standards Committee meets at least monthly, and reports directly to the NERC Board of Trustees.

The Standards Committee Charter directs the Standards Committee to:

a. manage standards development;
b. manage the standard development process;
c. review the effectiveness of the ballot process;
d. coordinate with the compliance program;
e. coordinate with the North American Energy Standards Board (NAESB); and
f. coordinate with the NERC Board of Trustees, regulators, industry groups, and stakeholders.

[1] Please note that the references to regulatory authorities and their staffs are limited to those authorities that have direct oversight over NERC standards development activities.
[2] Appendix 1 contains an expanded discussion of FERC's Role as articulated in the Energy Policy Act and Commission Order No. 693.

Additionally, it is the responsibility of the Standards Committee and the standards drafting teams to assist NERC in implementing pending regulatory authority directives by including provisions that address those directives in the proposed standards that are processed through the industry ballot process.

Roles and Responsibilities of Standard Drafting Team Members

Standard drafting teams, following NERC's standard development process, have responsibility for developing new reliability standards and making revisions to existing reliability standards. The mission of each drafting team is to develop excellent, technically correct standards that provide for an adequate level of bulk power system reliability.

Some drafting teams work to modify already approved standards, with modifications aimed to varying degrees at addressing specific regulatory authority directives or to address reliability issues not directed by regulatory authorities. Other drafting teams work to develop new standards that are not associated with any regulatory directives. In all cases, team members are selected from industry volunteers to provide the standard drafting team with sufficient technical expertise from diverse industry perspectives to ensure development of reliability standards that, when approved, demonstrate broad industry consensus. Standard drafting teams are selected by, and report to the Standards Committee.

In developing reliability standards that achieve the objectives delineated in the Standards Authorization Request ("SAR"), each standard drafting team, working on behalf of all stakeholders, has primary responsibility to:

a. draft new or revised standards that provide for an adequate level of reliability[3];
b. propose reliability standards that address the full scope contained in the SAR;
c. revise approved standards to address applicable regulatory authority directives;
d. provide an initial set of violation risk factors and violation severity levels for new or modified reliability standards;
e. ensure the proposed standards meet statutory and regulatory authority criteria for approval in each relevant jurisdiction[4];
f. meet with regulatory authority staff, as requested, to present and discuss the standard drafting team's approach to meet a regulatory authority directive, including any alternate approaches;
g. respect the integrity of the standard development process as outlined in NERC's Rules of Procedure, including:
    i. developing requirements that are clear and unambiguous from a compliance and implementation perspective;
    ii. considering and responding to all posted comments;

[3] NERC filed its definition for "adequate level of reliability" with the Commission on May 5, 2008. Refer to http://www.nerc.com/files/Adequate_Level_of_Reliability_Defintion_05052008.pdf
[4] In the U.S., FERC established its criteria for approving proposed reliability standards in Order No. 672 beginning at P320: http://www.nerc.com/files/final_rule_reliability_Order_672.pdf

iii. developing an implementation plan to support the proposed standards;
iv. identifying the need for field testing proposed technical requirements and, where a field test is needed, administering field test implementation, review, and analysis of data.

h. recommend to the Standards Committee when a proposed standard is ready for balloting;

i. engage stakeholders during standards development to help build industry consensus;

j. identify and consider regional variances to proposed standards;

k. report progress to the Standards Committee;

l. develop or support development of supporting documents to supplement reliability standards; and,

m. provide technical input to NERC staff during preparation of regulatory documents, including:
   i. filing(s);
   ii. submitting the proposed standard(s) for approval;
   iii. responding to questions raised in a notice of proposed rule-making;
   iv. preparation of a request for clarification or rehearing following the issuance of the rule or order addressing a proposed standard filed for approval;
   v. preparing requests for extensions of time when a regulatory imposed deadline for standards development cannot be achieved.[5]

The standard drafting team chair and vice-chair have additional responsibilities to:

a. facilitate SDT discussions such that the team reaches consensus on proposed standard(s) that will achieve the SAR objectives and SDT responsibilities described above;

b. represent the drafting team before the Standards Committee in reporting on team progress in implementing the scope of the SAR and in addressing regulatory directives;

c. represent the drafting team in discussions with regulatory authority staff on how the proposed standards address the applicable regulatory directives;

d. lead the drafting team in the effective dispatch of its standards development obligations; and

e. assist the NERC standards staff coordinator to provide technical input into:

   i. draft regulatory filings for approval of the proposed standard(s);
   ii. responses to questions raised in a notice of proposed rule-making;
   iii. preparation of a request for clarification or rehearing following the issuance of the rule or order addressing the proposed standard filed for approval; and,
   iv. responses to regulatory directives that are determined to be detrimental to reliability.

Addressing Regulatory Directives

[5] It is ultimately the decision of the NERC Board of Trustees to approve specific filings.

In its role as the electric reliability organization (ERO), NERC must address each directive issued from regulatory authorities that recognize NERC as the ERO. The Standards Committee and the standard drafting teams are responsible for implementing regulatory authority directives that require new or modified requirements using the standard development process. Ultimately, all proposed reliability standards require NERC board adoption.

Regulatory authority directives vary in the level of detail provided – most directives identify a reliability objective that the directive should achieve and then identify a proposed method of achieving that objective. When a regulatory authority issues a directive that requires new or modified standard requirements, the optimal course of action is for NERC and stakeholders to participate in the proceeding, especially if concerns exist with the directive. In the United States, for example, the FERC has generally processed directives first through a notice of proposed rulemaking ("NOPR") and then via a final rule that carries the force of law. Interested parties may submit views on the proposed directives through submission of NOPR comments. If a concern exists on a particular directive when a final rule is issued, NERC and stakeholders should seek rehearing or clarification of the final rule containing the problematic directive within the available 30-day window. Requests for clarification (but not rehearing) can be submitted beyond the 30-day window but an untimely request would not serve as a basis for seeking court review of the Commission's rule. Additionally, the circumstances generally must be compelling for the Commission to favorably respond to an untimely request for clarification.

After the 30-day window for seeking rehearing and clarification has passed, if no entity has sought clarirfication or rehearing, NERC, through its Standards Committee and standard drafting team, has the responsibility to address the regulatory authority directive before the associated standard is presented for ballot. When addressing a regulatory authority directive, a standard drafting team has the following courses of action available based on its consideration of the directive and the reliability objective associated with the directive:

Standard Drafting Team Agrees with the Reliability Objective and Directive as Presented

- The standard drafting team agrees with the reliability objective that is defined by the regulatory authority directive
- The standard drafting team implements the directive, as presented by the Commission, by incorporating the appropriate language in the proposed standard
- The standard drafting team should describe precisely how it addressed the directive when posting the standard for stakeholder comment. This information will then be included in the filing of the standard, if industry-approved and adopted by the NERC board

Standard Drafting Team Agrees with the Reliability Objective but Elects to Employ an Equivalent Alternative Approach to Implement the Directive

- The standard drafting team agrees with the reliability objective that is defined by the regulatory authority directive

- The standard drafting team does not agree with implementing the directive as presented[6] in the regulatory order
- The standard drafting team incorporates language in the proposed standard that addresses the reliabilty objective or proposes achieving the reliability objective through another mechanism
- The standard drafting team develops a written explanation that discusses how the team's approach is equally efficient and effective in meeting the reliability objective of the regulatory authority directive. The standard drafting team posts this explanation when posting the standard for stakeholder comment. This information will then be included in the filing of the standard ,if industry-approved and adopted by the NERC board.
- If requested or as needed, the standard drafting team, or representatives thereof as determined by the team, shall discuss its approach with applicable regulatory authorities, the Standards Committee, and NERC staff.

Standard Drafting Team Agrees with the Reliability Objective but Believes the Directive as Presented is Detrimental to Reliability

- The standard drafting team agrees with the reliability objective but does not agree with the regulatory authority directive because it is detrimental to reliability.
- The standard drafting team includes the reliability objective and regulatory authority directive in materials issued for an industry comment period to obtain stakeholder input on the impact of implementing the directive as presented.
- The standard drafting team develops an approach that achieves the reliability objective desired by the directive but in a manner not detrimental to reliability
- The standard drafting team develops a written explanation that describes how the directive, if implemented as directed, would cause adverse reliability impacts. The standard drafting team articulates its alternate approach that better achieves the desired reliability objective.
- The written explanation is provided to the NERC staff coordinator, and ultimately, the NERC Director of Standards, as well as the Standards Committee.
- The NERC Director of Standards will lead the effort in coordination with the chair of the Standard Drafting Team, the chair of the Standards Committee, and others as appropriate to determine an appropriate course of action regarding the directive.
- If requested or as needed, the standard drafting team, or representatives thereof as determined by the standard drafting team, shall discuss its concerns and proposed alternate approach with the applicable regulatory authority, the Standards Committee, and NERC staff .

Standard Drafting Team Disagrees With the Reliability Objective and Believes the Directive, as Presented, Lacks a Clear Reliability Benefit

- [6] In the United States, the FERC permits an equivalent alternative approach provided the alternative addresses the FERC's underlying concern or goal as efficiently and effectively as the FERC proposal.

- The standard drafting team does not agree with the reliability objective associated with a regulatory authority directive because it is unsupported by a reliability need.
- The standard drafting team develops a written explanation that describes how the objective, if implemented as directed, does not support a reliability need.
- The standard drafting team implements the directive as presented by incorporating appropriate language in the proposed standard and posts this for stakeholder comment. At the same time, the standard drafting team posts its concerns regarding the perceived lack of reliability benefit of the directive and the reliability objective it is attempting to achieve. If stakeholder comments support the standard drafting team's position, the standard drafting team provides its concerns and stakeholder comments to the NERC staff coordinator, and ultimately, the NERC Director of Standards, as well as the Standards Committee.
- The NERC Director of Standards will lead the effort in coordination with the chair of the Standard Drafting Team, the chair of the Standards Committee, and others as appropriate to determine an appropriate course of action regarding the directive, that may include submission of a request for clarification to the applicable regulatory authority or a request to process the proposed standard and associated directive language through the ballot process so there is full evidence of consensus, or lack thereof.
- If requested or as needed, the standard drafting team, or representatives thereof as determined by the standard drafting team, shall discuss its concerns with the applicable regulatory authority, the Standards Committee, and NERC staff.

Where a regulatory authority directs NERC to "consider" a proposal, issue, or other matter, the drafting team may implement the proposal, offer an alternative proposal, or explain why the proposal should not be adopted. The drafting team must seek stakeholder input on its consideration of these directives using the standard development process and must document its conclusions. NERC will submit this documentation with its request for standard approval to regulatory authorities.

Roles and Responsibilities of NERC Staff

Each standard drafting team works closely with NERC staff in support of the team's activities. A NERC standards coordinator is assigned to directly support and facilitate standard drafting team activities and is an impartial, non-voting member of the team. The NERC standards coordinator has the following primary responsibilities in support of and collaboration with the drafting team:

a. ensures the drafting teams adhere to the integrity of the standard development process as defined in NERC's Rules of Procedure;

b. ensures the quality of the team documents submitted for posting, balloting, and adoption;

c. develops and posts the record of proceedings for the meetings;

d. facilitates the logistics for meetings, telephone and online conference calls, and WebEx discussions;

e. coordinates the scheduling of meetings of the standard drafting team, with NERC staff and the appropriate regulatory authority staff to discuss proposed standards, including the approach taken by the team to address regulatory authority directives;

f. monitors the participation of regulatory staff members, industry stakeholders, and other observers in drafting team activities to ensure proper business meeting decorum is maintained;

g. documents and includes in the standards development record the informal advice and feedback provided by regulatory authority staff participants concerning regulatory authority directives that are offered in a non-public meeting with drafting team members;

h. coordinates the drafting team's technical input into:
   i. draft regulatory filings for approval of the proposed standard(s);
   ii. responses to questions raised in a notice of proposed rule-making;
   iii. requests for clarification or rehearing following the issuance of the rule or order addressing the proposed standard filed for approval; or,
   iv. responses to regulatory directives that are determined to be detrimental to reliability or lack a clear reliability benefit;

i. reports to the drafting team chair, other NERC standards staff, and upon request, the Standards Committee as to the team's progress.

The NERC standards coordinator is responsible for facilitating the work of the standard drafting team in completing its obligations as outlined in this document and the standard development process. In this regard, the NERC standards coordinator *may* support the drafting teams with respect to the following:

a. ensuring that regulatory directives and the entirety of the rule or order relating to the standard(s) under development are available and understood.

b. proposing language for the drafting team to consider to:
   i. capture the essence of the team discussions of proposed standards;
   ii. ensure consistency of style and format of proposed standards with other approved standards;
   iii. ensure compliance obligations are clear in the proposed standard;
   iv. assist in developing supporting documents to support industry understanding and implementation of proposed standards;
   v. assist in developing written technical justification describing the drafting team's approach to addressing regulatory authority directives where a drafting team determines that an alternative approach should be pursued; and
   vi. help demonstrate that the proposed standards meet statutory and regulatory authority criteria for approval in each relevant jurisdiction.

c. assisting the drafting team regarding the degree to which the team:
   i. sufficiently addresses the full scope of the approved SAR;
   ii. proposes revised standards that provide for an adequate level of reliability; and

iii. completely addresses each regulatory directive applicable to the standards under development.

NERC staff, working with the Standards Committee, also prepares the materials submitted to the NERC Board of Trustees regarding adoption of a proposed reliability standard that achieved the requisite industry consensus for approval. In providing this recommendation, the NERC staff includes a discussion on the development of the standard through the balloting process, adherence to the reliability standard development procedure, key issues and an overview of stakeholder comments, how the team addressed the comments and issues, identification of any significant unresolved minority views, and, where applicable, how the proposed standard addresses associated regulatory directives. The NERC Board of Trustees must approve the filing of a proposed standard with the regulatory authorities.

Response to Regulatory Authority Staff Involvement in Standard Drafting Team Activities

Because the standard development process is an open process, NERC cannot preclude regulatory authority staff from involvement in its standard development activities. To that end, the NERC board provided the following policy guidance, approved 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 Standards Committee for ballot.

b. NERC and its Standards Committee 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.[7]

e. Standard drafting team members should seek out the opinion of regulatory authority staff, consider the regulatory staff input on its technical merits,[8] 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.

[7] Standard drafting team members are responsible for performing the roles and responsibilities as outlined in this document and held accountable for developing standards that achieve the objectives in the approved standards authorization request. Observers and non-voting participants to the standard development process may opine on the issues at the discretion of the drafting team chair during team meetings but they have no official voice in the final determination of the proposed standard language, except through participation in public comment periods, the Registered Ballot Body, and the balloting process associated with the proposed standard.

[8] The standard drafting team may elect to seek regulatory authority staff opinion on a proposed standard's ability to meet a regulatory authority directive or order, to clarify the regulatory authority staff's interpretation of a directive, or may discuss a technical opinion not necessarily associated with a regulatory authority directive or order.

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:
   iv. request the regulatory authority staff to provide the advice during an open meeting or conference call of the drafting team; or,
   v. 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.

By doing so, the ANSI essential requirement for openness and the tenets in the NERC ERO Rules of Procedure are satisfied.

In the U.S., federal law prohibits FERC from authoring language for reliability standard requirements; rather, they can identify specific issues to be addressed by drafting teams.

Appendix 1

Additional Discussion on FERC's Role

The Energy Policy Act of 2005 gave FERC certain jurisdiction over the development, approval, and enforcement of electric reliability standards applicable to users, owners, and operators of the bulk power system in the United States. It authorizes FERC to approve reliability standards, to remand reliability standards that do not meet its criteria for approval as outlined in Order No. 672, and to direct modifications to address specific issues. Through various orders and rules, FERC has approved a set of reliability standards developed by the industry through the NERC Reliability Standards Development Procedure that establish the baseline for ensuring reliable operation of the bulk power system in North America. Only FERC-approved reliability standards are mandatory and enforceable within the United States.

The following excerpts from the Energy Policy Act of 2005 outline the scope of FERC's authority:

> *The Commission shall have jurisdiction, within the United States, over the ERO certified by the Commission under subsection (c), any regional entities, and all users, owners and operators of the bulk-power system, including but not limited to the entities described in section 201(f), for purposes of approving reliability standards established under this section and enforcing compliance with this section. All users, owners and operators of the bulk-power system shall comply with reliability standards that take effect under this section.*
>
> *The Commission may approve, by rule or order, a proposed reliability standard or modification to a reliability standard if it determines that the standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest. The Commission shall give due weight to the technical expertise of the Electric Reliability Organization with respect to the content of a proposed standard or modification to a reliability standard and to the technical expertise of a regional entity organized on an Interconnection-wide basis with respect to a reliability standard to be applicable within that Interconnection, but shall not defer with respect to the effect of a standard on competition. A proposed standard or modification shall take effect upon approval by the Commission.*
>
> *The Commission, upon its own motion or upon complaint, may order the Electric Reliability Organization to submit to the Commission a proposed reliability standard or a modification to a reliability standard that addresses a specific matter if the Commission considers such a new or modified reliability standard appropriate to carry out this section.*

NERC has been certified by FERC to be the U.S. electric reliability organization (ERO). NERC is working to gain similar recognition in the various jurisdictions in Canada. (As of July 1, 2008, NERC has memoranda of understanding or agreements in place with Ontario, Nova Scotia, Québec, Alberta, Manitoba, Saskatchewan, and the Canadian National Energy Board.) The legislative framework to make NERC Reliability Standards mandatory and enforceable is in place currently in Alberta, Ontario, New Brunswick, Quebec, and with the National Energy Board, while the membership in the Regional Entity organization establishes the obligation to comply with the NERC standards in the remaining jurisdictions.

NERC, in one of its key roles as the ERO, develops reliability standards through its ANSI accredited standard development process. NERC-approved standards are then submitted to regulatory authorities for approval or for informational purposes, as required within each jurisdiction. NERC's ANSI-accredited process provides reasonable notice and opportunity for public comment, due process, openness, and balance among the various interests in support of developing quality standards.

FERC is not permitted by law to explicitly write standard requirements. FERC may, however, direct the ERO to submit a proposed new or revised standard that "addresses a specific matter." As stated earlier, FERC must give due weight to the technical expertise of the ERO with respect to the specific content of a proposed reliability standard. This technical expertise is embodied in the standards drafting teams and other stakeholders participating in the standard development process. This technical expertise manifests itself in the comments received from industry stakeholders during the SAR and standard development process and by the Registered Ballot Body participants who elect to vote on a proposed standard as part of the ballot pool.

NERC has an obligation to comply with Section 215 of the Federal Power Act and to respond to regulatory directives issued regarding reliability standards. Through its Standards Committee, NERC charges its drafting teams to fully address each directive.

NERC cannot ignore regulatory directives on the basis that it does not agree with the directive. NERC and the industry have procedural avenues available to request clarification of the directives, or to file motions for rehearing on the directives in the event NERC, or members of the industry, believe the directives do not provide for an adequate level of reliability. Apart from those mechanisms, standard drafting teams must address FERC's directives in the course of the standard development process.

NERC staff coordinators serve an important role in assessing to what degree the standard drafting team has addressed each applicable directive and informing the Standards Committee when it appears that further work may be required to fully address a directive.

In Order No. 693, FERC provided guidance as to how NERC and the standard drafting teams should view the FERC directives:

> "185. With regard to the many commenters that raise concerns about the prescriptive nature of the Commission's proposed modifications, the Commission agrees that a direction for modification should not be so overly prescriptive as to preclude the consideration of viable alternatives in the ERO's Reliability Standards development process. However, in identifying a specific matter to be addressed in a modification to a Reliability Standard, it is important that the Commission provide sufficient guidance so that the ERO has an understanding of the Commission's concerns and an appropriate, but not necessarily exclusive, outcome to address those concerns. Without such direction and guidance, a Commission proposal to modify a Reliability Standard might be so vague that the ERO would not know how to adequately respond."
>
> "186. Thus, in some instances, while we provide specific details regarding the Commission's expectations, we intend by doing so to provide useful guidance to assist in the Reliability

Standards development process, not to impede it.[90] We find that this is consistent with statutory language that authorizes the Commission to order the ERO to submit a modification "that addresses a specific matter" if the Commission considers it appropriate to carry out section 215 of the FPA. In the Final Rule, we have considered commenters' concerns and, where a directive for modification appears to be determinative of the outcome, the Commission provides flexibility by directing the ERO to address the underlying issue through the Reliability Standards development process without mandating a specific change to the Reliability Standard. Further, the Commission clarifies that, where the Final Rule identifies a concern and offers a specific approach to address the concern, we will consider an equivalent alternative approach provided that the ERO demonstrates that the alternative will address the Commission's underlying concern or goal as efficiently and effectively as the Commission's proposal."

"187. Consistent with section 215 of the FPA and our regulations, any modification to a Reliability Standard, including a modification that addresses a Commission directive, must be developed and fully vetted through NERC's Reliability Standard development process. The Commission's directives are not intended to usurp or supplant the Reliability Standard development procedure. Further, this allows the ERO to take into consideration the international nature of Reliability Standards and incorporate any modifications requested by our counterparts in Canada and Mexico. Until the Commission approves NERC's proposed modification to a Reliability Standard, the preexisting Reliability Standard will remain in effect."

"188. We agree with NERC's suggestion that the Commission should direct NERC to address NOPR comments suggesting specific new improvements to the Reliability Standards, and we do so here. We believe that this approach will allow for a full vetting of new suggestions raised by commenters for the first time in the comments on the NOPR and will encourage interested entities to participate in the ERO Reliability Standards development process and not wait to express their views until a proposed new or modified Reliability Standard is filed with the Commission. As noted throughout the standard-by-standard analysis that follows, various commenters provide specific suggestions to improve or otherwise modify a Reliability Standard that address issues not raised in the NOPR. In such circumstances, the Commission directs the ERO to consider such comments as it modifies the Reliability Standards during the three-year review cycle contemplated by NERC's Work Plan through the ERO Reliability Standards development process. The Commission, however, does not direct any outcome other than that the comments receive consideration."

In the course of the standard drafting process, standard drafting teams should follow these guidelines when considering FERC's directives:

- The overarching goal is to develop high-quality, enforceable reliability standards that provide for an adequate level of reliability.

- Standards should ensure bulk power system reliability in a manner that respects the balance between reliability benefit versus cost of implementation, as determined through the standard development process.
- Consensus building must not equate with a least common denominator standard.
- Consider the underlying reliability objective addressed by the FERC directive.
- If the underlying reliability objective is not clear to the drafting team, request clarification from FERC staff.
- When warranted, identify alternate approaches to those offered by FERC that address the underlying reliability objective in a more effective manner by achieving an adequate level of reliability at a comparable cost or providing a comparable reliability benefit through a lower cost. Cost considerations include the costs to responsible entities to implement the new or revised standard as well as the administrative costs to responsible entities, NERC, and regulatory authorities to assure compliance.
- In all cases, develop written technical justification to identify how the drafting team considered the regulatory directives. If the drafting team identifies an alternate approach to achieve a reliability objective, the team will develop a written document that explains why the alternate approach is equally effective and efficient. This justification will be discussed with regulatory authority staff in advance of filing for approval and formally when the proposed standard is submitted for approval.
- If the drafting team disagrees with the technical approaches contained in a FERC directive, or otherwise determines the approach is inconsistent with reliable bulk power system operations, compliance and enforcement, the team will work with the NERC staff coordinator to develop a written technical description that supports this determination.
- These technical documents will provide a basis for informal discussion with FERC staff.

Agenda Item 10
MRC Meeting
November 4, 2009

An Introduction to the Generator Forum

Mark Bennett, Generator Forum
Steering Committee Member

Vision Statement

The Generator Forum will provide entities registered with NERC as Generator Owners and Operators (GO/GOPs) a means to collaborate on issues related to Registration, Compliance, Reliability Standards Development and other NERC-related topics.

The Generator Forum is intended to provide GO/GOPs a means to develop positions and communicate with the Electric Reliability Organization and Regional Entities (ERO/REs) regarding compliance and other reliability-related matters affecting registered GO/GOPs with the ultimate goal of improving the reliability of the Bulk Electric System (BES).

Purpose

Promote involvement to improve reliability standards:

- Inform GO/GOPs of upcoming national/regional standards under development and other regulatory activities and share discuss specific to generators.
- Encourage active involvement to help shape new standards. Activities could include posting of independent positions by member companies or encouraging voting/commenting blocks.
- Share best practices and examples to assist GO and/or GOPs comply with Standards while improving the overall reliability of the electric system.

Membership

Membership in the Generator Forum is voluntary and open to all currently registered, or entities preparing to register with NERC as a GO/GOP.

Members may attend and participate in meetings as well as access and supplement the organization's website. The forum is intended for GO/GOPs of all sizes and of regional diversity.

Access to Generator Forum meetings or website content is restricted to members.

Membership

Discussion topics will be open, and no prerequisite knowledge of FERC/NERC will be required. Should an individual who is not an employee of a GO/GOP desire to be a member of the Generator Forum they may join if sponsored by a GO/GOP for the propose of representing that registered entity.

The benefits and advantages of being a Generator Forum member include, but are not limited to, attendance and participation in meetings as well as access and contribution to the Generator Forum Yahoo website.

The Steering Committee

The Generator Forum Steering Committee is comprised of members representing a broad cross-section of entities registered as GO/GOPs wherever possible.

The founding Steering Committee members are from energy firms across the country including Dominion Resources Services, RRI Energy, NextEra Energy Resources, Sempra Global, Competitive Power Ventures, Covanta Energy, Calpine, First Wind, and GDF SUEZ NA.

Anti-trust Guidelines

Every Generator Forum member is expected to comply the anti-trust guidelines.

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.

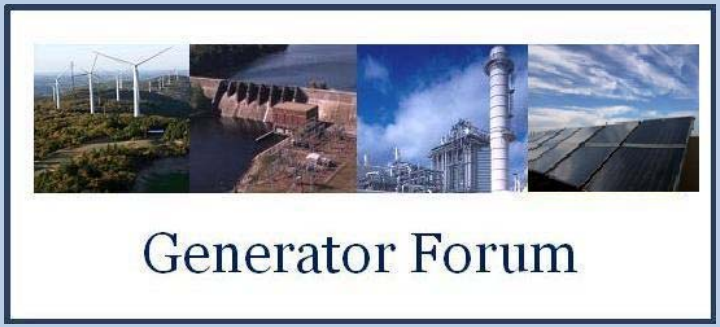
Website

The Generator Forum maintains two websites to communicate with members as well as the public.

The public website can be found at www.GeneratorForum.org This site contains information useful to individuals interested in becoming a GF member, or those that would like to learn more about the group.

The other website is a Yahoo Group site that is only accessible to GF members. This site is used as a blog for members to share best practices, successful compliance documentation templates and informal interpretations on Standards requirements.

Generator Forum Outreach



The Generator Forum will have Steering Committee Members at the next round of regional meetings. Please feel free to discuss the Generator Forum with them.

Region	Dates	Location
SERC	9/9 - 9/10	Nashville, TN
WECC	9/16 - 9/18	Denver, CO
RFC	9/22 - 9/23	Baltimore, MD
TRE	9/23	Austin, TX
SPP	11/17 - 11/18	Kansas City, MO
MRO	12/2 - 12/3	TBD
NPCC	1st wk of Dec	Albany, NY
FRCC	none in 2009	N/A

Generator Forum Outreach

The Generator Forum will offer webinars in the near future in order to inform members of current issues of importance to GO/GOPs and share best practices.

The group plans to offer varying levels of webinars to inform those that are newly registered or are anticipating registration with NERC, as well as those that have already implemented an internal compliance program.

Upcoming Webinars

The next planned webinar will be a discussion of the role of third-parties in Standards compliance without formal agreements expressly delegating such responsibilities.

Webinar access information will be posted on the Yahoo site in the near future.

Questions?

Contact any of the Generator Forum Steering Committee members for additional information:

Jalal Babik: jalal.babik@dom.com, (804) 273-4109
Mark Bennett: mbennett@cpv.com, (240) 723-2336
Tom Bradish: tbradish@rrienergy.com, (724)678-3716
Duncan Brown: duncan.brown@calpine.com, (925)570-4149
Rheal Caron: rheal.caron@gdfsuezna.com, (713)636-1032
Mary Jo Cooper: mjcooper@firstwind.com, (415)671-4456
Katy Mirr: kmirr@sempraglobal.com, (619)696-2086
Chris Orzel: Christopher.Orzel@NextEraEnergy.com, (561) 304-5571
Steve Toth: stoth@covantaenergy.com, (973)882-4195

Generator Forum

Thank you!

www.GeneratorForum.org

Agenda Item 11
MRC Meeting
November 4, 2009

Status of 2009 Goals and Objectives

Action Required

None

On the October 5, 2009 MRC conference call, a question was raised regarding the status of the 2009 NERC Goals and Objectives. Attachment 14 to the 2010 NERC Business Plan and Budget (**Attachment 1**) provides a status report on the achievement of NERC's 2009 Goals and Objectives by program area, as of the date of the budget filing. This report is included in the MRC agenda for information only.

Agenda Item 11
Attachment 1

DOCKET NO. RR09-__-000

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

2010 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 14

STATUS REPORT

ON THE ACHIEVEMENT OF

NERC'S 2009 GOALS AND OBJECTIVES, BY PROGRAM

Standards

Standards Program Goals	Status
Meet all United States and Canadian governmental authority directives with regard to standards development and procedures, including FERC Order Nos. 693, 705, and 706.	NERC continues to address the many regulatory directives it has been assigned. The Reliability Standards Development Plan includes a listing of projects whose scopes include the relevant regulatory directives. Action on directives issued as a result of prior standards filings are addressed on a case-by-case basis. Some of these have been addressed already while other directives will be addressed in a subsequent standards project that will be included in the development plan.
Meet the milestones in the three-year standards work plan.	NERC has focused its effort in 2009 on 11 key projects that are slated for completion in 2009. Of these, nine will be completed as expected or within 3 months of the target in the development plan. Two projects — Vegetation Management and Operating Personnel Communications Protocols are lagging behind and now are slated for completion in 2010.
Ensure the consistency and quality of Regional reliability standards.	NERC's regional standards manager has been actively engaged with each Regional Entity through the Regional Reliability Standards Working Group collectively and with individual submissions to ensure the quality and consistency of Regional standards. This continues to be a work-in-progress but there has been an increased acknowledgment of the need for greater uniformity in approach.
Streamline and improve the standards process and associated tools.	There has been modest progress in improving the interpretation process and streamlining the standard authorization request (SAR) process for certain types of requests. In addition, the Standards Committee has reinforced the availability of informal comment periods to "test-drive" concepts and philosophies ahead of developing the standard requirements.
Work closely with NAESB in coordinating business practices and reliability standards.	There has been excellent coordination with NAESB through the efforts of the manager of business practice interface. These thoughts were echoed by NAESB at the August NERC Board of Trustees (BOT) meeting.

Communicate with stakeholders and regulators regarding standards development.	NERC continues to utilize its standard distribution lists as well as the NERC News to communicate actions related to standards. Additional work is contemplated through the routine issuance of Standards Change Bulletins to capture actions taken in a timely manner. NERC has regularly communicated with FERC staff on standards development activities but has not done so with the Canadian regulatory authorities directly as their main technical expertise resides in the entities that participate on NERC drafting teams, etc.
Establish a long-term vision for standards improvement and initiate implementation of the strategy.	Much discussion has taken place on this topic with developmental work completed by the Standards Committee's Process Subcommittee. The BOT has expressed its desire to actively move this effort forward and NERC has staff committed to work with the Standards Committee and others on an ad hoc basis to develop an action plan for presentation to the BOT at its November meeting.
Ensure the topics addressed by the reliability standards keep pace with changing industry needs.	NERC continues to be mindful of emerging trends such as smart grid and cyber security. Enhanced efforts produced an updated version of the CIP standards in May 2009, with active work for a subsequent version well-underway. Additional support has been provided for the smart grid initiative but efforts have not reached the point where new NERC standards are required.
Strengthen the relationship with the industry's technical committees to ensure adequate input to standards development.	This continues to be in need of strengthening without sacrificing the basic tenets of the standards development process.
Standards Development	**Status**
Develop and revise standards as directed by applicable regulatory authorities with sufficient interaction with the regulatory authorities during the development and revision process to achieve unconditional approval when filed.	While significant FERC staff interaction has taken place, NERC has not been able to produce proposed standards that achieve unconditional approval. NERC continues to discuss standards activity with FERC staff, but has not been successful in eliminating or reducing the number of requirements by thoughtfully eliminating administrative or low impact requirements.
Meet the deliverables outlined in the current version of the *Reliability Standards Development Plan 2008–2010*. Complete the following projects in 2009:	Since the 2009 budget and business plan was submitted, the 2008 version of the development plan was updated with the 2009 version. Some of the projects included below had their schedules modified to reflect the remaining development work.

Project 2007 — Real-Time Operations	Scheduled for completion in 2010.
Project 2007 — Certifying System Operators	Scheduled for completion in 2010.
Project 2007 — Balancing Authority Controls	Scheduled for completion in 2010.
Project 2007 — Disturbance Monitoring	Scheduled for completion in 2010.
Project 2007 — Frequency Response	Team has submitted a data request that NERC will process using its Section 1600 authority in the Rules of Procedure. This data will be used by the drafting team to develop the appropriate technical requirements for frequency response expectations in the Eastern Interconnection.
Project 2007 — Protection System Maintenance and Testing	While development work has been undertaken and a project initiated, the work will not be completed in 2009.
Project 2008 — Emergency Operations	This project was deferred from 2008 to 2009 to address higher priority development activities.
In accord with the *Reliability Standards Development Plan 2008–2010,* initiate the development process for the following new or modified standards:	
Use of phasor measurement devices;	This project is slated for initiation in 2009 but has not yet been initiated.
Review of the INT family of standards;	This effort has been initiated.
Improvements to FAC-001 and FAC-002 pertaining to connecting new facilities to the grid;	This is now a 2010 project.
Update to the disturbance and sabotage reporting requirements;	This effort has begun,
Improve the presentation and content of standards pertaining to protection systems;	This effort has begun in the area of coordination, misoperations, and maintenance and testing.
Modeling load and demand data modifications;	This effort is scheduled to begin in 2010.
Protection system standard improvements; and	This effort has begun in the area of coordination, misoperations, and maintenance and testing.
Resource adequacy assessments.	The NERC Planning Committee has undertaken an effort to provide a technical foundation for further continent-wide standard development. This project is currently on hold pending the availability of that analysis.

Propose new standards resulting from lessons learned by other NERC programs in the course of their activities (e.g., reliability assessment and performance analysis, compliance monitoring and enforcement, training, and situation awareness and infrastructure security).	No new projects have been initiated as a result of other program activities.
Regional Reliability Standards Development	**Status**
Process Regional standards submitted for approval and make recommendations to the NERC Board of Trustees.	NERC has successfully accomplished this objective through the processing and filing of eight Regional Entity standards in late 2008 and 2009.
Provide guidance to Regional Entities in the development of Regional standards during the developmental stages of the process.	Work-in-progress through the Regional Reliability Standards Working Group and through one-on-one Regional Entity interactions.
Standards Improvement	**Status**
As appropriate, incorporate changes to the *Reliability Standards Development Plan 2008–2010* based on the needs and priorities identified by the industry and regulators in a technical review and assessment of reliability standards.	2009–2011 version of the development plan was developed and filed utilizing the input provided through the opportunities for public comment.
Use the *Reliability Standards Development Procedure* to incorporate changes to planning and operating criteria and the definition of adequate level of reliability into reliability standards.	Not yet achieved.
Implement recommendations of the Standards Committee on the future organization of NERC's Reliability Standards.	Not yet achieved.
Business Practice Interface	**Status**
Continue to coordinate NERC–NAESB standards efforts with respect to transmission loading relief, available transfer capability, balancing authority controls, interchange, and related tools.	Accomplished successfully.
Continue to review and identify improvements to the joint NERC–NAESB development processes and procedures.	Work in progress. Coordination has been excellent.
Explore the roles of NERC and NAESB organizationally to identify possible overlaps and create synergies resulting in increased efficiency.	Work in progress. Coordination has been excellent.

Schedule joint meetings between the Standards Committee and the NAESB Wholesale Electric Quadrant Executive Committee to consider issues of common interest.	Work in progress. Discussion on meetings has been undertaken but no actual dialogue has taken place to-date.
Standards Process Improvement	**Status**
Revise standards development processes and procedures, as necessary, in response to findings of July 2009 performance assessment.	Work in progress.
Revise standards development rules and procedures in response to governmental agency directives.	Performed as necessary.
Evaluate alternatives and improvements that ensure consensus is being achieved in an efficient manner.	NERC has continued to review its processes and procedures to ensure the development process achieves its objectives efficiently. NERC has published a Roles and Responsibilities document to add clarity to participant expectations and has issued an updated version of the drafting team guidelines to better guide the teams. Additional process adjustments include a staged SAR process based on the type of request. Regarding consensus, NERC has not experienced particular difficulties in achieving consensus to date for reliability-driven standard modifications or additions.
Establish criteria for determining what is a "high quality" standard.	Criteria have been developed. Will be incorporated into the drafting team guidelines at a future date.
For high priority standards, shorten average development time to 12 months through stakeholder ballot (exclusive of field testing) while ensuring that the standard produced meets the criteria for "high quality" defined above.	No significant progress in this area. High priority standards involve greater regulatory participation. Due to the industry sensitivity to these projects, there has been increased interest resulting in more comment periods than originally contemplated as well.
Evaluate the need to develop a triage function to assign resources to key issues.	By necessity, NERC staff has been performing an informal triage of requests to assign appropriate priorities.
Increase interaction between the Standards Committee and the standards drafting teams to improve progress on work plan deliverables and better manage issues of concern.	There has been increased discussion with drafting teams but further routine communications is required.
Develop an improved model for responding to requests for formal interpretation.	Accomplished.

Evaluate the cost of formal submission of approved standards to ANSI for adoption as a national ANSI standard.	To be accomplished through ANSI meetings in August 2009.
Submit all approved standards for regulatory approval within one month of Board of Trustees action.	Preparation of regulatory filings and engagement by the drafting teams has taken longer than expected.
Develop and implement a reliability standard version control and notification process.	Version control process in place. Notification process needs further work.
Evaluate the need for process changes, and, if necessary, implement appropriate changes to ensure drafting teams maintain focus on developing excellent technical standards.	NERC has continued to review its processes and procedures to ensure the development process achieves its objectives efficiently, on e of which is to develop excellent technical standards.. NERC has published a Roles and Responsibilities document to add clarity to participant expectations, particularly with respect to justifying certain positions the drafting teams have taken regarding FERC directives. NERC is also exploring establishment of criteria for drafting teams to use when seeking additional input.
Assign, as required, regulatory or legal expertise to drafting teams to assist in developing standards with requirements and measures that are legally defensible.	NERC standards program has added a legal resource to assist in this expectation.
Improve the process of obtaining Standards Committee input when responding to regulatory directives or questions regarding reliability standards.	Have made modest improvements but not to the level of industry or NERC satisfaction. More work to be done.
Assign, as required, a professional technical writer to craft reliability standard language reflecting input from the drafting team experts.	Have not yet implemented this specific approach.
Establish targets for staffing and tools to support the standards process:	
Identify areas for greatest opportunity for process improvement.	Accomplished and included in the 3-year performance assessment.
Rethink the process for achieving consensus on standards.	No measurable progress on this topic although achieving consensus has not been a real issue.
"Flatten" the standards process by conducting at least 50 percent of all drafting team and committee meetings by conference calls and Web casts, and through greater utilization of e-mail.	Accomplished.
Survey stakeholders and drafting team members for input regarding the standard development process to identify opportunities for improvement.	Completed in support of 3-year performance assessment.

Survey drafting team members after each project concludes for input regarding the standard development process to identify opportunities for improvement.	Have not yet implemented since no teams have completed its process in 2009.
Evaluate and identify ways to improve ballot performance (quorums and balance).	No issues identified in either area to date.
Track adherence to the standards procedure.	Have reported to the CCC for conformance to procedure through the end of 2008.
Improve the training of drafting teams and revise drafting team guidelines as needed.	Guidelines have been updated periodically including an early 2009 edition.
Standards Communications	**Status**
Educate and inform industry stakeholders through standards workshops.	Workshop planned for October 2009.
Consider innovative methods to increase industry participation, such as presentation of workshops through use of videotaping, Webinars, or WebEx's.	Topics being considered although final platform not yet established.
Increase the outreach to industry stakeholders to specifically include trade organizations, through formalized standards conferences to obtain input to the reliability standards work plan and standards processes.	The 3-year performance assessment provided a unique opportunity for all industry stakeholders to provide input on three separate occasions. Additional opportunity exists with respect to the input periods for the next version of the three year standard development plan.
Update and inform governmental authorities on the standards development work plan and processes through individual discussions and joint meetings and conferences.	NERC has routinely communicated with FERC at the staff level throughout the year. Canadian regulatory communications are more individualistic as issues arise. More routine engagement is required across all provinces.
Develop standards program communications that support NERC's overall communications platform.	NERC's standards communications have been tailored to conform to the NERC "template". Additional communication activities are required to effectively communicate standard program items.
Establish NERC's standards Web site as the "one-stop" for all supporting materials pertaining to the standards.	This remains to be accomplished.

Compliance Monitoring and Enforcement and Organization Registration and Certification

Compliance Monitoring and Enforcement Program Goals	Status
Direct and oversee the Regional Entities' implementation of their delegated compliance enforcement program responsibilities.	**Enforcement and Mitigation (E&M):** NERC Compliance E&M is methodically, consistently and "substantively" reviewing each NOCV and settlement agreement submitted by the Regional Entities (RE) before it is brought before the Board of Trustees Compliance Committee (BOTCC) for NERC approval and filing at FERC. Each such review constitutes feedback and oversight by NERC to the relevant RE with respect to its delegated CMEP responsibilities. **Compliance Audit Group (CAG):** Director of regional operations hired.
Maintain working relationships between NERC and the Regional Entities in order to achieve maximum effectiveness and consistency of monitoring, reporting, enforcement actions, and appeals by direct observation of program implementation.	**Compliance Analysis Reporting and Training (CART):** Conducted reporting and data coordination meetings, and presented and issued compliance directives/bulletins to Regions. Conducted quality assessments of reporting data submitted by the Regions. Developed and issued Regional performance indices and statistics for the 3-year assessment. Established and implemented processes with the Regional Entities to communicate receipt of documents, notices, and data submittals. Reports are issued twice a month to the Regions and once a month to the BOTCC identifying Regional outstanding performance issues surrounding the active violations in the process. This tool is used extensively to identify the nature and magnitude of the current backlog. **E&M:** NERC E&M is respecting BOTCC direction to ensure that any issues encountered by E&M with RE-submitted Notice of Confirmed Violations (NOCVs) or settlement agreements during NERC review are raised and, if/as possible, resolved prior to submittal to the BOTCC with E&M's recommendation regarding NERC approval and filing with FERC.

	CAG: Director of regional operations working with Regions at multiple levels; • Weekly compliance meetings • Formalized directives process • NERC-led workshops and participation in Regional workshops • Establishment of designated points of contact with each RE working group CAG continues role as: • observers on RE-led audits • auditor of RE implementation of CMEP
Ensure timely mitigation of all violations of standards and requirements.	**E&M:** NERC review of submitted RE-approved mitigation plans is meeting 30 day "review and act" requirement, plus the requirement for timely subsequent RE and entity notification of NERC action, stipulated for NERC in CMEP; inadequate plans are being remanded back to RE; NERC-approved plans are being submitted to FERC within the 7 day requirement stipulated for NERC in CMEP.
Provide oversight of Regional Entity compliance programs and conduct formal audits of at least three Regional Entity compliance programs.	**E&M:** Compliance E&M is reviewing REs' draft NOCVs and settlement agreements when requested to do so by the RE. **CAG:** CAG is on schedule to complete 4 audits this year. 2 audits (RFC and SERC) have been completed; the audit report for one (RFC) has been formally issued.
Participate in settlement processes with the Regional Entities for violations of standards as required, and review all settlements for consistent application of settlement principles.	**E&M:** There has been no active participation in settlement negotiations to date beyond review of draft agreements, in some instances, at the RE's request. All final (signed) settlement agreements are being ("substantively") reviewed per established practice for submittal, with staff recommendation, to BOTCC for NERC approval and filing at FERC.
Review all enforcement actions for consistent application in all violations of standards.	**E&M:** All final settlement agreements and NOCVs are reviewed; this is a fundamental element of NERC's "substantive review" of RE-proposed compliance enforcement dispositions (NOCVs and settlement agreements)

Assess the effectiveness of enforcement actions in mitigating violations of standards.	At present there are no clearly established trend lines, the NERC staff is conducting periodic analysis and getting information and data to the industry. While the frequency of standards violations are in flux it is clear that the analysis of the violations is helping. There is also a limited number of enforcement actions with which to conduct analysis and determine any effectiveness yet.
Maintain the training program for compliance auditors.	The compliance department works closely with the NERC manager of training to ensure auditors are trained and provided periodic refresher training, educational workshops and updates to the CMEP
Work with the Training, Education, and Operator Certification to review and maintain auditor training requirements.	**CAG:** This is ongoing. Lead Auditor's training class was conducted July 15–16; four (4) scheduled this year (only 1 remains). Training material being updated.
Ensure the training program requirements are delivered to all NERC and Regional Entity compliance auditors.	**CAG:** Training compliance bulletin #2009-CAG-003 was issued May 13, 2009
Maintain a training module for industry technical experts and audit volunteers.	**CAG:** Our training is only available for NERC, RE auditors, and industry subject matter experts (SMEs) and volunteers participating in audits. However, we have made a cut not to offer the training to registered entity personnel (other than personnel who serve as SMEs and volunteers who participate in audits of other entities) for resource and policy reasons.
Provide training on registration, reporting, and enforcement tools to the Regional Entity staff.	**CART:** Conducted NERC Compliance Reporting and Tracking System (CRATS) project update meetings with the Regions. Conducted Compliance Data Group meetings with the Regions to provide direction on reporting issues, processes, tools, and reporting and tracking expectations. **E&M:** Conducted an enforcement workshop, with the existence of the legal team. The CAG supported this workshop. The focus was on writing Notices of Conformed Violations, Notices of Penalty, and settlements. **CVI:** Will conduct a CVI workshop in September 2009, with a focus on methodology and lessons learned.

Enhance processes, databases, and reporting tools to allow for seamless, uniform reporting of alleged and confirmed violations of standards, proposed penalty and sanction actions, and disposition of all violations.	**CART:** The development and testing phases of CRATS is progressing. Testing is underway in registration and compliance Violations areas. Regional coordination during the pre-production testing phase is being orchestrated with the Regions. **E&M:** Compliance E&M has developed systems and associated databases for appropriate complementary management and tracking of compliance actions not presently covered by the current NERC CRATS system i.e., for mitigation plans and for enforcement dispositions (NOCVs and settlement agreements) Compliance E&M has developed automated systems and processes for generating required notices, notifications, etc., directly out of the databases into standardized forms
Maintain reporting relationships with appropriate governmental authorities in the United States, Canada, and Mexico and establish processes and procedures to report violations, levy penalties and sanctions, and remedy the violations.	**CART:** Established a reporting process with the Canadian National Energy Board (NEB) to report alleged violations associated with international power lines. Compliance directive developed and presented to the cross-border Regional Entities.
Confidentially report all alleged violations of standards to the appropriate governmental authorities in the United States, Canada, and Mexico through established processes.	**CART:** Processed all new alleged violations and updates to existing violations including receipt of numerous documents and notices. Modified and implemented an internal notification system to inform others to take action with such information. Actions include submission of various types of notices to FERC. Prepared and submitted to FERC, violation and violation mitigation plan status reports on a quarterly basis for all active violations. Dismissals have been evaluated, analyzed, and remanded at times to the Regions for additional information to determine whether such dismissals are justified. Once NERC approves such dismissal, a notice is then submitted to FERC.

	E&M: In the U.S., NERC is advising and keeping FERC abreast of relevant violations (i.e., U.S. violations) as called for and in accordance with timelines laid out in the CMEP **CAG:** Audit reports involving audits in the U.S. are transmitted to FERC via a confidential portal. Still need to work on a procedure for transmitting audit reports involving audits in Canada to applicable governmental authorities.
Make notice of penalty filings for all penalties and sanctions applied to compliance violations.	**E&M:** In the U.S. upon approval by the BOTCC of the associated NOCV or settlement agreement proposed by the RE, NERC has been filing Notice of Penalties (NOPs) for confirmed (or uncontested, in the case of some settlement agreements) violations of mandatory standards requirements incurred in the US In Canada the NERC cross-border REs (MRO and NPCC) are filing with or notifying, as applicable, appropriate Canadian jurisdictional authorities regarding reliability standards violations per the MOU or other agreement in force in that jurisdiction
Provide other informational updates and filings as required by the NERC Rules of Procedure and governmental authorities.	NERC provides quarterly reports to FERC, process bulletins to the industry and maintains open communication with the Regions.
Maintain and enhance the reporting of violations of standards to the NERC Board of Trustees Compliance Committee.	**CART:** Developed numerous monthly violations and violation mitigation plans statistical reports. Prepared analytical reports evaluating violations of specific reliability standards that have experienced a significant number of violations. Identifying and maintaining on an ongoing-basis a high impact list of violations that are monitored closely. All non-confidential statistical information is publicly posted after completion of each monthly BOTCC closed meeting.
Report quarterly all confirmed violations of approved NERC or Regional standards for which investigatory, decisional, and appeal processes have been completed, including the identity of the organizations involved in those violations.	**CART:** Prepared and submitted to FERC, violation and violation mitigation plan status reports on a quarterly basis for all active violations. Provided FERC with quarterly reports from FRCC and NPCC, as required. Collected vegetation-related transmission

	outage information from the Regions on a quarterly basis and issued quarterly NERC vegetation reports. Established a 48-hour process to report Category 1 vegetation contacts to NERC and issued a public notice encouraging the Transmission Owners to self-report such contacts in a timely manner.
Track the mitigation of identified violations of standards.	**CART:** Violation mitigation plans process status is provided to the BOTCC each month. **E&M:** Tracking to milestone dates during plan implementation has been left to REs to date; confirmation (by entity) and validation (by RE) that the mitigation plan was timely and successfully completed is a required key element of NERC E&M's substantive review of the NOCV or settlement agreement proposed by the RE to address the violations associated with the plan
Develop, on a coordinated basis with the Reliability Standards Program, the compliance elements for approximately 100 new or revised standards.	Compliance department personnel work with standards department personnel throughout the entire standards drafting process.
Manage all enforcement action appeals (resources based on approximately 25–30 appeals).	**E&M:** Requests for contest (of Notice of Alleged Violation and Penalty Sanctions (NAVAPS) received by NERC all forwarded (copies) to FERC within timeframe requirements stipulated for NERC in CMEP. No contests have proceeded to a hearing under the relevant RE's process to date
Maintain a compliance reporting process.	**CART:** A compliance reporting process is in effect. Submissions are received from the Regions on a daily basis. Workbooks are processed and new violations are submitted to FERC within two days of submittal acceptance by NERC. As of June 30, 2009, approximately 1,800 active post June 18, 2007 violations were in the compliance reporting process. Updates to violations, including receipt of notices and documents, are submitted to NERC via the existing reporting process each day.

Organization and Registration Program Goals	Status
Maintain an accurate registration list of all owners, operators, and users of the bulk power system for compliance monitoring and communication purposes.	See the subsections below.
Oversee the Regional Entities' implementation of the registration process.	The ORC department is in communication with the Regions on a continuous basis. The ORC staff has an "open-door" policy for answering Regional Entity questions and issues on registration policies and practices.
Update and confirm the registration list as needed (at least annually).	The Regional Entities send data updates to NERC on an ongoing basis. Changes to the NERC Compliance Registry (NCR) are entered as soon as they are received and the posted NCR is revised monthly on the NERC Website. Registration notification letters are sent to the Registered Entities on a weekly basis. The Regional Entities are copied on all correspondence with the Registered Entities.
Provide necessary registration information to FERC and other appropriate governmental authorities.	The revised NCR is posted on the NERC Website and sent to FERC monthly.
Review the completeness of the organization registration list and determine if additional efforts are necessary to identify other entities or collect more information from bulk power system owners, operators, and users.	This has been done and a project has been initiated to verify the relationships for all the NCR functions as applicable e.g., what generators are in a given NCR BA's footprint, etc.
Maintain a process for appealing a decision to include an entity on the registration list.	The appeals process is delineated in the RoP and NERC processes and procedures. The BOTCC is the hearing body for all registration appeals.
Implement organization certification within the Regional Entities.	NERC is responsible for oversight and coordination of organization certification activities. NERC also leads certification activities for multi Regional, WECC, SPP, and FRCC certifications. NERC manages the certification quality performance indicators that are posted on the NERC Website.
Maintain processes and procedures, used by NERC and the Regional Entities, for carrying out the delegated certification activities that are required by the certification standards.	NERC provides technical and programmatic coordination of all certifications. NERC has also lead certification activities for those certifications of the SPP RTO, and WECC RC. The ORC has developed procedures above and beyond the scope of the NERC RoP to provide implementation guidance to ensure consistency across the Regions.

Provide auditors for certification audits scheduled by the Regional Entities.	NERC provides technical and programmatic coordination of all certifications. NERC develops the agenda, questionnaires, surveys, presentation templates, final report draft, and supports the lead through the evidentiary portions of the certification. NERC also posts the certification audit reports and performance indicators on the NERC Website.

Training, Education, and Operator Certification Program

Operator Certification	Status
Administer the current System Operator Certification Program.	Over 450 system operators have maintained their credentials using continuing education (CE) hours. Over 750 system operators have applied for new exams. There have been 646 exams already taken this year. We have also processed over 185 new PJM exam requests.
Administer the job analysis tool to define the tasks performed by system operators for future examinations.	Survey completed July 31, 2009. AMP will analyze the data received to develop the first draft of the new content outlines by August 31, 2009. Final content outlines will be completed by September 30, 2009, at which time the exam working group will begin work on developing new certification exams.
Complete the three-year transition to the exclusive use of continuing education hours for maintaining system operator certification.	This is progressing smoothly and will be completed October 1, 2009
Continue to identify and implement additional interface improvements to the portal and database that personnel use to register for the system operator certification examinations and track continuing education activities.	Work continues to identify and implement improvements to SOCCED. System operator demographics will be added by August 31, 2009 along with the ability for utility trainer to view transcript data for those system operators who have granted them permission through the SOCCED. Other enhancements will be implemented through additional changes of scope through the year.
Continue the development of an advanced certification for system operators.	A white paper will be ready for posting and industry comment by August 31, 2009.
Investigate the feasibility, interest, and scope of developing a certification credential for protective relay technicians.	This project has changed into finding a solution to reduce human errors in the operation of system protection systems. A recommendation is scheduled for December 31, 2009.
Continuing Education	**Status**
Implement the newly raised requirements to become an approved training provider.	CE Program Administrative Manual changes to include the raised requirements will be made after the August 4 meeting of Personnel Subcommittee. Notice to providers will be sent when v4.1 is uploaded to our CE Program Website
Raise the quality and levels of training for system operators throughout North America to ensure that delivered training meets the needs of the System Personnel Certification Program.	CE Program Manual changes to accomplish this goal are complete and in effect, providers have been notified.

Continue to define and implement improvements to the portal and database used by providers to track delivered continuing education activities.	Change of Scope (COS) 8.0 is being tested. Changes to be moved over to the Production SOCCED in August 2009. COS 9.0 being developed.
Training and Education	
Compliance	**Status**
Continue delivering, on a quarterly basis, the fundamental compliance auditor training for new NERC staff and Regional Entity staff who act as team leaders.	Three sessions held in 2009 with 28 participants. One more scheduled in October.
Develop and deliver four new learning activities to further improve compliance auditor skills.	Plan in development with Regional Entities to identify four top priorities. Plan to be completed by October 15, 2009. "Assessing Compliance Cultures" course is in development.
Partner with auditing organizations such as IIA to offer appropriate auditing courses for NERC compliance audit team members.	Use of outside organizations for specific areas of training is part of the plan addressed above.
Develop and deliver NERC auditor training for IT specialists on the Critical Infrastructure Protection standards.	Working with outside experts to identify knowledge needs and costs to deliver this in 2010.
Continue to deliver the CIP fundamentals course to NERC and regional entity compliance auditors.	In 2009 four sessions were held with 65 participants attending. Project complete.
Standards	**Status**
Continue delivering existing courses for the drafting team leaders and participants.	NERC continues to offer the online course "Creating Compliance Elements for NERC Reliability Standards."
Develop and deliver one new course to improve the skills of drafting team leaders and participants.	No action. This project will likely be postponed to 2010 to focus resources on CIP standards training for compliance.
Human Resources	**Status**
Assist in the development and delivery of three new training activities for NERC staff with the human resources department.	Time-tracker tool activity was completed on April 1, 2009. New-hire orientation instructor-led course is under development and will be completed by October 6, 2009. The on-line version will be completed by December 31, 2009.
Communications	**Status**
Develop and deliver monthly learning activities on topics and issues of reliability via WebEx.	10 webinars offered in 2009 with over 4.000 participants. Monthly offerings are scheduled through the end of the year.

Reliability Assessment and Performance Assessment Program

Reliability Assessment Program	Status
In conjunction with Canadian authorities and Regional Entities, to avoid duplication of efforts, conduct and report the results of independent assessments of the overall reliability and adequacy of the interconnected North American bulk power system for the summer of 2009, the winter of 2009/2010, and the period of 2009–2018.	Issued 2009 Summer Assessment on schedule in May 2009. Development of : • 2009 LTRA on schedule. • 2009 Scenario Reliability Assessment on schedule. • 2009/2010 Winter Reliability Assessment on schedule.
Assess and report on the key issues, risks, and uncertainties that affect or have the potential to affect the reliability of the existing and future bulk power system (supply shortages, generating unit shutdowns, fuel supply and transportation disruptions, droughts, floods, strikes, extreme weather, etc.).	14 emerging and standing issues identified by Planning Committee (PC) subgroups and NERC Staff. Risk assessed by PC will be reported in 2009 LTRA. Issued special report *"Accommodating High Levels of Variable Generation"* in April 2009 to address many issues related to variable generation. Initiated Smart Grid Task Force to review reliability considerations of smart grid technology on the bulk power system. The Reliability Impacts of Climate Change Initiatives Task Force will be issuing report.
Address potentially negative impacts on bulk power system reliability or adequacy due to the operation and planning of gas supply, transportation, and storage, on the operation and planning of electric systems. Review the impact of potential fuel supply or transportation infrastructure interruptions in reliability assessments. Maintain a continuing working dialog on bulk power system reliability and adequacy issues with natural gas supply and transportation industry representatives.	2009 Summer Reliability Assessment reviewed the fuel considerations for the upcoming summer. 2009 LTRA will provide a detailed report of fuel supply impacts on bulk power system reliability or adequacy. Natural gas will be addressed along with coal and uranium. 2009/2010 Winter Reliability Assessment will address potential wide-spread reliability impacts due to changes in gas composition and the fuel considerations for the upcoming winter season.

Investigate, assess, and report on the potential impacts of demand response initiatives and introduction of renewable energy sources on the adequacy and operating reliability of the bulk power systems.	Issued special report *"Accommodating High Levels of Variable Generation"* in April 2009. Industry demand response and new efficiency activity reported in NERC's seasonal and long-term reliability assessments. The Demand Response Data Task Force is currently in the approval process to implement a demand response data repository known as the demand response Availability Data System (DADS). The Phase I and II report will be brought to the PC in September. Ongoing Coordination with NAESB
Establish and maintain relationships with industry, regulatory, and governmental organizations involved with or having an interest in bulk power system reliability (e.g., DOE, FERC, Energy Information Administration (EIA), RTOs/ISOs, Electric Power Research Institute (EPRI), National Energy Board (NEB), Canadian provincial governmental agencies, etc.).	FERC has staff rep on Reliability Assessment Subgroup, Reliability Metrics Working Group, and Data Coordination Working Group. Meet with FERC, DOE, industry associations, etc. to provide pre-release briefings of all reliability assessments. Maintaining relationships with industry groups (list to left and NAESB, EEI, and others.) Coordinated with EIA to provide industry recommendations to the 2011 Form EIA-411 and provide forecasts for the LTRA. Coordinated with FERC for the National Assessment of Demand Response. FERC will be a primary user of the Demand Response Availability System. On-going coordination continues with a variety of EPRI projects (e.g., transmission efficiency workshops, variable generation, etc.). Power System and Energy Research Consortium (PSERC) provides participants to NERC activities.

Review international practices on emerging issues and incorporate them into the reliability assessment reports.	Maintain active communications with European Transmission System Operator organization and UTCE in Europe and Association of the Electricity Supply Industry of East Asia and the Western Pacific. Participated in international forums to share and learn practices on reliability assessments. University of Dublin leading variable generation work groups.
Review regional reliability assessment processes, criteria, and methods for consistency, and understand their interdependency and impact on neighboring regions.	Done as part of seasonal and long-term reliability assessment processes. Increased data requests for more granularity in transmission data Participate in Regional Reliability Assessment Committees/Working groups
Develop white papers on key emerging issues with associated metrics and industry action plans.	Published a report on integrating high-levels of variable resources in April 2009. Reliability Impacts of Climate Change initiatives report to be published in September.
Develop and submit standards authorization requests (SARs), as required, for any deficiencies or needs revealed by reliability assessments, and solicit industry subject matter experts to serve on standards drafting teams.	Coordinated with industry subject matter experts (Resource Issue Subcommittee, Transmission Issue Subcommittee and Resources Subcommittee) to identify deficiencies and needs for SARs.
Event Analysis and Information Exchange Program	**Status**
Conduct NERC-level analyses, prioritized based on available resources, of significant system events to determine root causes and lessons learned.	Ongoing as required.
Participate in regional analyses as determined by NERC.	Ongoing as required.
Record all significant system events in the NERC Events Database, created in 2006 (in conjunction with the Situational Awareness and Infrastructure Security Program).	Ongoing as required. Database is current for 2009 events.
Maintain and enhance NERC's *Blackout and Disturbance Response Procedures* (in conjunction with the Situation Awareness and Infrastructure Security Program).	Continually updating procedure and developing protocols for collaboration with situation awareness and compliance. Event Analysis Coordinating Group to develop future enhancement specifications for possible regional participation.

Direct teams in the analysis of significant system events.	Ongoing as required.
Analyze the frequency performance of the interconnections using data from appropriate measurement systems.	Initiating Frequency Response Initiative to track and analyze frequency events. Pilot events have been selected and analysis to begin in 3rd quarter.
Establish a clear set of criteria for sorting reported system events into categories, deciding what level of analysis is needed, and who will undertake such analyses (triage function).	Event categories have been updated and serve as categorization/level of analysis criteria for designated system events.
Communicate to the industry root causes of events that may be precursors of potentially more serious events and other "lessons learned" from all analyses. For these purposes, develop Advisories, Recommendations, and Essential Actions. In the cases of Recommendations and Essential Actions, collect, summarize, and develop reports to FERC and governmental authorities in Canada on industry responses.	Developing industry lessons learned website based on designated events analyzed, incorporating lessons learned from earlier DAWG reports. EA personnel working to complete backlog of possible advisory.
Analyze and identify improvements to the interaction of the transmission system with nuclear power plants, especially related to minimum voltages required by the plants for the safe shutdown of reactors.	Tracking two events associated with nuclear power plant power supplies. Discussions expected to open with NRC on voltage ride-through in 4th quarter.
Develop and submit SARs, as required, for any deficiencies or needs revealed by event analyses.	Ongoing as required.
Advise the Compliance Monitoring and Enforcement Program of any potential reliability standards violations identified through significant system event analyses.	Events Analysis is currently conducting information sharing initiatives with Compliance Monitoring and Enforcement Program and Situational Awareness Watch.
Assess and report quarterly to NERC technical committees and the Board of Trustees on past reliability performance of the bulk power system.	Ongoing as required. Recently completed task at August 2009 Board of Trustees Meeting.
Assess and report annually to NERC technical committees and the Board of Trustees on reliability performance for the previous five years, including recommendations to improve reliability.	Ongoing as required. Recently completed at August 2009 Board of Trustees Meeting.

Improve understanding of dynamic system behavior by: promoting understanding of inter-area oscillations and their importance to system integrity, and promoting application of Phasor Measurement Unit-based technology to improve system operator visualization and operational preparedness.	EA personnel working with WECC System Stability Controls task force investigating possible use of PMUs for controlling inter-area oscillations. Co-sponsoring FIDVR and Modeling workshop in Washington, DC area with DOE on September 29, 2009
Improve performance of system protection by promoting generator/transmission protection and controls coordination and improvement.	SPCS has authored a Technical Reference document Power Plant and Transmission System Protection Coordination, which will be presented for approval to the Planning Committee in September. The document will then be input into the Standards process for PRC-001 — System Protection Coordination. Training materials will be prepared for proposing joint training symposiums with IEEE Power System Relay Committee.
Improve system modeling by sponsoring model validation/dynamics symposiums; assist interconnection-wide reliability assessment groups in improving the quality of base cases they develop; promote development of standard file formats for exchanging real-time powerflow data (power system "snapshots"); and standardize the mapping of power system elements (generators, transmission lines, etc.) in databases and power system models.	Event Analysis personnel have participated and presented at industry meetings, including IEEE PES, on model validation. EA personnel have also launched formation of a Model Validation Task Force (MVTF) under the Transmission Issues Subcommittee (TIS), which is authoring an IEEE paper on the subject. EA and TIS are preparing a scope document for a comprehensive modeling improvements initiative to further this goal.
Communicate regularly with the Transmission Owners and Operators Forum on findings from event analyses.	Ongoing as required.
Reliability Metrics and Benchmarking Program	**Status**
Maintain a performance metrics "dashboard" on the NERC Web site.	Maintained and updated reliability performance and leading indicator trends on the NERC Website every quarter.
Identify and track key reliability indicators (such as system control performance, transmission loading relief (TLR), disturbances, etc.) as a means of benchmarking reliability performance and measuring reliability improvements (initiated in 2006).	Developed 9 reliability performance metrics through stakeholder process in 2009, including • Two on system control performance and three on adequacy measurements.

Identify and continuously monitor performance indices to detect emerging trends.	Tracked and monitored reliability performance, including trends on operating reliability and adequacy gaps. Presented violation index concepts to Board of Trustees Compliance Committee to measure compliance performance with reliability standards.
Review reliability metrics with industry, regulatory, and governmental organizations involved with or having an interest in bulk power system reliability.	Incorporated historical trends of reliability performance in 2009 Summer Reliability Assessment 2009 LTRA and 2009/2010 Winter Assessment will include reliability metrics vetted by the RMWG.
Develop leading indicators to recognize and eliminate unreliable actions and at-risk conditions.	Identified three leading root causes of disturbance events Coordinated with the technical committees to develop and submit SARs for deficiencies revealed by analysis.
Establish and maintain a continuing working dialog on reliability benchmarking with industry representatives.	Maintaining strong working relationships with Reliability Metrics Working Group and other stakeholder groups, including Operating, Planning, Critical Infrastructure Protection and Standards Committee's and their workgroups. Significant collaboration with the Reliability Assessment Subcommittee, System Protection and Control Subcommittee, Resource Issues Subcommittee, and Resources Subcommittee.
Transmission Availability Data System (TADS) Program	**Status**
Maintain and expand the Transmission Availability Data System (TADS) and report on trends in transmission equipment performance.	The first TADS reports (NERC and one per Region) were published and posted on June 30, 2009.
Subject to board approval in 2008, expand the system to include historic Planned Outages and related metrics required by the TADS Task Force.	The collection of all Non-Automatic Outage data (planned and operational) was approved by the board in 2008. Its implementation is on-track for data collection to begin in calendar year 2010.
Eliminate the need for duplicate Transmission Owner reporting via EIA-411.	NERC and EIA have agreed that TADS data can be used for reporting 2010 calendar year U.S. data for EIA-411 required compliance in 2011.
Export data from TADS to fulfill the EIA-411 Schedule 7 requirements.	This effort is on track for the first expected report to EIA in 2011.

Evaluate the feasibility of expanding TADS to cross reference TADS and GADS automatic outage events. (Events which automatically cause outage events on both transmission circuits and generators should be integrated and such trends tracked via TADS.)	This effort will be addressed under the recently-formed Planning Committee subgroup, the Data Coordination Subcommittee, which is coordinating data collection activities under the Planning Committee.
Generating Availability Data System (GADS) Program	**Status**
Continued upgrades and improvements to pc-GAR plus maintenance and upgrades to other GADS-related programs, such as edit and entry programs.	In place and ongoing
Complete work on translation tables to convert INPO data to the GADS format for collecting all nuclear data to reduce the reporting burden on data reporters (i.e., report once to both databases). Develop web interface data collection, editing and return reports program. (This software would allow reporters to batch GADS event and performance data to the software which will edit, mark errors, and return reports to the user without human interface. It will store all event and performance records as "good data" or "data with errors." It will be a quick turn around and remove the need for some technical analyst support.)	INPO project is aborted per INPO. INPO management decided not to continue with this project. Web-based GADS data collection and editing in programming stages.
Place pc-GAR on the web. Set up account numbers where entities can use the software on a subscription basis as needed and access the same executable problems as NERC now sends them on CDs. This will lead to increased use of pc-GAR and more income from use of the software.	Programming and revisions to pc-GAR are in progress so that this project can be completed in 2010.

Situation Awareness and Infrastructure Security Program

Critical Infrastructure Protection	Status
Develop an alternative standard setting process for cyber security standards that provides for an accelerated review of the existing critical infrastructure protection standards to incorporate the comments from FERC and to consider the extent to which elements of the National Institute of Standards and Technology (NIST) standards should be included in the NERC cyber security standards.	The board has approved an emergency standard setting process. This process is being designed and implemented by the Standards Committee and the Standards Program Area. SAIS has provided its input into the process and will have implementation responsibilities for Indications, Analysis and Warnings in the new process. The Cyber Security Order 706 Standard Drafting Team has the task of reviewing and considering the inclusion of NIST 800-53 Version 2 controls and processes for inclusion into Version 3 of the CIP Standards.
Continue with the assessment of the industry's preparedness to address cyber security threats and make recommendations for preventing cyber intrusions. As part of this assessment, evaluate the industry's capability for isolating and limiting attacks so they remain within its abilities to withstand any subsequent equipment losses and restore the system quickly.	SAIS, working with industry advisories, has finalized and implemented a project to assess industry's preparedness through several comprehensive and challenging table-top exercises. The Cyber Risk Preparedness Assessment (CRPA) has completed the planning phases and will conduct the initial pilot exercise in August with a plan to complete the remaining exercises in the fall of 2009. The ESSG and MRC have received ongoing and timely updates on the project's status.
In consultation with Critical Infrastructure Protection Committee (CIPC) leadership, re-examine the charter and scope of the Critical Infrastructure Protection Committee to maximize its contribution to NERC and the industry with respect to cyber security protection.	NERC has engaged with the CIPC, but has not worked formally with the CIPC leadership to re-examine the existing charter and scope. The updated charter was approved at the Board of Trustees August 5, 2009 meeting. NERC's CSO has engaged with the CIPC leadership to evaluate their work plans and requested a sharp focus on guideline development in support of the CIP Standards. Two important guidelines are in the drafting process and the committee is reviewing existing guidelines and is working to develop a better approach to lifecycle management.

With the guidance of the ESSG, establish a protocol with DHS, DOE, FERC, and their Canadian counterparts to ensure comprehensive cyber security threat analysis and risk assessment is available to NERC from a consolidated government voice, with industry users, owners, operators able to participate directly.	NERC has developed an informal threat and risk assessment program with federal authorities. The program has included the establishment of necessary working relationships with the FBI, Office of the Director of National Intelligence, RCMP, and CSIS. NERC is working with DOE as the sector specific agency and DHS to conduct annual classified sector briefings while supporting as needed classified meetings to understand and assess risk to the bulk power system. Several trips to Ottawa and D.C. were necessary to confirm existing and develop new protocols for the sharing of this type of information. NERC has instituted sector monthly situational awareness briefings and has asked North America authorities to participate.
Work with the ESSG, FERC, and applicable Canadian authorities to identify the most effective and secure method of assessing cyber security preparedness and performance.	The CRPA program along with CIP implementation measurement efforts are being used to assess the preparedness of the BPS.
Establish communication protocols for responding to public and media questions on matters associated with Critical Infrastructure Protection, especially with regard to cyber security.	SAIS has worked closely with communications to develop several position papers and media strategies to address CIP matters. These efforts have been successful in clearly outlining NERC's position relative to emergency authorities, standards development activities, voluntary programs and the importance of cyber security.
Work with NERC's CIPC to create plans for electric sector preparedness and emergency response exercises to be executed in 2010 and 2011.	NERC has planned for and participated in several CIP and sector preparedness exercises in 2009 and will plan to use a National Level Exercise in 2010 to exercise down to the entity level. NERC has supported NLE-08, NLE-09, National Capitol Region CIP exercise, Secure Grid'09, Regional Planning Exercise, and Broken Wire'09. We are planning with the CIPC to support Cyber Storm III in 2010 (to be discussed at CIPC EC meeting in Atlanta on 8/12-13).
Work with the ISAC Council and CIPC to define a strategy for addressing cross-sector interdependency issues.	NERC as the ES-ISAC has participated in several cross sector exercises (noted above) and has participated in ISAC Council meetings under a framework to address cross sector dependency issues. NERC has also included other sectors in vulnerability working groups and our assessment program.

Participate in exercises designed to identify cross-sector dependencies.	NERC SAIS is actively engaged in the Partnership for Critical Infrastructure Security (PCIS) and is the workgroup chair for the interdependencies effort. Working with leadership in several other critical infrastructures such as Oil and Natural Gas, Water and Transportation, NERC's participation helps to identify just where the Electric sector's interdependencies are.
Work with the ISAC Council and CIPC to prepare guidance on how to account for these dependencies in planning and operations.	Due to the PCIS involvement the actual engagement of this work includes all of the sector ISAC as well as the State, Local, Tribal, Territorial, Coordinating council (SLTTCC). This breadth of cross-sector engagement will ensure that the work product of this effort is very well socialized across all of the Electric Sector's key interdependency areas.
Actively manage the Infrastructure Security Guideline Program.	Discussed at CIPC EC meeting on 8/12-13. Have achieved agreement to eliminate non-sector specific security guidelines.
Review and improve existing security guidelines.	Security Guidelines Working Group Chair Scott Webber is developing plan to upgrade existing guidelines
Develop new security guidelines to meet the needs of the electricity sector.	Possible new guidelines discussed at CIPC EC meeting on 8/12-13.
Consider whether any guidelines should be developed into NERC standards.	Nothing started in this area.
Support other NERC business units' activities related to CIP standards.	Concept paper released for industry comment; work started on drafting requirements for CIP-002-3
Identify priority activities for NERC in DOE's Roadmap to Secure Control Systems in the Energy Sector and, with DOE, create action plans for CIPC or other relevant NERC groups' consideration.	DOE holding meeting on 9/2/09. NERC will support.

Monitor the progress of the DOE-sponsored Detection and Analysis of Threats in the Energy Sector (DATES) project and identify opportunities for active participation.	NERC is working to create a threat analysis function that integrates the Canadian and US based intelligence communities. To that end, NERC is coordinating a first North American Threat briefing at a classified level. This briefing is targeted for the December time frame and will involve Canadian and US intelligence authorities and the CIPC and ESS representing the private sector owners and operators. The continuation of this effort in calendar year 2010, with quarterly international briefings, constitutes the beginning of the involvement of NERC into the DOE efforts.
Identify priority activities for NERC in the Department of Homeland Security's (DHS) National Infrastructure Protection Plan and, with DHS, create action plans for CIPC or other relevant NERC groups' consideration.	CIPC EC to begin working on Energy Sector Specific Plan at 8/12-13 meeting.
Participate in the DHS-sponsored activities to create and implement performance metrics related to its National Infrastructure Protection Plan.	Metrics work will be related to data measuring NERC reliability standards compliance.
Strengthen relationships with governmental entities and continue ongoing efforts to build long-lasting partnership and collaboration.	Ongoing, with the Chief Security Officer facilitating.
ES-ISAC	**Status**
Enhance the capability to monitor conditions on the bulk power system and rapidly communicate conditions to appropriate stakeholders.	SAFNR implemented and operational in June, 2009.
Continue the deployment of the Situational Awareness Tool to all reliability coordinators with completion targeted for 2010.	NERC SAT was replaced with SAFNR and its implementation was completed on schedule.
Deploy an emergency notification system.	NERC Alert system will be in testing phase in mid August with implementation scheduled for September.
Upgrade threat and incident reporting mechanisms.	Same as above.
Build effective coordination and communications channels with NERC's Events Analysis and Communications program areas.	Monday meetings at 10:30 has resulted in effective coordination and communications with EA. Good communications and coordination has been established with communications program area.
Establish a location within NERC's present office space to house ES	SA room is now operational.

Upgrade telecommunications to ensure rapid information sharing between critical stakeholders and to enable on	90% complete. Anticipate completion by 9/1.
Provide centralized displays of information from existing situational awareness tools (Resource Adequacy, RCIS, F-net, NERC SAT, etc.)	SA room to be equipped with SA tools by 9/1.
Reliability Tools and Support Services	**Status**
Manage the North American SynchroPhasor Initiative (NASPI) project.	Continuing work in progress
Continue to fund the contracted professional project manager.	Continuing
Prepare annual business plans for NASPI with critical milestones and funding requirements.	Continuing
Develop regulatory support and approval for NASPI at provincial, state, and federal levels.	PM is working actively with NARUC and FERC.
Resolve industry concerns about data availability, disclosure, and confidentiality.	Draft NDA has been prepared and will be sent to industry with the intent to adopt.
Develop and implement recommendations for NERC's on-going role in NASPI over the mid- and long-term.	Included in Chief Information Officer's Tools initiative.
Ensure the successful installation of phasor measurement units at all key locations in the North American interconnections to provide optimal coverage and wide-area visibility.	Progress has slowed while asset owners apply for stimulus funding to fund projects.
Contract with TVA to expand use of its existing super data concentrator to collect data from new phasor measurement units.	Contract with TVA signed and work is on schedule.
Identify up to seven locations in North America to house additional super data concentrators to improve data collection performance, reliability, and availability. Acquire necessary hardware and software to deploy at least three new sites in 2009, with the remainder to come on-line in 2010.	Three additional sites have been identified. This has fallen behind schedule due to delays associated with possible stimulus funding.

Design and begin to construct the telecommunications network required to exchange data between super data concentrators and to deliver information created from that data to control centers.	NASPI net spec is completed and being reviewed by industry.
With appropriate technical committees, evaluate the need for and document requirements of new tools or improved functionality for existing tools (e.g., Interchange Distribution Calculator), and initiate upgrades using approved management processes.	Tool initiative is being addressed in coordination with the Operating Committee.
Meet performance and availability expectations for reliability tools and improve the support function to meet user expectations.	Tool initiative is being addressed in coordination with the Operating Committee.

Information Technology

Goal	Status
Achieve compliance with NERC's Cyber Security Standards CIP-002–CIP-009 by June 30, 2009.	Self-certification of compliance is required on or before July 31, 2009. Hired SecureState LLC to perform a compliance review, which was conducted July 15–16, 2009. A preliminary report was received in the beginning of August 2009.
Continue the development, integration, and expansion of databases and applications into a unified NERC-wide Information Management System. This system will ultimately feed active content to NERC's Web site.	The thrust of this initiative for 2009 is in the Compliance area, specifically the Compliance Reporting and Tracking System (CRATS). From the technology perspective, CRATS is actually several new systems that, by design, enable data sharing between standards and compliance. Some "scope creep" plus a lack of available resources inside NERC has hindered progress. However, additional people have been hired and work is back on track. Of the three systems, a new standards data base is in production and a user interface is in testing. The compliance registry database is in testing as is the violations database. The compliance systems require close coordination with the Regions, which has been initiated.
Initiate the second phase of NERC's Web site redesign project.	The backbone of this project is Microsoft Office Sharepoint Server (MOSS). This will be the platform that enables document management, content management, work group collaboration, and business process improvements. NERC has contracted with Guidance Solutions, Inc. to help develop our MOSS environment. MOSS has been deployed in a test environment and two pilot projects identified — one for document management and another for work group collaboration. Due to priority work on CRATS, these pilots have not been initiated, but will be starting in August.
Create and automate processes to deliver active content to the Web site.	See above
Implement the business rules governing the creation of content as well as the review and approval criteria for publication.	See above

Introduce collaboration tools to allow for the ready flow of information between applications and users.	See above
Work with Situation Awareness to deliver tools to enhance situation awareness.	
Continue development of the Situational Awareness Tool through additional pilot phases for new users.	Cancelled; replaced by Situation Awareness FERC/NERC/Regions (SAFNR). IT worked with each reliability coordinator (RC) to enable secure access to the RC's situation awareness information. NERC is able to view data, but is not allowed to move it off the RC site.
Identify and deploy an emergency notification system.	Completed. IT negotiated a contract with Certrec Corporation to develop a new alerts system for SAIS.
Assist in the design and build-out of an Emergency Response room.	Completed.
Enhance IT infrastructure to better support a growing staff in multiple locations.	
Redesign telecommunications networks for increased throughput and redundancy.	This work was completed in February when telecommunications capacity was tripled. At the same time, telecom provided by AT&T was brought in as a backup to Sprint. (If one provider is down for any reason, NERC's connectivity remains intact at the same speed.) The telecommunications bandwidth between NERC's Princeton and Washington offices was expanded similarly.
Create and implement plans to redeploy business-critical systems in redundant, high availability configurations.	Awaiting the completion of a facilities expansion at NERC's co-located data center, operated by Verizon. (The expansion is slated to be completed in September or October 2009). Once Verizon has completed the expansion, NERC will acquire additional space to house more IT systems. The intent is to configure the co-location space, now used for disaster recovery, to more closely mimic our operational infrastructure.

Legal and Regulatory

Goal	Status
Obtain recognition of NERC as the electric reliability organization in all nine Canadian jurisdictions.	**Alberta:** draft MOU under negotiation **British Columbia:** work to be done regarding formal recognition **Manitoba:** Recognition in Manitoba **New Brunswick:** Recognized as electric reliability organization **Nova Scotia:** Recognized in Nova Scotia; further MOU under discussion **Ontario:** Recognized as "the international standards authority" under the Ontario Electricity Act **Québec:** Recognized as organization to establish and monitor reliability standards by the Régie **Saskatchewan:** Recognized as "electric reliability standards setting body" by Sask Power (Saskatchewan has no separate regulatory authority) **National Energy Board:** Recognized as ERO
Achieve mandatory reliability standards in all nine Canadian jurisdictions, with enforcement comparable to that in the United States.	**Alberta:** 47 NERC standards are mandatory; several more are pending before Alberta Utilities Commission; goal is to have all mandatory by year-end 2010 **British Columbia:** NERC standards are mandatory; implementation schedule and enforcement mechanism are under discussion within province **Manitoba:** legislation making NERC standards mandatory has been adopted; implementing regulations are under development **New Brunswick:** NERC standards are mandatory and enforceable as part of market rules **Nova Scotia:** Legislation in place for standards to become mandatory; draft MOU on process has been postponed; discussions to resume in Fall 2009 **Ontario:** NERC standards are mandatory and enforceable as part of market rules **Québec:** Legislation creating framework for NERC standards to become mandatory and enforceable has been adopted; proposed standards have been filed with the Régie; further MOU is under negotiation. **Saskatchewan:** As interim measure, NERC standards automatically adopted and mandatory unless the Saskatchewan Authority

	rules otherwise or another jurisdiction remands a standard **National Energy Board:** NEB working on amendment to regulations to make reliability standards mandatory for international power lines
Complete and file with the Federal Energy Regulatory Commission the three-year performance assessment of NERC and the Regional Entities required by section 39.3(c) of the Commission's regulations and the July 20, 2006 Order Certifying NERC as the "electric reliability organization" under Section 215 of the Federal Power Act.	Complete.
Obtain regulatory approvals for new and revised reliability standards on a timely basis.	Ongoing.
Process all appeals of compliance actions in an effective and efficient manner.	Ongoing.

Human Resources

Goal	Status
Recruit qualified employees to fulfill the activities of the ERO.	Three positions remain open.
Provide training programs.	Completed training on NERC's new time tracking program. In person new-hire orientation training scheduled for October 6, 2009. On-line new-hire orientation program — in progress.
Review employee benefits.	The benefits review was completed in March.

Finance and Accounting

Goal	Status
Participate in completing the three-year performance assessment of NERC and evaluate of the effectiveness of each Regional Entity.	Completed.
Evaluate and recommend the implementation of budgeting software across NERC and the Regional Entities to achieve greater consistency in the annual budgeting process.	Worked with Regional Entities to develop common financial reporting and budgeting methods
Participate in reviewing and updating employee benefit plans.	Reviewed and made recommendations which were adopted by the Corporate Governance and Human Resources Committee, Finance and Audit Committee, and Board of Trustees on modifications to the 401K governance structure and adoption of an investment committee guidance documentation. Reviewing alternatives on retention of outside advisors to assist in Section 404 (c) compliance
Complete the NERC and Regional Entity true-up filing.	Completed as required by FERC
Implement an initiative tracking mechanism.	In progress
Develop procedures and accounting processes for the application of penalties for violations of reliability standards to future assessments.	New policy, "Accounting, Financial Statement Treatment and Budgetary Treatment of Penalties Imposed and Received for Violations of Reliability Standards" was approved by the Finance and Audit Committee on March 9, 2009, and by the Board of Trustees April 2, 2009.
Institute an internal audit function.	Will use outside auditor to provide oversight of internal procedures
Establish program specific expense tracking systems.	Expense eXpert system implemented January 1, 2009.
Provide advice from the financial perspective on contracts into which the organization may enter.	Finance reviews all contracts and contract amendments in conjunction with legal review. An evaluation is underway regarding the establishment of an updated procurement policy governing contract procurements, amendments and change orders

Status of NERC Secure Alert System

Action Required
None

Background
NERC began the pre-commissioning testing and user validation phase of its new alerts system launch with two introductory Webinars on September 22 and September 29, 2009. Primary Compliance Contacts were granted access to the system on September 29 to update contact and other information for their entities.

Current Status
The Alerts System entered a testing and maintenance phase on October 19, 2009 and will be unavailable to users through Friday, October 30. A key area of focus in this period is improving the tool's handling of password information. Additional correspondence and instruction will be issued on October 30. The system test previously scheduled for October 20, 2009 has been postponed to November 17, 2009 and the follow up Webinar scheduled for October 27 will now occur on December 1, 2009.

NERC's priority throughout the launch of this tool is appropriate user functionality and security. The schedule for launch has been altered several times to address comments and concerns from system users. We continue to work closely with stakeholders throughout the launch process.

Status of Generator Requirements at the Transmission Interface Ad Hoc Group

Action Required

None —Information Only

NERC, in response to requests from the industry, formed the Ad Hoc Group for Generator Requirements at the Transmission Interface in February 2009 to address concerns regarding the decision to register various generators as a Transmission Owner and/or Transmission Operator. The objective of the group is to "Evaluate existing NERC Reliability Standard requirements and develop a recommendation and possible standards authorization request to address gaps in reliability for interconnection facilities of the Generator Owner and expectations for the Generator Operator in operating those facilities. Propose strategies to address or resolve other related issues as appropriate." The group was tasked to complete its work no later than December, 2009.

The group held numerous meetings and discussions resulting in a draft "Report from the Ad Hoc Group for Generator Requirements at the Transmission Interface" that was issued on August 14, 2009. The report was sent out for industry review and comment for a 30-day comment period. In response, the team received approximately 60 pages of comments electronically, via telephone calls, or through face-to-face meetings. These included comments from generator owners/operators, transmission owner/operators, RTO/ISOs, consultants, and regulators. Many of the comments sought clarification of some of the conclusions and recommendations, but the vast majority of comments were favorable. A list of modified draft conclusions and recommendations based on the group's consideration of comments is included as (**Attachment 1).**

The group is making preparations to issue a final report by October 31, 2009. Once the report is issued, work will continue to implement the various recommendations that include suggested changes to various standards and definitions, suggested changes to the NERC Statement of Compliance Registry Criteria, and the removal of various generators from the transmission owner and/or transmission operator registration lists.

Generator Requirements at the Transmission Interface Ad Hoc Group
Draft Conclusions — October 23, 2009

1. Generator Interconnection Facilities operating at a voltage of 100 kV or greater or those deemed critical to the Bulk Electric System by the Regional Entity makes the Generator Interconnection Facility part of the Bulk Electric System for purposes of applying Generator Owner and Generator Operator requirements but not for applying Transmission Owner or Transmission Operator requirements.
2. The Generator Owner or Generator Operator that owns and/or operates a Generator Interconnection Facility, that is a sole-use facility that interconnects the generator to the grid, should not be registered as a Transmission Owner or Transmission Operator by virtue of owning or operating its Generator Interconnection Facility.
3. A Generator Interconnection Facility is considered as though part of the generating facility specifically for purposes of applying Reliability Standards to a Generator Owner or Generator Operator.
4. Changes to NERC Reliability Standards are needed to ensure complete reliability coverage of the Generator Interconnection Facility.
    a. 35 [will update number prior to finalization] NERC Reliability Standards contain language regarding generators or generating facilities for which greater clarity regarding its Generator Interconnection Facilities would ensure no reliability gap exists
    b. 9 [will update number prior to finalization] NERC Reliability Standards should have their applicability expanded to include Generator Operators to address general reliability gaps not attributable to their Generator Interconnection Facilities.
    c. 7 [will update prior to finalization] new Reliability Standard Requirements should be added to ensure the responsibilities for owning and operating the Generator Interconnection Facility are clear, and to address certain requirements that should apply to all generators regardless of interconnection configuration.
5. If a generator is connected to multiple transmission facilities such that its Generator Interconnection Facilities are subject to network power flows (that is, power flow on these multiple transmission facilities - includes power not solely associated with the generator output, requirements for station service, auxiliary load, or cogeneration load), then those transmission facilities are integrated transmission facilities and should be subjected to the applicable Transmission Owner and Transmission Operator Standard Requirements.
6. After review of the existing Transmission Owner requirements that are not currently applicable to Generator Owners, only FAC-003-1 should have its applicability expanded to include Generator Owners as a result of its Generator Interconnection Facilities, if the length of the Generator Interconnection Facility exceeds two spans (generally, more than one-half mile) from the generator property line.
7. After review of the existing Transmission Operator requirements that are not currently applicable to Generator Operators, no existing Transmission Operator requirements should apply to Generator Operators as a result of its Generator Interconnection Facility.
8. New NERC Glossary definitions are needed for Generator Interconnection Facility and Generator Interconnection Operational Interface, as well as modifications to Vegetation Inspection, Right-of-Way, Generator Owner, Generator Operator, and Transmission.

Generator Requirements at the Transmission Interface Ad Hoc Group
Draft Recommendations — October 23, 2009

1. Submit urgent action Standards Authorization Requests (SARs) to add or modify the definitions in NERC's Glossary for Generator Interconnection Facility and Generator Interconnection Operational Interface, as well as modifications to Vegetation Inspection, Right-of-Way, Generator Owner, Generator Operator, and Transmission.
2. Submit urgent action SARs to modify existing Standard Requirements to add specificity for Generator Interconnection Facility where appropriate, to add Generator Operator applicability where needed, to add Requirements to capture responsibilities for owning and operating Generator Interconnection Facilities, and to add Requirements where necessary that should be applicable to Generator Operators regardless of the interconnection configuration.
3. Modify the applicability of FAC-003-1 to apply to Generator Owners when their Generator Interconnection Facility operates at 200 kV or above and exceeds two spans from the generator property line, or otherwise is deemed to be critical to the Bulk Electric System.
4. Modify the NERC Rules of Procedure, NERC Compliance Registry Criteria, and other documents as necessary to reflect that a Generator Owner should not be registered as a Transmission Owner and a Generator Operator should not be registered as a Transmission Operator on the basis of their Generator Interconnection Facilities.
5. NERC and the Regional Entities should refrain from further registering Generator Owners and Generator Operators as Transmission Owners and Transmission Operators generically by virtue of their Generator Interconnection Facilities.
6. Given the conclusions and recommendations by the group, NERC and the Regional Entities should carefully develop and implement a plan to address de-registering those Generator Owners and Generator Operators that have previously been registered as a Transmission Owner and Transmission Operator by virtue of their Generator Interconnection Facilities.

Regulatory Update
(As of October 16, 2009)

MRC Action Required

None

Regulatory Matters in Canada

1. In Quebec, proposed reliability standards have been submitted to the Régie by the designated reliability coordinator (Trans-Energie) and are currently subject to consultation with interested parties. In addition, the proposed rules under which NPCC and NERC will provide compliance monitoring services to the Régie are also post for comment.

FERC Orders Issued Since the Last Update

1. July 15, 2009 – Notice that Commission will not further review Wisconsin Public Service Corporation's Notice of Penalty. *Docket No. NP09-21-000.*

2. July 16, 2009- Smart Grid Policy Statement- The Commission provides guidance regarding the development of a smart grid for the nation's electric transmission system, focusing on the development of key standards to achieve interoperability and functionality of smart grid systems and devices. *Docket No. PL09-4-000.*

3. July 16, 2009 – Order on Compliance Filing - On December 15, 2008, as supplemented on March 16, 2009, NERC submitted a filing in compliance with the Commission's October 16, 2008 order on NERC's proposed 2009 Budget Order. In this order, the Commission accepts the compliance filing in part and rejects it in part. *Docket Nos. RR08-6-002 and RR07-14-003.*

4. July 27, 2009- Notice that Commission will not further review Notices of Penalty for *Docket No. NP09-26-000* U.S. Army Corps of Engineers – Tulsa District and *Docket No. NP09-27-000* U.S. Army Corps of Engineers – Omaha District which have been allowed to become effective by operation of law on July 24, 2009.

5. August 7, 2009 - Notice that Commission will not further review Notices of Penalty for the following: *Docket No. NP09-28-000* Louisiana Generating LLC, *Docket No. NP09-29-000* Dairyland Power Cooperative, *Docket No. NP09-30-000*, BTU QSE Services Inc, *Docket No. NP09-31-000* Lincoln Electric System, and *Docket No. NP09-32-000* Eastman Cogeneration Limited Partnership.

6. August 20, 2009 – Order Approving VRFs for CIP Reliability Standards CIP-003-1, R4.1; CIP-005-1, R1.5; CIP-007-1, R5.1; and CIP-007-1, R5.3.3 *Docket No. RM06-22-009.*

7. August 26, 2009 - Letter Order stating Commission will not further review Notices of Penalty for the following: *Docket No. NP09-33-000* MidAmerican Energy Company,

Docket No. NP09-34-000 Ashburnham Municipal Light Plant and *Docket No. NP09-35-000* Pacific Gas and Electric Company.

8. August 26, 2009 – Letter Order Regarding Reporting Requirement of WECC Deviations from the NERC pro forma hearing procedures. *Docket Nos. RR06-1-022, RR07-7-008.*

9. September 17, 2009 – Order Accepting Proposed Amendments to SPP Bylaws amendments pertaining to the SPP Regional Entity function and directing NERC and SPP to submit a compliance filing. *Docket No. RR09-4-000.*

10. September 30, 2009 – Order Approving Version 2 of CIP Cyber Security Standards, to become effective on April 1, 2010, and directing further compliance filings. *Docket No. RD09-7-000.*

11. October 2, 2009 – Letter Order Accepting Changes to NERC's Compliance Monitoring and Enforcement Program (CMEP), Section 6.5 and figure 6.1. *Docket Nos. RR06-1-023.*

12. October 2, 3009 - Letter Order Accepting MRO Supplemental Budget request. *Docket No. RR08-6-003.*

13. October 8, 2009 –The Commission issued an Order approving a Stipulation and Consent Agreement to resolve a non-public investigation conducted by FERC and NERC into alleged violations of the Reliability Standards by FPL surrounding a loss of load event in Florida on February 26, 2008. *Docket No. IN08-5-000.*

14. October 14, 2009 — Order Approving NERC Bylaws Amendment granting authority to NERC board to increase the number of independent trustees from eleven to twelve. *Docket No. RR09-8-000.*

15. October 15, 2009 – Order Addressing Applicability of Section 215 of the Federal Power Act to Federal Entities. *Docket No. NP09-26-000.*

16. October 15, 2009 – Order Conditionally Accepting 2010 Business Plans and Budgets of NERC and the Regional Entities and Ordering Compliance Filings. *Docket No. RR09-9-000, RR08-6-004, and RR07-14-004.*

17. October 15, 2009 – Order Denying Clarification or Rehearing regarding the WECC Automatic Time Error Correction Regional Reliability Standard. *Docket No. RM08-12-001.*

NERC Filings Since the Last Update

1. July 10, 2009 — NERC submitted Notices of Penalty for the following: *Docket No. NP09-28-000* Louisiana Generating LLC, *Docket No. NP09-29-000* Dairyland Power Cooperative, *Docket No. NP09-30-000*, BTU QSE Services Inc, *Docket No. NP09-31-000* Lincoln Electric System, and *Docket No. NP09-32-000* Eastman Cogeneration Limited Partnership.

2. July 20, 2009 — NERC Three-Year Performance Assessment in accordance with the requirements of the Commission's regulations at 18 C.F.R. §39.3(c). *Docket No. RR09-7-000.*

3. July 30, 2009 — Compliance Filing in Response to June 1, 2009 FERC Order regarding a revised NERC uniform CMEP document, Attachment 4C to the NERC Rules of Procedure. *Docket Nos. RR06-1-021, RR07-1-005, RR07-2-005, RR07-3-006, RR07-4-005, RR07-5-006, RR07-6-007, RR07-7-007, RR07-8-006.*

4. July 31, 2009 — Quarterly Report of NERC Regarding Analysis of Reliability Standards Voting Results April – June. *Docket No. RR06-1-000.*

5. July 31, 2009 — NERC submitted Notices of Penalty for the following: *Docket No. NP09-33-000* MidAmerican Energy Company, *Docket No. NP09-34-000* Ashburnham Municipal Light Plant and *Docket No. NP09-35-000* Pacific Gas and Electric Company.

6. August 6, 2009 – Petition for Approval of Amendments to the NERC Bylaws – NERC requests Commission approval of amendments to Article III, sections 1 and 2 of NERC's Bylaws. *Docket No. RR09-8-000.*

7. August 6, 2009 – Request for Approval of Supplemental 2009 Budget and Funding Midwest Reliability Organization. *Docket No. RR08-6-000.*

8. August 10, 2009 – Informational Filing Regarding Revised Guidelines for Assignment of Violation Risk Factors and Violation Severity NERC Reliability Standards. *Docket Nos. RM08-11-000, RR08-4-000, RR07-9-000 and RR07-10-000.*

9. August 12, 2009 – Petition for Approval of Errata Change to Three Reliability Standards (IRO-006-4.1, MOD-021-0.1, and PER-001-0.1). *Docket No. RD09-9-000.*

10. August 14, 2009 – Compliance Filing in Response to Order No. 716 and Petition for Approval of NUC Reliability Standard NUC-001-2 — Nuclear Plant Interface Coordination. *Docket No. RM08-3-000.*

11. August 17, 2009 – Comments of NERC in Response to Notice of Proposed Rulemaking for the Transmission Relay Loadability (PRC-023) Reliability Standard. *Docket No. RM08-13-000.*

12. August 24, 2009 — Request for Approval of 2010 Business Plans and Budgets of NERC, the eight Regional Entities and the Western Interconnection Regional Advisory Body, and approval of the proposed assessments to fund the 2010 budgets. *Docket Nos. RR08-6-004, RR07-14-004, RR09-9-000.*

13. August 28, 2009 — Compliance Filing in Response to Order No. 723 regarding modifications to the WECC VRFs for the BAL-004-WECC-01 Regional Reliability Standard. *Docket No. RM08-12-000.*

14. August 31, 2009 – Second Quarter 2009 Compliance Filing in Response to Paragraph 629 of Order No. 693. *Docket No. RM06-16-000.*

15. September 14, 2009 –Supplemental Filing of Attachment 15 – Metrics Comparing Regional Entity Operations Based on the 2010 Budgets. *Docket Nos. RR09-9-000, RR07-14-004 and RR08-6-004.*

16. September 15, 2009 – Compliance Filing and Petition for Approval of an Implementation Plan for Critical Infrastructure Protection Reliability Standards for Generator Owners and Generator Operators of U.S. Nuclear Power Plants in Accordance with Paragraph 60 of Order No. 706-B. *Docket No. RM06-22-000.*

17. September 18, 2009 – NERC Response to Comments on Three-Year ERO Performance Assessment. *Docket No. RR09-7-000*.

18. September 21, 2009 — Compliance Filing and Assessment of the BES Definition Report of NERC and NPCC in response to the December 18, 2008 Order. *Docket No. RC09-3-000.*

19. September 23, 2009 – Informational Filing on the Status of the Field Trial to Modify Certain Resources and Demand Balancing Reliability Standards. *Docket No. RM09-22-000.*

20. September 25, 2009 — NERC submitted Notices of Penalty for the following: *Docket No. NP09-36-000* Tennessee Valley Authority, *Docket No. NP09-37-000* Alabama Power Company, *Docket No. NP09-38-000* South Mississippi Electric Power Association, *Docket No. NP09-39-000* PPG Industries, Inc., *Docket No. NP09-40-000* Georgia Power Company, *Docket No. NP09-41-000* Virginia Electric and Power Company, *Docket No. NP09-42-000* Mackinaw Power, LLC, *Docket No. NP09-43-000* ITC/METC, *Docket No. NP09-44-000* Indian River Power, LLC, *Docket No. NP09-45-000* Brazos Electric Power Cooperative, Inc. and *Docket No. NP09-46-000* Truckee Donner Public Utility District.

21. September 30, 2009 – Motion for an Extension of Time to submit comments in response to FERC's September 10, 2009 Notice requesting comments on the Topological and Impedance Element Ranking ("TIER") Report. *Docket No. RM06-16-000.*

22. September 30, 2009 – Petition for Approval of Proposed Reliability Standards Regarding System Personnel Training (PER-005-1 and PER-004-2). *Docket No. RM09-25-000.*

23. October 1, 2009 – NERC submitted a Notice of Penalty for *Docket No. NP10-1-000* Commonwealth Edison Company.

24. October 14, 2009 – Omnibus Notice of Penalty regarding 140 registered entities and 564 violations of 54 reliability standards. *Docket No. NP10-2-000.*

Anticipated NERC Filings

1. October 27, 2009 — NERC must submit Violation Severity Levels for all requirements and sub-requirements of BAL-004-WECC-1. *Docket No. RM08-12-000.*

2. October 28, 2009 — NERC comments to the Topological and Impedance Element Raking (TIER) of the Bulk Power System Report, prepared by the University of Wisconsin-Madison. *Docket No. RM06-16-000.*

3. October 31, 2009 **—** Quarterly report due in response to January 18, 2007 Order regarding Analysis of Reliability Standards Voting Results. *Docket No. RR06-1-003.*

4. November 9, 2009 — Comments in response to the National Institute of Standards and Technology's (NIST) document *NIST Framework and Roadmap for Smart Grid Interoperability Standards Release 1.0 (Draft).*

5. November 13, 2009 – Compliance filing regarding changes to the NERC Rules of Procedure to eliminate the Reliability Readiness Program. *Docket Nos. RR08-6-002 and RR07-14-003.*

6. November 20, 2009 – Informational Report in response to Paragraph 64 of the 2010 Business Plan and Budget Order. *Docket Nos. RR09-9-000, et al.*

7. November 30, 2009 — Quarterly NUC filing in response to Paragraph 629 of Order No. 693. *Docket No. RM06-16-000.*

8. December 1, 2009 — Comments to NIST in response to NIST's document *Smart Grid Cyber Security Strategy and Requirements, Draft NISTR 7628.*

9. December 1, 2009 — Compliance filing on changes to the SPP Bylaws. *Docket No. RR09-4-000*

10. December 14, 2009 – Compliance filing in response to the 2010 Business Plan and Budget Order. *Docket Nos. RR09-9-000, et al.*

11. December 29, 2009 — NERC must submit a compliance filing on the Commission's Order on Version Two of the Cyber Security Standards. *Docket No. RD09-7-000*

12. December 31, 2009 — Violation Severity Levels for Version 2 Cyber Standards. *Docket No. RM06-16-000*

13. December 31, 2009 — Violation Risk Factors for the NUC-001-1 Reliability Standards. *Docket No. RM08-3-000*

14. January 11, 2010 – NERC must submit an evaluation of the NERC and Regional Entity resources for implementing the TFE process in response to the 2010 Business Plan and Budget Order. *Docket Nos. RR09-9-000, et al.*

15. January 15, 2010 – NERC must submit a status report on the development of uniform procedures for processing TFEs in response to the 2010 Business Plan and Budget Order. *Docket Nos. RR09-9-000, et al.*

16. March 1, 2010 — NERC must submit a compliance filing on the Violation Severity Levels. *Docket Nos. RR08-4-000, et al.*